



Strengthening deterrence against nuclear, conventional, and hybrid threats

Strengths, weaknesses, and insights
for US allies in Europe and Asia

Authors: Tim Sweijs, Paul van Hooft, Philip Geurts

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Executive Summary

This report examines the state of deterrence in the European and Asian theaters, with a focus on NATO Europe and East Asia. The report takes that focus to distinguish the deterrence of specific threats against specific states from more generally dissuading rivals from any action that is deemed unwelcome. Otherwise, deterrence risks becoming all things to different people. The report looks for the principal challenges that could lead to a breakdown of formal or informal extended deterrence arrangements between the United States (US) and small and middle powers in both regions, and it identifies ways to bolster deterrence in Europe and Asia.

European and Asian allies of the US are increasingly under pressure from Russia and China. In both regions, small and middle powers face a revisionist and assertive nuclear-armed military power in possession of regional power projection capabilities. Russia and China are highly motivated to establish and protect regional spheres of influence using a broad assortment of state instruments of influence both above and below the threshold of war. At the same time, there are also clear differences between the challenges that East Asia and Europe confront: European security problems are primarily land-based, while those in East Asia are primarily maritime. In NATO Europe, the possibility of territorial losses through 'salami-slicing' and *faits accomplis*, including against NATO members, remains significant. In military terms, Russia enjoys local conventional preponderance relative to the Baltic states and Poland. NATO is dependent on reinforcements to arrive rapidly to contested areas. Yet, Europe has a strongly institutionalized alliance system. It should be noted that NATO's security guarantees do not extend to non-NATO members. States such as Ukraine are therefore vulnerable to Russian aggression, as once again demonstrated by Russia's military encirclement of Ukraine in late 2021 and early 2022. Aggression against non-NATO members cannot and does not reflect on the Alliance deterrence posture itself, though it does constitute a risk to the overall stability in the region. In Asia, while China threatens states around the South China Sea, especially Taiwan, it would be difficult to fundamentally change the territorial status quo without large-scale amphibious warfare. Yet, China has developed anti-access / area denial (A2/AD) capabilities to drastically raise the costs for the US to intervene and protect allies and partners in the region. The logistical infrastructure that would enable effective defense and deterrence by denial of these states is under pressure due to the military infrastructure in range of potential attacks, as well as the vulnerability of the lines of communication between these points. Nor is there an institutionalized system of alliances in East Asia or the Asia-Pacific that can address temporary shortfalls in US capabilities. Russia and China, moreover, possess unique strategic cultures, are clearly trending in opposite directions in terms of national power, and have distinct military *modi operandi*.

By breaking down the deterrence problems in both the European and the Asian theater according to the 5Cs of *clarity*, *capabilities*, *criticality*, *commitment*, and *cohesion*, this report disentangles the challenges and point to possible solutions (see Table 1 and Table 2 for a summary of the report's key findings).

European and Asian allies of the US are increasingly under pressure from Russia and China.

Deterrence in the European Theater

In Europe, NATO's most evident weaknesses lie in its *capabilities* and *cohesion*. Particularly worrisome is the local imbalance in conventional capabilities in the Baltics – distinct from the theater-wide and alliance-wide balance of capabilities. Russia utilizes influence operations to undermine and exploit differences within the Alliance, and potentially leverage its conventional preponderance in the Baltics. Russia's apparent willingness to threaten the use of low-yield tactical nuclear weapons within its multi-domain approach is not yet matched with an integrated deterrent approach on the part of NATO. This is even more problematic in light of the US having abandoned its two-war theater strategy. In case of a contingency in the Pacific, NATO Europe is ill-equipped to deal with Russia by itself. NATO should therefore strengthen its conventional deterrence pillar, specifically by investing in deterrence by denial capabilities. This involves replenishing stocks and ammunitions, boosting military readiness, increasing military mobility, and addressing critical capability shortfalls in A2/AD (e.g., stand-off munitions), counter A2/AD (e.g., suppression of enemy's air defenses), electromagnetic warfare, and modernized Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) assets to prevail in modern conflict. It also merits consideration to revisit the Conventional Forces in Europe Treaty and get Russia either to agree to a package of de-escalatory measures or alternatively to decide on the forward deployment of more substantial numbers of the Alliance's land forces. This would not only reduce the dependency on reinforcement and the risks posed by A2/AD but would also prevent greater reliance on nuclear weapons.

Cohesion within NATO is under pressure not just by diverging perceptions about the nature of the threat but also by varying levels of public support for robust responses. If the incremental nature of hybrid activities may have led to underappreciation of the threat they pose, it is especially recognition of their close-knit integration within Russia's overall strategy of cross-domain coercion (and its conventional and nuclear tenets) that is lacking. The Alliance's *commitment* falls particularly short in the hybrid realm, partly due to unclear specifications of when to invoke Article 5. By and large, NATO only adequately *communicates* its commitment to respond to Russia's aggression in the conventional realm, leaving the nuclear and hybrid realms more ambiguous (though deliberately so in the case of the former). The principal shortcoming in the nuclear realm arises from the inherently doubtful credibility of extended nuclear deterrence. This cannot be remedied in itself, other than by strengthening the conventional pillar of deterrence. Inter-alliance *cohesion* as such is the outcome of democratic decision-making process but will be facilitated by an intra-Alliance dialogue and through support for Track 1 and 2 dialogues within the Alliance.

Finally, it is important to note that NATO's overall deterrence posture will ultimately benefit from the development and adoption of a warfighting concept that stipulates what combination of ways and means will effectuate military victory, parallel to a strategic concept that identifies the parameters of success. That concept might well be multi-domain operations that currently resonates in many planning quarters, although a much more refined one that more clearly spells out the defeat mechanisms. This needs to be matched by a parallel effort to more systematically think through the organizational and warfighting requirements that go beyond the hardware.

Strengthening NATO's deterrence posture, therefore, necessitates an integrated approach. Constrained by a lack of political will to spend on defense and internal disagreements, the Alliance should clearly identify which capabilities in which domains provide the most bang for their buck. Our findings suggest that a combination of improved firepower, readiness, and military mobility, enhanced resilience of NATO members to Russia's hybrid activities, stronger direct punishment capabilities in this realm, and the intensification of intra-alliance dialogues should be priority areas. European NATO member states, in particular, should invest in

Strengthening NATO's deterrence posture necessitates an integrated approach.

NATO EUROPE		Overall assessment	Recommendations for strengthening deterrence
Clarity	Conventional	<ul style="list-style-type: none"> + Article 5 clearly communicates commitment, as does forward positioning of the armed forces of member states in threatened frontline states - Reaffirmed by regular statements of NATO heads of states - No explicit mentioning of type of aggression NATO seeks to deter other than invasion 	Develop better understanding of the impact of NATO political communication on Russia's leadership. Consider making presence in Eastern Europe larger and more permanent.
	Nuclear	<ul style="list-style-type: none"> + NATO's official statement on nuclear deterrence posture - Statement is not very precise on the situations to which it applies 	Include more specificity and communicate more forcefully while preserving ambiguity to avoid salami slicing.
	Hybrid	<ul style="list-style-type: none"> + Specific mention of cyberattacks being the reason for triggering Article 5 - No specification of concrete thresholds and responses to other hybrid threats - Individual member states hold the primary responsibility to react to hybrid attacks 	Specify thresholds for proportional response, signal forcefully through words and actions, both to adversary and to allies.
Capabilities	Conventional	<ul style="list-style-type: none"> + Military capabilities of Baltic states and NATO improved strongly over the past years - Observers point out significant shortcomings in equipment, military mobility, and other capabilities - NATO's EFP may be insufficient to prevent a Russian <i>fait accompli</i> in the Baltics 	European member states should invest in military capabilities, boost military readiness and enhance military mobility to strengthen deterrence by denial.
	Nuclear	<ul style="list-style-type: none"> + Both sides have a credible second-strike capability - Tactical-nuclear gap: NATO may not be able to credibly deter Russia's resort to tactical nuclear weapons 	Increase deterrence by denial with advanced conventional weapons to close tactical-nuclear gap and to prevent renuclearization of European security.
	Hybrid	<ul style="list-style-type: none"> + NATO has made great strides in developing its counter hybrid capabilities - Many shortcomings remain including deterrence by punishment and denial (resilience) concepts and capabilities 	Continue implementing initiatives to build up defense, foster resilience, and strengthen deterrence by punishment capabilities.
Criticality	Conventional	<ul style="list-style-type: none"> + The US and a large number of NATO have a sizeable number of tripwire forces placed in the Baltic states in Poland - Public opinion in European countries not in favor of military force to assist NATO countries in war against Russia 	Strengthen public support for Article 5 among European population through public diplomacy campaign.
	Nuclear	<ul style="list-style-type: none"> + Preventing a nuclear attack strike is clearly a core interest of all NATO states - Extended nuclear deterrence is always precarious 	Increase numbers of forward positioned conventional forces to underline allied solidarity; develop an integrated deterrence posture that specifies vital interests.
	Hybrid	<ul style="list-style-type: none"> - The incremental effect of hybrid activities leads to underappreciation of the impact on core interests - NATO's direct credibility not at stake if it fails to react to such acts 	Raise public awareness amongst allies of costs of hybrid attacks.
Commitment	Conventional	<ul style="list-style-type: none"> + After Trump, Biden administration reiterated "sacred commitment" of the US to Article 5 + US military assistance expenditures to European countries increased significantly over the past years - Political commitment from leading European states sometimes doubted 	Explicitly reaffirm commitment through public statements.
	Nuclear	<ul style="list-style-type: none"> + Institutionalized planning procedures and dedicated command and control structures + US and UK have committed (part of) their NW arsenal to NATO, France emphasizes role of NW for EUR security + Placement of tripwire forces by all three nuclear states in the Baltics - Concerns about lack of commitment nuclear NATO states in case of tactical nuclear strike from Russia 	Develop integrated deterrence posture with conventional, nuclear, and hybrid capabilities for proportional response.
	Hybrid	<ul style="list-style-type: none"> - Responsibility to react lies with individual member states - Not explicitly part of Article 5 	Engage in discussions on how to foster political commitment.
Cohesion	Conventional	<ul style="list-style-type: none"> - NATO member states have diverging interests and threat perceptions that negatively affect cohesion 	Support Track 1 and 2 dialogues within the Alliance, engage in public diplomacy.
	Nuclear	<ul style="list-style-type: none"> + NATO member states share belief that nuclear weapons remain essential as deterrent - Growing opposition towards nuclear weapons in number of countries 	Foster intra-alliance dialogue on the role of nuclear weapons.
	Hybrid	<ul style="list-style-type: none"> + EU and NATO are deepening cooperation and harmonizing position on hybrid activities - Diverging threat perceptions and interests undercut cohesion in hybrid domain - Increasing popularity of right-wing parties in Europe with ties to Russia undermines cohesiveness 	Stimulate discussions on NATO-level and create common framework on how to react to hybrid threats. Increase resilience.

Table 1. The state of deterrence in Europe: strengths, weaknesses, recommendations

Deterrence in the Asian Theater

In East Asia, the risks are primarily, although not exclusively, located in the conventional domain. The differences between formal and informal allies in the region parallel the extent of the conventional challenge. Intervening on behalf of Taiwan would be difficult and costly given China's A2/AD *capabilities*, which include but are not limited to its cyber and space capabilities, and pose a concern that needs to be addressed. China's hybrid activities in the East and South China Sea are a second major concern, as these gradually shift the context within which the US and regional states can operate. Due to these dual conventional and hybrid capabilities on the part of China, *commitment* and *cohesion* within the region are weakened with little regional consensus on how to respond to Chinese aggression towards Taiwan or to China's activities in the South China Sea. The US has also pursued strategic ambiguity towards Taiwan for decades, *communicating* no clear red lines. There is no doubt that the US has important interests involved in preventing a Chinese takeover of Taiwan. It is, however, far from certain whether in the eyes of US decision-makers these interests warrant going to full-fledged war with a rising superpower close to its mainland over an island that is 6,000 miles away from the US itself.

When it comes to Japan and other US treaty allies in the region, however, the situation is less grim. It would not be impossible, but very costly for China to dislodge the US from the region or change the territorial status quo in fundamental ways. The primary threat from China in the current context is to raise the costs of US intervention on behalf of its allies. China can exploit the ambiguity of the maritime status quo and attempt to goad one of the regional states or the US into overplaying their hand. Moreover, like in Europe, regional allies face the difficulty of relying on a distant protector with multiple obligations.

Remedying these deficiencies in the Asian theater requires an integrated approach that focuses on strengthening the ability of regional states to defend themselves against conventional attacks by using integrated air and missile defense, stand-off weapons, sea mines, and other capabilities focused on raising the costs of access. The maritime context of much of the theater would force Chinese forces through relatively constrained spaces where they would be vulnerable. Such an asymmetric, denial-centric approach would ensure time and cover for US reinforcements through the sealines of communication, while at the same time minimizing the malign influence of China's hybrid activities. This could put a hold on China's expansion without risking an escalation nor necessitating exorbitant military expenditures. Building a coherent counter-hybrid policy among regional states also diminishes the chances that any regional state or the US can be provoked into overreaction on China's terms. Concretely, the US needs to deepen its economic and political ties with its allies in the Asia-Pacific while intensifying inter-alliance dialogues to heighten the criticality of the issue. An increased presence in the region would also help signal criticality, although such a presence would need to consist of multiple smaller forward-deployed military units dispersed over a wider area, to not play into China's strengths regarding stand-off weapons. Together, these two policy courses would improve the credibility of US commitment, and send a stronger signal through intensified cooperation without abandoning strategic ambiguity.

The primary threat from China is to raise the costs of US intervention on behalf of its allies.

EAST ASIA		Overall assessment	Recommendations for strengthening deterrence
Clarity	Conventional	+ Clear communication from Taiwan +- US' strategic ambiguity underlying dual deterrence has strengths (prevents moral hazard and avoids moral hazard) and weaknesses (could be misinterpreted)	Signal greater commitment without abandoning strategic ambiguity through intensified political and economic cooperation.
	Nuclear	+- The US specifies that it will resort to nuclear weapons only under "extreme circumstances" - NPR 2018 elicited strong unintended response from China - Increasingly complex security environment further obfuscates signaling	Develop strategic dialogue about strategic stability with China.
	Hybrid	+ Clear communication from Taiwan and Japan + The US increasingly articulates what it considers to be thresholds for China's hybrid activities	Create and communicate clearer escalation ladders.
Capabilities	Conventional	- Taiwan's military is significantly outclassed by China's military - The US also does not have the capabilities in place to deny a Chinese <i>fait accompli</i> against Taiwan - Distance and China's A2/AD capabilities make it difficult for the US to send timely reinforcements without incurring heavy costs	Ensure that US can send timely reinforcements or has sufficient capabilities in place to deny a <i>fait accompli</i> . Begin planning for allied contributions (JP, AUS) in case of a conflict scenario over TW.
	Nuclear	+ The US has the clear upper hand in nuclear capabilities, quantitatively and qualitatively - China's cyber and space capabilities could cause (in)advertent escalation	Create norms and rules to limit inadvertent escalation risk.
	Hybrid	+ US and allies have significant hybrid capabilities to retaliate against China's hybrid activities - US and allies options are limited due to interests and proportionality issues in cross-domain deterrence - Resilience among US Asia-Pacific allies needs to be improved	Enhance resilience against China's hybrid activities. Design proportional responses to China's hybrid activities. Include counterhybrid operations in wargames and exercises.
Criticality	Conventional	+ Clear critical interests of Taiwan at stake + Taiwan has economic, strategic, and political relevance to the US - Uncertainty about whether stakes for the US are sufficient to warrant large-scale war with China	Deepen political and economic ties between US and Taiwan.
	Nuclear	+ Clear interest in deterring nuclear attack for each US ally in the Asia-Pacific, even though not shared equally - Extended deterrence is always precarious	Deepen political and economic ties between US and Taiwan.
	Hybrid	+ Countering China's salami-slicing strategies is seen as important by US and US allies in the region to safeguard their sovereignty and security and ensure freedom of navigation, + Countering China's hybrid activities essential to uphold credibility of the US as security guarantor in the region	Keep articulating detrimental effects of hybrid campaigns.
Commitment	Conventional	+ The US is singling out China as primary competitor, Biden administration is doubling down on confronting China - The US does not (nor do other states) have formal defense commitments to Taiwan, continues policy of strategic ambiguity - Taiwanese senior officials doubt reliability of US commitment to defend Taiwan	Increase cooperation in the region to lend credibility to commitment.
	Nuclear	+- Formal US commitment to Japan via defense treaty, not to Taiwan +- Biden's articulated preference of Sole Purpose - Precarious nature of extended nuclear deterrence	Seek other ways, including deterrence by denial, to strengthen commitment.
	Hybrid	+ Asia Reassurance Initiative Act pledges support against Chinese aggression in the South China Sea - No clear commitment to aid Taiwan in this sphere - Hybrid threats are not explicitly mentioned in defense treaties	Integrate red lines and responses to hybrid threats in defense treaties.
Cohesion	Conventional	+ The US and allies share perceptions of China being the main threat in the region - No regional consensus on how to respond to Chinese invasion of Taiwan	Strengthen ties and intensify dialogue between US and its allies as well as amongst themselves.
	Nuclear	+ The US and its Asia-Pacific allies have shared interests in deterring China's nuclear aggression - US regional allies have doubts about US commitment to their security	Intensify dialogue on nuclear security structure in the Asia-Pacific.
	Hybrid	- Doubts whether US allies in the region would aid in case of US-China clash over East or South China Sea incident - Diverging interests between US and allies regarding China on a regional and global level	Design norms and rules for the road to prevent inadvertent escalation. Create regional fora to discuss joint positions.

Table 2. The state of deterrence in the East Asian theater: strengths, weaknesses, recommendation

Comparison Between the Two Theaters

The challenges that the US and its NATO allies encounter in the European and Asia-Pacific theater are similar. In both theaters, while arguably at a regional and certainly at a global disadvantage, Russia and China can exploit local imbalances in capabilities against the Baltic states and Taiwan specifically. Given the land-based context in Europe, Russia might achieve a *fait accompli* which it could then exploit through nuclear threats and its A2/AD capabilities. A *fait accompli* would be very difficult in the Taiwan scenario due to the difficulties of amphibious operations and the narrow battlespace that China's forces would or could be forced through. However, China could provoke the US to respond and then make a US intervention costly and slow through its A2/AD capabilities. Limited numbers of pre-positioned forces, limited military mobility, and the geographic distance between the US and the potential theater of war act as serious constraints. Russia and China's hybrid activities are arguably underappreciated. Both states could accomplish a great deal of groundwork by dividing and slowing down responses by regional states and the US.

There is no silver bullet to these shortfalls in either theater. Solely focusing on improving military mobility and improving access to the theater of war, or simply upping military expenditures might not only be financially unsustainable but possibly counterproductive, unless they are targeted at solving specific conventional military problems. It can heighten the risk of escalation, encourage adversaries to increasingly resort to hybrid aggressions, and aggravate disunity within the existing alliance structures over responsibilities and interests.

Therefore, in both cases, the deterrence postures can only be strengthened by addressing their shortfalls in a coherent and integrated manner. Cohesion, commitment, and criticality need to be improved upon by strengthening inter-alliance dialogues and deepening the economic and political ties between the US and its allies. This needs to be accompanied by more clearly outlined and communicated red lines and consequences, particularly within the hybrid domain. At the same time, conventional capabilities need to be developed to respond proportionally to conventional acts of aggression, focused on strengthening deterrence by denial postures.

Nevertheless, some differences between the two theaters persist. The Russian nuclear threat is more grave than the Chinese one due to its assertive doctrine and flexible deployment strategy, and, while Russia is weaker than China, it arguably also has less to lose. The uncertainty over the placement of US nuclear weapons on allied territory in Europe makes this a weakness that Russia could further exploit. In the Asian theater, US commitment and interests are less evident than on the European continent, as is the cohesion between regional states. Moreover, China still has a better hand of cards for the long-term than Russia. As such, from a US perspective, focusing on fostering political and economic ties with its regional allies should even have a higher priority in the Asia-Pacific than in Europe.

In closing, the analysis presented in this paper about responses to Russia and China might seem provocatively blunt. Yet, an uncomfortable peace through deterrence is vastly preferable to war in an era when military competition between major powers has resurfaced with ever more destructive weapons that can destroy our armed forces, our infrastructure, our economies, and even our very societies. Let us work together to make sure that does not happen.

A fait accompli
would be very
difficult in the
Taiwan scenario

Introduction

The Asian and European allies and partners of the United States (US) are increasingly under pressure.¹ In East Asia, specifically in the Western Pacific, China threatens regional states, US airfields, ports, bases, and US forces through an expanding array of Anti-Access Area Denial (A2/AD) capabilities, as well as through the rapidly expanding and modernizing People's Liberation Army (PLA) navy. China uses various aggressive, so-called 'gray zone' tactics that make use of ambiguity, including the creation of artificial islands, the use of maritime vessels to exploit natural resources and expand its sphere of influence, the deployment of cyber capabilities to steal critical technologies, and reliance on information operations for propaganda purposes. Taiwan is in an especially precarious situation due to the revisionist threat posed by China: China's improved missile, naval, and amphibious capabilities ensure it poses a threat to the territorial integrity of Taiwan.

In NATO Europe, Russia can threaten NATO members, specifically those in the Baltics. It poses both a conventional threat to their territorial integrity, and it uses hybrid tactics, including but not limited to energy coercion and information campaigns. Consequently, in its 2017 National Security Strategy, the US has signaled that it has reentered an era of 'great power competition', explicitly naming China and Russia as contenders. The Biden administration reaffirmed the characterization of Russia and China as the principal geopolitical competitors of the US and its allies in the 21st century.²

But the multi-regional commitments of the US have diminished its maneuver space.³ Faced with these dual challenges, as it already noted in the 2018 National Defense Strategy, the US has reduced the level of its ambitions within its planning assumptions to fight and win against one great power at a time while deterring the threat in the other region.⁴ If the US is already engaged against a great power in one region, whether East Asia or Europe, we are likely to see deterrence gaps in the second region. This leaves frontline states that are vulnerable to invasion by regional revisionist powers in dire straits and comes on top of their current continuous exposure to hybrid interference. The emerging deterrence gaps have been spurring intense

1 The authors would like to thank Frans Osinga (Netherlands Defence Academy) for his review of the paper and his valuable feedback, as well as the contributors to the paper series – Eric Heginbotham and Dick Samuels (Massachusetts Institute for Technology), Jyun-yi Lee (Institute for Defense and National Security Research), Wojciech Lorenz (Polish Institute for International Affairs), and Jeff Michaels (Institut Barcelona d'Estudis Internacionals) – for the substantive discussion during the academic workshop held in November 2021, which have helped us further develop our ideas about deterrence for small and middle powers. Finally, we would like to thank Nora Nijboer for her research support throughout the entire project.

2 Joseph R. Biden, "Interim National Security Strategic Guidance," March 2021, <https://www.whitehouse.gov/wp-content/uploads/2021/03/NSC-1v2.pdf>.

3 Paul Van Hooff, "The United States May Be Willing, but No Longer Always Able: The Need for Transatlantic Burden Sharing in the Pacific Century," in *The Future of European Strategy in a Changing Geopolitical Environment: Challenges and Prospects*, ed. Michiel Foulon and Jack Thompson (The Hague, Netherlands: The Hague Centre for Strategic Studies, 2021).

4 A. Wess Mitchell, "A Strategy for Avoiding Two-Front War," Text, The National Interest (The Center for the National Interest, August 22, 2021), <https://nationalinterest.org/feature/strategy-avoiding-two-front-war-192137>.

The Asian and European allies and partners of the United States (US) are increasingly under pressure.

debate about both Europe's ability to defend itself against Russia and the vulnerability of Eastern Asian countries to an increasingly assertive China.⁵

There are both similarities and differences with regards to the threats faced by states in NATO Europe and East Asia. Both face a similar challenge from a revisionist and assertive nuclear-armed military power in possession of regional power projection capabilities that are frequently deployed either to demonstrate their power or to impose actual control. Both Russia and China are highly motivated to establish and protect regional spheres of influence using a broad assortment of state instruments of influence, both above and below the threshold of war.

At the same time, there are also clear differences between the challenges that East Asia and NATO Europe confront: European security problems are primarily land-based, while those in East Asia are primarily maritime. In the case of Taiwan, the threat is acute. Russia and China possess unique strategic cultures, are clearly trending in opposite directions in terms of national power and have distinct military *modi operandi*. Yet, both threaten the external security of states in their region and seek to undermine their internal cohesion. In Europe, the possibility of territorial losses through 'salami-slicing' and *faits accomplis* remains significant. In military terms, Russia enjoys local conventional preponderance relative to the Baltic states and Poland. NATO is dependent on reinforcements to arrive rapidly to contested areas. Yet, Europe has a strongly institutionalized alliance system. It should be noted that NATO's security guarantees do not extend to non-NATO states. States such as Ukraine therefore remain vulnerable to Russian aggression. Although this does not reflect on the effectiveness of the Alliance deterrence posture to deter aggression against NATO members, Russian aggression does constitute a risk to the overall stability in the region.

In contrast, in East Asia, while China threatens states around the South China Sea, it would be difficult to fundamentally change the territorial status quo without large-scale amphibious warfare. Even Taiwan is protected, if only to a degree, by the 'stopping power' of water. Yet, China has developed A2/AD capabilities to drastically raise the costs for the US to intervene and protect allies and partners in the region, including Taiwan, South Korea, Japan, the Philippines, Singapore, Australia, and others. The logistical infrastructure that would enable effective defense and deterrence by denial of these states is under pressure due to the military infrastructure in range of potential attacks, as well as the vulnerability of the lines of communication between these points. There is also no institutionalized system of alliances in East Asia or the Asia-Pacific that can address temporary shortfalls in US capabilities. Simultaneously, both Russia and China engage in disinformation campaigns to fracture the internal cohesion within states and between regional allies and partners.

Regional US allies and partners should address the nefarious combination of conventional, nuclear, and hybrid challenges posed by these two powers for two reasons. First, peace, stability, and security in all regions is served by avoiding reopening the Pandora's box of

5 Hugo Meijer and Stephen G. Brooks, "Illusions of Autonomy: Why Europe Cannot Provide for Its Security If the United States Pulls Back," Belfer Center for Science and International Affairs, Spring 2021, <https://www.belfercenter.org/publication/illusions-autonomy-why-europe-cannot-provide-its-security-if-united-states-pulls-back>; Patrick Porter and Michael Mazarr, "Countering China's Adventurism over Taiwan: A Third Way," May 20, 2021, <https://www.lowyinstitute.org/publications/countering-china-s-adventurism-over-taiwan-third-way>; Ben Barry et al., "Defending Europe: Scenario-Based Capability Requirements for NATO's European Members," IISS, October 5, 2019, <https://www.iiss.org/blogs/research-paper/2019/05/defending-europe>; Barry Posen, "Europe Can Defend Itself," IISS, March 12, 2020, <https://www.iiss.org/blogs/survival-blog/2020/12/europe-can-defend-itself>; Ketian Zhang, "Chinese Coercion in the South China Sea: Resolve and Costs," Belfer Center for Science and International Affairs, January 2020, <https://www.belfercenter.org/publication/chinese-coercion-south-china-sea-resolve-and-costs-0>.

There are both similarities and differences with regards to the threats faced by states in Europe and Asia.

European and East Asian states should invest in their ability to calibrate integrated deterrence postures

nuclear proliferation, as well as by avoiding a growing reliance on US nuclear capabilities to fill deterrence gaps, as the 2018 Nuclear Posture Review (NPR) sought to do. Second, by virtue of US insularity, European and East Asian allies of the US have a greater stake in their own security than the US has.⁶ European and East Asian states should therefore invest in their ability to calibrate integrated deterrence postures that both strengthen their conventional capabilities, specifically to deter by denial to ensure they have sufficient time and space for the US to reinforce them and strengthen their societal resilience.

The report examines the state of deterrence in the European and Asian theaters specifically against Russia and China. For Europe, it focuses specifically on NATO, for East Asia, because of its lesser institutionalized alliance structures, it takes a slightly more expansive view, although given the nature of China's ambitions and actions, its main focus is on Japan and Taiwan. It looks for the principal challenges that could lead to a breakdown of deterrence and identifies key insights to bolster deterrence in both regions. The assessment of the state of deterrence is concerned with conventional, nuclear, and hybrid threats. The entanglement of different warfighting domains and the increasing salience of hybrid activities have generated discussions about cross-domain and integrated deterrence to deal with complex contemporary strategic challenges.⁷ Leaving aside the question of whether these discussions involve old wine being served in new bottles, they are concerned with the notion that effective deterrence hinges on the defender's ability to deter across the conventional, nuclear, and hybrid domains as well as across different levels of war.^{8,9}

The report proceeds as follows: (1) what are the principal challenges that emanate from Russia and China; (2) what is the state of conventional, nuclear, and hybrid deterrence in NATO Europe and East Asia. For our survey of the state of deterrence, we use a 5C Model (communication, capability, criticality, commitment, and cohesion) to identify strengths and weaknesses in the deterrence postures of the US and its partners and allies. This report is part of a paper series in which experts from Asia, Europe, and the US contribute papers that assess more specific aspects of deterrence in the two regions.

6 Paul Van Hooft, "All-in or All-out: Why Insularity Pushes and Pulls American Grand Strategy to Extremes," *Security Studies*, 2020.

7 Erik Gartzke and Jon R. Lindsay, *Cross-Domain Deterrence: Strategy in an Era of Complexity* (New York, NY: OUP USA, 2019); Sweijs, Tim and Samuel Zilincik, "The Essence of Cross-Domain Deterrence", in Frans Osinga and Tim Sweijs, *Deterrence in the 21st Century - Insights from Theory and Practice*, NL ARMS (Springer, 2020), <https://link.springer.com/book/10.1007/978-94-6265-419-8>.

8 Zack Cooper, Melanie Marlowe, and Christopher Preble, "(Dis)Integrated Deterrence?," accessed November 24, 2021, <https://warontherocks.com/2021/08/disintegrated-deterrence/>; Osinga and Sweijs, *Deterrence in the 21st Century - Insights from Theory and Practice*, 131.; see also the remarks by the Secretary of Defense Lloyd J. Austin, "Secretary of Defense Lloyd J. Austin III Participates in Fullerton Lecture Series in Singapore," U.S. Department of Defense, July 27, 2021, <https://www.defense.gov/News/Transcripts/Transcript/Article/2711025/secretary-of-defense-lloyd-j-austin-iii-participates-in-fullerton-lecture-serie/>,

9 Colin Kahl, Ine Eriksen Soreide, and Sergey Ryabkov, "2021 Carnegie International Nuclear Policy Conference," Carnegie Endowment for International Peace, June 22, 2021, <https://carnegieendowment.org/2021/06/24/2021-carnegie-international-nuclear-policy-conference-event-7506>.

The Revisionist Challenges in Europe and Asia

To understand the state of deterrence in the NATO Europe and East Asia theaters, it is important to understand the motives of both Russia and China, as well as their capabilities.

The Russian Challenge

In the case of Russia, part of its strategic outlook arguably stems from a deep-rooted sense of geopolitical insecurity due to its expansive borders.¹⁰ Russia has consequently looked to create buffer zones along its borders to prevent further encroachment by the US, and it has pursued a foreign policy of active meddling in the countries within its region to make sure that these would not join NATO as other Warsaw Pact states and former Soviet states did.¹¹ Against this background, a key driver of Russia's grand strategy is regime preservation.¹² The two very broad goals of vulnerability minimization and regime preserving can be further contextualized and divided into a range of subgoals. For the Russian regime, maintaining stability is crucial.¹³ Russia is particularly wary of domestic political instability resulting from 'color revolution' scenarios in which Western governments could stimulate popular unrest in neighboring states and Russia.¹⁴ Consequently, maintaining and amplifying Russia's influence in the bordering states while minimizing Western influence is an important objective.¹⁵ Moreover, Russia seeks to enhance if not re-establish its great power status. This objective includes bolstering its position as the world's second largest military equipment trader and securing access to military bases, for instance, in the Mediterranean and the Black Sea.¹⁶

In line with these subgoals, Russia arguably poses a military threat to Europe in three principal ways. First, Russia poses a direct territorial threat due to its conventional military capabilities combined with its proven intent to invade countries in its immediate region that it fears are being drawn into the sphere of influence of NATO and the European Union (EU). The latter has

10 Dmitry Adamsky, "Cross-Domain Coercion: The Current Russian Art of Strategy" (IFRI Security Studies Center, November 2015), 21, <http://www.ifri.org/sites/default/files/atoms/files/pp54adamsky.pdf>. Dmitri Trenin, "20 Years of Vladimir Putin: How Russian Foreign Policy Has Changed," Carnegie Moscow Center, August 28, 2019, <https://carnegie.ru/2019/08/28/20-years-of-vladimir-putin-how-russian-foreign-policy-has-changed-pub-79742>.

11 Center for Strategic and International Studies, "Four Myths about Russian Grand Strategy," September 22, 2020, <https://www.csis.org/blogs/post-soviet-post/four-myths-about-russian-grand-strategy>.

12 Raphael S. Cohen and Andrew Radin, "Russia's Hostile Measures in Europe: Understanding the Threat," January 28, 2019, 6, https://www.rand.org/pubs/research_reports/RR1793.html.

13 Andrew Radin et al., "The Future of the Russian Military: Russia's Ground Combat Capabilities and Implications for U.S.-Russia Competition," June 18, 2019, 9, https://www.rand.org/pubs/research_reports/RR3099.html.

14 Radin et al., 9.

15 Cohen and Radin, "Russia's Hostile Measures in Europe," 8.

16 Dmitri Trenin, *Post-Imperium: A Eurasian Story* (Washington, D.C.: Carnegie Endowment for International Peace, 2011), 205.

A key driver of Russia's grand strategy is regime preservation.

Russia can threaten and close off access to NATO's logistical nodes.

already happened in Ukraine, Moldova, and Georgia. The Baltic states are a particular point of concern, while NATO Members are vulnerable to attack due to the geographical isolation at the fringes of Eastern Europe.¹⁷ Concerns about the Russian conventional threat have been further aggravated by the process of military modernization that Russia embarked upon after its war with Georgia in 2008.¹⁸ The Russian Ministry of Defense 10-year State Armament Plans 2018-2027 identify Russia's ground forces, rapid response forces, and the development of long-range precision strike capabilities as key priorities. It seeks to have 476,000 combat-ready professional troops by 2025.¹⁹ Western concerns are further fed by large-scale military mobilizations, such as the 2021 mobilization of over 100,000 Russian troops at the Ukrainian border in preparation of the Zapad 2021 Russian-Belarusian military exercise, as well as by Russia's large military buildup in December 2021.²⁰ Even though a comprehensive RAND study of 2019 concluded that Russia's conventional military forces are still designed first and foremost for defense and deterrence rather than offense,²¹ Russia can mobilize assets rapidly along the borders of Poland and the Baltic states and, with its arsenal of surface-to-surface missiles, it can threaten and close off access to NATO's logistical nodes, NATO's non-redundant operational and strategic level command and control (C2) nodes, and its military airfields. This can either deny NATO access to Polish and Baltic airspace or at the least make it very costly. While Russia is hardly the Soviet Union, it has sufficient capabilities to saturate air and missile defenses that NATO members have underinvested in since the end of the Cold War.²²

Second, Russia poses a nuclear threat through its possession of a vast arsenal of nuclear warheads both for strategic nuclear weapons (1,570 deployed, 870 in reserve) and nonstrategic nuclear weapons (about 1,870 in reserve).²³ Its nuclear capability in combination with repeated references by Russia's leadership to willingly use nuclear weapons and its presumed adherence to the doctrine of 'escalate to de-escalate' are yet more causes for grave concern.²⁴ Russia's major tactical nuclear weapons arsenal is considered to be a hedge against the perceived superiority of NATO's conventional forces, in order to "level the playing field in the event that Russia starts losing a major continental war."²⁵ The doctrine was officially endorsed by Russian President Vladimir Putin in 2020 by including a non-nuclear attack as

- 17 See for example David A. Shlapak and Michael Johnson, "Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics," January 29, 2016, https://www.rand.org/pubs/research_reports/RR1253.html; Barry et al., "Defending Europe"; Posen, "Europe Can Defend Itself," March 12, 2020; R.D. Jr. Hooker, "How to Defend the Baltic States," Jamestown, October 2019, <https://jamestown.org/product/how-to-defend-the-baltic-states/>.
- 18 Hans Binnendijk and Franklin D. Kramer, "Meeting the Russian Conventional Challenge: Effective Deterrence by Prompt Reinforcement" (Atlantic Council - Scowcroft Center for Strategy and Security, February 27, 2018), 3, <https://www.atlanticcouncil.org/in-depth-research-reports/report/meeting-the-russian-conventional-challenge/>.
- 19 Congressional Research Service, "Russian Armed Forces: Military Modernization and Reforms," July 20, 2020.
- 20 Cyrus Newlin et al., "Unpacking the Russian Troop Buildup along Ukraine's Border," April 22, 2021, <https://www.csis.org/analysis/unpacking-russian-troop-buildup-along-ukraines-border>.
- 21 Keith Crane, Olga Oliker, and Brian Nichiporuk, "Trends in Russia's Armed Forces: An Overview of Budgets and Capabilities," October 29, 2019, 65, https://www.rand.org/pubs/research_reports/RR2573.html.
- 22 See 2021 HCSS study that looks at developments in air and missile threats as well as defenses. Paul Van Hooft and Lotje Boswinkel, "Surviving the Deadly Skies: Integrated Air and Missile Defence 2021-2035" (The Hague, Netherlands: The Hague Centre For Strategic Studies, December 2021).
- 23 Hans M. Kristensen and Matt Korda, "Russian Nuclear Forces, 2020," *Bulletin of the Atomic Scientists* 76, no. 2 (March 3, 2020): 102-17, <https://doi.org/10.1080/00963402.2020.1728985>.
- 24 Cynthia Roberts, "Revelations about Russia's Nuclear Deterrence Policy," War on the Rocks, June 19, 2020, <https://warontherocks.com/2020/06/revelations-about-russias-nuclear-deterrence-policy/>; Petr Topychkanov, "Russia's Nuclear Doctrine Moves the Focus from Non-Western Threats," SIPRI, January 10, 2020, <https://www.sipri.org/commentary/blog/2020/russias-nuclear-doctrine-moves-focus-non-western-threats>.
- 25 Mark Episkopos, "Russia Has the Most Tactical Nuclear Weapons on Earth," Text, The National Interest (The Center for the National Interest, December 30, 2020), <https://nationalinterest.org/blog/buzz/russia-has-most-tactical-nuclear-weapons-earth-175520>.

Russia poses a so-called hybrid threat to Europe through its frequent use of actions intended to harm European states.

a potential trigger for Russian nuclear retaliation.²⁶ These developments, combined with the ongoing modernization of Russia's nuclear forces since 2011, the increased air patrols of nuclear-capable planes, and military exercises which include nuclear weapons, have further fueled concerns about Russia's nuclear threat.²⁷

Third, Russia poses a so-called hybrid threat to NATO Europe through its frequent use of actions intended to harm European states and societies while staying below the threshold of war – which are typically labeled hybrid or gray zone activities.²⁸ Russia's hybrid activities can be divided into four categories, allowing for some overlap between these categories. First, Russia poses a hybrid threat through its usage of proxies, privately contracted forces, and clandestine activities to influence the outcome of armed conflicts or to assassinate opponents.²⁹ The deployment of so-called 'green men' against non-NATO memberstate Ukraine in 2014-2015 fall into this category.³⁰ Second, Russia has well-developed cyber capabilities, which it uses to target and sabotage critical infrastructure.³¹ Gas pipelines, power plants, and financial systems are among the regular targets of Russia's cyberattacks. Third, Russia also uses political subversion to spread discord within and between NATO states and to help bring politicians favorable to the Kremlin to power. Among other means, it finances candidates it favors but also relies on large-scale disinformation campaigns to affect public discourses.³² Fourth, Russia seeks to leverage economic influence, in particular by threatening to cut its gas supply to European countries while trying to further expand Russia's leverage over these countries, among others, through investment in critical energy infrastructure.³³ NATO characterizes the Russian threat to Europe's energy security as a "major and growing challenge for the Alliance in an era increasingly dominated by hybrid warfare."³⁴ Russia's twofold ambition of (1) vulnerability minimization and (2) regime preservation is therefore supported by a comprehensive strategy that includes conventional, nuclear, and hybrid tenets. The synergy between these different tenets can be usefully characterized to constitute a strategy of "cross-domain coercion" which requires an integrated deterrent response.³⁵

26 Vladimir Isachenkov, "New Russian Policy Allows Use of Atomic Weapons against Non-Nuclear Strike," Defense News, June 2, 2020, <https://www.defensenews.com/global/europe/2020/06/02/new-russian-policy-allows-use-of-atomic-weapons-against-non-nuclear-strike/>; Arbatov, Chapter 5, in Frans Osinga and Tim Sweijts, "Deterrence in the 21st Century - Insights from Theory and Practice," NL Arms Netherlands Annual Review of Military Studies 2020, December 4, 2020, 71, <https://link.springer.com/book/10.1007/978-94-6265-419-8>.

27 Arbatov, Alexey. 2020. "Nuclear Deterrence: A Guarantee for or Threat to Strategic Stability?" In Osinga and Sweijts, *Deterrence in the 21st Century - Insights from Theory and Practice*; Richard Sokolsky and Gordon Adams, "The Problem With NATO's Nukes," Carnegie Endowment for International Peace, September 2, 2016, <https://carnegieendowment.org/2016/02/09/problem-with-nato-s-nukes-pub-62727>.

28 Frank G. Hoffman, "Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges," August 11, 2018, <https://cco.ndu.edu/news/article/1680696/examining-complex-forms-of-conflict-gray-zone-and-hybrid-challenges/>; Bettina Renz, "Russia and 'Hybrid Warfare,'" *Contemporary Politics* 22, no. 3 (February 7, 2016): 283–300, <https://doi.org/10.1080/13569775.2016.1201316>.

29 Lauren Speranza, "A Strategic Concept for Countering Russian and Chinese Hybrid Threats" (Atlantic Council, 2020), 4, <https://www.atlanticcouncil.org/wp-content/uploads/2020/07/Strategic-Concept-for-Countering-Russian-and-Chinese-Hybrid-Threats-Web.pdf>.

30 Alina Polyakova et al., "The Evolution of Russian Hybrid Warfare" (Center for European Analysis (CEPA), January 28, 2021), 7, <https://cepa.org/wp-content/uploads/2021/01/CEPA-Hybrid-Warfare-1.28.21.pdf>.

31 Joe Cheravitch, "Cyber Threats from the U.S. and Russia Are Now Focusing on Civilian Infrastructure," July 23, 2019, <https://www.rand.org/blog/2019/07/cyber-threats-from-the-us-and-russia-are-now-focusing.html>.

32 Speranza, "A Strategic Concept for Countering Russian and Chinese Hybrid Threats," 4.

33 Christopher Chivvis, *Understanding Russian "Hybrid Warfare": And What Can Be Done About It* (RAND Corporation, 2017), 4, <https://doi.org/10.7249/CT468>.

34 Arnold C. Dupuy et al., "NATO Review - Energy Security in the Era of Hybrid Warfare," NATO Review, January 13, 2021, <https://www.nato.int/docu/review/articles/2021/01/13/energy-security-in-the-era-of-hybrid-warfare/index.html>.

35 Dmitry (Dima) Adamsky, "From Moscow with Coercion: Russian Deterrence Theory and Strategic Culture," *Journal of Strategic Studies* 41, no. 1–2 (February 23, 2018), <https://doi.org/10.1080/01402390.2017.1347872>.

The Chinese Challenge

China's strategic outlook is guided by the objective of the "great rejuvenation of the Chinese nation".³⁶ This objective entails the twofold goal of achieving a "moderately prosperous society in all respects by 2021", the centenary of the Communist Party of China (CPC), and of building "China into a modern socialist country that is prosperous, strong, democratic, culturally advanced and harmonious" by 2049 when the People's Republic of China (PRC) marks its centenary.³⁷ Securing and legitimizing the rule of the CPC is thus central to China's grand strategy. This grand strategy also needs to be understood not just within its upward great power trajectory, but also as the product of historical grievances captured in a "hundred years of humiliation" narrative.³⁸

Three foreign policy goals arise from this broad strategy and serve as a guideline to understand the nature of China's challenge in the Asia-Pacific.³⁹

The first objective is to minimize China's strategic vulnerability within the Asia-Pacific. Control of important maritime chokepoints and islands, specifically of the so-called First Island Chain, as well as minimization of US influence within the region, are essential to this.⁴⁰ The second is the defense of its national sovereignty and territorial integrity, of which the reunification with Taiwan is another integral component. China's 2019 defense white paper identifies Taiwan independence as the largest obstacle to China's "peaceful reunification".⁴¹ These two objectives are strongly intertwined since reunification with Taiwan would tilt the regional balance of power more towards China at the expense of the US. A third objective is to establish China on the global stage. China has embarked on a concerted campaign to increase its influence and expand its global reach, using all instruments of state influence.⁴² China thus represents a conventional challenge to multiple states within the region, but also a challenge to US influence on the global level. The US deterrence posture in the Asia-Pacific cannot be seen in isolation from this global challenge.

The Chinese threat to the US and its allies in the Asia-Pacific is three-part: conventional, nuclear, and hybrid. First, the principal conventional challenge that China poses to the US and its allies in the Asia-Pacific is to Taiwan and primarily of a maritime and aerial nature, with missile, cyber and air attacks, naval blockades, and an amphibious invasion being the likely ways through which China would invade Taiwan.⁴³ The threat that China poses to Taiwan is

36 "Full Text of Xi Jinping's Speech on the CCP's 100th Anniversary," Nikkei Asia, January 7, 2021, <https://asia.nikkei.com/Politics/Full-text-of-Xi-Jinping-s-speech-on-the-CCP-s-100th-anniversary>.

37 The National People's Congress of the People's Republic of China, "Achieving Rejuvenation Is the Dream of the Chinese People," November 29, 2012, <http://www.npc.gov.cn/englishnpc/c23934/202006/32191c5bbdb-04cbab6df01e5077d1c60.shtml>. President Xi Jinping reaffirmed in his 2021 centenary speech that "without the Communist Party of China, there would be no new China and no national rejuvenation". "Full Text of Xi Jinping's Speech on the CCP's 100th Anniversary."

38 Mark Tischler, "China's 'Never Again' Mentality," August 18, 2020, <https://thediplomat.com/2020/08/chinas-never-again-mentality/>; "Full Text of Xi Jinping's Speech on the CCP's 100th Anniversary."

39 Connor Fiddler, "The 3 Pillars of Chinese Foreign Policy: The State, the Party, the People," *The Diplomat*, March 2, 2021, <https://thediplomat.com/2021/02/the-3-pillars-of-chinese-foreign-policy-the-state-the-party-the-people/>.

40 Hans Binnendijk et al., "The China Plan: A Transatlantic Blueprint for Strategic Competition" (Atlantic Council: Scowcroft Center, March 2021), 8–10.

41 The State Council The People's Republic of China, "Full Text: China's National Defense in the New Era," July 24, 2019, https://english.www.gov.cn/archive/whitepaper/201907/24/content_WS5d3941ddc6d-08408f502283d.html.

42 "China's Approach to Global Governance | Council on Foreign Relations," Council on Foreign Relations, 2020, <https://www.cfr.org/china-global-governance/>.

43 Michael A Hunzeker and Alexander Lanoszka, *A Question of Time: Enhancing Taiwan's Conventional Deterrence Posture*, 2018, 49.

China's 2019 defense white paper identifies Taiwan independence as the largest obstacle to China's "peaceful reunification".

not exclusive to the conventional realm, with economic and political pressures playing a prominent role in China's Taiwan policy over the past decades. However, as Oriana Skylar Mastro notes, China's policy seems to be shifting from an economic coercive approach to a possible armed reunification.⁴⁴ While a 2018 study by Michael Hunzeker and Alexander Lanoszka finds China still to be hard-pressed to successfully mount a large-scale amphibious invasion against Taiwan, the latter's military capabilities remain limited compared to those of China.⁴⁵ The US, therefore, plays a pivotal role in the regional balance of power, and specifically the survival of Taiwan as a sovereign state.

Second, China poses a nuclear challenge to the US and its allies in the Asia-Pacific through its possession of about 280 strategic nuclear weapons and its current rapid expansion of this stockpile. China puts a stronger emphasis on its conventional forces than on its nuclear forces in the belief that conventional forces decide whether a war is won or lost.⁴⁶ This is corroborated by China's adherence to a no-first-use policy and its limited arsenal of nuclear weapons, aimed at maintaining a second-strike capability. Its doctrine has accordingly been described as self-defensive or minimum,⁴⁷ though it has begun expanding its arsenal. Moreover, the increasing entanglement between China's conventional and nuclear forces is a point of concern, particularly as China's mobile DF-26 missile system is capable of rapidly switching between conventional and nuclear warheads. This increases the risk of an unintentional escalation of a conflict to the nuclear level.⁴⁸ Likewise, China's advanced cyber capabilities are seen as particularly disruptive.⁴⁹ These capabilities could harm the US' nuclear command, control, and communications (NC3) systems.⁵⁰

Third, China's hybrid or gray area activities are another part of its grand strategy.⁵¹ They roughly fall into four categories. In the first category, China gradually expands its control over the East and South China Sea while staying below the threshold of war, as part of a "salami-slicing strategy".⁵² This manifests itself in the harassment of oil and gas exploration platforms, fishing vessels and military vessels of other countries in the region, the use of maritime militias that masquerade as civilian fishing vessels to establish claims over islands in the East and South China Sea, encroachment on the Senkaku/Diaoyu Islands, as well as

44 Oriana Skylar Mastro, "The Taiwan Temptation," *Foreign Affairs*, June 23, 2021, <https://www.foreignaffairs.com/articles/china/2021-06-03/china-taiwan-war-temptation>.

45 Hunzeker and Lanoszka, *A Question of Time: Enhancing Taiwan's Conventional Deterrence Posture*, 49–61.

46 Gerald C. Brown, "Understanding the Risks and Realities of China's Nuclear Forces | Arms Control Association," Arms Control Association, June 2021, <https://www.armscontrol.org/act/2021-06/features/understanding-risks-realities-chinas-nuclear-forces>.

47 Liping Xia, "China's Nuclear Doctrine: Debates and Evolution," Carnegie Endowment for International Peace, June 30, 2016, <https://carnegieendowment.org/2016/06/30/china-s-nuclear-doctrine-debates-and-evolution-pub-63967>.

48 David Logan, "The Dangerous Myths About China's Nuclear Weapons," *War on the Rocks*, September 18, 2020, <https://warontherocks.com/2020/09/the-dangerous-myths-about-chinas-nuclear-weapons/>.

49 "The Longer Telegram: Toward a New American China Strategy," Atlantic Council, 2020, <https://www.atlanticcouncil.org/content-series/atlantic-council-strategy-paper-series/the-longer-telegram/>.

50 George Perkovich et al., "China-U.S. Cyber-Nuclear C3 Stability" (Carnegie Endowment for International Peace & Shanghai Institute for International Studies, August 4, 2021), <https://carnegieendowment.org/2021/04/08/china-u.s.-cyber-nuclear-c3-stability-pub-84182>. The 2018 US NPR report underscores the perceived gravity of this threat, stating that a cyberattack on US NC3 facilities could potentially cause nuclear retaliation. U.S. Department of Defense, "Nuclear Posture Review 2018," 2018, <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

51 Anthony H. Cordesman and Grace Hwang, "Chronology of Possible Chinese Gray Area and Hybrid Warfare Operations," September 28, 2020, <https://www.csis.org/analysis/chronology-possible-chinese-gray-area-and-hybrid-warfare-operations>.

52 Sugio Takahashi, "Development of Gray-Zone Deterrence: Concept Building and Lessons from Japan's Experience," *The Pacific Review* 31, no. 6 (November 2, 2018): 787–810, <https://doi.org/10.1080/09512748.2018.1513551>; Harsh V. Pant, "China's Salami Slicing Overdrive," ORF, May 13, 2020, <https://www.orfonline.org/research/chinas-salami-slicing-overdrive-66048/>.

The increasing entanglement between China's conventional and nuclear forces is a point of concern.

China's intrusions into Taiwan's ADIZ and maritime areas have become more frequent.

regular intrusion of Taiwan's Air Defense Identification Zone (ADIZ) and of the so-called Line of Actual Control between India and China.⁵³ These activities are all conducted in tandem with "social media campaigns, radio misdirection, cyber warfare and GPS interference."⁵⁴ China's increasingly blatant and aggressive hybrid activities against Taiwan are intended to slowly coerce Taiwan into surrender.⁵⁵ China's intrusions into Taiwan's ADIZ and maritime areas have become more frequent: Taiwan's air force intercepted 129% more PLA aircraft in 2020 than in 2019, and its ships intercepted about 50% more PLA vessels.⁵⁶ On the Parcel and Spratly of the South China Sea, China has been militarizing artificial islands and thereby improving its A2/AD and air power projection capabilities in the South China Sea. These facilities could extend the operational range of China's military by up to 1,000 kilometers south and east.⁵⁷ With about one-third of global shipping passing through the South China Sea, maritime control over this area is a highly pertinent issue to all states in the Asia-Pacific and beyond.⁵⁸ As part of its so-called 'String of Pearls' strategy, China is also expanding its global logistics and basing infrastructure, particularly at important ports along the Indian Ocean.⁵⁹

In the second category, China frequently engages in computer network exploitation (CNE), and computer network attack (CNA) campaigns, against Pacific littoral states. The vast majority of cyber incidents involve CNE.⁶⁰ The main target of China's attacks is Taiwan, which has been subject to regular Chinese infiltrations of its government agencies and other information service providers since around 2018.⁶¹ Reportedly, the number of Chinese cyberattacks against Taiwan increased 40-fold in 2020 in comparison to 2018.⁶² According to the Council on Foreign Affairs' Cyber Operations Tracker, China has been the biggest sponsor of cyber operations worldwide in 2005-2020, having sponsored 153 cyber operations, compared to a mere 93 cyber operations sponsored by Russia.⁶³

53 Oriana Skylar Mastro, "Military Confrontation in the South China Sea," Council on Foreign Relations, accessed August 24, 2021, <https://www.cfr.org/report/military-confrontation-south-china-sea>; Andrew S. Erickson, "China's Secretive Maritime Militia May Be Gathering at Whitsun Reef," Foreign Policy, March 22, 2021, <https://foreignpolicy.com/2021/03/22/china-philippines-militia-whitsun/>; Yimou Lee, David Lague, and Ben Blanchard, "China Launches 'Gray-Zone' Warfare to Subdue Taiwan," Reuters, December 10, 2020, <https://www.reuters.com/investigates/special-report/hongkong-taiwan-military/>.

54 Peter Layton, "Bringing the Grey Zone into Focus," Lowy Institute, July 22, 2021, <https://www.lowyinstitute.org/the-interpreter/bringing-grey-zone-focus>.

55 Lee, Lague, and Blanchard, "China Launches 'Gray-Zone' Warfare to Subdue Taiwan," December 10, 2020; Nien-chung Chang-Liao and Chi Fang, "The Case for Maintaining Strategic Ambiguity in the Taiwan Strait," *The Washington Quarterly* 44, no. 2 (March 4, 2021): 45–60, <https://doi.org/10.1080/0163660X.2021.1932088>.

56 Lee, Lague, and Blanchard, "China Launches 'Gray-Zone' Warfare to Subdue Taiwan," December 10, 2020.

57 Tom O'Connor and Naveed Jamali, "As the political willingness of forward basing of more substantial numbers and capabilities of land forces, which would reduce the dependency on reinforcement and the risks posed by A2AD China Gray Zone Warfare Escalates, U.S. May Stand to Lose First Shooting Battle," Newsweek, March 4, 2021, <https://www.newsweek.com/china-gray-zone-wars-us-lose-first-battle-1573318>.

58 "How Much Trade Transits the South China Sea?," ChinaPower Project, February 8, 2017, <https://chinapower.csis.org/much-trade-transits-south-china-sea/>.

59 Junaid Ashraf, "String of Pearls and China's Emerging Strategic Culture," *Strategic Studies* 37, no. 4 (2017): 166–81; Daisuke Akimoto, "China's Grand Strategy and the Emergence of Indo-Pacific Alignments," Institute for Security and Development Policy, April 14, 2021, <https://isdpeu.org/chinas-grand-strategy-and-the-emergence-of-indo-pacific-alignments/>.

60 Mark Manantan, "The Cyber Dimension of the South China Sea Clashes," May 8, 2019, <https://thediplomat.com/2019/08/the-cyber-dimension-of-the-south-china-sea-clashes/>.

61 Yimou Lee, "Taiwan Says China behind Cyberattacks on Government Agencies, Emails," Reuters, August 19, 2020, sec. Media and Telecoms, <https://www.reuters.com/article/us-taiwan-cyber-china-idUSKCN25F0JK>.

62 Lee.

63 "Cyber Operations Tracker," Council on Foreign Relations, accessed September 1, 2021, <https://www.cfr.org/cyber-operations>. Most of China's cyber operations involve espionage attempts which have tripled in number over the last decade. "After Failing to Dissuade Cyber-Attacks, America Looks to Its Friends for Help," *The Economist*, July 20, 2021, <https://www.economist.com/united-states/2021/07/20/america-and-its-allies-admonish-but-do-not-punish-china-for-hacking>.

In the third category, China's propaganda forms another integral part of its hybrid toolkit. Taiwan has also been a target of these propaganda campaigns for a long time.⁶⁴ Japan has been another target, through China's persistent deployment of unilateral legal proclamations of its control over the Senkaku/Diaoyu Islands.⁶⁵ China's propaganda campaigns through diplomatic channels during the Covid-19 crisis has become increasingly known as "wolf warrior diplomacy".⁶⁶ But China's propaganda endeavors extend beyond these channels and include an increasingly strong presence on and manipulation of social media platforms to shape global narratives in its favor.⁶⁷ In the summer of 2020, Google deleted over 2,500 China-linked YouTube Channels to combat disinformation, providing an indication of the extent of Chinese disinformation and propaganda campaigns on social media platforms.⁶⁸

In the fourth category, the deliberate creation of economic dependencies which can be exploited for political purposes is another component of China's playbook as part of its "Belt and Road Initiative" (BRI).⁶⁹ Investments made that fall into the BRI are estimated to range between one and eight trillion USD.⁷⁰ One important element in this is the dispersal of sizeable financial loans for big projects to vulnerable countries in the anticipation that these countries will not be able to repay these loans, default on debt and give China the opportunity to gain control over those projects. This practice is known as 'debt-trap diplomacy' and serves to gradually expand Chinese influence globally.⁷¹ China's international loans exceed 5% of the global GDP, showcasing the magnitude of this weapon of leverage.⁷² Sri Lanka is seen as a *case par excellence* of a country falling into China's debt-trap.⁷³ By extension, China has also been using its trade relations with other countries leverage to influence the political decision-making processes within those countries.⁷⁴

Sri Lanka is seen as
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country falling into
China's debt-trap.

64 For example, China spread disinformation in Taiwan's local elections in 2018. According to a 2019 study by the University of Gothenburg, Taiwan is subject to more foreign disinformation campaigns than any other country in the world next to Latvia. "Democract Facing Global Challenges: V-Dem Annual Democracy Report 2019" (University of Gothenburg, 2019), https://www.v-dem.net/media/filer_public/99/de/99dedd73-f8bc-484c-8b91-44ba601b6e6b/v-dem_democracy_report_2019.pdf.

65 Michael J. Mazarr, Joe Cheravitch, et al., "What Deters and Why: Applying a Framework to Assess Deterrence of Gray Zone Aggression" (RAND Corporation, April 19, 2021), 28–29, https://www.rand.org/pubs/research_reports/RR3142.html.

66 Yun Sun, "China's 'Wolf Warrior' Diplomacy in the COVID-19 Crisis," The Asan Forum, May 15, 2020, <https://theasanforum.org/chinas-wolf-warrior-diplomacy-in-the-covid-19-crisis/>.

67 Audrye Wong, "COVID-19 and China's Information Diplomacy in Southeast Asia," Brookings, March 9, 2020, <https://www.brookings.edu/blog/order-from-chaos/2020/09/03/covid-19-and-chinas-information-diplomacy-in-southeast-asia/>.

68 Raphael Satter, "Google Pulls 2,500 China-Linked YouTube Channels over Disinformation," *Reuters*, June 8, 2020, sec. Technology News, <https://www.reuters.com/article/us-cyber-google-disinformation-idUSKCN251384>.

69 Andrew Chatzky and James McBride, "China's Massive Belt and Road Initiative," Council on Foreign Relations, January 28, 2020, <https://www.cfr.org/background/chinas-massive-belt-and-road-initiative>.

70 Henry Storey, "Can Biden's Build Back Better World Compete with the Belt and Road?," July 20, 2021, <https://www.lowyinstitute.org/the-interpreter/can-biden-s-build-back-better-world-compete-belt-and-road>.

71 Brahma Challeaney, "China's Debt-Trap Diplomacy," The Strategist, January 24, 2017, <https://www.aspistrategist.org.au/chinas-debt-trap-diplomacy/>.

72 Daniel Allott, "China's Debt-Trap Diplomacy," Text, TheHill, May 2, 2021, <https://thehill.com/opinion/international/551337-chinas-debt-trap-diplomacy>.

73 After nine years of President Mahinda Rajapaksa in power, who accepted heavy Chinese investments, his successor sought to escape China's debt trap. However, the government of Sri Lanka was already close to defaulting, and was therefore forced to sell an 80% stake in its Hambantota port to China. Challeaney, "China's Debt-Trap Diplomacy."

74 Nicholas Crawford, "Defending against Economic Statecraft: China, the US and the Rest," IISS, October 15, 2020, <https://www.iiss.org/blogs/analysis/2020/10/economic-statecraft-china-us>.

Summary

Both Russia and China thus present challenges to the states in Europe and Asia, and to the US, across a range of dimensions. Russia presents a more persistent imminent conventional threat, can leverage its nuclear arsenal, but is less capable in terms of influence beyond misinformation. China, in turn, is more constrained by the maritime nature of the region's geography in terms of the direct conventional threat it presents, but it can wield a broader, more varied threat in terms of influence.

The State of Deterrence in the European and the Asian Theater

Assessing the State of Deterrence: The 5C Model

Both in the traditional and the more recent deterrence literature, effective deterrence is promoted by clear communication and a credible threat mediated by the degree of motivation of the aggressor.⁷⁵ We apply a 5C Model building on previous work by Michael Mazarr et al. that consists of: (1) Clarity; (2) Capability; (3) Criticality; (4) Commitment; and (5) Cohesion.⁷⁶ Each of these elements is a pillar that undergirds the credibility of a deterrence strategy. We focus, in particular, on extended deterrence where a guarantor extends protection to another state. Given the extreme reliance in Europe and Asia on the US as an extended deterrence guarantor, we believe a systematic breakdown of deterrence relationships is necessary.

Clarity of communication hinges on the extent to which the defender is clear both about what it considers unacceptable behavior and what type of consequences will follow should the aggressor engage in such unacceptable behavior.⁷⁷ Diplomacy and public statements are important means through which these red lines can be explicitly clarified and communicated.⁷⁸

The *capability* of the defender to impose costs on the aggressor and/or to deny the aggressor its objectives also strengthen the credibility of deterrence.⁷⁹ Particularly important here is

75 Osinga and Sweijs, *Deterrence in the 21st Century - Insights from Theory and Practice*; Alexander L. George and Richard L. Smoke, *Deterrence in American Foreign Policy: Theory and Practice* (New York: Columbia University Press, 1974); Lawrence Freedman, *Deterrence* (Polity Press, 2004), <https://www.wiley.com/en-ao/Deterrence-p-9780745631134>; Michael J. Mazarr, Arthur Chan, et al., "What Deters and Why: Exploring Requirements for Effective Deterrence of Interstate Aggression," *RAND Corporation*, November 20, 2018, https://www.rand.org/pubs/research_reports/RR2451.html.

76 Ours is a more simplified and adapted version of the framework developed by Mike Mazarr and his colleagues that allows us to identify the most salient issues in the state of deterrence in both regions. See Mazarr, Chan, et al., "What Deters and Why," 35; Mazarr, Cheravitch, et al., "What Deters and Why," 16.

77 George and Smoke, *Deterrence in American Foreign Policy*, 64; Thomas C. Schelling, *Arms and Influence* (Yale University Press, 1967), 35, <https://ebookcentral.proquest.com/lib/sciences-po/detail.action?pq-origsite=primo&docID=3421294>.

78 Anne E. Sartori, *Deterrence by Diplomacy* (Princeton University Press, 2007), <https://press.princeton.edu/books/paperback/9780691134000/deterrence-by-diplomacy>.

79 Daryl G. Press, "The Credibility of Power: Assessing Threats during the 'Appeasement' Crises of the 1930s," *International Security* 29, no. 3 (Winter 2004): 136–69.

the local balance of power in the threatened territory or the capabilities to deal with a very specific threat.⁸⁰ If an aggressor thinks it can accomplish a *fait accompli* conquest of territory due to a local imbalance, this strongly weakens the deterrence posture of the deterrer, regardless of general deterrence holding on a broader level.⁸¹ In other words, the local balance of capabilities and the ability to reinforce this location in a timely manner contribute to successful deterrence.

It is easier for a deterrer to convince the adversary that they will retaliate in case of a direct act of aggression than after an act of aggression against a third party. The perception of the *critical interests* that the defender has at stake will therefore contribute to the deterrer's credibility.⁸² If an attack against an ally is prospected to cause significant harm in the short or long run to the defender, the likelihood of involvement becomes more credible.⁸³ The strength of the economic and political ties between the defender and its ally is an important indicator of the extent of critical interests involved.⁸⁴

Within the context of extended deterrence, *commitment* is a fundamental pillar of robust deterrence. Both allies and adversaries need to believe that the guarantor will come to aid its allies in case of aggression.⁸⁵ Such commitment can be communicated either practically, through the presence of the guarantor's armed forces to give itself "skin in the game",⁸⁶ or formally, through public statements or enshrined in alliance treaties.⁸⁷ Schelling also notes that minimizing one's alternatives to react to aggressive acts – "tying one's hands" – is highly conducive to a strong and credible commitment.⁸⁸

Alliance *cohesion* is also an important contributor to effective deterrence. Shared threat perception, common interests, coordination of military activities, and regime similarity allow for a coherent response to potential aggressions.⁸⁹ This, in turn, makes aggressive acts against one of the alliance members more costly.

Table 1 on the next page offers a breakdown of the five Cs and how we have measured them. In the remainder of the chapter, we discuss the Clarity, Capabilities, Criticality, Commitment, and Cohesion (5C), regarding the deterrence of (a) conventional, (b) nuclear, and (c) hybrid threats in both Europe and Asia.

80 George and Smoke, *Deterrence in American Foreign Policy*, 81.

81 Paul Huth and Bruce Russett, "Deterrence Failure and Crisis Escalation," *International Studies Quarterly* 32, no. 1 (1988): 34, <https://doi.org/10.2307/2600411>.

82 Vesna Danilovic, *When the Stakes Are High: Deterrence and Conflict among Major Powers* (University of Michigan Press, 2002), <https://ebookcentral.proquest.com/lib/sciences-po/detail.action?pq-origsite=primo&docID=3414856>.

83 Schelling, *Arms and Influence*, 35–36.

84 Bruce M. Russett, "The Calculus of Deterrence," *The Journal of Conflict Resolution* 7, no. 2 (1963): 103–7.

85 George and Smoke, *Deterrence in American Foreign Policy*, 60; Schelling, *Arms and Influence*, 36.

86 Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement, 1945–1963* (Princeton University Press, 1999); Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Cornell University Press, 2018).

87 Brett Ashley Leeds, "Do Alliances Deter Aggression? The Influence of Military Alliances on the Initiation of Militarized Interstate Disputes," *American Journal of Political Science* 47, no. 3 (2003): 427–39, <https://doi.org/10.1111/1540-5907.00031>; Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science* (John Wiley & Sons, Inc.) 58, no. 4 (October 2014): 919–35, <https://doi.org/10.1111/ajps.12082>.

88 Schelling, *Arms and Influence*, 44–52.

89 Evan N. Resnick, "Hang Together or Hang Separately? Evaluating Rival Theories of Wartime Alliance Cohesion," *Security Studies* 22, no. 4 (January 11, 2013): 672–706; Patricia A. Weitsman, "Alliance Cohesion and Coalition Warfare: The Central Powers and Triple Entente," *Security Studies* 12, no. 3 (January 1, 2003): 85, <https://doi.org/10.1080/09636410390443062>.

Category	Variable	Measurements
Clarity	1. The degree of clarity and precision with which the defender communicates what constitutes aggression and what consequences will follow if such aggression is committed.	Clearly specified by the defender and forcefully communicated red lines and consequences that will follow upon transgression, as expressed through official statements or documents; desirability of ambiguity; implicit communication through previous actions, arms sales, military presence.
Capability	2. Local (military) capabilities to prevent attainment of the aggressor's objectives or to make it too costly.	Strength of defender's (military) capabilities to punish or to deny intended tactical or strategic effects of the aggressor; extent of resilience to minimize harmful effects of aggression; degree of preparedness to respond to aggression.
Criticality	3. The degree of national interests of the defender involved.	Geostrategic significance of state based on short- and long-term security, economic and (geo)political interests at stake in case of aggression; presence of (tripwire) forces.
Commitment	4. Commitment refers to whether the deterring state has assumed responsibilities (formally or informally, and explicitly or implicitly) to counter the aggressor's actions.	Existence of formal alliances or official statements; public affirmations of commitment to aid each other; cooperation (training; joint units; exercises; financing); contribution of forces as a token of commitment.
Cohesion	5. Cohesion refers to the extent to which the interests of the deterring coalition to counter the aggressive act coincide.	Official statements of solidarity; official statements of shared threat perception; overlap in interests and official threat perception; public opinion on appropriate policies versus aggressor.

Table 1. The 5C model: Contributing factors of effective deterrence against conventional, nuclear, and hybrid threats.

The State of Deterrence in the European Theater

The challenges in the European theater primarily concern deterring the threat of Russian aggression against the Baltic states. Conventional aggression against the Baltic states is the central scenario, into which the threat of Russia's nuclear weapons figures. The hybrid threat of Russia is also primarily subregional.

Clarity of Communication in the European Theater

Conventional

NATO's Article 5 clearly identifies an attack on NATO member territory as an attack on all, justifying all actions, including the use of armed force, to "restore and maintain the security of the North Atlantic Area".⁹⁰ Since 2014, this commitment is further backed-up by regular declarations of NATO heads of states, reaffirming the Alliance's commitment to safeguarding the independence and territorial integrity of all its members.⁹¹ Though not specified specifically,

90 NATO, "Collective Defence - Article 5," NATO, August 2, 2021, http://www.nato.int/cps/en/natohq/top-ics_110496.htm.

91 Thomas Frear, Lukasz Kulesa, and Denitsa Raynova, "Russia and NATO: How to Overcome Deterrence Instability?," European Leadership Network, April 27, 2018, 11, <https://www.europeanleadershipnetwork.org/report/russia-and-nato-how-to-overcome-deterrence-instability/>; Matus Halas, "Proving a Negative: Why Deterrence Does Not Work in the Baltics," *European Security* 28, no. 4 (February 10, 2019): 436, <https://doi.org/10.1080/09662839.2019.1637855>.

NATO has signaled its intentions to protect the Baltic states.⁹² The Alliance's strategic ambiguity about types of undesirable behavior other than invasion is intended to give itself maneuver space,⁹³ though some see it as a weakness that increases the risk of escalation.⁹⁴ On paper, Article 5 constitutes a robust security guarantee. However, a good understanding of the impact of political communication on Russia's leadership is lacking.

Nuclear

NATO's communication about the deterrence of nuclear weapons is encapsulated in the statement that "should the fundamental security of any NATO Ally be threatened, NATO has the capabilities – both nuclear and conventional – and the resolve to impose costs on the adversary that would be unacceptable and far outweigh the benefits that any adversary could hope to achieve."⁹⁵ However, David Gompert and Hans Binnendijk argue that NATO's current nuclear strategy is "too stale, vague and timid to ensure deterrence", and suggest that NATO should specify and communicate clearly that a nuclear attack from Russia will be countered by a symmetrical nuclear attack.⁹⁶ Jacek Durkalec and Matthew Kroenig agree but also believe that NATO should routinely inform its public about Russia's nuclear behavior.⁹⁷ Aaron Richards further calls for more specificity to "foster internal discussions".⁹⁸ In short, it is argued that NATO's communication about nuclear deterrence is neither specific nor robust, though the allies might deliberately downplay the role of nuclear weapons due to their controversial nature in many European societies.

Hybrid

The clarity of NATO's communication regarding Russia's hybrid activities features both strengths and weaknesses. On the one hand, NATO explicitly designates disinformation, cyberattacks, economic coercion, and deployment of irregular armed forces as hybrid threats and as undesirable both in policy documents and policy statements.⁹⁹ At the Brussels Summit 2021, it was reiterated that cyberattacks could invoke Article 5,¹⁰⁰ though particular

92 Mazarr, Chan, et al., "What Deters and Why," 64.

93 Jens Ringsmose and Sten Rynning, "Now for the Hard Part: NATO's Strategic Adaptation to Russia," *Survival* 59, no. 3 (April 5, 2017): 134, <https://doi.org/10.1080/00396338.2017.1325603>.

94 Stephanie Pezard and Ashley Rhoades, "What Provokes Putin's Russia? Deterring Without Unintended Escalation" (RAND Corporation, 2020), 17, <https://doi.org/10.7249/PE338>; Thomas Frear, Lukasz Kulesa, and Denitsa Raynova, "Russia and NATO: How to Overcome Deterrence Instability?" (European Leadership Network, January 4, 2018), 22, <https://www.jstor.org/stable/resrep22119>.

95 NATO, "NATO's Nuclear Deterrence Policy and Forces," NATO, November 5, 2021, http://www.nato.int/cps/en/natohq/topics_50068.htm.

96 David Gompert and Hans Binnendijk, "Threaten Decisive Nuclear Retaliation," Atlantic Council, October 14, 2020, 27–28, <https://www.atlanticcouncil.org/content-series/nato20-2020/threaten-decisive-nuclear-retaliation/>.

97 Jacek Durkalec and Matthew Kroenig, "NATO's Nuclear Deterrence: Closing Credibility Gaps," *The Polish Quarterly of International Affairs*, no. 25 (1) (2016): 45–47.

98 Aaron Richards, "Reinvigorating NATO's Nuclear Deterrence Posture through Transparency," *Atlantic Council* (blog), February 4, 2019, <https://www.atlanticcouncil.org/blogs/new-atlanticist/reinvigorating-nato-s-nuclear-deterrence-posture-through-transparency/>.

99 NATO, "NATO's Response to Hybrid Threats," NATO, accessed August 15, 2021, http://www.nato.int/cps/en/natohq/topics_156338.htm.

100 NATO, "Brussels Summit Communiqué," NATO, June 14, 2021, http://www.nato.int/cps/en/natohq/news_185000.htm. Secretary-General Jens Stoltenberg, US President Joe Biden and leaders from other member states warned that a cyberattack can be considered a conventional attack and will be responded upon accordingly. "Nato: Cyber-Attack on One Nation Is Attack on All," *BBC News*, August 27, 2019, sec. Technology, <https://www.bbc.com/news/technology-49488614>; "Massive Cyber Attack Could Trigger NATO Response: Stoltenberg | Reuters," accessed August 15, 2021, <https://www.reuters.com/article/us-cyber-nato-idUSKCN0Z12NE>; "Secretary General Stoltenberg Explains Why NATO Is Getting Serious about Cyber and China 'Is Not an Adversary,'" *Atlantic Council* (blog), June 7, 2021, <https://www.atlanticcouncil.org/blogs/new-atlanticist/secretary-general-stoltenberg-explains-why-nato-is-getting-serious-about-cyber-and-china-is-not-an-adversary/>.

NATO's current nuclear strategy is "too stale, vague and timid to ensure deterrence".

thresholds for hybrid aggressions and actions that will follow in response remain unclear.¹⁰¹ Moreover, “the primary responsibility to respond to hybrid threats or attacks rests with the targeted nation.”¹⁰² However, strategic ambiguity about the precise threshold can be deliberate to prevent ‘salami tactics’ – with the adversary staying just below the threshold – and lack of maneuver space for decision-makers.¹⁰³ Yet, since clear identification and communication of the consequences of undesirable behavior tends to facilitate deterrence, arguably NATO’s clarity of communication falls short with regards to deterrence of cyber threats.

Capabilities in the European Theater

Conventional

Both the Baltic states and NATO have strengthened their military postures from 2014 onwards, yet gaps remain. The Baltic states have increased readiness while developing “total defense strategies” to impose costs on Russia even after a conventional invasion,¹⁰⁴ though these would not prevent them from being overrun should the other NATO member states not come to their aid. The capabilities and readiness of NATO’s military forces therefore constitute the cornerstone in deterring Russia.¹⁰⁵ There are those who argue that NATO’s military posture is sufficiently credible, despite problems among European member states with readiness, munition stocks, and sustainability.¹⁰⁶ Others believe NATO Europe lacks significant capabilities and that large-scale investments are needed.¹⁰⁷ The lack of military mobility due to inadequate transport infrastructure and national rules and regulations are considered to be particularly problematic.¹⁰⁸ Despite the establishment of the Enhanced Forward Presence (EFP) in the Baltics and Poland encompassing four battalion-sized battlegroups and the introduction of a 5,000-strong High Readiness Joint Task Force (VJTF), NATO troops deployed in the region still fall significantly short of what is needed to deny Russia a quick victory.¹⁰⁹ Consequently, Russia is believed to be able to overrun the Baltic states in a short amount of time to create a *fait accompli* without incurring significant losses.¹¹⁰ Russia’s A2/AD capabil-

101 Mazarr, Cheravitch, et al., “What Deters and Why,” 60–61.

102 NATO, “Warsaw Summit Communiqué,” NATO, September 7, 2016, http://www.nato.int/cps/en/natohq/official_texts_133169.htm.

103 Halas, “Proving a Negative,” 440–42; Mazarr, Cheravitch, et al., “What Deters and Why,” 60. neither at the conventional, nor at the sub-conventional level. A lack of capabilities undermines the credibility of NATO’s conventional deterrence posture despite its clear effort to communicate the threat to the other side. The only reason why the lack of capabilities on the Eastern Flank has no negative consequences for the Alliance is because Russia has (currently

104 Marta Kepe and Jan Osburg, “Total Defense: How the Baltic States Are Integrating Citizenry Into Their National Security Strategies,” *Small War Journals [Epublication September 2017]*, June 10, 2017, https://www.rand.org/pubs/external_publications/EP67342.html.

105 Łukasz Kulesa, “The Future of Deterrence: Effectiveness and Limitations of Conventional and Nuclear Postures,” Carnegie Europe, November 28, 2019, <https://carnegieeurope.eu/2019/11/28/future-of-deterrence-effectiveness-and-limitations-of-conventional-and-nuclear-postures-pub-80440>.

106 Barry R. Posen, “Europe Can Defend Itself,” *Survival* 62, no. 6 (2020): 7–34. Sten Rynning, “Deterrence Rediscovered: NATO and Russia,” in Osinga and Sweijls, *Deterrence in the 21st Century - Insights from Theory and Practice*, 42–43.

107 Barry et al., “Defending Europe,” 3.

108 Heinrich Brauss, Ben Hodges, and Julian Lindley-French, “The CEPA Military Mobility Project,” CEPA, March 3, 2021, <https://cepa.org/the-cepa-military-mobility-project-moving-mountains-for-europes-defense/>.

109 NATO, “Boosting NATO’s Presence in the East and Southeast,” NATO, April 26, 2021, http://www.nato.int/cps/en/natohq/topics_136388.htm; Sten Rynning, “Deterrence Rediscovered: NATO and Russia,” in *NL Arms Netherlands Annual Review of Military Studies 2020: Deterrence in the 21st Century - Insights from Theory and Practice*, 1st ed. (The Hague: T.M.C. Asser Press, 2021), 37; Frear, Kulesa, and Raynova, “Russia and NATO,” April 27, 2018, 11.

110 Keil, Brauss, and Braw, “Next Steps in NATO Deterrence and Resilience,” 5;

The lack of military mobility due to inadequate transport infrastructure and national rules and regulations are particularly problematic.

Decades of underinvestment in European defenses have drained military readiness.

ities in Kaliningrad worsen these problems.¹¹¹ Its surface-to-air missiles (SAM) and surface-to-surface missiles (SSM) pose a real challenge to NATO's ability to enter and resupply its forces by air, land, or sea. NATO forces, because of their limited numbers, lack real stopping power and would have to fight without air interdiction or close air support due to weaknesses in the Alliance's theater missile defense capabilities.¹¹² Geographical constraints limit rapid reinforcement despite recent initiatives aimed at boosting military mobility, while decades of underinvestment in European defenses have drained military readiness. European NATO members face shortfalls in the suppression of enemy air defenses, electromagnetic warfare, and stand-off munitions (i.e., cruise missiles). Without the US, they lack the Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) infrastructure necessary to prevail in large-scale combat.¹¹³ The situation is further aggravated by the lack of sufficient numbers of 5th generation combat aircraft (or alternatives thereof) in European NATO air forces, which would lessen the risks that emanate from modern Russian SAMs.¹¹⁴ Whether European NATO members should invest in going for strength against strength or look for more asymmetric solutions is a key unanswered question. Calls for a "stronger forward presence backed up by swift reinforcements" have therefore been made.¹¹⁵ How to address these shortfalls remains difficult, given the US' increasing orientation on the Asia-Pacific theater and European countries' chronic unwillingness to meet their defense spending targets.

Nuclear

In the nuclear realm, the state of deterrence seems relatively stable with both sides having the capability to impose unacceptable costs on each other using strategic nuclear weapons. Yet, the potential for escalation must not be underestimated, also in light of Russia's assertive nuclear doctrine and its vast arsenal of tactical nuclear weapons of 1,000 to 6,000 tactical nuclear warheads compared to a mere 150 to 200 on NATO European soil.¹¹⁶ These tactical nuclear weapons in Europe (deployed across six bases in Belgium, Germany, Italy, the Netherlands, and Turkey) are provided by the US, which only possesses an estimated 230 tactical nuclear warheads in total.¹¹⁷ NATO's tactical nuclear weapons are said by some to be incapable of penetrating Russia's air defenses.¹¹⁸ Russia's alleged 'escalate to de-escalate' doctrine is believed to work from the assumption that NATO will not be willing to risk nuclear escalation.¹¹⁹ The 2018 NPR argued in favor of developing more low-yield ballistic missiles

111 Keil, Brauss, and Braw, "Next Steps in NATO Deterrence and Resilience," 5;

112 For a recent, nuanced assessment, that does support this point a view, see Robert Dalsjö & Michael Jonsson (2021) More than Decorative, Less than Decisive: Russian A2/AD Capabilities and NATO, Survival, 63:5, 169-190, DOI: 10.1080/00396338.2021.1982204.

113 Rob de Wijk and Frank Bekkers, *Collectieve Defensie Zonder de Verenigde Staten*, (HCSS: forthcoming).

114 Frans Osinga, European Security, in *Luftled, Thema: Forsvarets Langtidsplan: Er Luftforsvaret Vinneren?*, Nr. 3 October 2016.

115 Alexander R Vershbow and Philip M Breedlove, "Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe" (Atlantic Council of the United States, 2019), 24, <http://www.css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/resources/docs/Atlantic%20Council%20Permanent%20Deterrence.pdf>.

116 Oliver Meier and Simon Lunn, "Trapped: NATO, Russia, and the Problem of Tactical Nuclear Weapons," Arms Control Association, January 2014, <https://www.armscontrol.org/act/2014-01/trapped-nato-russia-problem-tactical-nuclear-weapons>; Congressional Research Service, "Nonstrategic Nuclear Weapons," March 16, 2021.

117 Hans M. Kristensen and Matt Korda, "Tactical Nuclear Weapons, 2019," *Bulletin of the Atomic Scientists* 75, no. 5 (March 9, 2019): 257–58, <https://doi.org/10.1080/00963402.2019.1654273>.

118 Matthew Kroenig, "A Strategy for Deterring Russian Nuclear De-Escalation Strikes" (Atlantic Council – Scowcroft Center for Strategy and Security, April 2018), 14–18. Mazarr, Chan, et al., "What Deters and Why," 72.

119 Durkalec and Kroenig, "NATO's Nuclear Deterrence: Closing Credibility Gaps," 42.

(such as submarine-launched ballistic missiles) to mitigate this.¹²⁰ The renuclearization of European security, however, would undermine strategic stability. NATO Europe is consequently left searching for options.¹²¹

Hybrid

NATO has made great strides in improving its deterrent capabilities in the hybrid domain. The Alliance has set up a Joint Intelligence and Security Division, including a unit dedicated to hybrid threats, integrated hybrid elements in its military exercises, signed a joint declaration with the EU to enhance their cooperation, containing twenty action plans on countering hybrid threats and created the NATO Cyber Operations Center.¹²² Whether these efforts are sufficient remains unclear,¹²³ as Lauren Speranza argues that “transatlantic counter-hybrid efforts remain far too under-resourced in terms of budget and appropriate personnel”.¹²⁴ Radin concurs, pointing to the lack of pan-European Russian-language stations that could counter Russia’s disinformation campaigns, and to NATO’s presumed lack of intelligence gathering and coordination capabilities.¹²⁵ Many hybrid activities are difficult to deter in a classical sense. Building more resilience is therefore considered to be essential, for example by improving media literacy and empowering civil society.¹²⁶ Deterrence by punishment is made more complicated because many of the enabling conditions such as transparency, attributability, and targetability do not necessarily work in favor of it.¹²⁷ NATO’s overall hybrid deterrence capabilities should therefore be considered a work in progress.

Criticality in the European Theater

Conventional

For the Baltic states themselves, the stakes are high and the interests critical. For other NATO members, including the US, that may be less straightforward.¹²⁸ Arguably, the defense of NATO territory has been made a critical interest for the US: next to the formal commitment enshrined in Article 5, the US has placed a rotational 4,500-strong Armored Brigade Combat

120 Adam Cabot, “Fortress Russia: How Can NATO Defeat Moscow’s A2/AD Strategy and Air Defenses?,” Text, The National Interest (The Center for the National Interest, March 11, 2018), <https://nationalinterest.org/blog/buzz/fortress-russia-how-can-nato-defeat-moscows-a2ad-strategy-and-air-defenses-35087>.

121 Paul van Hooft, “Europa kan zichzelf verdedigen, met conventionele wapens,” NRC, accessed November 30, 2021, <https://www.nrc.nl/nieuws/2021/11/28/europa-kan-zichzelf-verdedigen-met-conventionele-wapens-a4067097>.

122 Michael Rühle, “NATO’s Response to Hybrid Threats,” May 11, 2019, https://www.realcleardefense.com/articles/2019/11/05/natos_response_to_hybrid_threats_114832-full.html; “NATO Review - Enlarging NATO’s Toolbox to Counter Hybrid Threats,” NATO Review, March 19, 2021, <https://www.nato.int/docu/review/articles/2021/03/19/enlarging-natos-toolbox-to-counter-hybrid-threats/index.html>; Speranza, “A Strategic Concept for Countering Russian and Chinese Hybrid Threats,” 9; Jeppe T Jacobsen, “Cyber Offense in NATO: Challenges and Opportunities,” *International Affairs* 97, no. 3 (May 1, 2021): 703–20, <https://doi.org/10.1093/ia/iia010>.

123 Andrew Radin, “Hybrid Warfare in the Baltics: Threats and Potential Responses,” February 23, 2017, https://www.rand.org/pubs/research_reports/RR1577.html; Speranza, “A Strategic Concept for Countering Russian and Chinese Hybrid Threats”; Jacobsen, “Cyber Offense in NATO.”

124 Speranza, “A Strategic Concept for Countering Russian and Chinese Hybrid Threats,” 11.

125 Radin, “Hybrid Warfare in the Baltics,” 32.

126 Tim Sweijts et al., “Inside the Kremlin House of Mirrors,” December 12, 2017, 4–5, <https://hcss.nl/report/inside-the-kremlin-house-of-mirrors-how-liberal-democracies-can-counter-russian-disinformation-and-social-interference-2/>.

127 Tim Sweijts and Samo Zilincik, “Cross Domain Deterrence and Hybrid Conflict,” HCSS, HCSS, December 18, 2019, 16–17, <https://hcss.nl/report/cross-domain-deterrence-and-hybrid-conflict/>.

128 Rynning, “Deterrence Rediscovered: NATO and Russia,” 32.

NATO has made great strides in improving its deterrent capabilities in the hybrid domain.

Team in Poland.¹²⁹ More than twenty other NATO members also contribute significant troop numbers to four multinational battalion-sized battle groups in the Baltic states.¹³⁰

Nuclear

Deterring a nuclear attack on one of its member states should evidently be a critical interest. However, because extended nuclear deterrence is always precarious, the question is whether NATO's nuclear states (France, the UK, and the US) have sufficient core interests at stake to respond with nuclear weapons in case of a nuclear strike against another NATO member.¹³¹ In a 2019 RAND study, Paul Davis et al. observed that "a NATO and U.S. threat to escalate a general nuclear war over a Russian invasion of the Baltic states has doubtful credibility."¹³² Kroenig also points out that Russia considers its stakes in Eastern Europe to be higher than those of the US.¹³³ These observations suggest that the critical interests of NATO's nuclear member states may well fall short of convincingly deterring a nuclear attack against Eastern European or the Baltic states, further underscoring the need for a coherent, integrated deterrence posture that includes conventional, nuclear and hybrid elements.

Hybrid

The extent of the national interests of NATO, in the case of Russian hybrid aggression, is difficult to unequivocally assess. On the one hand, the Alliance's credibility is not at stake to the same extent as in a conventional conflict. On the other, countering Russia's hybrid activities is essential to NATO because the incremental nature of hybrid strategies allows Russia to gradually encroach on NATO interests while staying below the Article 5 threshold.¹³⁴ Russia is presumed not to be interested in a conventional attack on the Baltics, but in gradually causing harm to the Alliance via its hybrid activities.¹³⁵ Clarification of the importance of countering Russia's hybrid activities to the European public might well lead to more awareness, which in turn would allow for more robust policy responses. A concrete step here could be to refer to Article 4 – allowing for consultation on issues of territorial integrity, political independence, or security.¹³⁶

Countering Russia's hybrid activities is essential to NATO.

129 U.S. Department of State, "U.S. Security Cooperation With Poland," *United States Department of State* (blog), July 4, 2021, <https://www.state.gov/u-s-security-cooperation-with-poland/>; James Goldgeier and Lindsey W. Ford, "Who Are America's Allies and Are They Paying Their Fair Share of Defense?," Brookings, December 17, 2019, <https://www.brookings.edu/policy2020/votervital/who-are-americas-allies-and-are-they-paying-their-fair-share-of-defense/>.

130 NATO, "Boosting NATO's Presence in the East and Southeast"; Alexander Lanoszka, Christian Leuprecht, and Alexander Moens, "Lessons from the Enhanced Forward Presence, 2017-2020" (Research Division - NATO Defense College - Rome, November 2020), 3, https://static1.squarespace.com/static/5cd08376797f742115eaa7cc/t/5ff5d4a8ada5017f0b08f2df/1609946282134/NDC_RP_14.pdf.

131 Paul van Hooft, "The US and Extended Deterrence", in Osinga and Sweijts, *Deterrence in the 21st Century - Insights from Theory and Practice*, 87–107.

132 Paul Davis et al., *Exploring the Role Nuclear Weapons Could Play in Deterring Russian Threats to the Baltic States* (RAND Corporation, 2019), 10, <https://doi.org/10.7249/RR2781>.

133 Kroenig, "A Strategy for Deterring Russian Nuclear De-Escalation Strikes," 8.

134 Zdzisław Śliwa, Viljar Veebel, and Maxime Lebrun, "Russian Ambitions and Hybrid Modes of Warfare," *Estonian Journal of Military Studies*, December 4, 2018, 86–108; Halas, "Proving a Negative."

135 Halas, "Proving a Negative," 431–32.

136 "The Consultation Process and Article 4," NATO, February 28, 2020, http://www.nato.int/cps/en/natohq/topics_49187.htm.

Commitment in the European Theater

Conventional

The political commitment of the US is once again first and foremost – but not exclusively – the one that matters. As Jan Techau points out, “for NATO’s deterrence to be credible, only one question really matters: Is the United States fully behind its commitments?”¹³⁷ Despite legitimate concerns about the lack of US commitment to NATO under the Trump administration, US President Joe Biden has gone through great lengths to reassure allies.¹³⁸ US military assistance expenditures to European countries have increased significantly, including during the Trump administration, going from 41 million USD in FY2015 to 218 million USD in FY2018 for exercises and training, and from 14 million USD in FY2015 to 267 million USD in FY2018 for building partnership capacity.¹³⁹ Those two factors together, therefore, suggest that the US has a sizeable degree of political commitment to defending the Baltic states in case of conventional Russian aggression, which is further strengthened at the NATO level by the placement of the abovementioned EFP in the Baltic states.¹⁴⁰ By contrast, the commitment of European states is seen to be more ambiguous. French President Emmanuel Macron’s critiques of NATO and the US administration, and his explicit statement that “we need to reconsider our position with Russia”, were unsettling to Eastern European member states – regardless of the French intention (see statement on the French nuclear deterrent below).¹⁴¹ While German Chancellor Angela Merkel dubbed NATO a “cornerstone for security” for Germany, Germany continues to underspend on its defense – in contrast to France.¹⁴²

Nuclear

The commitment to nuclear deterrence seems to be still fairly robust, with institutionalized planning procedures and dedicated command and control structures for individual member states. The US has about 100 nuclear weapons deployed in Europe.¹⁴³ France is estimated to possess about 280 deployed nuclear weapons, and the UK about 120.¹⁴⁴ The US and the UK have committed (part of) their nuclear arsenal to NATO, meaning that the US and the UK have confirmed that their nuclear weapons will be used “for the purpose of international defense of the Atlantic Alliance in all circumstances.”¹⁴⁵ In line with previous French heads of state, President Macron clarified that the country acknowledges its responsibilities to

137 Judy Dempsey, “Judy Asks: Is NATO Deterrence a Paper Tiger?,” Carnegie Europe, January 31, 2019, <https://carnegieeurope.eu/strategiceurope/78254>.

138 “Remarks by President Biden in Press Conference,” The White House, June 14, 2021, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/06/14/remarks-by-president-biden-in-press-conference-3/>.

139 Mazarr, Chan, et al., “What Deters and Why,” 76–77.

140 Lanoszka, Leuprecht, and Moens, “Lessons from the Enhanced Forward Presence, 2017–2020,” 7, 12.

141 Edward Lucas, Ben Hodges, and Carsten Schmiedl, “Close to the Wind: Too Many Cooks, Not Enough Broth,” September 9, 2021, <https://cepa.org/baltic-sea-security-too-many-cooks-not-enough-broth/>; James Dobbins, “Is NATO Brain Dead?,” March 12, 2019, <https://www.rand.org/blog/2019/12/is-nato-brain-dead.html>.

142 “Angela Merkel Condemns Macron’s ‘drastic Words’ on NATO,” DW.COM, July 11, 2019, <https://www.dw.com/en/angela-merkel-condemns-macrons-drastic-words-on-nato/a-51154583>; Kevin Blachford, “Can NATO and The EU Really Defend the Baltic States Against Russia?,” Text, The National Interest (The Center for the National Interest, July 2, 2020), <https://nationalinterest.org/blog/buzz/can-nato-and-eu-really-defend-baltic-states-against-russia-121711>.

143 “Fact Sheet: U.S. Nuclear Weapons in Europe,” Center for Arms Control and Non-Proliferation, August 18, 2021, <https://armscontrolcenter.org/fact-sheet-u-s-nuclear-weapons-in-europe/>.

144 “Fact Sheet: France’s Nuclear Inventory,” Center for Arms Control and Non-Proliferation, March 27, 2020, <https://armscontrolcenter.org/fact-sheet-frances-nuclear-arsenal/>; Hans M. Kristensen and Matt Korda, “United Kingdom Nuclear Weapons, 2021,” *Bulletin of the Atomic Scientists* 77, no. 3 (April 5, 2021): 153–58, <https://doi.org/10.1080/00963402.2021.1912309>.

145 Viljar Veebel, “NATO Options and Dilemmas for Deterring Russia in the Baltic States,” *Defence Studies* 18, no. 2 (March 4, 2018): 234, <https://doi.org/10.1080/14702436.2018.1463518>.

US President Joe Biden has gone through great lengths to reassure allies. (...) By contrast, the commitment of European states is seen to be more ambiguous.

NATO is less directly committed to respond to Russia's hybrid threats than to its conventional ones.

contribute to European security via its nuclear arsenal and that “French decision-making independence in use of the nuclear deterrent is fully compatible with the unshakable solidarity with our European partners.”¹⁴⁶ There are nevertheless concerns about NATO's commitment regarding Russia's possible use of tactical nuclear weapons.¹⁴⁷ Moreover, deterrence with nuclear weapons is arguably only credible when existential issues are at stake, which are less salient in situations of extended deterrence.¹⁴⁸ Still, all three nuclear weapon NATO members contribute in sizeable numbers to NATO's EFP combat groups in the Baltics, and therefore can be argued to have sufficient skin in the game.

Hybrid

NATO is less directly committed to responding to Russia's hybrid threats than to its conventional ones. This is the result of diverging interests and threat perceptions of its member states. As the primary responsibility for reacting to hybrid attacks lies with the targeted nation, not NATO, unaffected member states might be less committed to responding.¹⁴⁹ Moreover, while certain types of hybrid activities can trigger Article 5, this does not happen automatically and doing so is likely to be seen as disproportional.¹⁵⁰ It is therefore worth discussing whether fostering these commitments should be prioritized and for what particular commitments that can be done.

Cohesion in the European Theater

Conventional

Cohesion in the Alliance is not as strong as it perhaps should be, and diverging threat perceptions and interests of NATO member states affect NATO deterrence posture.¹⁵¹ Anna Wieslander, the Director for Northern Europe at the Atlantic Council, calls NATO's unity and cohesion to act when necessary both its “greatest asset” and potentially its “weakest spot” in case of an armed conflict.¹⁵² This lack of cohesion stems from “diverging assessments of the situation” born from diverging national interests and threat perceptions.¹⁵³ According to a 2019 survey conducted by the Pew Research Center, the majority of respondents in twelve out of fourteen NATO member states, including France, Germany, and Italy, do not support the

146 Tara Varma, “The Search for Freedom of Action: Macron's Speech on Nuclear Deterrence – European Council on Foreign Relations,” ECFR, July 2, 2020, https://ecfr.eu/article/commentary_the_search_for_freedom_of_action_macrons_speech_on_nuclear_deter/.

147 Durkalec and Kroenig, “NATO's Nuclear Deterrence: Closing Credibility Gaps,” 42; Jüri Luik and Tomas Jermalavičius, “A Plausible Scenario of Nuclear War in Europe, and How to Deter It: A Perspective from Estonia,” *Bulletin of the Atomic Scientists*, June 15, 2017, 235, <https://www.tandfonline.com/doi/abs/10.1080/00963402.2017.1338014>.

148 Paul Van Hooff, “The US and Extended Deterrence,” in *NL Arms Netherlands Annual Review*, 2021, 90.

149 “NATO Review - Enlarging NATO's Toolbox to Counter Hybrid Threats”; Mazarr, Cheravitch, et al., “What Deters and Why,” 62–63.

150 Alexander Lanoszka, “Russian Hybrid Warfare and Extended Deterrence in Eastern Europe,” *International Affairs*, no. 92(1) (January 2016): 192, https://www.researchgate.net/publication/290507166_Russian_hybrid_warfare_and_extended_deterrence_in_eastern_Europe.

151 Rynning, “Deterrence Rediscovered: NATO and Russia,” 32–35; Mathieu Boulègue, “Russia and NATO: A Dialogue of Differences,” Chatham House – International Affairs Think Tank, April 24, 2019, <https://www.chathamhouse.org/2019/04/russia-and-nato-dialogue-differences>; Dempsey, “Judy Asks.”

152 Dempsey, “Judy Asks.”

153 Frear, Kulesa, and Raynova, “Russia and NATO,” April 27, 2018, 11.

use of military force to assist another NATO member against Russia.¹⁵⁴ Beyond hampering NATO's ability to react in time to crises, it also undermines NATO's deterrence posture by signaling a lack of political commitment and even potential wedges within the Alliance.¹⁵⁵ Sten Rynning, for instance, argues that the increasingly diverging value base of NATO's members obstructs the formation of a coherent and consistent collective deterrence posture.¹⁵⁶ Mathieu Boulègue, therefore, calls for a "dialogue of differences" in the form of Track 1 and Track 2 dialogues within the Alliance.¹⁵⁷ Raising awareness about the importance of Article 5 to European audiences may be another important instrument to help strengthen cohesion in support of deterrence.¹⁵⁸

Nuclear

NATO's official position remains that "as long as nuclear weapons exist, it will remain a nuclear alliance."¹⁵⁹ All NATO member states have so far rejected the Treaty on the Prohibition of Nuclear Weapons (TPNW), though Norway and Germany look to be Treaty observers.¹⁶⁰ NATO's Nuclear Planning Group (NPG) provides a platform for discussions and decision-making on nuclear issues within NATO, though France does not partake in the NPG.¹⁶¹ Changes in the global nuclear landscape could possibly endanger the political coherence of NATO regarding its nuclear deterrence posture, particularly if NATO members reject the possession of nuclear weapons.¹⁶² In the run-up to the Ban Treaty, the Netherlands and Germany debated whether US nuclear weapons should be deployed on their national territories.¹⁶³ While Germany criticized the NPR 2018 as heralding a new nuclear arms race, Eastern European member states welcomed it.¹⁶⁴ An intra-alliance dialogue may help harmonize these diverging views on the deployment of nuclear weapons between NATO's member states that otherwise could signal weakening cohesion.

Hybrid

NATO's lack of cohesion is most evident in the hybrid domain. Member states carry an individual responsibility to react to Russia's hybrid threats, which increases the impact of diverging threat perceptions and interests within NATO.¹⁶⁵ While the EU and NATO are deep-

154 Moira Fagan and Jacob Poushter, "NATO Viewed Favorably Across Member States," Pew Research Center's Global Attitudes Project, October 2, 2020, <https://www.pewresearch.org/global/2020/02/09/nato-seen-favorably-across-member-states/>.

155 Frear, Kulesa, and Raynova, "Russia and NATO," January 4, 2018, 11.

156 Rynning, "Deterrence Rediscovered: NATO and Russia," 32–35.

157 Boulègue, "Russia and NATO."

158 Boulègue.

159 NATO, "NATO's Nuclear Deterrence Policy and Forces."

160 Quentin Lopinot, "The European Equation of Nuclear Deterrence, Variables and Possible Solutions," L'Ifri, July 2020, <https://www.ifri.org/en/publications/editoriaux-de-lifri/european-equation-nuclear-deterrence-variables-and-possible>.

161 NATO, "Nuclear Planning Group (NPG)," NATO, May 27, 2020, http://www.nato.int/cps/en/natohq/topics_50069.htm.

162 Michael Rühle, "NATO's Next Nuclear Challenges - Carnegie Europe," Carnegie Endowment for International Peace, March 16, 2018, <https://carnegieeurope.eu/strategieurope/75818>.

163 Michal Smetana, Michal Onderco, and Tom Etienne, "Do Germany and the Netherlands Want to Say Goodbye to US Nuclear Weapons?," *Bulletin of the Atomic Scientists* 77, no. 4 (July 4, 2021): 215–21, <https://doi.org/10.1080/00963402.2021.1941603>.

164 Trevor McCricken and Maxwell Downman, "'Peace through Strength': Europe and NATO Deterrence beyond the US Nuclear Posture Review," *International Affairs* 95, no. 2 (2019): 278, 284.

165 Tuukka Elonheimo, "Comprehensive Security Approach in Response to Russian Hybrid Warfare," *Strategic Studies Quarterly*, Fall 2021, 129; Viljar Veebel and Illimar Ploom, "Are the Baltic States and NATO on the Right Path in Deterring Russia in the Baltic?," *Defense & Security Analysis*, October 23, 2019, 185, <https://www.tandfonline.com/doi/abs/10.1080/14751798.2019.1675947>.

An intra-alliance
dialogue may help
harmonize
diverging views.

European countries also have strong yet varying economic ties to Russia.

ening their cooperation and harmonizing their positions on how to respond to hybrid activities, challenges remain considerable.¹⁶⁶ The increasing popularity of right-wing parties in Europe with ties to Russia might further undermine the cohesiveness aligning national responses to Russian aggression.¹⁶⁷ European countries also have strong yet varying economic ties to Russia, further dampening cohesiveness in a response to Russia's hybrid activities.¹⁶⁸ Political leaders in countries such as Greece, Hungary, and Italy have expressed their doubts about the desirability of sanctions against Russia.¹⁶⁹ Encouraging member states to hold more frequent discussions on NATO-level might be beneficial, allowing member states to minimize the differences in threat perception. NATO's 2017 Comprehensive Approach Action Plan might serve as a foundation for this, as it already integrates the elements of comprehensive-ness and resilience.¹⁷⁰

Summary: Strengths, Weaknesses, and Avenues to Strengthen Deterrence

The state of deterrence in the European theater and potential avenues for strengthening are summarized in Table 2 on the next page.

¹⁶⁶ Rühle, "NATO's Response to Hybrid Threats"; Polyakova et al., "The Evolution of Russian Hybrid Warfare," 36.

¹⁶⁷ Lanoszka, "Russian Hybrid Warfare and Extended Deterrence in Eastern Europe," 193.

¹⁶⁸ David M. Herszenhorn and Jacopo Barigazzi, "EU Leaders Take Hard Line on Russia, Rebuking Merkel and Macron," *POLITICO*, June 24, 2021, <https://www.politico.eu/article/eu-unity-on-russia-collapses-after-german-french-proposal-for-outreach-to-vladimir-putin/>; "France Seeks End to Russia Sanctions over Ukraine," *BBC News*, January 5, 2015, sec. Europe, <https://www.bbc.com/news/world-europe-30679176>; Markus Wacket and Thomas Escritt, "Merkel's Tougher Russia Stance Meets Resistance in Germany," *Reuters*, April 16, 2018, sec. Banks, <https://www.reuters.com/article/us-germany-russia-idUSKBN1HN1XU>.

¹⁶⁹ Mazarr, Cheravitch, et al., "What Deters and Why," 66.

¹⁷⁰ NATO, "A 'comprehensive Approach' to Crises," NATO, January 6, 2021, http://www.nato.int/cps/en/natohq/topics_51633.htm.

NATO EUROPE		Overall assessment	Recommendations for strengthening deterrence
Clarity	Conventional	<ul style="list-style-type: none"> + Article 5 clearly communicates commitment, as does forward positioning of the armed forces of member states in threatened frontline states - Reaffirmed by regular statements of NATO heads of states - No explicit mentioning of type of aggression NATO seeks to deter other than invasion 	Develop better understanding of the impact of NATO political communication on Russia's leadership. Consider making presence in Eastern Europe larger and more permanent.
	Nuclear	<ul style="list-style-type: none"> + NATO's official statement on nuclear deterrence posture - Statement is not very precise on the situations to which it applies 	Include more specificity and communicate more forcefully while preserving ambiguity to avoid salami slicing.
	Hybrid	<ul style="list-style-type: none"> + Specific mention of cyberattacks being the reason for triggering Article 5 - No specification of concrete thresholds and responses to other hybrid threats - Individual member states hold the primary responsibility to react to hybrid attacks 	Specify thresholds for proportional response, signal forcefully through words and actions, both to adversary and to allies.
Capabilities	Conventional	<ul style="list-style-type: none"> + Military capabilities of Baltic states and NATO improved strongly over the past years - Observers point out significant shortcomings in equipment, military mobility, and other capabilities - NATO's EFP may be insufficient to prevent a Russian <i>fait accompli</i> in the Baltics 	European member states should invest in military capabilities, boost military readiness and enhance military mobility to strengthen deterrence by denial.
	Nuclear	<ul style="list-style-type: none"> + Both sides have a credible second-strike capability - Tactical-nuclear gap: NATO may not be able to credibly deter Russia's resort to tactical nuclear weapons 	Increase deterrence by denial with advanced conventional weapons to close tactical-nuclear gap and to prevent renuclearization of European security.
	Hybrid	<ul style="list-style-type: none"> + NATO has made great strides in developing its counter hybrid capabilities - Many shortcomings remain including deterrence by punishment and denial (resilience) concepts and capabilities 	Continue implementing initiatives to build up defense, foster resilience, and strengthen deterrence by punishment capabilities.
Criticality	Conventional	<ul style="list-style-type: none"> + The US and a large number of NATO have a sizeable number of tripwire forces placed in the Baltic states in Poland - Public opinion in European countries not in favor of military force to assist NATO countries in war against Russia 	Strengthen public support for Article 5 among European population through public diplomacy campaign.
	Nuclear	<ul style="list-style-type: none"> + Preventing a nuclear attack strike is clearly a core interest of all NATO states - Extended nuclear deterrence is always precarious 	Increase numbers of forward positioned conventional forces to underline allied solidarity; develop an integrated deterrence posture that specifies vital interests.
	Hybrid	<ul style="list-style-type: none"> - The incremental effect of hybrid activities leads to underappreciation of the impact on core interests - NATO's direct credibility not at stake if it fails to react to such acts 	Raise public awareness amongst allies of costs of hybrid attacks.
Commitment	Conventional	<ul style="list-style-type: none"> + After Trump, Biden administration reiterated "sacred commitment" of the US to Article 5 + US military assistance expenditures to European countries increased significantly over the past years - Political commitment from leading European states sometimes doubted 	Explicitly reaffirm commitment through public statements.
	Nuclear	<ul style="list-style-type: none"> + Institutionalized planning procedures and dedicated command and control structures + US and UK have committed (part of) their NW arsenal to NATO, France emphasizes role of NW for EUR security + Placement of tripwire forces by all three nuclear states in the Baltics - Concerns about lack of commitment nuclear NATO states in case of tactical nuclear strike from Russia 	Develop integrated deterrence posture with conventional, nuclear, and hybrid capabilities for proportional response.
	Hybrid	<ul style="list-style-type: none"> - Responsibility to react lies with individual member states - Not explicitly part of Article 5 	Engage in discussions on how to foster political commitment.
Cohesion	Conventional	<ul style="list-style-type: none"> - NATO member states have diverging interests and threat perceptions that negatively affect cohesion 	Support Track 1 and 2 dialogues within the Alliance, engage in public diplomacy.
	Nuclear	<ul style="list-style-type: none"> + NATO member states share belief that nuclear weapons remain essential as deterrent - Growing opposition towards nuclear weapons in number of countries 	Foster intra-alliance dialogue on the role of nuclear weapons.
	Hybrid	<ul style="list-style-type: none"> + EU and NATO are deepening cooperation and harmonizing position on hybrid activities - Diverging threat perceptions and interests undercut cohesion in hybrid domain - Increasing popularity of right-wing parties in Europe with ties to Russia undermines cohesiveness 	Stimulate discussions on NATO-level and create common framework on how to react to hybrid threats. Increase resilience.

Table 2. The state of deterrence in Europe: strengths, weaknesses, recommendations

The State of Deterrence in the East Asian Theater

The challenges in the East Asian theater primarily concern deterring the threat of Chinese aggression against Taiwan but also include Japan and other states in the Western Pacific, specifically the littoral states of the South China Sea. The potential for conventional aggression mainly focuses on the Taiwan scenario, but China's actions in the hybrid domain are much broader across the region and even globally.

Clarity of Communication in the Asian Theater

Conventional

US signaling regarding Taiwan is one of deliberate strategic ambiguity. The US does not explicitly commit itself to defending Taiwan in the case of an attack against the island, but suggests that it might intervene in case of such an attack.¹⁷¹ This lack of clarity could constitute a significant shortcoming,¹⁷² but ambiguity is intended to constrain Taiwan from provoking China while still deterring China.¹⁷³ Taiwan itself is crystal clear about China's conventional threat.¹⁷⁴ Japan's stance has become more explicit over the past years.¹⁷⁵ A shift from strategic ambiguity to clarity is likely to entail risks that heavily outweigh the intended advantages. The US must therefore continue to walk a line between deterrence without incentivizing Taiwan to declare independence. Intensified political, economic, or military cooperation might allow the US to implicitly signal the magnitude of its interests involved.

Nuclear

The clarity of communication in the nuclear realm leaves room for improvement. While no US Asia-Pacific ally is a nuclear weapon state, the US itself does not specify when it would consider using nuclear weapons to deter China from engaging in what type of behavior. The current US nuclear policy of "calculated ambiguity" reads that the US will only consider the

171 Michael J. Green, "What Is the U.S. 'One China' Policy, and Why Does It Matter?," January 13, 2017, <https://www.csis.org/analysis/what-us-one-china-policy-and-why-does-it-matter>; Peter R. Mansoor, "Strategic Ambiguity and the Defense of Taiwan," Text, Hoover Institution, June 30, 2021, <https://www.hoover.org/research/strategic-ambiguity-and-defense-taiwan>. Rex Tillerson, President-elect Donald Trump's nominee for secretary of state, reaffirmed the U.S. commitment to Taiwan, based on the Taiwan Relations Act (TRA).

172 Edward Wong, "U.S. Tries to Bolster Taiwan's Status, Short of Recognizing Sovereignty," *The New York Times*, August 17, 2020, sec. U.S., <https://www.nytimes.com/2020/08/17/us/politics/trump-china-taiwan-hong-kong.html>; Michael J. Mazarr, Nathan Beauchamp-Mustafaga, et al., "What Deters and Why: The State of Deterrence in Korea and the Taiwan Strait" (RAND Corporation, April 19, 2021), 42, 48, https://www.rand.org/pubs/research_reports/RR3144.html.

173 Alastair Iain Johnston et al., "The Ambiguity of Strategic Clarity," *War on the Rocks*, September 6, 2021, <https://warontherocks.com/2021/06/the-ambiguity-of-strategic-clarity/>; Porter and Mazarr, "Countering China's Adventurism over Taiwan," 3–12; Chang-Liao and Fang, "The Case for Maintaining Strategic Ambiguity in the Taiwan Strait."

174 Ben Blanchard and Yimou Lee, "Taiwan Won't Be Forced to Bow to China, President Says | Reuters," October 10, 2021, <https://www.reuters.com/world/asia-pacific/taiwan-wont-be-forced-bow-china-president-says-2021-10-10/>.

175 Foreign Minister Toshimitsu Motegi announced in October 2021 that in case of a Chinese invasion of Taiwan, "we hope to weigh the various possible scenarios that may arise to consider what options we have, as well as the preparations we must make". Sakura Murakami and Kiyoshi Takenaka, "Japan Signals More Active Role on China's Tough Stand on Taiwan," *Reuters*, May 1, 2021, sec. Asia Pacific, <https://www.reuters.com/world/asia-pacific/biden-promised-us-commitment-defending-senkaku-islands-japan-pm-kishida-2021-10-05/>.

A shift from strategic ambiguity to clarity is likely to entail risks that heavily outweigh the intended advantages.

usage of nuclear weapons under “extreme circumstances” when its “vital interests”, or those of its allies and partners, are threatened.¹⁷⁶ The US’ NPR 2018 is also informative of the (lack of) clarity of US messaging in this realm.¹⁷⁷ Specifically, the call to develop low-yield tactical nuclear weapons in the NPR 2018 elicited a particular strong unintended response from China, because their purpose remained ambiguous.¹⁷⁸ More senior-level dialogues between China and the US could add clarity and thereby predictability to the nuclear relationship.¹⁷⁹

Hybrid

In the hybrid domain, the clarity of communication is mixed.¹⁸⁰ Taiwan is very clear in its condemnation of Chinese gray zone aggression, with Taiwan President Tsai Ing-wen specifically calling out Chinese aggression against Taiwan and in the East and South China Sea.¹⁸¹ The US, in turn, provides little specification on Chinese hybrid aggressions against Taiwan.¹⁸² Arguably, this gives the US flexibility to counter threats with differing degrees of intensity without losing credibility.¹⁸³ However, the US State Department of the Biden administration has publicized a number of statements that provide additional specifications. These specifications include the rejection of “any PRC claim to waters beyond the 12 nautical mile territorial sea from islands it claims in the Spratleys” the assertion that “China has no lawful claim in areas found to be in the Philippines exclusive economies zone or continental shelf” and observation that “China’s harassment in these areas of other claimants, state hydrocarbon exploration or fishing activity, or unilateral exploration of those maritime resources is unlawful.”¹⁸⁴ In contrast, Japan has been very clear in communicating its commitment to protect the Senkaku/Diaoyu Islands against Chinese aggressions. Its 2013 National Defense Program Guidelines (NDPG) underline that Japan will “respond effectively and promptly to gray-zone aggressions or any other acts that may violate its sovereignty”.¹⁸⁵ Statements by Japanese officials and the more recent 2018 NDPG reiterate these claims.¹⁸⁶ Similar to our findings for communication on hybrid threats in Europe, we recommend clearer identification of undesirable behavior and the communication of the consequences of such behavior.

176 Matthew Costlow, “Believe It or Not: U.S. Nuclear Declaratory Policy and Calculated Ambiguity,” Warontherocks, September 8, 2021, <https://warontherocks.com/2021/08/believe-it-or-not-u-s-nuclear-declaratory-policy-and-calculated-ambiguity/>.

177 Van Hooft, “The US and Extended Deterrence,” 93; David Santoro and Zhao Tong, “China and the U.S. Nuclear Posture Review,” Carnegie-Tsinghua Center, March 9, 2018, <https://carnegietsinghua.org/2018/09/03/china-and-u.s.-nuclear-posture-review-pub-77153>.

178 Raymond Wang, “Making Sense of Chinese Reactions to the US 2018 Nuclear Posture Review,” The Diplomat, February 27, 2018, <https://thediplomat.com/2018/02/making-sense-of-chinese-reactions-to-the-us-2018-nuclear-posture-review/>.

179 Santoro and Tong, “China and the U.S. Nuclear Posture Review.”

180 Mazarr, Beauchamp-Mustafaga, et al., “What Deters and Why,” 49.

181 “Eyeing China, Taiwan Urges Alliance against ‘Aggressive Actions,’” *Reuters*, August 9, 2020, sec. Emerging Markets, <https://www.reuters.com/article/us-taiwan-security-idUSKBN25Z0IV>.

182 Mastro, “Military Confrontation in the South China Sea.”

183 Chang-Liao and Fang, “The Case for Maintaining Strategic Ambiguity in the Taiwan Strait,” 45; Bonnie S. Glaser, “The United States’ Strategic Competition with China,” § Senate Armed Services Committee (2021), <https://www.armed-services.senate.gov/hearings/the-united-states-strategic-competition-with-china>.

184 Congressional Research Service, “U.S.-China Strategic Competition in South and East China Seas: Background and Issues for Congress,” August 9, 2021, 35–36, <https://s3.documentcloud.org/documents/21060504/us-china-strategic-competition-in-south-and-east-china-seas-background-and-issues-for-congress-sept-8-2021.pdf>.

185 “National Defense Program Guidelines for FY 2014 and Beyond” (Japan Ministry of Defense, December 17, 2013), 14, https://warp.da.ndl.go.jp/info:ndljp/pid/11591426/www.mod.go.jp/j/approach/agenda/guideline/2014/pdf/20131217_e2.pdf.

186 Mazarr, Cheravitch, et al., “What Deters and Why,” 31; Japan Ministry of Defense, “National Defense Program Guidelines for FY 2019 and Beyond,” December 18, 2018, https://warp.da.ndl.go.jp/info:ndljp/pid/11591426/www.mod.go.jp/j/approach/agenda/guideline/2014/pdf/20131217_e2.pdf.

The US provides little specification on Chinese hybrid aggressions against Taiwan.

Capabilities in the Asian Theater

Conventional

The current regional balance of power should be a cause of concern to the US. Taiwan's military is significantly outmatched by China's military. For China, establishing air and sea dominance in the Taiwan Strait is essential to a successful amphibious invasion. Taiwan does not possess the required air and naval assets to prevent Chinese forces from doing so, as China's arsenal of ballistic and cruise missiles can presumably destroy Taiwan's assets at the onset of the invasion, while its "naval and air power are overwhelming".¹⁸⁷ Taiwanese officers provide a similar assessment, noting that "much of the island's expensive hardware would be unlikely to survive a barrage of PLA precision missiles and airstrikes."¹⁸⁸ Taiwan's \$13 billion military budget pales in comparison to the \$252 billion spent by China annually.¹⁸⁹ The US' technological edge, relative to China, has eroded significantly over the past two decades with the PLA having "improved its relative capabilities in many critical areas."¹⁹⁰ The distance between Taiwan and the US makes it difficult for the US to send timely reinforcements while China's A2/AD capabilities pose a robust threat.¹⁹¹ At the same time, historically, amphibious invasions are difficult and costly to accomplish. Moreover, the US has about 55,000 military personnel forward-based in Japan as well as military assets such as the U.S.S. Ronald Reagan carrier strike group and the F-35 Joint Strike Fighter.¹⁹² One recommendation is to strengthen the deterrence by denial capabilities for US allies in the region.

Nuclear

Given China's small nuclear stockpile and minimum or limited nuclear deterrence doctrine, the state of nuclear deterrence seems more stable than in Europe. The Chinese arsenal is estimated to encompass 350 nuclear warheads,¹⁹³ with seemingly none of those warheads being deployed.¹⁹⁴ It pales in comparison to the total warhead stockpile of 5,800 of the US, of which 1,750 are deployed on strategic delivery vehicles and with 230 nonstrategic warheads.¹⁹⁵ Even accounting for the expected doubling in size of China's nuclear stockpile over the next decade, China's nuclear forces remain significantly smaller in number than those

187 Brian J. Dunn, "Drive Them into the Sea," September 2020, 70–71, <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/September-October-2020/Dunn-Drive-Into-Sea/>.

188 Lee, Lague, and Blanchard, "China Launches 'Gray-Zone' Warfare to Subdue Taiwan," December 10, 2020.

189 "China vs Taiwan | Comparison Military Strength," ArmedForces, accessed September 1, 2021, https://armedforces.eu/compare/country_China_vs_Taiwan.

190 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), 327, https://www.rand.org/pubs/research_reports/RR392.html; Andrea Gilli and Mauro Gilli, "Why China Has Not Caught Up Yet: Military-Technological Superiority and the Limits of Imitation, Reverse Engineering, and Cyber Espionage," *International Security* 43, no. 3 (2019): 141–89; RAND Corporation, "An Interactive Look at the U.S.-China Military Scorecard," RAND Corporation, 2017, <https://www.rand.org/paf/projects/us-china-scorecard.html>; Joris Teer et al., "China's Military Rise and the Implications for European Security," November 2021, <https://hcss.nl/report/chinas-military-rise/>.

191 Dunn, "Drive Them into the Sea," 70–76.

192 U.S. Department of State, "U.S. Security Cooperation With Japan," January 20, 2021, <https://www.state.gov/u-s-security-cooperation-with-japan/>.

193 Mike Yeo, "Report Estimates Chinese Nuclear Stockpile at 350 Warheads," *Defense News*, December 14, 2020, <https://www.defensenews.com/global/asia-pacific/2020/12/14/report-estimates-chinese-nuclear-stockpile-at-350-warheads/>.

194 Brown, "Understanding the Risks and Realities of China's Nuclear Forces | Arms Control Association."

195 "The Threats That U.S. Nuclear Weapons Policy Must Address - Proportionate Deterrence: A Model Nuclear Posture Review," Carnegie Endowment for International Peace, accessed August 22, 2021, <https://carnegie-endowment.org/2021/01/21/threats-that-u.s.-nuclear-weapons-policy-must-address-pub-83578>.

The current regional balance of power should be a cause of concern to the US.

of the US.¹⁹⁶ It remains unclear whether China adheres to a minimum deterrence strategy, which suggests that the defender seeks to threaten with the lowest amount of damage possible that still suffices to prevent an attack,¹⁹⁷ or to a limited deterrence strategy, meaning that it seeks to develop enough nuclear weapons to enable a secure second-strike capability.¹⁹⁸ Yet there is a significant risk of an inadvertent escalation, amplified by China's cyber and counterspace capabilities that could attack the US' nuclear infrastructure.¹⁹⁹ Minimizing the risk of unintended escalation through dialogue and norm building should be a priority.

Hybrid

Taiwan faces significant difficulties in dealing with China's hybrid activities. China engages both in low and high-end gray zone aggression, including the intrusion of Taiwan's air space.²⁰⁰ Taiwan has also pointed out the "omnipresent infiltration" from China, referring to a wide array of activities ranging from disinformation campaigns to cyberattacks,²⁰¹ which raised concerns that China can block its key harbors and airports. It also highlights the close relationship between conventional and hybrid threats at the high-end spectrum of gray zone aggression.²⁰² Many of the hybrid activities are difficult to deter, making resilience key. Options for deterrence by punishment are limited. The US and its allies have strong economic and business ties with China, which makes the imposition of sanctions costly.²⁰³ To deter Chinese aggression against the Senkaku/Diaoyu Islands, Japan has strengthened its intelligence, surveillance, and reconnaissance (ISR) activities as well as its maritime and air forces.²⁰⁴ The US and Japan, therefore, have an extensive array of capabilities to defend against and deter Chinese gray zone activities around the Senkaku/Diaoyu islands.²⁰⁵ In the South China Sea, the US is carrying out regular naval operations to safeguard navigational rights and freedoms in these contested waters.²⁰⁶ Through the 1998 Philippines-US Visiting Forces Agreement (VFA), the US is authorized to deploy troops and naval assets in the Philippines for joint combat exercises.²⁰⁷ While it allows the US to counter Chinese aggres-

196 Brown, "Understanding the Risks and Realities of China's Nuclear Forces | Arms Control Association."

197 M. Taylor Fravel and Evan S. Medeiros, "China's Search for Assured Retaliation: The Evolution of Chinese Nuclear Strategy and Force Structure," *International Security* 35, no. 2 (January 10, 2010): 48–87, https://doi.org/10.1162/ISEC_a_00016; Katsuhisa Furukawa et al., *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, ed. Muthiah Alagappa, 1st edition (Stanford, Calif: Stanford University Press, 2008).

198 Larry M. Wortzel, "China's Nuclear Forces: Operations, Training, Doctrine, Command, Control, And Campaign Planning" (Strategic Studies Institute, US Army War College, 2007), <https://www.jstor.org/stable/resrep11275>; Mark Schneider, "The Nuclear Doctrine and Forces of the People's Republic of China: Comparative Strategy: Vol 28, No 3" 28, no. 3 (2009): 244–70.

199 RAND Corporation, "An Interactive Look at the U.S.-China Military Scorecard"; "The Threats That U.S. Nuclear Weapons Policy Must Address - Proportionate Deterrence."

200 "Record Number of China Planes Enter Taiwan Air Defence Zone," *BBC News*, May 10, 2021, sec. Asia, <https://www.bbc.com/news/world-asia-58794094>.

201 Lee, "Taiwan Says China behind Cyberattacks on Government Agencies, Emails."

202 Yimou Lee, "Taiwan Says China Can Blockade Its Key Harbours, Warns of 'grave' Threat," *Reuters*, September 11, 2021, sec. Aerospace & Defense, <https://www.reuters.com/business/aerospace-defense/taiwan-says-china-can-blockade-its-key-harbours-warns-grave-threat-2021-11-09/>.

203 A case in point has been China's aggression against Hong Kong, to which the US reacted by imposing sanctions but still "exercising relative caution in implementing targeted sanctions". Jin Kai, "The Biden Administration's China Sanctions Dilemma," April 8, 2021, <https://thediplomat.com/2021/08/the-biden-administrations-china-sanctions-dilemma/>.

204 Mazarr, Cheravitch, et al., "What Deters and Why," 33.

205 Mazarr, Cheravitch, et al., 50.

206 Robert D. Williams, "What Did the US Accomplish with Its South China Sea Legal Statement?," *Brookings*, July 22, 2020, <https://www.brookings.edu/blog/order-from-chaos/2020/07/22/what-did-the-us-accomplish-with-its-south-china-sea-legal-statement/>.

207 Julie McCarthy, "4 Things To Know After The Philippines Kept Its Pact With The U.S. Military," *NPR*, June 8, 2021, sec. World, <https://www.npr.org/2021/08/06/1025287447/philippines-united-states-military-agreement-analysis>.

Taiwan faces significant difficulties in dealing with China's hybrid activities.

sion, the risk of escalation once again looms large. All in all, increasing Taiwan's resilience against China's hybrid activities is key. Integrating counter hybrid activities in wargames and exercises may be instrumental too in strengthening deterrence.

Criticality in the Asian Theater

Conventional

Avoiding armed conflict with China is paramount to Taiwan's national interests, as it is to the US. But the extent of US and its other Asia-Pacific allies' interests in defending Taiwan is contested. On the one hand, observers point out that Taiwan holds significant economic, strategic and political relevance to the US, due to its geographic location, position as fourth-largest trading partner of the US, and status as one of the freest democracies of the world.²⁰⁸ Its geographic location in the Western Pacific ensures that a reunification between Taiwan and mainland China would make it more difficult for the US to project power in the region.²⁰⁹ Arguably, yielding to Chinese aggression on such a pertinent matter after four decades of consistent Taiwan policy would constitute a huge blow to US' credibility in Asia and globally.²¹⁰ Conversely, given what is at stake in the case of escalation, Taiwan's territorial security may be insufficient to the US to merit a fully-fledged military commitment on its part, as some observers argue.²¹¹ It is also not clear whether other Asia-Pacific allies would want to become involved in a large-scale conflict with proximate China over Taiwan, even if Japan and Australia have signaled support for Taiwan. Further deepening the political and especially economic ties between the US and Taiwan may help bolster credibility to the US interests at stake, without directly provoking China.

Nuclear

Though there are multiple pathways to nuclear escalation in the Asia-Pacific, most scenarios are centered around Taiwan.²¹² Should China face a potential defeat in its invasion, it might see itself forced to resort to nuclear weapons due to the vital importance of Taiwan to China's leadership.²¹³ China could use nuclear weapons against Japan in case it intervened following a Chinese invasion of Taiwan. Similar to the European theater, the precariousness of extended nuclear deterrence is problematic. It is doubtful whether the US has sufficient critical interests at stake in the Asia-Pacific to warrant the usage of nuclear weapons. China's second-strike capabilities "could still inflict unacceptable damage on some US cities."²¹⁴ Therefore,

208 Chris Horton, "Taiwan's Status Is a Geopolitical Absurdity," *The Atlantic*, August 7, 2019, <https://www.theatlantic.com/international/archive/2019/07/taiwans-status-geopolitical-absurdity/593371/>; Mazarr, Beauchamp-Mustafaga, et al., "What Deters and Why," 55.

209 Cary Mittelmark, "Playing Chess with the Dragon: Chinese-U.S. Competition in the Era of Irregular Warfare," *Small Wars & Insurgencies* 32, no. 2 (February 17, 2021): 207, <https://doi.org/10.1080/09592318.2021.1870423>.

210 Lee, Lague, and Blanchard, "China Launches 'Gray-Zone' Warfare to Subdue Taiwan," December 10, 2020; Daniel R. Russel et al., "How Could the U.S. Deter Military Conflict in the Taiwan Strait?," *ChinaFile*, September 28, 2021, <https://www.chinafile.com/conversation/how-could-us-deter-military-conflict-taiwan-strait>.

211 "Why the US Will Abandon Island of Taiwan Eventually: Global Times Editorial - Global Times," *Global Times*, August 18, 2021, <https://www.globaltimes.cn/page/202108/1231877.shtml>; Porter and Mazarr, "Countering China's Adventurism over Taiwan," 16; Doug Bandow, "Should We Go to War for Taiwan?," *Cato Institute*, April 15, 2021, <https://www.cato.org/commentary/should-we-go-war-taiwan>.

212 Porter and Mazarr, "Countering China's Adventurism over Taiwan," 14.

213 Kyle Mizokami, "We Know China's Worst Nightmare: Arm Taiwan With Nuclear Weapons," *Text*, *The National Interest* (The Center for the National Interest, May 30, 2021), <https://nationalinterest.org/blog/reboot/we-know-chinas-worst-nightmare-arm-taiwan-nuclear-weapons-186536>.

214 Mike Sweeney, "Why a Taiwan Conflict Could Go Nuclear," *Defense Priorities*, March 2021, <https://www.defensepriorities.org/explainers/why-a-taiwan-conflict-could-go-nuclear>.

Taiwan's territorial security may be insufficient to the US to merit a fully-fledged military commitment on its part.

preventing an escalation to the nuclear level in the Asia-Pacific is also of critical importance to the US.

Hybrid

Regional states in the Asia-Pacific and the US have clear interests in countering China's hybrid activities, with the former obviously more directly affected. China might be more inclined to coerce Taiwan into submission through its hybrid activities rather than through an outright invasion of the island.²¹⁵ More broadly, for Japan as well as for all regional littoral states, countering China's ambiguity-centric strategies is imperative for maintaining their sovereignty and freedom of navigation.²¹⁶ The maritime territorial disputes in the East and South China Sea could also lead to an unintended escalation, making it a shared interest.²¹⁷ Maintaining credibility of US defense commitments and the US-led security architecture in the Western Pacific has been a central strategic goal of successive US administrations.²¹⁸ It can therefore be argued that the US too continues to have significant interests at stake in countering Chinese hybrid actions. Here too, the US and its regional allies can and should continue to articulate and emphasize that important interests are at stake in the Asia-Pacific due to China's hybrid activities.

Commitment in the Asian Theater

Conventional

The extent of the political commitment of the US relative to regional states is mixed. Taiwan is obviously strongly committed to its national security and sovereignty. US-Taiwan relations are based on the 1979 Taiwan Relations Act, which "enshrines the US commitment to assist Taiwan in maintaining its defensive capability", but does not include a mutual defense clause similar to Article 5.²¹⁹ The Biden administration continues the US tradition of strategic ambiguity.²²⁰ In a 2020 interview with Reuters, Admiral Lee Hsi-ming, who was commander of the Taiwanese military until 2019, even called into question the reliability of the US commitment to defend Taiwan.²²¹ Yet, President Biden spoke of the sacred commitment to Taiwan.²²² The Pacific Deterrence Initiative of the US adds to the credibility of its commitment. This \$27 billion

215 Glaser, The United States' strategic competition with China; Chang-Liao and Fang, "The Case for Maintaining Strategic Ambiguity in the Taiwan Strait"; Lee, Lague, and Blanchard, "China Launches 'Gray-Zone' Warfare to Subdue Taiwan," December 10, 2020.

216 Sakamoto Shigeki, "The Global South China Sea Issue," The Diplomat, April 7, 2021, <https://thediplomat.com/2021/07/the-global-south-china-sea-issue/>.

217 Shigeki; Krista E. Wiegand, "How Biden Should Handle the South China Sea Disputes," War on the Rocks, November 24, 2020, <http://warontherocks.com/2020/11/how-biden-should-handle-the-south-china-sea-disputes/>.

218 "Report on U.S.-China Competition in East, South China Sea" (US Congressional Research Service, October 9, 2021), <https://news.usni.org/2021/09/10/report-on-u-s-china-competition-in-east-south-china-sea-10>.

219 "U.S. Relations With Taiwan," United States Department of State, accessed August 22, 2021, <https://www.state.gov/u-s-relations-with-taiwan/>; Ted Galen Carpenter, "A Reborn U.S.-Taiwan Military Alliance?," Cato Institute, September 22, 2020, <https://www.cato.org/commentary/reborn-us-taiwan-military-alliance>.

220 Keoni Everington, "White House Says It Does Not Support Taiwan Independence," Taiwan News, accessed July 24, 2021, <https://www.taiwannews.com.tw/en/news/4242061>.

221 Yimou Lee, David Lague, and Ben Blanchard, "China Launches 'Gray-Zone' Warfare to Subdue Taiwan," Reuters, October 12, 2020, <https://www.reuters.com/investigates/special-report/hongkong-taiwan-military/>.

222 David Keegan, "Strengthening Dual Deterrence on Taiwan: The Key to US-China Strategic Stability • Stimson Center," Stimson Center, June 7, 2021, <https://www.stimson.org/2021/strengthening-dual-deterrence-on-taiwan-the-key-to-us-china-strategic-stability/>; Simon Lewis and Humeyra Pamuk, "Biden Administration Singles out China as 'biggest Geopolitical Test' for U.S.," Reuters, March 3, 2021, sec. Editor's Picks, <https://www.reuters.com/article/us-usa-china-blinken-idUSKBN2AV28C>.

The Pacific Deterrence Initiative of the US adds to the credibility of its commitment.

initiative is intended to “bolster deterrence” and maintain the competitive advantage of the US in the Asia-Pacific.²²³ Japan does not have any formal defense commitments to Taiwan, even though over the past year it has been establishing closer relations with Taiwan, especially in the security realm.²²⁴

Nuclear

The US’ nuclear security commitment to its Asia-Pacific allies is weaker than in the European theater, where it is institutionalized through NATO. Senior US officials have explicitly reaffirmed the US commitment to its nuclear umbrella to its allies, including in the Asia-Pacific.²²⁵ However, senior US officials of the Biden administration have yet to explicitly reiterate their commitment to the US nuclear umbrella in the Asia-Pacific.²²⁶ The extent of the US political commitment to its nuclear deterrence posture in the Asia-Pacific is relatively ambiguous in comparison to Europe, in particular for Taiwan, which cannot count on formal commitments, in contrast to Japan, with which the US has a formal agreement.²²⁷ Strengthening deterrence by denial capabilities of US allies will be helpful to sidestep the demand for nuclear retaliation.

Hybrid

The US has limited political commitment to counter hybrid aggressions in the Asia-Pacific. Hybrid threats are not explicitly mentioned in the bilateral defense treaties in place between the US, the Philippines and Japan.²²⁸ In July 2021, US Secretary of State Blinken reiterated US commitment to aid the Philippines if China attacks its aircraft or vessels.²²⁹ Similarly, in a meeting between the US Secretary of State and his Japanese counterpart in March 2021, Blinken stated that “we will push back, if necessary, when China uses coercion and aggression to get its way”.²³⁰ As there is no explicit commitment to Taiwan, hybrid threats are also not covered. Nevertheless, the Asia Reassurance Initiative Act of 2018 condemns China’s coercive actions in the South China Sea and pledges to support its allies in the Asia-Pacific against

223 Office of the Under Secretary of Defense, “Pacific Deterrence Initiative,” May 2021, https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2022/fy2022_Pacific_Deterrence_Initiative.pdf.

224 Eric Heginbotham and Richard J. Samuels, “Vulnerable US Alliances in Northeast Asia: The Nuclear Implications,” *The Washington Quarterly* 44, no. 1 (March 23, 2021): 161, <https://doi.org/10.1080/0163660X.2021.1894709>; Adam P. Liff, “Has Japan’s Policy toward the Taiwan Strait Changed?,” *Brookings* (blog), August 23, 2021, <https://www.brookings.edu/blog/order-from-chaos/2021/08/23/has-japans-policy-toward-the-taiwan-strait-changed/>.

225 David Vergun, “U.S. Nuclear Umbrella Extends to Allies, Partners, Defense Official Says,” U.S. Department of Defense, April 29, 2019, <https://www.defense.gov/News/News-Stories/Article/Article/1822953/us-nuclear-umbrella-extends-to-allies-partners-defense-official-says/>.

226 Amanda Macias, “U.S. Is Concerned about China’s Growing Nuclear Arsenal, Blinken Tells Southeast Asian Officials,” *CNBC*, June 8, 2021, <https://www.cnn.com/2021/08/06/america-is-concerned-about-chinas-growing-nuclear-arsenal-blinken-tells-officials.html>.

227 U.S. Department of State, “U.S. Security Cooperation With Japan.”

228 “Avalon Project - Mutual Defense Treaty Between the United States and the Republic of the Philippines,” August 30, 1951, https://avalon.law.yale.edu/20th_century/phil001.asp; Lindsay Maizland and Beina Xu, “The U.S.-Japan Security Alliance,” Council on Foreign Relations, August 22, 2019, <https://www.cfr.org/background/US-Japan-Security-Alliance>.

229 Secretary Blinken stated that “The United States reaffirms its July 13, 2020 policy regarding maritime claims in the South China Sea. We also reaffirm that an armed attack on Philippine armed forces, public vessels, or aircraft in the South China Sea would invoke US mutual defense commitments under Article IV of the 1951 US-Philippines Mutual Defense Treaty.” “Fifth Anniversary of the Arbitral Tribunal Ruling on the South China Sea,” *United States Department of State*, November 7, 2021, <https://www.state.gov/fifth-anniversary-of-the-arbitral-tribunal-ruling-on-the-south-china-sea/>.

230 Humeyra Pamuk, Kiyoshi Takenaka, and Ju-min Park, “Blinken Warns of China’s ‘increasingly Aggressive Actions’ against Taiwan,” *Reuters*, November 4, 2021, sec. China, <https://www.reuters.com/world/china/blinken-warns-chinas-increasingly-aggressive-actions-against-taiwan-2021-04-11/>.

The US’ nuclear security commitment to its Asia-Pacific allies is weaker than in the European theater.

these aggressions.²³¹ Similar to improving the US' conventional commitment, increasing cooperation with its Asia-Pacific allies could lend more credibility to its commitment in the hybrid realm. Integrating counter-hybrid elements, although clearly delineated, in the defense treaties might strengthen commitment, for instance, through the establishment of cyber response teams and/or funding non-governmental organizations (e.g., Bellingcat) to expose disinformation campaigns.

Cohesion in the Asian Theater

Conventional

The coherence in strategic outlook between regional states and the US is limited but has arguably become more cohesive. The US and Taiwan share a similar perception of China as being the main threat to regional security. Public opinion in Taiwan is also highly favorable to the US, and approximately 80% of Taiwan citizens support closer economic and political ties with the US.²³² On the other side of the Pacific, support among the American public—which used to be rather lukewarm about military involvement in case of an attack against Taiwan with only 35% of US citizens supporting involvement in 2019²³³—has grown, with over half of Americans now in favor of sending US troops to Taiwan in the event of an attack.²³⁴ Officials in both states still have reservations.²³⁵ In Japan, officials of the Ministry of Defense have become more vocal about formulating a clear-cut plan for such contingency despite the constitutional limitations on Japan's use of force.²³⁶ Porter and Mazarr, meanwhile, point out that most “U.S. allies and others in the region may prefer a United States that stood back from a fight over Taiwan to one that tried to drag them into it.”²³⁷ The key takeaway is that US allies regionally and globally broadly share the perception of the grave threat that China poses to Taiwan, but that differences exist in what constitutes the appropriate response. Reconciling those differences might be an important precondition to foster cohesion internationally, which in turn can be facilitated by more frequent and purposeful multilateral dialogues.

Nuclear

The US and its Asia-Pacific allies have a shared interest in maintaining nuclear stability in the region. The US does not consider China to be a nuclear adversary of the first order, giving this role to Russia in its NPR 2018.²³⁸ It would still be helpful for the US and its Asia-Pacific allies and China to establish a dialogue on the nuclear security structure in the region.

231 Cory Gardner, “S.2736 - 115th Congress (2017-2018): Asia Reassurance Initiative Act of 2018,” legislation, December 31, 2018, 2017/2018, <https://www.congress.gov/bill/115th-congress/senate-bill/2736>.

232 Kat Devling and Christine Huang, “How People in Taiwan View Mainland China and the U.S.,” Pew Research Center’s Global Attitudes Project, December 5, 2020, <https://www.pewresearch.org/global/2020/05/12/in-taiwan-views-of-mainland-china-mostly-negative/>.

233 John Xie, “Will US Make Clear-Cut Commitment to Defend Taiwan From China?,” August 21, 2020, <https://www.voanews.com/east-asia-pacific/voa-news-china/will-us-make-clear-cut-commitment-defend-taiwan-china>.

234 Craig Kafura Dina Smeltz, “For First Time, Half of Americans Favor Defending Taiwan If China Invades,” Research (The Chicago Council on Global Affairs, August 26, 2021), <https://www.thechicagocouncil.org/research/public-opinion-survey/first-time-half-americans-favor-defending-taiwan-if-china-invades>.

235 Lee, Lague, and Blanchard, “China Launches ‘Gray-Zone’ Warfare to Subdue Taiwan,” October 12, 2020.

236 Sheila A. Smith, “Japan Leans Forward on China–Taiwan Tensions,” East Asia Forum, May 9, 2021, <https://www.eastasiaforum.org/2021/09/05/japan-leans-forward-on-china-taiwan-tensions/>.

237 Porter and Mazarr, “Countering China’s Adventurism over Taiwan,” 7.

238 Michael S. Chase, “Chinese Views on the 2018 Nuclear Posture Review, and Their Implications,” Jamestown, December 3, 2018, <https://jamestown.org/program/chinese-views-on-2018-npr/>.

The US and Taiwan share a similar perception of China as being the main threat to regional security.

Hybrid

The US and the regional states lack cohesion over appropriate responses to Chinese hybrid threats.²³⁹ Though they share similar threat perceptions regarding China, their involvement in conflicts originating from gray zone clashes with China over the East or South China Sea is doubtful. After all, these countries are proximate to a China that is vastly more powerful than each state individually.²⁴⁰ Ford and Goldgeier argue that “the U.S. and its allies have been far from unified over issues such as political interference in Hong Kong and Taiwan, human rights abuses in Xinjiang, or militarization of the South China Sea.”²⁴¹ Diverging interests remain an obstacle to a cohesive approach toward China between US allies and the US.²⁴² Regionally, disunity also persists, with the Association of Southeast Asian Nations (ASEAN) being unable to find common ground on China’s activities in the South China Sea.²⁴³ Cohesion could be strengthened through the creation of channels and/or fora to articulate joint positions. It might also be desirable to more clearly articulate norms and rules on how to deal with China’s hybrid activities.

Summary: Strengths, Weaknesses, and Avenues to Strengthen Deterrence

The state of deterrence in the Asian theater and potential avenues to strengthen deterrence are summarized in Table 3 on the next page.

239 Chang-Liao and Fang, “The Case for Maintaining Strategic Ambiguity in the Taiwan Strait,” 52.

240 Doug Bandow, “Are the Senkaku Islands Worth War between China, Japan and America?,” Cato Institute, December 2, 2017, <https://www.cato.org/commentary/are-senkaku-islands-worth-war-between-china-japan-america>.

241 Lindsey W. Ford and James Goldgeier, “Retooling America’s Alliances to Manage the China Challenge,” Brookings, January 25, 2021, <https://www.brookings.edu/research/retooling-americas-alliances-to-manage-the-china-challenge/>.

242 Cecile Pelaudeix, “The Rise of China and EU Vulnerability,” *SSRN Electronic Journal*, July 2021, <https://doi.org/10.2139/ssrn.3895105>. The rise of China is increasingly affecting the global balance of power. Keohane and Nye’s classic work on interdependence explain that asymmetrical interdependence is an important source of power. Yet China’s exercise of power affects the EU in a more complex manner than the US. Even if it is an integrated political system, the EU has specific features that can exhibit distinct vulnerabilities. This article substantiates how China uses three types of power (compulsory, institutional and ideational).

243 Manuel Mogato, Michael Martina, and Ben Blanchard, “ASEAN Deadlocked on South China Sea, Cambodia Blocks Statement,” *Reuters*, July 25, 2016, sec. Emerging Markets, <https://www.reuters.com/article/us-southchinasea-ruling-asean-idUSKCN1050F6>.

EAST ASIA		Overall assessment	Recommendations for strengthening deterrence
Clarity	Conventional	+ Clear communication from Taiwan +- US' strategic ambiguity underlying dual deterrence has strengths (prevents moral hazard and avoids moral hazard) and weaknesses (could be misinterpreted)	Signal greater commitment without abandoning strategic ambiguity through intensified political and economic cooperation.
	Nuclear	+- The US specifies that it will resort to nuclear weapons only under "extreme circumstances" - NPR 2018 elicited strong unintended response from China - Increasingly complex security environment further obfuscates signaling	Develop strategic dialogue about strategic stability with China.
	Hybrid	+ Clear communication from Taiwan and Japan + The US increasingly articulates what it considers to be thresholds for China's hybrid activities	Create and communicate clearer escalation ladders.
Capabilities	Conventional	- Taiwan's military is significantly outclassed by China's military - The US also does not have the capabilities in place to deny a Chinese <i>fait accompli</i> against Taiwan - Distance and China's A2/AD capabilities make it difficult for the US to send timely reinforcements without incurring heavy costs	Ensure that US can send timely reinforcements or has sufficient capabilities in place to deny a <i>fait accompli</i> . Begin planning for allied contributions (JP, AUS) in case of a conflict scenario over TW.
	Nuclear	+ The US has the clear upper hand in nuclear capabilities, quantitatively and qualitatively - China's cyber and space capabilities could cause (in)advertent escalation	Create norms and rules to limit inadvertent escalation risk.
	Hybrid	+ US and allies have significant hybrid capabilities to retaliate against China's hybrid activities - US and allies options are limited due to interests and proportionality issues in cross-domain deterrence - Resilience among US Asia-Pacific allies needs to be improved	Enhance resilience against China's hybrid activities. Design proportional responses to China's hybrid activities. Include counterhybrid operations in wargames and exercises.
Criticality	Conventional	+ Clear critical interests of Taiwan at stake + Taiwan has economic, strategic, and political relevance to the US - Uncertainty about whether stakes for the US are sufficient to warrant large-scale war with China	Deepen political and economic ties between US and Taiwan.
	Nuclear	+ Clear interest in deterring nuclear attack for each US ally in the Asia-Pacific, even though not shared equally - Extended deterrence is always precarious	Deepen political and economic ties between US and Taiwan.
	Hybrid	+ Countering China's salami-slicing strategies is seen as important by US and US allies in the region to safeguard their sovereignty and security and ensure freedom of navigation, + Countering China's hybrid activities essential to uphold credibility of the US as security guarantor in the region	Keep articulating detrimental effects of hybrid campaigns.
Commitment	Conventional	+ The US is singling out China as primary competitor, Biden administration is doubling down on confronting China - The US does not (nor do other states) have formal defense commitments to Taiwan, continues policy of strategic ambiguity - Taiwanese senior officials doubt reliability of US commitment to defend Taiwan	Increase cooperation in the region to lend credibility to commitment.
	Nuclear	+- Formal US commitment to Japan via defense treaty, not to Taiwan +- Biden's articulated preference of Sole Purpose - Precarious nature of extended nuclear deterrence	Seek other ways, including deterrence by denial, to strengthen commitment.
	Hybrid	+ Asia Reassurance Initiative Act pledges support against Chinese aggression in the South China Sea - No clear commitment to aid Taiwan in this sphere - Hybrid threats are not explicitly mentioned in defense treaties	Integrate red lines and responses to hybrid threats in defense treaties.
Cohesion	Conventional	+ The US and allies share perceptions of China being the main threat in the region - No regional consensus on how to respond to Chinese invasion of Taiwan	Strengthen ties and intensify dialogue between US and its allies as well as amongst themselves.
	Nuclear	+ The US and its Asia-Pacific allies have shared interests in deterring China's nuclear aggression - US regional allies have doubts about US commitment to their security	Intensify dialogue on nuclear security structure in the Asia-Pacific.
	Hybrid	- Doubts whether US allies in the region would aid in case of US-China clash over East or South China Sea incident - Diverging interests between US and allies regarding China on a regional and global level	Design norms and rules for the road to prevent inadvertent escalation. Create regional fora to discuss joint positions.

Table 3. The state of deterrence in the East Asian theater: strengths, weaknesses, recommendation

Conclusions & Recommendations

By breaking down the deterrence problems in both the European and the Asian theater according to the 5Cs of *clarity*, *capabilities*, *criticality*, *commitment*, and *cohesion*, we can disentangle the challenges and point to possible solutions. The variations in strengths and weaknesses point to the need for an integrated approach, however faddish the term might be. In this concluding section, we summarize the key findings and identify suggestions to go forward.

The European Theater

In Europe, NATO's most evident weaknesses lie in its *capabilities* and *cohesion*. Particularly worrisome is the local imbalance in conventional capabilities in the Baltics – distinct from the theater-wide and alliance-wide balance of capabilities. Russia utilizes influence operations to undermine and exploit differences within the Alliance, and potentially leverage its conventional preponderance in the Baltics. Russia's apparent willingness to threaten the use of low-yield tactical nuclear weapons within its multi-domain approach is not yet matched with an integrated deterrent approach on the part of NATO. This is even more problematic in light of the US having abandoned its two-war theater strategy. In case of a contingency in the Pacific, NATO Europe is ill-equipped to deal with Russia by itself. NATO should therefore strengthen its conventional deterrence pillar, specifically by investing in deterrence by denial capabilities. This involves replenishing stocks and ammunitions, boosting military readiness, increasing military mobility, and addressing critical capability shortfalls in A2/AD (e.g., stand-off munitions), counter A2/AD (e.g., suppression of enemy's air defenses), electromagnetic warfare, and modernized Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) assets to prevail in modern conflict. It also merits consideration to revisit the Conventional Forces in Europe Treaty and get Russia either to agree to a package of de-escalatory measures or alternatively to decide on the forward deployment of more substantial numbers of the Alliance's land forces. This would not only reduce the dependency on reinforcement and the risks posed by A2/AD but would also prevent greater reliance on nuclear weapons.

Cohesion within NATO is under pressure not just by diverging perceptions about the nature of the threat but also by varying levels of public support for robust responses. If the incremental nature of hybrid activities may have led to underappreciation of the threat they pose, it is especially recognition of their close-knit integration within Russia's overall strategy of cross-domain coercion (and its conventional and nuclear tenets) that is lacking. The Alliance's *commitment* falls particularly short in the hybrid realm, partly due to unclear specifications of when to invoke Article 5. By and large, NATO only adequately *communicates* its commitment to respond to Russia's aggression in the conventional realm, leaving the nuclear and hybrid realms more ambiguous (though deliberately so in the case of the former). The principal shortcoming in the nuclear realm arises from the inherently doubtful credibility of extended nuclear

In case of a contingency in the Pacific, NATO Europe is ill-equipped to deal with Russia by itself.

deterrence. This cannot be remedied in itself, other than by strengthening the conventional pillar of deterrence. Inter-alliance *cohesion* as such is the outcome of democratic decision-making process but will be facilitated by an intra-Alliance dialogue and through support for Track 1 and 2 dialogues within the Alliance.

Finally, it is important to note that NATO's overall deterrence posture will ultimately benefit from the development and adoption of a warfighting concept that stipulates what combination of ways and means will effectuate military victory,²⁴⁴ parallel to a strategic concept that identifies the parameters of success.²⁴⁵ That concept might well be multi-domain operations that currently resonates in many planning quarters, although a much more refined one that more clearly spells out the defeat mechanisms. This needs to be matched by a parallel effort to more systematically think through the organizational and warfighting requirements that go beyond the hardware.²⁴⁶

Strengthening NATO's deterrence posture, therefore, necessitates an integrated approach. Constrained by a lack of political will to spend on defense and internal disagreements, the Alliance should clearly identify which capabilities in which domains provide the most bang for their buck. Our findings suggest that a combination of improved firepower, readiness, and military mobility, enhanced resilience of NATO members to Russia's hybrid activities, stronger direct punishment capabilities in this realm, and the intensification of intra-alliance dialogues should be priority areas. European NATO member states, in particular, should invest in conventional deterrence by denial capabilities to close the tactical-nuclear gap and to prevent the renuclearization of European security, which will be helped along by the development of intellectually mature warfighting concepts to guide and align alliance efforts.

In Asia, the risks are primarily, although not exclusively, located in the conventional domain.

The Asian Theater

In East Asia, the risks are primarily, although not exclusively, located in the conventional domain. The differences between formal and informal allies in the region parallel the extent of the conventional challenge. Intervening on behalf of Taiwan would be difficult and costly given China's A2/AD *capabilities*, which include but are not limited to its cyber and space capabilities, and pose a concern that needs to be addressed. China's hybrid activities in the East and South China Sea are a second major concern, as these gradually shift the context within which the US and regional states can operate. Due to these dual conventional and hybrid capabilities on the part of China, *commitment* and *cohesion* within the region are weakened with little regional consensus on how to respond to Chinese aggression towards Taiwan or to China's activities in the South China Sea. The US has also pursued strategic ambiguity towards Taiwan for decades, *communicating* no clear red lines. There is no doubt that the US has important interests involved in preventing a Chinese takeover of Taiwan. It is, however, far from certain whether in the eyes of US decision-makers these interests warrant going to full-fledged war with a rising superpower close to its mainland over an island that is 6,000 miles away from the US itself.

244 Carlina Grispen, a PhD student of one of the authors (Tim Sweijs), is working on a dissertation that examines the conditions that facilitate the successful adoption of joint warfighting concepts by military organizations.

245 Jens Ringsmose and Sten Rynning, "NATO's Next Strategic Concept: Prioritise or Perish," *Survival* 63, no. 5 (March 9, 2021): 147–68, <https://doi.org/10.1080/00396338.2021.1982203>.

246 Frank Hoffman, "Defeat Mechanisms in Modern Warfare," *Parameters* 51, no. 4 (November 17, 2021): 59.

When it comes to Japan and other US treaty allies in the region, however, the situation is less grim. It would not be impossible, but very costly for China to dislodge the US from the region or change the territorial status quo in fundamental ways. The primary threat from China in the current context is to raise the costs of US intervention on behalf of its allies. China can exploit the ambiguity of the maritime status quo and attempt to goad one of the regional states or the US into overplaying their hand. Moreover, like in Europe, regional allies face the difficulty of relying on a distant protector with multiple obligations.

Remedying these deficiencies in the Asian theater requires an integrated approach that focuses on strengthening the ability of regional states to defend themselves against conventional attacks by using integrated air and missile defense, stand-off weapons, sea mines, and other capabilities focused on raising the costs of access. The maritime context of much of the theater would force Chinese forces through relatively constrained spaces where they would be vulnerable. Such an asymmetric, denial-centric approach would ensure time and cover for US reinforcements through the sealines of communication, while at the same time minimizing the malign influence of China's hybrid activities. This could put a hold on China's expansion without risking an escalation nor necessitating exorbitant military expenditures. Building a coherent counter-hybrid policy among regional states also diminishes the chances that any regional state or the US can be provoked into overreaction on China's terms. Concretely, the US needs to deepen its economic and political ties with its allies in the Asia-Pacific while intensifying inter-alliance dialogues to heighten the criticality of the issue. An increased presence in the region would also help signal criticality, although such a presence would need to consist of multiple smaller forward-deployed military units dispersed over a wider area, to not play into China's strengths regarding stand-off weapons. Together, these two policy courses would improve the credibility of US commitment, and send a stronger signal through intensified cooperation without abandoning strategic ambiguity.

Russia might achieve a *fait accompli* which it could then exploit through nuclear threats and its A2/AD capabilities.

Comparison Between the Two Theaters

The challenges that the US and its allies encounter in the European and Asia-Pacific theater are similar. In both theaters, while arguably at a regional and certainly at a global disadvantage, Russia and China can exploit local imbalances in capabilities against the Baltic states and Taiwan specifically. Given the land-based context in Europe, Russia might achieve a *fait accompli* which it could then exploit through nuclear threats and its A2/AD capabilities. A *fait accompli* would be very difficult in the Taiwan scenario due to the difficulties of amphibious operations and the narrow battlespace that China's forces would or could be forced through. However, China could provoke the US to respond and then make a US intervention costly and slow through its A2/AD capabilities. Limited numbers of pre-positioned forces, limited military mobility, and the geographic distance between the US and the potential theater of war act as serious constraints. Russia and China's hybrid activities are arguably underappreciated. Both states could accomplish a great deal of groundwork by dividing and slowing down responses by regional states and the US.

There is no silver bullet to these shortfalls in either theater. Solely focusing on improving military mobility and improving access to the theater of war, or simply upping military expenditures might not only be financially unsustainable but possibly counterproductive, unless they are targeted at solving specific conventional military problems. It can heighten the risk of escalation, encourage adversaries to increasingly resort to hybrid aggressions, and aggravate disunity within the existing alliance structures over responsibilities and interests.

Therefore, in both cases, the deterrence postures can only be strengthened by addressing their shortfalls in a coherent and integrated manner. Cohesion, commitment, and criticality need to be improved upon by strengthening inter-alliance dialogues and deepening the economic and political ties between the US and its allies. This needs to be accompanied by more clearly outlined and communicated red lines and consequences, particularly within the hybrid domain. At the same time, conventional capabilities need to be developed to respond proportionally to conventional acts of aggression, focused on strengthening deterrence by denial postures.

Nevertheless, some differences between the two theaters persist. The Russian nuclear threat is more grave than the Chinese one due to its assertive doctrine and flexible deployment strategy, and, while Russia is weaker than China, it arguably also has less to lose. The uncertainty over the placement of US nuclear weapons on allied territory in Europe makes this a weakness that Russia could further exploit. In the Asian theater, US commitment and interests are less evident than on the European continent, as is the cohesion between regional states. Moreover, China still has better hand of cards for the long-term than Russia. As such, from a US perspective, focusing on fostering political and economic ties with its regional allies should even have a higher priority in the Asia-Pacific than in Europe.

In closing, the analysis presented in this paper about responses to Russia and China might seem provocatively blunt. Yet, an uncomfortable peace through deterrence is vastly preferable to war in an era when military competition between major powers has resurfaced with ever more destructive weapons that can destroy our armed forces, our infrastructure, our economies, and even our very societies. Let us work together to make sure that does not happen.

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