STRATEGIC ASSESSMENT 2020

Into a New Era of Great Power Competition

Edited by Thomas F. Lynch III

Institute for National Strategic Studies
National Defense University

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Foreword

In retrospect, it seems clear that the new era of Great Power competition that is the subject of the chapters in this volume began to take shape almost as soon as the last era had drawn to a close. With the collapse of the Soviet Union and the sudden end of the Cold War, the United States found itself in a position of unchallenged (and seemingly unchallengeable) global preponderance. Surveying the scene in the early 1990s, American policymakers quickly decided to put aside their previous grand strategy of containment in favor of what the George H.W. Bush administration initially described as "collective near-term engagement" aimed at the global "promotion of peace and democracy," and what William Clinton administration national security adviser Anthony Lake subsequently labeled a policy of "engagement and enlargement."[1] Henceforth, Lake declared, the goal of U.S. policy would be to encourage the spread of "democracy and market economics" to places where these had not yet taken firm root, most notably across the vast expanse of Eurasia, an area that included China, Russia, the newly independent nations of the former Soviet Union, and the former members of its erstwhile empire in Eastern and Central Europe.[2]

What Lake and his colleagues had in mind was nothing less than the fulfilment of Woodrow Wilson's vision for an all-encompassing liberal world order, an international system made up of states bound together by free trade, international rules and institutions, and a shared commitment to the principles of democratic governance and universal human rights. This was the third time in the course of the 20th century that American policymakers had sought to remake the world along liberal lines. Wilson's first attempt, at the close of World War I, had ended in failure. Twenty-five years later his successors would try again, only to find their path blocked by the descent of the Iron Curtain and the start of the Cold War. In place of a truly global liberal order, in the wake of World War II, U.S. policymakers had to settle for a partial, geographically limited subsystem that ultimately came to include the advanced industrial democracies of Western Europe, East Asia, and the Western Hemisphere. Despite its constrained scope, this collection of nations (often referred to loosely and somewhat inaccurately as the "West") proved to be enormously successful in generating both wealth and power. Over a 40-year period of intense and sometimes dangerous rivalry, its members were able to out innovate, outproduce, and ultimately outlast their Communist competitors.

With the Cold War over, American policymakers hoped, in effect, to extend the boundaries of the Western system, expanding a partial order operating on liberal principles to encompass the entire globe, including nations that had previously chosen to remain outside its limits. Over the course of the 1990s, the United States and its European allies were able to induce the smaller and weaker nations of the former Soviet empire to reshape their economic and political systems along liberal lines by making reform a requirement for full

membership in the Western system. Lacking equivalent leverage with Russia and China, the democracies chose to take the opposite tack: incorporating these major powers as fully as possible into existing institutions (and, in particular, into the international economy) in the hopes that doing so would, in itself, promote liberalizing reforms. It is the failure of this approach, evidence of which has been accumulating for at least the past decade, that set the stage for the new era of Great Power competition.

Traveling by different routes, in the 30 years since the end of the Cold War, Russia and China have ended up in broadly similar positions. The regimes that govern these two powers have managed to integrate into the global economy, enjoying the benefits of international trade and investment without evolving into true market-based economies or surrendering their grip on domestic political power. Indeed, to the contrary, since the turn of the century both the Russian and Chinese states have become more repressive and more militantly nationalistic, tightening their grip over society and the economy at home, while engaging in increasingly aggressive behavior on the international stage.

Vladimir Putin's Russia and Xi Jinping's China are driven by a mix of resentment, insecurity, and ambition.[3] Both seek redress for what they regard as past wrongs and humiliations; both feel themselves threatened by the physical proximity of the United States and its democratic allies and by the persistence of an international system built on principles that challenge the legitimacy of their own illiberal regimes. Albeit to varying degrees, both Russia and China are revisionist powers; each aims to alter the status quo in its immediate neighborhood, pushing back what Chinese propagandists describe as "hostile foreign forces" and establishing a zone of effective control along its periphery. As its strength and self-confidence have grown, Beijing has also begun to reveal broader ambitions. In ways that are not yet fully specified, it intends, in Xi's words, to "move closer to the center of the world stage," reshaping existing international rules, norms, and institutions to better reflect its power and serve its interests.[4]

As the authors of several of the chapters in this volume point out, in terms of their relative national power China and Russia appear to be following very different trajectories. In the long run, the former will likely be able to mount a far more serious challenge to the United States and its allies than the latter. Notwithstanding this divergence, there are still some notable similarities in the tactics and techniques that the two nations are currently employing in pursuit of their objectives. Both are using surveillance, censorship, and nationalist propaganda to harden their societies against what they see as the deadly subversive threat of liberal ideas and influences. Both have developed forces and concepts of operation suitable for ambiguous, low-level aggression in the geographic and strategic "gray zone." And both are strengthening their cyber warfare, antisatellite, nuclear, and conventional antiaccess/area-denial capabilities in hopes of deterring the United States from intervening in future large-scale conflicts along their peripheries.

Developments in communications technology, and the vestiges of the failed policies of "enlargement" and "engagement," have left the economies, societies, and political systems of the Western nations open to penetration and manipulation, vulnerabilities that their authoritarian rivals have been quick to discover and exploit. Thanks to the lingering aftereffects of the 2008 financial crisis and now the COVID-19 pandemic, the democracies are also weaker and more divided at present than they were throughout most of the Cold War.

For these reasons, at least in its opening stages, the new era of Great Power competition could prove to be even more challenging than the one that preceded it. Success will require creative and wide-ranging thinking of the sort that the Institute for National Strategic Studies was designed to promote, and which the following pages contain.

—**Aaron L. Friedberg**
Princeton University
July 2020

Notes

[1] For a review of the post–Cold War evolution of U.S. grand strategy, see the series of National Security Strategy documents published between August 1991 and July 1994, available at <https://history.defense.gov/Portals/70/Documents/nss/nss1991.pdf?ver=2014-06-25-121158-580>; <https://history.defense.gov/Portals/70/Documents/nss/nss1991.pdf?ver=2014-06-25-121158-580>; <https://history.defense.gov/Portals/70/Documents/nss/nss1993.pdf?ver=2014-06-25-121210-297>; and <https://history.defense.gov/Portals/70/Documents/nss/nss1994.pdf?ver=2014-06-25-121219-500>.

[2] See Anthony Lake, "From Containment to Enlargement," Johns Hopkins University, School of Advanced International Studies, September 21, 1993, available at <https://www.mtholyoke.edu/acad/intrel/lakedoc.html>.

[3] This section draws on the analysis in Aaron L. Friedberg, *The Authoritarian Challenge: China, Russia and the Threat to the Liberal International Order* (Tokyo: Sasakawa Peace Foundation, 2017), available at <https://www.spf.org/_jpus-j_media/img/investigation/The_Authoritarian_Challenge.pdf>.

[4] Simon Denyer, "Move over, America. China Is 'Blazing a New Trail' for the World," *Washington Post*, October 19, 2017. For more on what China's leaders may have in mind, see Nadège Rolland, *China's Vision for a New World Order*, NBR Special Report #83 (Seattle: National Bureau of Asian Research, January 2020), available at <https://www.nbr.org/wp-content/uploads/pdfs/publications/sr83_chinasvision_jan2020.pdf>.

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Major Findings on Contemporary Great Power Competition

This strategic assessment is both firmly focused on the dynamics of contemporary Great Power competition (GPC) and respectful of past strategic assessments generated by the Institute for National Strategic Studies (INSS) over the course of almost 40 years. As an homage to the format of several historical INSS strategic assessments, this one begins with a summary of major findings within the current volume.

The chapters that follow provide multiple insights and analytical conclusions about contemporary GPC. This prelude provides many of the most significant and substantive findings and conclusions found within them. The findings are provided with an explicit reference to the book chapters where they are found. Readers are encouraged to consult the referenced chapters for deeper analysis and insight into these major research conclusions about, and considerations for, a new era of GPC.

Before perusing these major findings, readers may be entertained by three key findings extracted from the INSS *Strategic Assessment 1998: Engaging Power for Peace*. These findings underscore the degree to which the world of a mere 20 years ago was breathtakingly different from the one today featuring an emerging new era of GPC:

- The United States now enjoys a secure and promising position in the world. . . . The other most successful nations are its closest friends; its few enemies are comparatively weak, isolated, and swimming against the current of . . . globalization [which] is both integrating and extending the core of free-market democracies, thus favoring U.S. interests and winning converts to the norms of state behavior.
- Great uncertainties still exist: the future of China and other large transition states. . . . Because of its capabilities, the United States has considerable influence, and a crucial stake, in how these uncertainties are resolved.
- In the best plausible case, an expanded core or commonwealth of peaceful democracies could encompass most of the planet—with U.S. partners shouldering an increased share of the burden of defending common interests and norms. China would reform and integrate into the core. . . . In the worst case, U.S. friends could be free riders instead of responsible partners, China's reforms would founder . . . leaving the United States superior but beleaguered.[1]

The major findings from *Strategic Assessment 2020: Into a New Era of Great Power Competition* follow:

- A Great Power displays three conspicuous attributes: *capabilities*, *behavior*, and *status attribution* by other states in the international system. It has unusual capabilities in comparison with other states. It uses those unusual capabilities to pursue broad foreign policy interests beyond its immediate neighborhood. It is perceived by other states as powerful, having influence, and is thus treated accordingly. In the dawning era of new GPC, the United States, China, and Russia fit this description (chapter 1).
- Competition is not synonymous with conflict; competition exists on a continuum of interactions between and among states. On one end of the spectrum is cooperation, and on the other is direct armed conflict. In between, states compete in varying states of collaboration and confrontation. They edge toward cooperation and collaboration when geopolitical goals are aligned. They drift toward confrontation and armed conflict when main geopolitical aims are perceived as divergent and mutually unattainable (chapter 1).
- Power has absolute, relative, and transitional properties. State power exists in two major dimensions: hard power (or the *coercive* use of military power and leveraging economic power as a *payoff*) and soft power (which includes cooperative and collaborative interactions that attain influence by *attraction*: cooperative economic arrangements, ideological appeal, cultural and social engagements, diplomatic acumen, and reciprocal information exchanges). *Smart power* is sometimes today used to describe policy choices that effectively mix coercive hard power and the attractive features of soft power. *Sharp power* has become a vogue phrase to describe state actions that twist soft power attributes in a manipulative or confrontational manner to undermine or severely distort the political system or social order of a competitor state (chapter 1).

Part I. Conceptualizing the New Era of Great Power Competition

- All states, especially Great Powers, compete to gain relative advantage in the classic objectives of power, prosperity, status, and influence. More critically, Great Powers contend for these relative advantages in five distinct categories of interaction: political and diplomatic, ideological, informational, military, and economic. States apply power capabilities (for example, foreign policy tools) in these categories. Effective state use of power capabilities establishes the degree to which they attain relative influence and secure strategic advantage. A complete analysis of GPC status requires a review of the comparative aims and relative power capabilities of each Great Power in these five competitive categories (chapter 2).
- As Great Powers compete, these particular states inevitably confront the dilemma of transition in relative power status. Great Power transition challenges rising states with the dilemma of how to assert their relative power gains without provoking outright clash with the dominant state(s). Transition also confronts the dominant but relatively declining state with a vexing choice of how to accommodate its rising challenger(s) in a manner that avoids both destructive military clash and an unacceptable change in its preferred status quo (chapter 2).

- Great Power transitions play out over decades or centuries, not years. Three-quarters of Great Power transitions since 1500 have culminated with—or featured during—a destructive period of direct violent clash. The inevitability of war between Great Powers during times of transition is not foreordained; Great Powers may channel or expend their worst animus in nonviolent categories of competition: politico-diplomatic, economic, ideological, and informational (chapter 2).
- Once a Great Power competition is under way, the most reliable indicator of when a war will erupt is when one or both sides recognizes a shift in the relative alignment of economic and military power that is perceived as immutable and untenable. As states view the relative power alignment moving decisively against them, they are much more inclined to risk a preemptive conflict than when they perceive a stable power status quo (chapter 2).
- Although incompatible ideologies and caustic informational exchanges about a Great Power rival's people are not a lone determinant of when Great Power rivalry will devolve into direct violent clash, they are strong yet lagging indicators of insurmountable contentiousness. Great Power leaders should appreciate the degree to which blanket invective of a rival's entire population differs from criticism of a competitor's political leadership. The latter, circumspect approach to official criticism—a feature of the peacefully resolved dyadic competitions between Great Britain and the United States and later the United States and the Soviet Union—was correlated with avoidance of war between those Great Power competitors (chapter 2).
- During power transition periods, Great Power competitors may not perceive their own various forms of power accurately. Too often, misperceptions of relative power, rather than detailed and empirical assessments of power, inform and then drive policymakers. Even when accurate assessments of relative decline or vulnerability are made, domestic or bureaucratic interests may retard agile adaptation necessary to mitigate risks. Thus, success in GPC requires extraordinary political leadership in both international statecraft and in generating domestic renewal and adaptation (chapter 2).
- During periods of dynamic technological change, the likelihood of strategic surprise or operational obsolescence is greater in the military dimension of GPC. States may overestimate or underestimate the potential combat power of new innovations, whether they are technological or conceptual. The dawning era of GPC is in just such an era—one featuring a fourth industrial revolution. The convergence of new technologies, including artificial intelligence, quantum computing, robotics, 3D printing, nanotechnology, biotechnology, energy storage, and autonomous vehicles, among other breakthroughs, increases the risks of strategic surprise (chapters 2, 4).
- The United States enters the emerging era of GPC as the dominant of the three rivals. Its preferred norms, rules, and institutions for interstate interactions today set the patterns for all major categories of global activity. The emerging strategic aims of China and Russia are incompatible with those established by United States, and this conflict has produced the return of a historically dominant pattern of GPC in the international system. But the strategic challenges posed by China and Russia diverge significantly, portending a long-term Sino-American strategic competition,

while the U.S.-Russian rivalry is more likely to be a more regional set of contestations (chapter 3a).

- China is the most important—albeit presently less threatening—Great Power challenger to American power and policy interests. China is the lone contemporary rising Great Power with the combination of a positivist strategic vision for the future and the ambition to push for changes in the international system on near- and long-term bases. Moreover, gross power indicators in 2020, and projections for the next 5 to 10 years, clearly indicate that China is the Great Power best poised to displace America from its long-dominant position. While a net power comparison between the United States and China indicates that their power transition timelines are longer than some now fear, the Sino-American competitive dyad is likely to be the dominant Great Power rivalry into the future (chapters 3a, 3b).
- Vladimir Putin's Russia is an urgent but transient security risk for the United States and China, with the potential to do enormous military damage to the world if miscalculation leads to military clash. But Russia is a Great Power competitor without any positivist, global strategy or discernable norms, institutions, and procedures for establishing an alternative international order. Instead, it practices a reactive, disruptive strategy aimed to pacify its immediate borders and question contemporary institutions and processes it perceives as a threat. Putin's Russia has generated limited power factors that align well with the short-term, geographically limited strategy it is pursuing, thus making its long-term status as a Great Power questionable (chapters 3a, 3b).
- China and Russia may continue a tactical entente over the coming 5 to 10 years, working together on common near-term strategic interests to erode U.S. power, frustrate U.S. actions, challenge U.S.-dominated institutions, and question U.S.-underwritten norms and rules these states deem threatening. However, divergent long-term Sino-Russian strategic interests make it unlikely they will form a long-term alliance. The United States should remain careful not to misunderstand tactical coordination between Beijing and Moscow that balances U.S. power as evidence of some deeper strategic cooperation (chapter 3a).
- All three contemporary Great Powers are dissatisfied with some aspects of international order and are growing less willing to make compromises and sacrifices to keep the order working. Thus, there is heightened potential for Great Power rivalry to reduce the effectiveness of global institutions in managing complex regional and global problems. The absence of Great Power cooperation to confront the 2019–2020 novel coronavirus (COVID-19) pandemic was symptomatic of this breakdown (chapter 3a).
- Over the next 5 to 10 years, U.S. economic and strategic interests in the Indo-Pacific region and in Eastern Europe most conflict with Chinese and Russian regional interests. Thus, the competition will be fiercest, and risks of misperception and violent confrontation greatest, there (chapter 3a).
- Space and cyberspace are interrelated contested domains where GPC is increasingly on display, and inclining toward direct confrontation and clash. These relatively unregulated areas also present an opportunity for Great Power dialogue and a

chance to craft norms and rules emphasizing greater deconfliction of interests and reduction in the risks from unbridled competition (chapter 3a).

- The United States, China, and Russia face major internal structural, economic, and demographic challenges. Political leadership's decisions in each state about how to address these internal dynamics as well as international challenges will determine the future power each will possess and the future policy options each might pursue. Russia appears most likely to confront these challenges first, then China, and then the United States, although national leadership choices will greatly impact timing (chapter 3b).
- The crucible of emerging technologies that make up the fourth industrial revolution is today changing the manner in which products have been made, distributed, and used internationally over the past 40 years. The fourth industrial revolution is fueling deglobalization by eroding many aspects of global markets and supply chains, most notably moving product manufacturing closer to natural markets. This movement will mean less global economic integration and greater supply chain regionalization (and even localization) as the world moves into this era of GPC (chapter 4).
- The United States has distinct advantages over both China and Russia as the fourth industrial revolution begins to reshape the world. The one key American weakness is the gridlock in our current political systems. Failure to adjust American laws and regulations to fourth industrial revolution realties risks squandering nascent American advantages in higher education, innate innovation, entrepreneurial spirit, and the largest natural market in the world (chapter 4).
- China also could benefit greatly from the fourth industrial revolution. It is heavily subsidizing priority high-technology manufacturing sectors as part of its Made in China 2025 plan. Simultaneously, it is shifting its economy from export-based growth to domestic consumption as an economic engine. However, China must also deal with a looming dramatic reduction in labor demand and associated unemployment caused by the fourth industrial revolution while addressing the social and economic impact from a rapidly aging and less productive work force. The Chinese Communist Party (CCP) must find a way to manage these challenges to continue its decades-long economic rise into the era of GPC (chapter 4).
- Russia, in contrast, is not well positioned for the fourth industrial revolution. It suffers from a combination of low investor confidence, a poor innovative culture, a low-quality workforce and education system, and a rapidly aging population. As a kleptocracy, Putin's Russia does a poor job in allocating capital to the industries and properties most likely to benefit from the convergence of critical fourth industrial revolution technologies. These multifaceted economic challenges reinforce the tenuous position of Russia as a durable Great Power (chapter 4).

Part II. Warfighting, Innovation, and Technology in a New Era of Great Power Competition

- The technologies of the fourth industrial revolution will not change the fundamental nature of war or bring clarity about its imminence or brevity to its conduct. War will remain the domain of fog, friction, and uncertainty. Each society will use emerging technologies in unique ways that are best suited to it, and any conflict will evolve based on the reciprocal and dynamic interaction of all societies involved (chapter 5).
- The fourth industrial revolution is reducing the price of precision and advanced manufacturing, creating a new generation of smaller, smarter, and cheaper weapons. Yet the United States, China, and Russia continue to pursue exquisite, high-end systems such as fifth-generation fighters, heavy bombers, and aircraft carriers. As manufacturing continues to rapidly change in the era of GPC, a key question appears: Which nation can most rapidly and effectively adapt to this revolution (chapter 5)?
- In the conventional military arena, the revolution of small, smart, and cheap favors the United States over China or Russia. Operationally and tactically, the United States is on the defensive in both Eastern Europe and Asia. In the Indo-Pacific region, the United States could move from easily targeted bases and platforms to multiple locations and mobile systems that could disperse through the First Island Chain, denying China tactical military advantage for at least some time. In Europe, if the United States and its Allies in the North Atlantic Treaty Organization (NATO) are willing to equip frontline states with a mix of inexpensive drones and improvised explosive devices, and invest in autonomous drones and cruise missiles, they could deter and defend in depth against the most challenging Russian security threats (chapter 5).
- The foundation of modern Great Power wealth and competitive advantage has essentially changed from one dominated by industrial era technology to one in which information technology (IT) has become the source of geopolitical power. This change has been affecting the balance of global power in favor of China for over a decade, and is about to enter a dramatic new phase (chapter 6).
- Where China and Russia are concerned, information power is more likely than industrial power to determine the outcomes of long-term geopolitical contests. Indeed, no amount of American investment in industrial era technology could do much to defend against the damage being done by autocratic states' political-psychological operations or help the United States respond with information operations that uphold American values and characteristics (chapter 6).
- To compete in the critical IT arena, the United States must work with other developed nations, and in public-private partnerships, to reprioritize resources into key information technologies and capabilities. Simultaneously, America and its partners must effectively counter China's ability to steal intellectual property and Beijing's quest to control global information flows (chapter 6).
- Russia and China have been increasingly waging foreign propaganda campaigns on social media platforms, including Facebook and Twitter. These campaigns are enticing because they are cheap, easy to execute, allow targeting of specifically

refined audiences, and provide anonymity that limits the risks of attribution or reprisal (chapter 7).

- Russia has proved adept at using social media and other online channels of international influence and global propaganda in the new era of GPC. Multiple Russian campaigns since 2013 have been skillful and disruptive in many other states, but it remains unclear that they have met particular strategic goals or changed audience attitudes, behaviors, or beliefs in ways that Moscow intended. Nonetheless, the confusion sewn in these repetitive campaigns makes it likely Russia will value them in the future. Moscow appears prepared to adapt and persist in the face of any emerging countermeasures (chapter 7).
- China has gained a strong reputation for effectively stifling and influencing online debate within its borders, effectively censoring illicit content on the Web, and shaping online conversations. But it has struggled to weaponize social media or online tools to influence international policy and popular opinion abroad. There can be no doubt that Beijing will learn lessons and generate new projects to build international social media presence, leveraging its large state-generated IT investments to generate better scale and scope for international social media influence (chapter 7).
- To succeed in the GPC for influence through propaganda in social media, the United States must pursue broad, agile approaches to limiting the threat—featuring public and private domestic cooperation and close international collaboration. First, it must track, highlight, and block adversarial social media content. Then it must build resilience in at-risk populations at home and in allied states targeted by adversaries. Finally, it must better organize government to counter adversary propaganda (chapter 7).
- Weapons of mass destruction (WMD) remain a critical feature and potentially dynamic factor in GPC. For Russia and China, WMD contribute to multiple goals: conflict deterrence at the strategic and regional levels, regime survival, coercion of rival states, and, potentially, as an adjunct to conventional forces to support operations. The erosion of longstanding arms control treaties and nonproliferation norms increases the risks of arms races and the use of WMD in conflict. Ongoing advances in the technologies that underpin WMD could lead to the emergence of novel threats with uncertain consequences for GPC (chapter 8).
- The risk of an arms race in nuclear weapons, delivery systems, and missile defenses is growing as Great Power relations become more competitive and even confrontational. Systems of arms control treaties, which for decades limited U.S. and Russian nuclear forces, are under great strain and could even collapse. China is investing more in nuclear capabilities, modernizing and expanding strategic systems, and developing dual-capable theater-range platforms that would heighten nuclear risks in Indo-Pacific conflicts. And while the introduction of hypersonic vehicles by the Great Powers is unlikely to affect the balance of nuclear power in the next few years, as these capabilities are deployed in larger numbers, the risks to nuclear stability at both the strategic and theater levels are likely to grow (chapter 8).
- China and Russia may perceive chemical and biological warfare agents, including agents developed through new scientific and manufacturing techniques, as important

capabilities for a range of operations against the United States and its allies. Chemical or biological attacks could be difficult to attribute and may be well suited to support Russian and Chinese objectives in operations below the threshold of open armed conflict (chapter 8).

Part III. Geostrategic Interactions in a New Era of Great Power Competition

- U.S. and Chinese strategic interests are less aligned in the Indo-Pacific region than anywhere else in the world, and the importance of those interests to both countries makes the region a central venue for GPC. The U.S. Free and Open Indo-Pacific vision is not compatible with China's aspirations for increasing control within its First Island Chain and wider Chinese regional aims sometimes espoused as a "community of common destiny" (chapters 3a, 9).
- China has economic dominance in markets and investment across most of the region. It also has eroded the U.S. military advantage in potential locations of confrontation near its shores and inside the First Island Chain. The United States retains an overall advantage in military technology and power projection across the wider Indo-Pacific region, a resonant ideology and ability to communicate it, along with a regional political and military alliance structure unmatched by China (chapter 9).
- China's superior ability to use market access and other economic tools to provide benefits means that Indo-Pacific countries will not give up their economic ties with Beijing, even if Washington attempts to decouple from the Chinese economy. But Washington needs to be actively involved in regional economic affairs, both to advance specific U.S. economic interests and to shape rules and norms in the most dynamic region in the world. A policy that combines engagement with China and attention to nurturing a balance of economic power around Beijing as a hedge would best serve U.S. interests (chapter 9).
- The United States should build on its relative political-military advantages to sustain and strengthen its overall Indo-Pacific security position. Reinforcing present alliances, building military partnerships, extending cooperative training, and expanding interoperability are techniques that states in the region would embrace and which would work against unilateral Chinese efforts to intimidate or erode the U.S. alliance system (chapter 9).
- As long as American society models and promotes open, transparent, and democratic institutions, the United States likely will appear as an ideological and even existential threat to CCP leaders. But strong and consistent messaging with Indo-Pacific allies and partners could send a positive signal to the Chinese people about the value of good, representational governance and provide other states around the region a positive alternative framework that contrasts with China's authoritarian model (chapter 9).
- Although best understood as a contemporary Great Power, Russia could be alternatively considered to be a rogue, disruptor, or spoiler state, such as Iran and the Democratic Republic of Korea. These are countries that lack the military and

long-term economic power and/or transnational cultural appeal to match U.S. power globally or stabilize an alternative international political order. They are motivated by a combination of regime survival, aspirations for regional dominance and sometimes global relevance, as well as an inclination to confront the United States, which they believe is the main obstacle to their own aspirations (chapter 10).

- Rogue states tend to confront the United States below the threshold of active armed conflict and across multiple domains in the contemporary era of GPC. As they do, these states' actions divert American attention and resources away from longer term objectives, thus impeding the United States and benefiting China. However, Russian, Iranian, and North Korean provocative behavior is not uniformly beneficial to China (chapter 10).
- The prospect of a robust and fully cooperative anti-U.S. rogue state axis in the early 2020s remains remote. While U.S.-Chinese competition will yield limited prospects for burden-sharing between Beijing and Washington to confront Russian, Iranian, or North Korean conduct harmful to the United States, China also must fear negative spillover from such conduct onto its own economic interests and strategic aims. The United States thus can expect a mixture of cooperative and obstructive responses from China when addressing these actors on a case-by-case basis in the new era of GPC (chapter 10).
- Terrorism is far from eradicated and will not go away in the emerging era of GPC. Instead, American counterterrorism efforts will confront a set of new realities. Recent American counterterrorism operations in Syria likely will be the model of the future. The U.S. Government should reconsider counterterrorism authorities, new technologies, and other tools that could help manage the risks from small-footprint deployments—especially those with active proxies—and that hold sponsor states accountable for actions by proxies against U.S. counterterrorism forces (chapter 11).
- Russia must be expected to undermine U.S. counterterrorism objectives, either directly or indirectly. Moscow will likely try to destabilize U.S. objectives by fomenting right-wing and other homegrown violent extremists indirectly through media campaigns. Russia also will confront U.S. forces, especially in the Middle East and North Africa, as the forces attempt to mitigate threats to the U.S. homeland. As in Syria, Russia will combine diplomatic initiatives, proxy warfare, and electronic warfare to foil U.S. military dominance (chapter 11).
- Regional states will continue to pursue their own counterterrorism objectives. Sometimes they will deploy their forces in a manner that the United States finds unacceptable. Sometimes they will utilize proxy forces in a destabilizing manner. In other instances, important regional states will have objectives, ways, and means that align with U.S. goals for countering violent extremist organizations. The best way to mitigate the risk of regional states acting in an unruly manner is to be involved—even to a minimal degree if necessary—and then leverage American influence with them (chapter 11).
- In the dawning age of GPC, Europe is a resilient but troubled region. Europe has shown considerable hardiness while overcoming the 2008 Great Recession and saving the euro in the face of a serious sovereign debt crisis. But its cohesion and

solidarity also have been severely tested by terrorism, uncontrolled migration, Brexit, and most recently, the still-evolving complications from the COVID-19 pandemic. These problems have generated extremist populist movements across the continent that challenge liberal democracy and inhibit cohesive European policy positions or security activities (chapter 12).

- Despite a share of global economic output comparable to that of the United States in 2020, Europe is not a Great Power. Europe finds itself an object of Great Power rivalry on the continent rather than a subject competitor itself. In 2020, it confronts a more aggressive Russia, growing Chinese power, and reduced trust in the longstanding U.S. commitment to Europe's security and the wider construct of transatlanticism (chapter 12).
- European cohesion and stability has long been a function of both American support and a collaborative Franco-German core. In 2020, that core is weak, as Germany and France lack common positions on many critical issues, including on European defense. As Brexit moves the United Kingdom out of the European Union, much about Europe's way forward will be decided in Washington and Moscow. Europeans worry that the United States may detach itself from Europe—particularly NATO—even as Europe today remains unable to create an autonomous system of security and defense. While Europeans mistrust Russia generally, their perception of Russia as a security threat varies greatly. All know that Europe cannot alone defend member states from Russia. Should America move to detach from NATO, Europe may intensify accommodation with Russia—and even with China—believing this move to be the least-worst path to the evolving competition among the Great Powers (chapter 12).
- The era of GPC will confront U.S. policymakers both with the challenge of how to shift greater resources and attention toward Russian and Chinese traditional spheres of influence—in the Indo-Pacific region and Europe—as well as the challenge of whether and how to compete with Moscow and Beijing on a global scale. Washington will require distinct strategies for competing with Russia and China, a recalibration of U.S. interests across the world, and a discerning approach that reduces the prospects of pulling U.S. regional partners into an unrestricted, zero-sum competition (chapter 13).
- Russia and China present distinct competitive threats to the United States around the globe. China's behavior is grounded in its global investment strategy and desire to shape an international political order more conducive to Chinese interests, even if not fully Sino-centric. Russia's desire to be a global Great Power is not grounded in a proactive vision for a new global geopolitical order (chapters 3a, 13).
- In many regions, Russia often poses the more immediate challenge, whereas the repercussions of Chinese economic investments manifest themselves subtly and will likely undermine U.S. strategic interests more gradually. Both are only nominally united in their desires to compete with and displace U.S. influence across Latin America, the Middle East, Africa, and the Arctic (chapter 13).
- States in Latin America, the Middle East, Africa, and the Arctic are often eager recipients of Russian and Chinese attention and resources due to convenience rather

than ideological commitment. With few exceptions, these countries accept support without any allegiance to China's global vision or Russia's cynicism vis-à-vis Western norms and institutions. The limitations to Russian and Chinese approaches—as well as the transactional hedging strategies of many of these smaller states—should induce caution and prudence in Washington (chapter 13).

- Few, if any, smaller states wish to be pulled into a zero-sum U.S.-China or U.S.-Russia GPC. Thus, the United States should avoid imposing regional strategies that view Russian or Chinese activities as uniformly harmful to U.S. interests and detrimental to the stability of recipient states across these regions. Instead, Washington should emphasize American strengths as an economic partner, the quality and quantity of its military assistance, and the positive and benign nature of its military forward presence (chapter 13).

Part IV. Preparing to Compete

- Great Power competitions and accompanying power transitions are rarely resolved without a holistic approach, managed within an appropriate strategic framework. They require leadership involvement, disciplined priorities, sustainable resourcing, and adaptive oversight. In 2020, Russia is a dangerous competitor in the near term, but the U.S.-China competitive dyad is the one that will determine the prospects for continued global stability and the contours of any geopolitical Great Power transition (chapters 3a, 3b, 14).
- After more than two decades of geopolitical dominance featuring mainly cooperative interactions and relative comfort, the United States must acquire a competitive mindset. A competitive American mindset must understand that while interstate cooperation remains feasible today in areas of shared mutual interests, competitive tensions can occur in formerly cooperative political and economic categories so long as they are contested within established bounds. The challenge is to expand on the potential for cooperation while carefully managing the competition to keep it short of armed conflict, all without compromising vital national interests (chapter 14).
- In the Sino-American competition, the United States cannot merely accommodate China's rising power by acquiescing to its ambitions. An effective U.S. strategy must create leverage and accept risk. It must create leverage by working with allies and partners to strengthen rules and norms, set standards, collaborate on industrial policy, cooperate on critical information technologies, rejuvenate research and development, enhance innovation, invest in higher education, and share best practices. It must accept risk, while standing with these partners, to counter aggressive Chinese behaviors, violations of standing rules and norms, or the suborning of human rights. These principles frame a strategy of Strategic Balancing for America's role vis-à-vis China in the new era of GPC (chapter 14).
- The COVID-19 pandemic is far less likely to change the basic trajectory of emerging GPC than to accelerate it and expose underlying dynamics. The three contemporary Great Powers are likely to remain dominant rivals through at least the middle of

the dawning decade. If any of the three might falter, Russia seems the most likely candidate, but the odds of that are long. China and the United States may joust over whose model best dealt with COVID-19 crisis, but the basic outlines of their strategic disagreements will remain. Moreover, the phenomena of deglobalization and partial economic decoupling seems most likely to continue (chapter 15).

- As the COVID-19 pandemic recedes, Washington will face the same choice that it confronted before: whether, where, and how to compete. As the dominant Great Power in a multipolar competition, America could contest or confront its Great Power rivals today with a resolve to sustain its global position and the standing rules, norms, institutions, and alliances of the current international order. Alternatively, it could abdicate leadership of the global order and allow Russia to trample it and then an increasingly powerful China to extend its own version of global norms, rules, and institutions. The former course entails risks of expanding confrontation and potential direct military clash, but the latter course would not necessarily avoid a military fight, especially if the United States comes to view an increasingly Chinese-ordered world to be unacceptable (chapters 3b, 15).
- The history of rivalrous dyads played out in periods of multilateral GPC offers several informative principles for competing effectively while minimizing the prospect of Great Power transition collapsing into Great Power war. Four stand out.
  - » Firmness with Flexibility. The dominant Great Power must demonstrate firmness with flexibility. It must clearly signal to the fullest extent possible the strategic aims it will defend at all costs and then offer the prospect for dialogue on those aims it may be willing to negotiate. While firm on its nonnegotiable goals, it should be flexible in finding issues and venues where win-win outcomes are possible. For example, the United Kingdom accepted U.S. primacy in the western Atlantic as a better path to sustaining high seas primacy on vital routes for its Middle East and Asian colonies—and preferable to naval confrontation in recognition of growing American power. At the same time, the rising United States came to accept the once-abhorrent British monarchy in recognition of growing political enfranchisement for a great number of British citizens. Is there such a trading room today for the United States and China to agree on rules for collaboration in space and cyberspace while at the same time negotiating over reduced CCP domestic economic and human rights constraints (chapters 2, 15)?
  - » Durable Partnerships and Alliances. The dominant Great Power must build and maintain durable interstate alliances and provide would-be partners with alternatives to the either-or choices posed by a hard-charging rival. Great Britain was right to seek strategic partnerships and allies in its rivalry with Napoleonic France, parlaying these alliances into first containment of the threat and then its defeat. Napoleon had no such partnerships, relying instead on conquest of allies. Today, the United States has a far greater base for building economic and military partnerships than any Great Power in modern history, and it confronts a rising Great Power in China with little experience or inclination in this area. Washington has an enormous opportunity to construct alternative economic,

diplomatic, and political geometries with an array of partners giving them alternatives to Chinese enticements and blandishments (chapters 2, 15).

» The Peril of Reciprocal Societal Denigration. Successful GPC short of direct military confrontation is unlikely if the rivals give into a poisonous, open, and reciprocal denigration of each other's people. The choice to criticize the government or policies of a rival state while distinguishing it from the people is not as fraught with peril—although a tightrope must be walked to maintain the difference. Once the British and German press went after the character of the other's society, the march toward World War I accelerated. So, too, World War II in the Pacific loomed ominously once the United States and Tojo's Japan devolved to mutual societal recrimination. But the U.S. Government's conscious Cold War effort to distinguish the Soviet Union's Communist Party from the Russian people, reserving greatest criticism toward the Party and offering outreach to its people, generated a far different result. American leaders are likely to compete best with China while clearly distinguishing between its criticism of the CCP and its feelings for the Chinese people (chapters 2, 15).

» Play for Time. Some argue that time works in favor of the rising Great Power in a competitive dyad, putting the dominant Great Power at more risk should it not take confrontational and decisive action. But this thesis rests on a false assumption that the rising power will continue to ascend in mainly a linear fashion and not confront problems or challenges on the way. The United States has its own domestic inconsistencies and challenges, but these pale in comparison to those certain to play out in China. The CCP faces multifaceted challenges to safeguarding both its political position and an economic rise, including environmental degradation; rising income inequalities; a rapidly aging and less productive population; chronic worry about abuses of political power; widespread corruption; restive domestic regions, including Tibet, Xinjiang, and Mongolia; and a poor record on human rights. As China's economy shifts and its economic growth decelerates, these issues are likely to move to the fore. Thus, a U.S. strategy that plays for time as China's challenges grow seems best suited for successful contemporary GPC (chapter 15).

Note

[1] Hans Binnendijk and David C. Gompert, eds., *Strategic Assessment 1998: Engaging Power for Peace* (Washington, DC: NDU Press, 1998), xiii, available at <https://apps.dtic.mil/dtic/tr/fulltext/u2/a354594.pdf>.

Part I
Conceptualizing the New Era of Great Power Competition

Chapter 1

Introduction

By Thomas F. Lynch III

This chapter establishes the return of Great Power competition (GPC) as the fully acknowledged, dominant paradigm of interstate relations in 2017 after a 25-year absence from mainstream thinking. It establishes that competition is not synonymous with confrontation and clash and that GPC features a continuum of friendly-to-confrontational interactions between the competitors. The chapter notes the important linkage between GPC and Great Power transitions, observing that power transitions do portend greater instability and possible military clash (war). It establishes that Great Powers compete for an array of interests with a mixture of hard and soft power tools. It also defines a Great Power as one with three major characteristics in comparison to other states: unusual capabilities, use of those capabilities to pursue broad foreign policy interests beyond its immediate neighborhood, and a perception by other states that it is a major player. This makes the United States, China, and Russia today's Great Powers. After a brief introduction of the volume's 15 chapters, this chapter provides a short analytical evaluation of 4 relevant topics to contemporary GPC that cannot be addressed fully herein: space, cyberspace, homeland security, and climate change.

Great Power competition (GPC) is a framework for understanding global interstate relations that dominated global political affairs for centuries prior to World War II. Many past GPC eras have featured multiple powerful states jockeying for relative status and position. During the Cold War (1945–1991), GPC played out as a two-state competitive dyad between the United States and the Soviet Union. After lying dormant during a relatively short two-decade period of post–Cold War globalization and American international ascendance, the construct of GPC returned to the vocabulary of international relations and security studies in earnest during the late 2010s.[1]

The National Security Strategy of 2017 openly advanced the idea that America and fellow Great Powers, Russia and China, had transitioned formally from a more than 20-year period of collaboration and cooperation into one of competition.[2] In Washington, DC, 2017 was the year of fully acknowledged Great Power rivalry.[3] The National Security Strategy simultaneously identified three additional threats to U.S. security: North Korea, Iran, and transnational terrorist and criminal organizations, but it clearly focused American security

> "China and Russia challenge American power, influence, and interests, attempting to erode American security and prosperity. They are determined to make economies less free and less fair, to grow their militaries, and to control information and data to repress their societies and expand their influence. . . . These competitions require the United States to rethink the policies of the past two decades—policies based on the assumption that engagement with rivals and their inclusion in international institutions and global commerce would turn them into benign actors and trustworthy partners. For the most part, this premise turned out to be false."
>
> —National Security Strategy of the United States of America, *December 2017*

and future prosperity on the ability to compete with the two emerging Great Powers headquartered in Moscow and Beijing.[4]

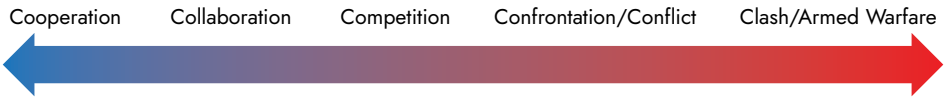
The United States National Defense Strategy of 2018 defined the central challenge to U.S. and Western prosperity and security as the reemergence of long-term strategic competition with those it classified as "revisionist powers," particularly Russia and China.[5] It also observed that the emerging security environment would now be characterized by rapid technological advancements and a changing character of war. Specifically, technological changes would both broaden and unhelpfully blur the lines of competition and conflict.[6]

Debates about the meaning and relevance of GPC have been prominently featured in strategic discussions from 2017 to 2020. Beneath the surface of these discussions lurks another historic feature of GPC: *Great Power transition*. Transition is concerned with differential state growth rates and the impact on relative power between and among the states. A transition of differentiated power levels generates new relationships and the formation of new political and economic entities. One byproduct of differential state growth is a high potential for conflict when a challenger (or challengers) to a dominant country approaches the stage of relative equivalence of power, and specifically when the challenger is dissatisfied with the status quo.[7]

Strategic analysts and political scientists have haggled over the precise definition and detail of *greatness*, *power*, and *competition* in a raft of literature.[8] A complete analysis of these debates and disputes is beyond the scope of this volume, but a few elements of these debates are important to set the scene for the chapters that follow.

First, competition is not synonymous with conflict. To a worrisome degree, some Western pundits have begun to conflate competition with clash, asserting that most if not all interactions between and among the three contemporary Great Powers must now be confrontational or even more extreme.[9] Students and policy practitioners of this new era need to be mindful that competition exists on a continuum of interactions among states, nonstate actors, and some super-empowered individuals (see figure 1.1). On one end of the spectrum is cooperation. *Cooperating states* are exceptionally aligned in geopolitical goals and means of achieving them, thus able to pursue means of attaining them harmoniously. *Collaborating states* have similar goals and a general agreement on the means of achieving them. *Competing states* recognize that some, but not most, of their major goals are compatible and simultaneously disagree on the best means for attaining mutual gains in their remaining aligned goals. *Confrontational states* are characterized by incompatible aims in almost all major goals and in general conflict about what constitutes legitimate means for attainment of national goals. On the far end of the interaction continuum is the undesirable

Figure 1.1. Continuum of Major State Interaction Postures



environment where state goals are perceived as so incompatible, and even threatening, that the dominant form of state-to-state interaction devolves into armed conflict.[10]

As it exists on a continuum of interactions, competition features elements of collaboration and some aspects of cooperation. At the same time, competition is not conflict, and it is definitely not a clash between states (or armed warfare). And yet the ongoing move toward a competitive-dominant interactive framework among the three most mighty states and several others in the new era of GPC interweaves more elements of conflict and confrontation into competition and more preparations for clash than witnessed in recent history. Recent history was dominated by a preference for cooperation and collaboration among the major states of the post–Cold War era—an era that came to be known in some circles as an ascent of a liberal international order.[11] This volume proceeds from the perspective that the emerging era of GPC, while not exactly the same as previous eras with two or more competitive powers, now features three dominant states with robust capabilities in the major areas of power interactions. These states have moved from a phase of generally cooperative and collaborative interactions to those now dominated by competitive and confrontational dynamics.[12]

Second, power is a multifaceted construct having to do with a state's ability to attain its aims vis-à-vis another. Max Weber defined the essence of *power* as the "probability that one actor within a social relationship will be in a position to carry out his own will despite resistance."[13] Power has absolute, relative, and transitional properties. Scholars have long referred to power as relative to the type of actor, the goals the actor seeks, and the kind of relationships at play. Assessing relative power between states is an inherently challenging task.[14] Power exists in two major dimensions: hard power (or the *coercive* use of military power and leveraging economic power as a *payoff*) and soft power (which includes cooperative and collaborative interactions that attain influence by *attraction*: partnered economic arrangements, ideological appeal, cultural and social engagements, diplomatic acumen, and reciprocal information exchanges).[15] The term *smart power* is sometimes today used for policy choices that display an effective mix of coercive hard power and the persuasion and attraction of soft power in the pursuit of national interests.[16] More recently, the term *sharp power* has become vogue as a phrase to describe state actions that twist soft power attributes in a manipulative or confrontational manner, especially the co-option of culture, educational institutions, media, and entertainment interactions by one state in a manner aimed to undermine or severely distort the political system or social order of another.[17] The contributors in this volume provide thoughts on these different kinds of power and their relevance to the competition between the Great Powers today. Contributors also indicate the role of these kinds of Great Power relationships with other countries and global institutions.

Third, the notions of what constitutes "greatness" as an actor on the international stage are addressed in an operational manner throughout the majority of this volume. The framework of GPC tacitly acknowledges that not all players in the international arena of today are

as equally important as the others. At the same time, Great Powers act on and interact with international entities, states, nongovernmental actors, and critical individuals (such as Apple's Tim Cook, Tesla's Elon Musk, or Virgin's Richard Branson) in a manner that critically impacts the prospects for relative gain and relative loss in the varying areas of competition between them. An operationalized definition for a Great Power state has three substantive features: capabilities, behavior, and status attribution by other states in the system. First, a Great Power is a state that has unusual capabilities—in comparison to other states—with which to pursue its interests and to influence interstate relations. Second, a Great Power uses those capabilities to pursue broad foreign policy interests beyond its immediate neighborhood. Finally, that state's relative status is perceived by other states to be major in nature, and the other states act toward that state accordingly.[18] Using this operational definition, this volume—for the most part—considers there to be three Great Powers in the contemporary era: the United States, Russia, and China.[19] Only in chapter 10 is there analysis of Russia as though it is not a contemporary Great Power.

Intent, Audience, and Contributors

This volume provides a succinct, expert, and nuanced understanding of important emerging dimensions of GPC today. It primarily focuses on the critical interactions and activities among the United States, China, and Russia. It simultaneously develops many of the major implications of these interactions for other state and for nonstate actors and processes. Therefore, its analyses and recommendations are generally framed for the years from 2020 to 2025. The speed and pace of change in global power relationships and activities requires an update of credible analysis by mid-decade. Indeed, impactful events such as the 2019–2020 novel coronavirus (COVID-19) pandemic will generate important changes that are beginning to take shape only as this volume is published.

As begun in this chapter, contributors provide readers with text, analysis, and notes that reference primary documents and sources to the fullest extent possible. Where such sources are not available, the contributors cite and then note for reference the most prominent and influential secondary sources and analytical pieces available in the field. The volume is designed to enable each reader to gain access to the best and most relevant writings on the topics of contemporary GPC.

The volume is written with chapters that are short, are self-contained for standalone use, and tie back to the central themes of GPC developed in early chapters (chapters 2–4). Each chapter and the overall elements of the volume's key findings and conclusions are for graduate-level students within professional military institutions, graduate students in civilian political science and national strategy programs, and mid- to upper-level career civil servants in the U.S. interagency community and other security establishments. Volume editors and authors hope that individual chapters and combinations of chapters will be of use to students and policy practitioners both in an academic setting and for personal study and understanding.

The contributors include many who have been directly engaged as thought leaders and policymaking pioneers grappling with the emerging contours of GPC. One contributor helped write the 2018 National Defense Strategy, working on that project directly for then–Secretary of Defense James Mattis. Another contributor has served as a subject matter

expert and consultant to U.S. Cyber Command. Two others are regular consultants and advisers for military and civilian U.S. Government organizations focusing on strategic deterrence and weapons of mass destruction. Others have served across the U.S. military and wider interagency community and intelligence organizations as subject matter consultants and as red-teaming leaders on China—providing uniquely informed insights on the key dimensions of China's rise and interaction on the world stage. One contributor has been instrumental in developing U.S. and allied military leaders' understanding about the future of terrorism and counterterrorism in an era of GPC. Two of the main chapter contributors have provided direct analysis and recommendation about the implications to the U.S. military from the emerging GPC dynamics across South Asia, the Middle East, and the Indo-Pacific region. Last, one contributor has been a leading public voice for understanding how the competitive space of social media has become and will continue to evolve as a critical nexus between Great Powers and their surrogates—aiming to generate power and influence in the emerging era.

Each chapter includes original author research, analysis, and insights—much of it generated from direct contact with senior U.S. Government policymakers and other global security leaders. Some chapters include text drawn from pieces the contributors have published elsewhere in recent years. All chapters feature original, updated analysis and insights for understanding GPC in the specific period from 2020 to 2025 and beyond.

Sections and Overviews

This strategic assessment of the new era of GPC is organized into 4 discrete sections and a total of 15 numbered chapters that include a couplet chapter, chapters 3a and 3b. The first section focuses on conceptualizing this new era of GPC. Its four chapters undertake a focused assessment of historic cases of Great Power rivalry among three or more parties and generates important lessons for the current era. It then provides an overview of the major geostrategic dynamics and technological competitive aspects of the present Great Power rivalry among China, Russia, and the United States.

Chapter 2 takes a short, focused historical look at past eras of GPC. Thomas Lynch and Frank Hoffman survey the major understandings of Great Power identities and transitions in historic eras of GPC. From this survey, they conclude that past eras featuring major power transitions trended toward direct military clash (war) between the rising and declining state absent an atypical exercise in sage Great Power leadership. They also develop five universally applicable aspects/categories of interstate competition and the competitive elements in each: political and diplomatic, informational, ideological, military, and economic. The authors then apply these categories to an analysis of the dynamics of major state competition in four GPC case studies, focusing on the most critical dyadic rivalries in each: France–the United Kingdom (UK) (late 18th and 19th centuries), UK-Germany (late 19th and 20th centuries), the United States–UK (late 19th and 20th centuries), and the United States–Japan (early 20th century). All were contested in eras of multiple Great Power rivals with one ascendant Great Power worried about relative power decline in the face of at least one rising challenger and under conditions of emergent, disruptive technological change. Thus, they are cases with strong parallels to current GPC. The chapter concludes with a

5 categories of interst

summary of major insights and a framework for analysis of contemporary GPC tethered to relevant historical vignettes.

Chapter 3a looks at contemporary Great Power geostrategic dynamics in light of declared strategies and revealed strategic preference forces. It focuses on the main strategies and relationship dynamics among the United States, China, and Russia in 2020; how these dynamics developed; and where they should be anticipated to evolve by 2025. Phillip Saunders and Thomas Lynch utilize the five key categories of interstate activities important in past GPC eras developed in chapter 2 to assess the most critical aspects of emerging competitive postures and strategies of the three Great Powers. The authors make an analytic evaluation of relative strategic interest force by the Great Powers in various regions of the world, indicating how these could impact forthcoming GPC dynamics.

Chapter 3b extends beyond chapter 3a by analyzing contemporary GPC dynamics from the perspective of state power assets and the tool sets available to the three Great Power protagonists—evaluating their objective means to achieve the strategic preferences established in chapter 3a. Utilizing the main competitive elements defined in the five key categories of past GPC eras developed in chapter 2, the authors provide an array of quantitative and qualitative measures that evaluate the main power dynamics at play between the contemporary Great Powers. They assess Great Power relative present strengths and future trajectories. Chapters establish that—for the foreseeable future—Russia's tool kit makes it an urgent but transient security challenger to the United States, while China's growing power tools make it the long-term challenger to American national interests and global policy preferences.

Chapter 4 takes a focused look at contemporary Great Power competition through the lens of technological competitive factors central to the ongoing fourth industrial revolution. This revolution describes the blurring of boundaries among the physical, digital, and biological worlds. It is a fusion of advances in artificial intelligence (AI), robotics, the Internet of Things, 3D printing (additive manufacturing), genetic engineering, quantum computing, energy, and biotechnology. Authors T.X. Hammes and Diane DiEuliis trace these technologies that most impact GPC in the short term and explain the importance of each individually. They also describe how together these technologies will revolutionize the global economy. The authors then indicate how these factors impact the economic growth potential and the relative strategic interests and power positioning of the three Great Powers.

4th Industrial Revolution

The second section of the book takes up from chapter 4 with a featured focus on the critical dynamics of technology, innovation, and the evolving character of war in a new era of Great Power competition.

In chapter 5, T.X. Hammes begins this four-chapter part with specific attention to key technologies that are leading to a revolution of small, smart, and cheap in emerging warfare. He focuses on the important role of autonomous weapons. Hammes also tackles some dimensions and implications of hypersonic weapons for GPC and conflict. He concludes with thoughts about how small, smart, cheap, and super-fast weaponry will impact the dynamics of defense competition in the coming 5 years and, perhaps, the possibility of Great Power conflict in the distant future.

Chapter 6 looks directly at the emerging impact of AI, quantum computing, and 5G wireless technologies for GPC. Richard Andres explains that where control of industrial resources was once key to geopolitical power, today control of information resources is the

most important factor. The chapter examines the Sino-American competition in these critical technologies and explains why China's state-led ascent in them is a serious challenge to American power and a key element of the ongoing GPC.

Chapter 7 addresses the contemporary dynamics and strategic implications of social media that influence operations technologies for Great Power competition and conflict. Todd Helmus of RAND explains why foreign propaganda campaigns on social media platforms have become prolific. The chapter reviews how three key U.S. adversaries—Russia, China, and the so-called Islamic State—have exploited modern technologies to attain political objectives. It evaluates the aims, capabilities, and limitations of online propaganda practiced by each of these American adversaries, concluding with recommendations for the United States to counter their use of online propaganda in the new era of GPC.

Chapter 8 focuses on weapons of mass destruction (WMD) and strategic deterrence in the emerging era of GPC. Paul Bernstein and his co-authors assess the prospects for nuclear competition between the Great Powers and the potential role of biological and chemical weapons in Russian and Chinese strategies for various forms of competition and conflict. They identify both geopolitical and technology drivers of future competition in WMD and the steps the United States should take to manage strategic and operational risk in this important and potentially volatile area of GPC.

The third section of this strategic assessment examines selected geostrategic interactions in the new era of GPC.

Chapter 9 examines the Indo-Pacific competitive space—perhaps the most contentious geopolitical region in the emerging GPC era. Thomas Lynch, James Przystup, and Phillip Saunders develop American and Chinese strategic visions for the region, formerly described as the Asia-Pacific. They highlight the divergence of strategic interests between America's "Free and Open Indo-Pacific" vision and China's "community of common interest" framework. Then the chapter conducts an analytical comparison of relative Chinese and American strengths in the competitive categories of political and diplomatic, ideological, informational, and military and economic. The analysis reveals a mixture of relative power advantages, indicating that despite growing regional tensions between the two Great Powers, there are opportunities to both secure stability and pursue selected collaboration if both parties identify and accept their relative power limitations.

Chapter 10 takes a direct and comparative look at Russia, North Korea, and Iran as a grouping of "rogue, disruptive, and spoiler states." In doing so, the chapter treats Russia in a manner that diverges from its treatment in other chapters, and more like those contemporary scholars who view Moscow as more of a nuclear weapons–led, muscle-bound declining state with a disruptive rather than a constructive global worldview.[20] The chapter develops key motivations and activities for rogue state activities and the new era of GPC. It explains why Russian, Iranian, and North Korean provocative behaviors are not uniformly harmful to the United States or beneficial for China. It further elucidates that the prospect of a robust and fully cooperative anti-U.S. rogue axis remains remote. It recommends appropriate U.S. strategic principles to meet these rogue state realities in a new era of GPC.

Chapter 11 addresses the future of counterterrorism missions by the U.S. military in the era of GPC. Kim Cragin and her co-authors assess that, over the next 3 to 5 years, Great Power competition likely will constrain the ability of U.S. forces to achieve even limited

counterterrorism objectives. They explore the insights from America's recent counterterrorism experiences in Syria—where Russia was extensively involved—demonstrating that lessons from that experience inform the future of U.S. counterterrorism operations. The chapter then explores the long-lasting regional rivalry between Iran and Saudi Arabia, explaining how this contest will exacerbate future threats to the United States from violent extremist organizations (VEOs). Then it demonstrates how Australia and similar countries might help reduce VEO risks to the United States, even as Washington shifts strategic priorities toward GPC. The chapter finally summarizes the VEO risks that America's military should prioritize and the new authorities and technologies it should pursue for counterterrorism success in GPC.

Chapter 12 asks the question, "Whither Europe in the era of GPC?" Steven Kramer and Irene Kyriakopoulos trace Europe's recent history: its lost promise, its major troubles, its relations with the three contemporary Great Powers, and its potential for evolution and regeneration. The authors explain how Europe in 2020 is a region troubled by recent financial, migration, and pandemic crises and one questioning the future of the transatlantic security alliance. They document the resilience of Europe in the face of these troubles and provide an understanding of how the experiment of post–World War II Europe should be expected to evolve between now and 2025.

Chapter 13 concludes the third section with a look at the competing visions and activities for the Great Powers in several critical regions of the world: the Middle East, Africa, Latin America, and the Arctic. Bryce Loidolt and his co-authors take an analytical look at the strategies and impacts of Chinese and Russian competitive activities across these regions. They trace regional receptivity to and potential repercussions from them. The chapter finds that the challenges posed to the United States are rarely grounded in an ideological commitment to Beijing's global vision or Moscow's cynicism. This points to the need for American regional strategies that appreciate the diverse challenges that China and Russia pose and American approaches that avoid pulling important U.S. regional partners into an unrestricted zero-sum competition.

The fourth section of the book features two chapters that ask "for what" and "how best" can the United States prepare to compete successfully in the era of GPC.

In chapter 14, Frank Hoffman provides a framework for thinking about U.S. competitive alternatives for the emerging era of GPC. He sketches out the elements of five possible strategy alternatives for the United States with its primary competitor, China. He reviews the key features of one collaborative alternative (bilateral bargain), two mainly competitive alternatives (managed competition and enhanced balancing), and two predominantly confrontational ones (compression and contested primacy), focusing on each one's suitability, feasibility, and sustainability. The chapter details how each alternative leverages relative American and Chinese strengths and weaknesses and the international and domestic support likely for each. The author concludes that an American strategy of "enhanced balancing" best prepares America for successful competition with China.

Chapter 15 concludes the volume with a short summary and substantive extension of major insights about GPC. Thomas Lynch evaluates the main features of evolving GPC. He then situates major contemporary GPC dynamics in the context of past periods. The chapter offers an interim assessment about what the COVID-19 pandemic will mean for

dominant GPC trends, assessing that these are likely to accelerate rather than be supplanted by new ones. The chapter flags three main imperatives for U.S. competitiveness in the Sino-American dyadic rivalry, especially the wise choice of strategic allies and partners. It concludes with a historically framed assessment of four important dynamics for American success in a long-haul competition with China: firmness with flexibility, prioritization of partnerships and alliances, confronting China's leaders rather than its people, and playing for time.

4 aspects for success

Finally, this volume features two appendixes. The first appendix is a selected bibliography of critical documents, books, and articles featured within book chapters. The second is an original, Web-only selected database compiled in the research for this volume titled "Contemporary Great Power Dynamics." This modest catalogue of focused data provides readers with a ready reference for nine of the most significant quantitative indicators of relative state status (gross domestic product [GDP], GDP per capita, composite index of national capability, population, birthrate, level of industrialization, percentage of global financial markets, and innovation rank). Each indicator is provided for the three contemporary Great Powers and five other states. This data is measured for 7 different years between 1980 and 2025. Some of this data is assimilated and assessed in chapter 3b. Mainly, this appendix is intended as a one-stop reader resource for follow-on investigations and as a living document that will be updated periodically by the research team in the Institute for National Strategic Studies at the National Defense University. The Contemporary Great Power Dynamics Matrix can be found at the following URL: https://ndupress.ndu.edu/Contemporary-GPC-Dynamics-Matrix/.

Quantitative Indicators o State Growth

Important GPC Topics Without Individual Chapters

There is no way to cover all the rich and varied topics that might be addressed in a full assessment of the new era of GPC. Reader attention could not be expected to withstand a barrage of separate chapters on every potential topic of relevance in a single volume. As a consequence, there are some interesting topics involving GPC that could not fit into these pages as standalone contributions. Many such topics are mentioned in context within several chapters, including the emerging implications of the COVID-19 pandemic. All also are covered in an authoritative manner in other publications. Among these, four topics stand out for specific mention and reader attention: space, cyberspace, homeland security, and climate change. It is likely that these topics will evolve significantly over the next half-decade—generating worthy chapter topics for the final years of the 2020s. For now, this chapter flags some key elements in these areas for contemporary Great Powers. It also offers readers some detailed reference sources that provide more insight into how these areas now impact emerging GPC.

Space

The United States and the Soviet Union competed in space for decades during the Cold War. After a two-decade period of U.S.-Russian space cooperation and relative absence of Chinese space activity, outer space has once again become a key location for measuring relative power and conducting GPC.[21] In early 2019, echoing calls for a U.S. Space Force, then–Chairman of the U.S. Joint Chiefs of Staff General Joseph Dunford reiterated the need

for the Nation to be intensely engaged on all five interactive domains (land, sea, air, space, and cyberspace) to stay competitive with Russia and China.[22] Currently, NASA is working on a Moon-to-Mars mission that, in theory, will give the United States a more competitive edge.[23] Despite an evolving competition, the United States remains tethered to a cooperative and codependent framework of working with Russia in space. As of 2020, Washington still uses the Russian Soyuz system to bring astronauts to the International Space Station, and the Lunar Gateway program remains a joint U.S.-Russian effort to ease access to the Moon.[24]

5 domains

Meanwhile, during a reorganization of its military in 2015, China created a "space force" aimed at operating satellites and running counterspace missions, including a home-grown GPS system named the Beidou Navigation Satellite System, which has grown from 1 to 54 satellites from December 2011 to March 2020.[25] In 2019, former U.S. Acting Defense Secretary Patrick Shanahan stressed that Russia and China have weaponized space and that the United States now must join suit.[26]

A growing number of space-capable nations are filling Earth's orbits with a high volume of satellites contesting a shrinking number of orbital spaces.[27] In addition to the three Great Powers, seven other states in 2020 are reported as developing or considering the development of one or more types of counterspace systems.[28] Intensifying GPC is a driver of antisatellite (ASAT) development and use, including high-profile tests by India in 2019 and a series of them by Russia including one in April 2020.[29] Recognized norms, standards, and treaties do not exist to divvy up the limited volume of space or to regulate the risk from ASAT proliferation. The absence of a multilateral cooperative framework for Great Power interactions in space makes it more likely that competition may beget confrontation in this medium.[30]

Cyberspace

The pursuit of competitive advantage and confrontational dominance extends far outside the arena of conventional warfare. Cyberspace has emerged as a new Great Power battlespace and has motivated the United States, Russia, and China to develop their own cyber attack and defense capabilities.[31] The current U.S. Defense Cyber Strategy is aimed at preventing aggressive actors, specifically Russia and China, from conducting campaigns that impact the United States and its allies.[32] U.S. Cyber Command has focused efforts on thwarting clandestine Russian intelligence and civilian proxy agent interference like that which occurred during the 2016 U.S. national elections.[33] Chinese cyber espionage historically has been aimed at the U.S. commercial sector, but Beijing's 2015 military strategy placed increasing cyber emphasis on domestic security—protecting its infrastructure from foreign interference and allowing its military to integrate further with the technological scene.[34] Russian cyber operations are more aggressive and aimed at laying the groundwork for future major military and infrastructure disruptions.[35]

The cyber medium for competition will become increasingly important to defend as Great Power dynamics drive greater and more sophisticated cyber innovations.[36] Chapter 6 provides some important analysis about the wide-ranging dynamics of GPC in cyberspace. But chapter 6 is limited by the need to address additional critical factors involving computing automation, AI, and big data analytics.[37]

Homeland Security

The dominant construct for homeland security during the past 30 years has been that of defense from catastrophic terrorist attack. From the 1990s through the early 2010s, only the very latent risk of unforetold nuclear exchange between the United States and Russia stood outside the dominant paradigm of homeland protection from the threat of terrorism. With the dawn of openly announced GPC, the straitjacket on homeland security thinking has been removed. As North Korea launched nuclear-capable missiles in 2017 with a range to threaten the United States (and interestingly also Moscow and Beijing), the prospects for other nuclear weapons–capable states to attain global reach came astride as a major feature of the new global order.

Homeland Security & GPC

Simultaneously, targeted cyber and social media activities against military, national, and civilian infrastructure capacity became—during the 2010s—a more substantive threat with ongoing homeland security implications. Finally, the emergence of unmanned platforms capable of operations against targets inside a national sovereign space launched from outside platforms on the ground, at sea, in the air, and from space are becoming far more significant than even a year or two ago. The 2018 National Defense Strategy states that "the homeland is no longer a sanctuary," and "[d]efending the homeland from attack" is the number one defense objective listed for the United States as new threats develop on both private and public fronts.[38] Russian and Chinese views on this also are changing, with Beijing looking inward toward bolstering social and economic stability and Chinese Communist Party dominance.

Homeland is no longer a sanctuary

While chapters in this volume address many of the GPC competitive dynamics with homeland security implications—including those involving nuclear weapons, biochemical weapons, unmanned platforms, and social media—there are several other new dynamics at play in the rapidly evolving construct of homeland security in an era of GPC.[39]

Climate Change

Over the past decade, the multifaceted implications of climate change and humankind's role in that change have grown in salience while remaining contentious. Fossil fuels, textiles, plastics, and meat production industries have been placed under scrutiny for generating high levels of carbon pollutants damaging to water sources, the air, ambient temperatures, and the wider ecosystems they touch. While some countries and leaders resist the science attributing human activity for climate change, others contend that our world is in a climate emergency.[40] Younger generations have become increasingly animated, with some ascribing "climate change anxiety" to the idea that many of the world's youth under 30 are anxious about the impending doom of wider Earth ecosystems during their lifetimes.

Almost 5 years ago, in December 2015, 175 of the world's governments adopted the Paris Climate Agreement to arrest increasing man-made stressors on the Earth's ecosystems. The Paris Agreement focused on keeping global warming below 2 degrees Celsius by capping and apportioning greenhouse emission percentages among the signatory nations. That agreement resulted from two decades of international negotiations, but unanimous consensus about the urgency of the problem or the imperative for significant restraint of human activities remained elusive.

China and the United States are the world's biggest economies and also the biggest consumers of global natural resources and polluters.[41] China is the world's largest polluter, producing 30 percent of global carbon emissions.[42] It signed and ratified the Paris Agreement in 2016 but remains the country most obviously afflicted by growing climate challenges. More than a half billion of its citizens live near oceans and face rising sea levels. Major Chinese cities are overwhelmed by smog and other air pollution requiring face mask protection and threatening pulmonary health. Chinese rivers have been ruined by decades of unregulated toxic waste.[43] The United States is currently the second worst polluter, producing 15 percent of global carbon emissions.[44] In 2017, the Trump administration announced its intention to quit the Paris Agreement and began the year-long process of withdrawal in late 2019. Absent a change in policy, the United States will exit the agreement in November 2020. America's carbon emissions percentage is projected to increase after its planned Paris Agreement exit.[45] Russia is the world's fourth largest producer of global carbon emissions with nearly 5 percent of the total.[46] In 2019, Russia finally ratified the Paris Agreement after a 3-year delay. But as of early 2020, Russia has not taken any actual measures to reduce greenhouse emissions. The government initially attempted to take small measures by imposing emissions quotas, but the Russian Union of Industrialists and Entrepreneurs lobbied against these measures and prevented their implementation.[47]

The World Health Organization states that climate change is an evolving human health crisis, slower moving but no less ominous than deadly pandemics for the future of global prosperity and stability.[48] The economic and security implications of accelerating climate change on land, at sea, and in the air are only now coming into view. Over the coming years, the changing climate will shape Great Power natural endowments and national security in at least three important ways.[49] First, rising global temperatures will affect resource availability. The changes will shift productive agriculture toward the Earth's poles while making crop growth more difficult near the equator. Russia and Canada may be relative winners in new arable land, but uncertainties remain. Second, as the world transitions from fossil fuels to renewable energy sources, the relative importance of carbon resources will shift. Here, the United States has an inherent advantage over China, but less so with Russia. Third, as the Great Powers—and especially the United States and China—jockey for the competitive edge in high-tech industries and renewable energy technology, competition over critical mineral resources in major producing countries such as Australia, Brazil, Chile, Congo, and South Africa will intensify.

It remains difficult to predict precisely how climate change will impact Great Power competition into the future. Although natural endowment factors altered by climate change could become a point of contention between the United States and China, increasing risk of confrontation, these factors may also become a source of collaboration and cooperation. Washington and Beijing could work together on critical minerals, including research and development on less destructive ways to mine and refine these materials. Moreover, as climate change challenges agricultural productivity worldwide, international cooperation and trade could play an important part in adapting to changing conditions.[50] Only one thing seems certain: Climate change will matter to new patterns of Great Power competition. Greater clarity about the dominant patterns will be present by mid-decade. Moreover, there are other major climate change factors influencing the dynamics of GPC in the emerging era.[51]

Transitions

This volume now turns to framing the backdrop for a new era of Great Power competition. Its first section sketches the key areas of historic GPC and assesses lessons from four representative past eras. Then in two "couplet" chapters, the section takes a look at contemporary GPC geostrategic dynamics, major power strategies, and available resources for competition. The section finishes with a chapter about the impact of emerging, revolutionary technological factors influencing the dynamics of emerging GPC.

The author thanks James Keagle, Laura J. Junor, and Richard Lacquement for their thoughtful reviews and editorial inputs on this chapter.

Notes

[1] For examples, see Robert Kagan, *The Return of History and the End of Dreams* (New York: Vintage Books, 2009); Aaron L. Friedberg, *A Contest for Supremacy*: *China, America, and the Struggle for Mastery in Asia* (New York: Norton, 2011); John Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2014); Shivshankar Menon, "How Great Power Competition Has Changed," Brookings, May 4, 2015, available at <https://www.brookings.edu/blog/order-from-chaos/2015/05/04/how-great-power-competition-has-changed/>; Max Fisher, "The New Era of Great Power Competition," *Vox*, April 13, 2016, available at <www.vox.com/2016/4/13/11421352/ash-carter-deterrence-power-competition>; Uri Freidman, "The New Concept Everyone in Washington Is Talking About," *The Atlantic*, August 6, 2019, available at <www.theatlantic.com/politics/archive/2019/08/what-genesis-great-power-competition/595405/>.

[2] *National Security Strategy of the United States of America* (Washington, DC: The White House, December 2017), 2–3, available at <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

[3] *Rivalry* is the relationship between two or more actors (states) who regularly compete, while *competition* is the action taken to contest ascendance in a particular field. Rivalry describes the reciprocal competition between two or more states for ascendance.

[4] *National Security Strategy of the United States of America*, 2–4.

[5] *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: Department of Defense, 2018), 2, available at <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

[6] *National Security Strategy of the United States of America*, 4–5.

[7] Ronald L. Tammen, Jacek Kugler, and Doug Lemke, "Power Transition Theory," Trans-Research Consortium Work Paper #1, December 2011, available at <https://static1.squarespace.com/static/576ef1a0be65941edd80fcf7/t/578d56e22e69cfbb1192c4cf/1468880611440/Power+Transition+Theory.pdf>. For a detailed look at power transition theory, see A.F.K. Organski, *World Politics*, 2nd ed. (New York: Knopf, 1968); A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980); Jacek Kugler and Douglas Lemke, eds., *Parity and War: Evaluations and Extensions of the War Ledger* (Ann Arbor: University of Michigan Press, 1996). Related transition theories of hegemonic decline and global cycles are found in Robert Gilpin, *War and Change in World Politics* (Cambridge: Cambridge University Press, 1981); George Modelski, *Long Cycles in World Politics* (New York: Palgrave Macmillan, 1987), respectively.

[8] Thomas J. Wright, *All Measures Short of War: The Context for the 21st Century and the Future of American Power* (New Haven: Yale University Press, 2017); Ali Wyne, "America's Blind Ambition Could Make It a Victim of Global Competition," *The National Interest*, February 11, 2019, available at <https://nationalinterest.org/feature/americas-blind-ambition-could-make-it-victim-global-competition-44227>.

[9] For examples of this tendency in 2018–2020, see Geoff Hertenstein, "DIME Without the 'M' is DIE: A Case for Conventional Military Power in Modern Strategy Discourse," *Strategy Bridge*, September 22, 2019, available at <https://thestrategybridge.org/the-bridge/2019/9/22/dime-without-the-m-is-die-a-case-for-conventional-military-power-in-modern-strategy-discourse>; Nikki Haley, "How to Confront an Advancing Threat from China," *Foreign Affairs*, July 18, 2019, available at <www.foreignaffairs.com/articles/china/2019-07-18/how-confront-advancing-threat-china>; Matthew Kroenig, *The Return of Great Power Rivalry* (Oxford: Oxford University Press, 2020).

[10] This continuum is an original construct for this volume. It was developed from several major writings on the range of major state-to-state interactions, especially those found in Charles Glaser, *Rational Theory of International Politics: The Logic of Competition and Cooperation* (Princeton: Princeton University Press, 1986); Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics* 30, no. 2 (January 1978), 167–214; Robert Koehane, *After Hegemony* (Princeton: Princeton University Press, 1984), 51–52; Kenneth N. Waltz, "Structural Realism After the Cold War," *International Security* 25, no.1 (Summer 2000), 5–41.

[11] See G. John Ikenberry, *Liberal Leviathan: The Origins, Crisis, and Transformation of the American World Order* (Princeton: Princeton University Press, 2011), especially 35–75, 132–145. For a discussion of how the liberal international order has been used as a shorthand for three separate but related phenomena—the creation of a rules-based order enshrined in institutions, the establishment of alliance relationships with the United States as security guarantor, and the propagation of liberal values—see "Is There a Liberal International Order?" *Strategic Survey 2018: The Annual Assessment of Geopolitics* (London: International Institute for Strategic Studies, 2018), 23–32.

[12] This approach differs from the one advanced by RAND analyst Michael Mazarr and his colleagues that focuses on separate Great Powers or major players. The major analytical difference is established in the paragraph after next with an operational definition of what constitutes a Great Power. For the RAND take on why contemporary global interactions do not qualify as a period of Great Power competition, see Michael J. Mazarr et al., *Understanding the Emerging Era of International Competition: Theoretical and Historical Perspectives*, RR2726 (Santa Monica, CA: RAND, 2018).

[13] Max Weber, cited in Isidor Wallimann, Nicholas C. Tatsis, and George V. Zito, "On Max Weber's Definition of Power," *The Australian and New Zealand Journal of Sociology* 13, no. 3 (December 1977), 231–235, available at <https://doi.org/10.1177/144078337701300308>.

[14] This challenge dates to the philosophical writings of Sir Francis Bacon and his construct of scientific knowledge as the necessary essence of political power. See Timothy Paterson, "The Secular Control of Scientific Power in the Political Philosophy of Francis Bacon," *Polity* 21, no. 3 (Spring 1989), 457–480. Estimating state power—particularly relative military power—continues to be a subject of deep discussion and debate. See A.W. Marshall, *Problems of Estimating Military Power* (Santa Monica, CA: RAND, 1966), available at <https://www.rand.org/pubs/papers/P3417.html>.

[15] The most resonant operational definitions of *hard power* and *soft power* are best developed in two books by Harvard political scientist Joseph Nye, Jr. See *Bound to Lead: The Changing Nature of American Power* (New York: Basic Books, 1990); *The Paradox of American Power* (London: Oxford University Press, 2002).

[16] The term *smart power* was coined by Nye in the early 2000s to respond to what he identified as a growing misperception that his writings asserted that soft power alone could produce effective foreign policy, as he explained in "Get Smart: Combining Hard and Soft Power," *Foreign Affairs* 88, no. 4 (July/August 2009).

[17] *Sharp power* has been developed and promulgated by U.S. National Endowment for Democracy employees Christopher Walker and Jessica Ludwig and focused mainly on what they view as the deliberate efforts of China and Russia to craft this new category of power. See Christopher Walker, "What Is 'Sharp Power'?" *Journal of Democracy* 29, no. 3 (July 2018), 9–13; Christopher Walker, Shanthi Kalathil, and Jessica Ludwig, "Forget Hearts and Minds," *Foreign Policy*, September 14, 2018, available at <https://foreignpolicy.com/2018/09/14/forget-hearts-and-minds-sharp-power/>. Sharp power is controversial and not fully accepted. Joseph Nye rejects it as but a longstanding form of hard power. He writes, sharp power is the "deceptive use of information for hostile purposes" and one that has been practiced by the intelligence and information services of democracies as well as those of authoritarian regimes. See Joseph S. Nye, Jr., "How Sharp Power Threatens Soft Power," *Foreign Affairs*, January 24, 2018, available at <www.foreignaffairs.com/articles/china/2018-01-24/how-sharp-power-threatens-soft-power>. China has labeled the expression as one concocted by the West to vilify China and without merit. See Xin Liu, "What Is Sharp Power? It's Nothing But 'Unsmart' Power," *USC Center on Public Diplomacy CPD*, November 15, 2018, available at <https://www.uscpublicdiplomacy.org/blog/what-sharp-power-it%E2%80%99s-nothing-%E2%80%9Cunsmart%E2%80%9D-power>.

[18] This operational definition is taken from Thomas J. Volgy et al., "Major Power Status in International Politics," in *Major Powers and the Quest for Status in International Politics: Global and Regional Perspectives*, ed. Thomas J. Volgy et al. (New York: Palgrave Macmillan, 2011), 1–26. Their definition derives from an amalgam of several other classic efforts at defining Great Power status, including the following historic references: J. David Singer and Melvin Small, "Formal Alliances, 1815–1939: A Quantitative Description," *Journal of Peace Research* 3, no. 1 (March 1966); Jack Levy, *War in the Modern Great Power System: 1495–1975* (Lexington: University Press of Kentucky, 1983); John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001); and Benjamin O. Fordham, "Who Wants to Be a Major Power? Explaining the Expansion of Foreign Policy Ambition," *Journal of Peace Research* 48, no. 5 (2011), 587–603.

[19] As noted, this formal definition precludes inclusion of the other eight states listed in the RAND study of 2018. The other states in that study, including India, Japan, Turkey, and Brazil, do not meet the operational definition. They have no truly unusual capabilities. They do not use unique capabilities globally to pursue broad policy interests. Finally, they are not perceived as "Great" by other states. They do matter in consideration of GPC interactions, but in 2020 are not contemporary Great Powers. See Mazarr et al., *Understanding the Emerging Era of International Competition*.

[20] For contemporary scholars who view Russia as less of a Great Power and more of a disruptor state, see Wyne, "America's Blind Ambition Could Make It a Victim of Global Competition"; David J. Kramer, "Russia Is No Great Power Competitor," *The American Interest*, April 24, 2019, available at <www.the-american-interest.com/2019/04/24/russia-is-no-great-power-competitor/>; Timothy Frye, "Putin Touts Russia as a Great Power. But He's Made It a Weak One," *Washington Post*, June 6, 2019, available at <www.washingtonpost.com/opinions/2019/06/06/putin-touts-russia-great-power-hes-made-it-weak-one/>.

[21] Christian Trotti and Mark Massa, "Lessons from Apollo: Industry and Great-Power Competition," Atlantic Council, July 26, 2019, available at <https://www.atlanticcouncil.org/blogs/new-atlanticist/lessons-from-apollo-industry-and-great-power-competition/>.

[22] C. Todd Lopez, "Great Power Competition's Resurgence," *Defense.gov*, November 19, 2019, available at <https://www.defense.gov/explore/story/Article/1792014/great-power-competitions-resurgence/>; "War in the Fifth Domain," *The Economist*, November 19, 2019, available at <www.economist.com/briefing/2010/07/01/war-in-the-fifth-domain>.

[23] Trotti and Massa, "Lessons from Apollo."

[24] "Why Does America Still Use Soyuz Rockets to Put Its Astronauts in Space?" *The Economist*, October 16, 2018, available at <www.economist.com/the-economist-explains/2018/10/16/why-does-america-still-use-soyuz-rockets-to-put-its-astronauts-in-space>; Trotti and Massa, "Lessons from Apollo."

[25] Kevin L. Pollpeter, Michael S. Chase, and Eric Heginbotham, *The Creation of the PLA Strategic Support Force and Its Implications for Chinese Military Space Operations*, RR2058 (Santa Monica, CA: RAND, 2017), available at <https://www.rand.org/pubs/research_reports/RR2058.html>.

[26] Lara Seligman, "The New Space Race," *Foreign Policy*, May 14, 2019, available at <https://foreignpolicy.com/2019/05/14/the-new-space-race-china-russia-nasa/>.

[27] As of late 2018, there were reportedly 6,000 satellites among 24,000 Earth-orbiting space objects (satellites, space objects, space debris) being tracked by the U.S. Space Surveillance Network (SSN). Another 100 satellites per year—mainly commercial but also governmental—are forecast to join an increasingly crowded Earth orbit during the 2020s. SSN is a component of the U.S. Space Command and is the only agency in the world tracking and forecasting collision risks for space objects. SSN has no authority for space orbit management and can only alert commercial companies about potential risk of collision in the event that a model forecasts such risks. See "Space Surveillance," *Science Direct*, available at <www.sciencedirect.com/topics/engineering/space-surveillance>; Alexandra Witze, "The Quest to Conquer Earth's Space Junk Problem," *Nature*, September 5, 2018, available at <www.nature.com/articles/d41586-018-06170-1>.

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Chapter 2

Past Eras of Great Power Competition

Historical Insights and Implications

By Thomas F. Lynch III and Frank Hoffman

The chapter reviews the major contemporary theories about interstate power competition and state power transitions. It surveys many of the recent major studies about Great Power transitions since 1500, establishing that the vast majority of such transitions include some form of direct Great Power clash (war). The chapter develops a framework for evaluating the main competitive categories of Great Power competition (GPC): political and diplomatic, ideological, informational, military, and economic. It then applies these categories in analysis of four distinct dyadic rivalries contested in three post-1780 eras of GPC: the United Kingdom (UK) and France; UK and Imperial Germany; UK and the United States, and the United States and Imperial Japan. These eras were chosen due to several important parallels with the emerging era of GPC. It concludes with 10 major insights that hub around the broad conclusion that although periods of Great Power rivalry that involve major power transitions generally lead to direct clash (war) between them, adept statesmanship can arrest this tendency if properly attentive to both the geopolitical and domestic drivers of Great Power war.

Vast amount of GPC ends in war

War may be preventable

This chapter provides a short overview of the historical context and construct for understanding the emerging era of Great Power competition (GPC). It begins with a discussion of the theoretical bases for understanding power: hard power and soft power, as well as the manner in which scholars of international affairs have understood the nature of Great Power competition and the transition between Great Powers. The chapter then operationalizes the main historic dimensions of interstate competition, focusing on five major categories of Great Power interaction: political and diplomatic, ideological, informational, military, and economic. It provides a compact overview of the major research literature findings about GPC dynamics and outcomes over the past 500 years. The chapter then features an analytical review of four cases of rivalry dyads contested during eras of GPC, evaluated across the five categories of state-to-state interaction. It concludes with delineation of 10 major insights and implications about Great Power competitions and transitions that seem germane for the dawning era of GPC.

Understanding Great Power Identities and Transitions

For the past several decades, political scientists and international relations theorists have written about global interactions while referencing the relative difference in power between the major protagonists. In realist theories, states are the primary actors, and they are locked in a constant struggle for security (a security dilemma) in a system that features anarchy (the absence of any supreme authority or sovereign). For realists, the anarchic international system gravitates toward confrontation and war absent a dominant power, or a balance of power among several states.[1] Realist musings focus on the relative disparity between post-Westphalian states' military power (or hard power) differences. In neorealist theory, military power remains the basis of the relative power measurement—but the disparity is understood with reference to the "polarity" of the wider international system, or the number of states with "top drawer" hard power capabilities.[2] Alternatively, liberal and institutionalist theories dispute the deterministic nature of international system anarchy. They believe that durable interstate cooperation is feasible with the right international framework—like some constellation of cooperative rules, norms, and institutions. They compare international actor power with a wider array of measures, or soft power aspects, including economic size, diplomatic capability, cultural and social attractiveness, and informal relationships built on rules, norms, and protocols.[3] Finally, constructivist international relations theory disagrees with the notion that anarchy or any permanent tendency conditions the international system at all. For constructivists, the individual actors together make the international system anything they want it to be.[4]

International relations scholars also pay some attention to the rise and fall in the relative power positions of international actors—with greatest attention on the transitions in power positions among and between those actors on the high end of the power spectrum, that is, the Great Powers.[5] The realist framework for understanding Great Power transitions focuses on military capabilities and the manner in which these rise and fall based on individual states' choices about developing and projecting military power. The neorealist modification of realism agrees that military power capabilities establish the essential framework for relative status transitions, but neorealists argue that it is the distribution of military power across the international system (the relative polarity of the system)—not individual state choices—that sets in motion power shifts among the states. Neorealism foretells unipolarity (a circumstance where one state is militarily dominant over all other states) is not only least likely to result in catastrophic violence but also inherently untenable. The multitude of smaller states will combine in balance against that dominant power, reducing it with a thousand tiny cuts until its military capabilities are exhausted. The once-dominant state then is caught and passed by one or more rising states. Neorealists contend that while bipolarity is inherently most stable, all other forms of multipolarity across the international system will encourage greater degrees of instability, direct violence among and between the Great Powers, and drive turbulent, hard power–dominated transitions among the major powers.

Hegemonic stability theory (HST) advances an alternative framework for understanding power transitions among the major actors, that is, the states. While not a realist theory, HST agrees with realism that relative military power is the bedrock for understanding status relations among the states at any given time. HST contends that a Great Power's temporal dominance in military attributes (its relative position as a hegemon) enables the framing of

system-wide rules, norms, and procedures in interstate relations that favor that dominant state's ideology and policy preferences. These rules also reduce the costs to police that system. HST is an international political economy–based, game theory aligned understanding of the conditions for interstate cooperation rather than competition. Yet most HST proponents align with realists in one critical point: it is the hard power capabilities and the will to use of the dominant state that underwrite the rules-based relationships among the actors. Thus, without a dominant state (hegemon) willing to use its hard power for enforcement, cooperative and collaborative arrangements inevitably will give way to the inherent chaos and violence of the anarchical world system. Then a new state will seek the dominance necessary to establish its own norms and institutions as ascendant across all elements of international interaction.[6]

Liberal and institutional constructs contend that Great Power state transitions need not become violent contests. As noted earlier, they do not believe that anarchy is the default setting for international relations. Instead, they view durable interstate cooperation as feasible with proper arrangements. Thus, in limited agreement with HST, liberal institutionalists believe that a hegemon (or even a combination of Great Powers) can establish norms, rules, and procedures for interstate relations that are fundamentally cooperative and collaborative. Unlike HST advocates (and also realists and neorealists), liberal institutionalists believe that well-constructed cooperative and collaborative norms, rules, and institutional arrangements can take on a life of their own, long outlasting the military power and dominance of the state(s) that created them. In liberal institutionalism, it is the cumulative cost of challenging cooperative arrangements with more competitive and conflictual ones that dissuades a break from well-established, peace-sustaining norms.[7] For constructivists, the transitions in global order—from cooperative to conflictual or from clash to collaboration—are dependent on the state-to-state interactions. It is about the choices made by the states themselves—and in particular the role of individual decisionmakers in each state and how leadership decisions shape the understandings of their people and other leaders in the global system—that establish the basic conditions of the system itself.[8]

The history of Great Power transitions over the past 500 years does not provide optimism for those hoping to see modern U.S. dominance culminate with a peaceful ascent of a successor state or combination. American political scientist Graham Allison's study of 16 major cases of rising power(s) versus an established Great Power found that only 4 of those cases—or 25 percent—ended without war.[9]

Allison's work—and that of many other international relations analysts and historians over the past decade—captures the dominant worry of the moment: Must the transition of relative power dominance between the United States and its successor become violent? During the generation from 1992 to 2008, this worry was mooted. The United States stood alone—atop the power structure at a unipolar moment in history.[10] Its post–World War II bipolar rival, the Soviet Union, was vanquished, and with it Moscow's vision of universal communism and the superiority of command-directed economics.[11] The next most feasible rising power, China, had declared itself in 1978 an aspirant to the international capitalist economy and found itself over the ensuing 30 years to be the benefactor of an American orthodoxy. In this orthodoxy, the rise of a Chinese entrepreneurial middle class would inevitably demand political liberalization and individual freedoms that would swamp the

> "In the 1990s and 2000s, American leaders believed that Russia and China were converging with the West on basic questions of world order. Countries would work together on common challenges while old geopolitical rivalries would matter much less. The 'era of convergence' came to an end because Russian and Chinese leaders concluded that if the liberal order succeeded globally, it would pose an existential threat to their regimes."
>
> *—Thomas J. Wright, "The Return to Great-Power Rivalry Was Inevitable,"* The Atlantic, *September 12, 2018*

Chinese Communist Party and see Beijing become a co-stakeholder in the web of liberal rules, norms, and institutions nurtured by American power from 1945 to 1990.[12]

After 2008, the promise of a reliably cooperative set of relations among these states was shaken, but not fully jettisoned. Almost a decade into his increasingly illiberal domestic political regime, Russian President Vladimir Putin oversaw a short, sharp invasion of neighboring Georgia and declared Russia a badly treated country that deserved Great Power recognition that the United States was unwilling to grant. That same year, Beijing—long wary of America's insistence that Western values of liberal democracy and human freedoms were lagging in China—witnessed American capitalism narrowly avoid a complete, catastrophic financial meltdown. China took away a lesson that there can and must be a Chinese alternative to American global dominance. By 2014–2015, the dawn of a new competition-dominant era came fully into view—as a de facto if not fully acknowledged era of Great Power rivalry. Russia conducted a covert military invasion of Crimea and annexed it from the Ukraine. U.S.-led Western countries slapped Russia with various forms of economic sanctions and expelled Moscow from diplomatic and economic organizations that it had belonged to for a couple of decades. During those same years, Chinese territorial assertiveness in the South China Sea and its increasingly restrictive business and communications practices at home catalyzed competitive-to-confrontational American responses: insistence of unfettered freedom of navigation, open condemnation of Chinese industrial espionage practices, and exclusion of China from planning for a broad new trans-Pacific trading partnership.

It took another couple of years, but the passing of America's "unipolar moment" begat the U.S. National Security Strategy of 2017 and National Defense Strategy (NDS) of 2018. Both declared that a two-decade-long dominant paradigm of cooperation in international relations was over, and competition would be the hallmark of the way forward among the three dominant states. A fully acknowledged era of GPC had begun. As noted in chapter 1, the dominance of a competitive framework in the emerging era does not exclude many parallel residual and dynamic elements of cooperation and collaboration from the past. Liberal institutionalist theories are under duress, but far from disproved. At the same time, growing competition among the Great Powers does not make realists or neorealists correct; it remains uncertain that the only potential outcome from this new era of GPC is overt confrontation and violent conflict.

Instead, the reemergence of GPC in this new era puts the world in a phase that has been the norm over the past 500 years, just not in recent memory. It is thus informative to extract a set of representative historical cases in which competition among the Great Powers provides useful lessons about the nature and evolution of such competitive eras and the transformation of relative power that often ensues. First, we must establish the key

Table 2.1. Frameworks for Thinking About Categories/Dimensions of Competition

	Howard (1974)	Friedberg (1988)	Kennedy (1987)	NDS (2018)
Social and Cultural	X			
Military		X	X	X
Political and Diplomatic				X
Science and Technological	X		X	X
Logistical	X			
Ideological		X		
Economic	X	X	X	X
Financial		X		
Informational				X

dimensions of GPC: How do they compete? Then how have some critical cases of historic competition been conducted in the contested categories?

How Do States Compete? The Dimensions of Interstate Competition

It is important to establish the main historic dimensions of interstate competition. Since the Treaty of Westphalia in 1648 codified statehood as the recognized form of geopolitical organization, state-to-state competition has been multifaceted, incorporating an array of state interactions. The international relations and security studies communities have used a variety of different dimensions of strategy or national power to capture the complexity of competition.

In the post-Vietnam era, British historian Sir Michael Howard identified four dimensions of national strategy and competition reflective of successful wartime circumstance.[13] A decade later, American political scientist Aaron Friedberg defined four different categories of state-to-state power competition resonant during a Great Power transition in his assessment of Great Britain's relative power decline over the late 1800s and early 1900s.[14] About the same time, Yale historian Paul Kennedy in *The Rise and Fall of the Great Powers* stressed three major areas focusing on a state's economic production base and productivity as key dimensions of Great Power competition while highlighting the importance of the military dimension.[15] Leveraging these three authors and more, the NDS defined five dimensions of GPC in its conception of the expanded competitive space relevant to the future security environment. The various concepts found in these major works about GPC are summarized in table 2.1.

> "The competition is likely to be multilayered and interactive. No single theme or model will capture the complex mosaic of global competition, and the intersections among diverse types of competition—how success or failure in one area exacerbates or mitigates others—will be a crucial determinant of relative success."
>
> —*Michael J. Mazarr et al.*, Understanding the Emerging Era of International Competition, *RAND (2018)*

Subsequent to the publication of the NDS, RAND political scientist Michael Mazarr and his colleagues conducted a historical review and identified seven objectives of traditional interstate competition:

- power and security
- status, standing, and prestige
- material and economic prosperity
- resources
- territory and sovereign claims
- values and ideology
- rules, norms, and institutions of the system.[16]

7 objectives to GPC

5 competiti Categories

The seven objectives added texture but did not fundamentally reshape the construct of the five competitive categories (or aspects of competition) delineated in the NDS. Thus, for purposes of this chapter and the wider framework found in the volume, the competitive categories listed in table 2.2 will be applied to analyses of Great Power interactions.

Understanding Prototypical GPCs: Four Cases

In the past 5 centuries, Great Power transitions have played out over decades, not years. As noted earlier in this chapter, in 16 historical cases of GPC from the late 1400s to the present studied by a Graham Allison–led team at Harvard in the 2017 version of the *Thucydides's Trap Case File*, 12 of them (75 percent) resulted in Great Power war.[17] In a review of great strategic rivalries from the classical world to the Cold War, U.S. Marine Corps War College military historian James Lacey's 2016 edited volume *Great Strategic Rivalries* demonstrated that rarely do strategic competitions during eras of major state power shifts end without at least one direct major military clash. The U.S.-Soviet Cold War denouement and the United Kingdom (UK) accommodation of U.S. power at the end of World War II stand out as just 2 of 15 Great Power transition cases where a major direct military clash did not occur.[18] The University of Michigan's decades-old *Correlates of War Project* chronicles major and minor wars since the Napoleonic era and provides significant evidence that the dawn of Great Power rivalries inevitably introduces a heightened risk of major war into the international system.[19] Moreover, since the fall of Napoleon in 1815, over half of all wars have been between enduring Great Power rivals. If one adds early conflicts among proto-rivals, that number climbs to over 80 percent.[20] Thus, the most persuasive research done on past eras of GPC demonstrates that a majority of them involved power transitions among Great Powers and that a full three-quarters of them culminated with—or featured within the competitive transition period—a destructive period of violent Great Power clash (war).

And yet the inevitability of direct military clash among Great Powers during times of relative power transition is not foreordained. As neorealists observe, the structure of the international system can mitigate competition so that it culminates without direct combat—with a bipolar system being most likely to remain stable and great state competition settling into patterns of rivalry short of war.[21] Other systemic factors may help Great Powers channel (or expend) their worst animus in one of the other four nonviolent categories of interstate competition: politico-diplomatic, economic, ideological, or informational. Liberal

internationalists offer a "liberal peace" theory, arguing that states with shared ideological values—including liberal democratic political institutions and deference to individual human rights—are resistant to major war with each other.[22] An alternative institutionalist thesis asserts that states with a high degree of economic interdependence are more likely to compete in categories and a manner short of war.[23] Constructivists assert that national leadership can condition interactions and cultures to refrain from confrontation and clash with attention to social norms and cultural symmetries that build identities and communities of peace.[24] Great Powers also may vent violent tendencies in surrogate conflicts and proxy wars. They may seek out networked partnerships or alliance systems with combinations of lesser powers in order to increase their prospects for successful competition in nonmilitary categories and/or to deter any move toward armed clash. Or they may seek common arrangements to restrain confrontation and inhibit armed clash within agreements such as the informal Concert of Europe (1815–1854), the League of Nations (1919–1930), and the United Nations (1945–present).[25] Finally, the enormous destructive power and generational damage wrought by nuclear weapons may—as it has seemingly done since 1945 with rare exception—inhibit a resort to major violence and warfare between Great Powers.[26]

With the five primary dimensions of interstate competition established and the general understandings of research into past GPCs and power transitions highlighted, this chapter now turns to a short analytical review of several representative historical cases.[27] Four dyadic cases within broader periods of GPC have been selected:

- France and the UK, from the late 18th to the early 19th centuries
- the UK and Imperial Germany, from the late 19th to the mid-20th centuries
- the UK and the United States, from the late 19th to mid-20th centuries
- the United States and Imperial Japan during the early 20th century.[28]

These four rivalries were contested in a multipolar global system, like the era emerging in 2020. All four featured an ascendant Great Power worried about relative power decline and at least one rising power seeking recognition and status—also evident in 2020. Finally, all four were contested during periods of emergent, disruptive technologies driving global economic dynamics from one paradigm to another. In the late 1700s, agrarian economies and mercantilist trade preferences were giving way to industrialization and free trade networks across Western Europe. By the late 1800s and early 1900s, maturing industrial economies acted out globally across a landscape featuring contested colonial empires and a growing number of protectionist trading networks. In 2020, the world is moving beyond industrial economies and even digitized ones to those featuring the hallmarks of a fourth industrial revolution: the blurring of boundaries between the physical, digital, and biological worlds.[29] At the same time, powerful political forces are questioning the wisdom of global free trade, but without any clear alternative framework.

Three of these rivalries resulted in war—a percentage consistent with the broader historic percentage of Great Power competitions culminating in war discussed earlier. The wars fought out of these competitive transition eras were three of the five most deadly conflicts in human history: World War II, World War I, and the Napoleonic Wars, respectively.[30] Only in the case of the rise of the United States in an era of relative UK power decline did a

Table 2.2. A Framework for Assessing the Aspects/Categories of Competition	
Competitive Aspect/Category	**Main Competitive Elements**
Political and Diplomatic	Levels of influence in multilateral institutions, key posts held that control multilateral institutions, number and strength of political alliances.
Ideological	Values and political systems' appeal.
Informational	The manner and degree of transnational communications: open and transparent vs. closed and restrictive. Extent of denigration of "the other" in mass communications.
Military	Size, posture, technological edge of armed forces. Cohesion and capacity of military alliances.
Economic	Size, technological breadth, diversity, and resource base of national economy. Innovation ecosystem of national economy, including access to and management of financial capital.

Table 2.3. Major Dyadic Dynamics During Four Eras of Great Power Competition				
	France/UK	**UK/Germany**	**United States/UK**	**United States/Japan**
Political and Diplomatic	UK ascendance challenged	Competition over global colonies; later continental hegemony by Germany	UK global colonies preeminence and UK dominance of western Atlantic Ocean challenged	U.S. Asia-Pacific hegemony and rules for China
Ideological	Aristocracy vs. Populist, charismatic rule	Limited ethnic prestige issues; later clash over human rights and liberties	Limited ethnic tensions, only lingering with Irish-Americans	Liberal democracy vs. divine rule and messianism
Informational	Exchange among elites vs. empowerment of popular passions; negative popular imagery	Press-fueled nationalism/xenophobia; later clash over state-dominated propaganda and expression limitations	Limited and linked to economic concerns; favorable reciprocal popular press	Open, individual communications vs. hierarchical information; xenophobic press eventually
Economic (with science and technology factors)	Trade and commercial dominance across Europe (level of industrialization)	Lines of communication and colonial preferences (chemical and industrial manufacturing industries)	UK colonial trade order vs. U.S. commerce preferences (manufacturing innovation mainly in electromagnetic spectrum)	"Open Door Policy" vs. Co-Prosperity Sphere (access to metals, oil products, rubber)
Military	Royal Navy vs. France's Conscripted, Massed Army	Naval arms race	Limited to naval parity	Naval supremacy (emerging aviation)

century of chilly interstate contestations resolve short of war. The U.S.-UK dyad ultimately produced an alliance and partnership during two global wars against other Great Power competitors. Their victorious alliance in the Second World War made way for the final accommodation of ascendant U.S. power into an alliance oriented toward a wider period of system stability and international peace.

A summary of the major dynamics of these four GPC dyads across the five dimensions of interaction listed in table 2.2 is provided in table 2.3. A short analytical review of each of

Figure 2.1. Britain (William Pitt) and Napoleon Carving Up the World. *Source*: James Gillray, *The Plumb-Pudding* [*sic*] *in Danger* (London: H. Humphrey, 1805).

these episodes follows that table. The reviews illuminate wider lessons about GPC histories, transition dynamics, and patterns of competitive interaction with relevance for 2020.

France and the United Kingdom, Late 18th to Early 19th Centuries

Between 1790 and 1820, longstanding European powers and rivals France and the United Kingdom entered a period of intensified competition and confrontation that resulted in two major wars—the French Civil War (and its continental spillover from 1792 to 1802) and the Napoleonic Wars (1803–1815). The international system at that time was multipolar, with other Great Power contestants including Russia, Austria-Hungary, Prussia, and the Ottoman Empire.

The UK and France had been competitors for more than a century. From the 1680s through the 1780s, the two jousted globally over colonies and international resource access and on the continent of Europe over economic and religious ascendance. For the 100-year period from 1648 to 1763, France was the dominant power and the UK its rising challenger.[31] By the end of the 1700s—after four decade-long periods of continental war and interrelated colonial proxy war between the two conducted over a century—the power relationship had flipped. The UK commenced the 1790s as the dominant global and European power in command of the seas with its Royal Navy, flourishing as the most rapidly industrializing state astride Europe.[32]

From the 1500s to the mid-1700s, Great Britain and France contested economic supremacy in a mercantilist system. Mercantilist economics was based on the premise that

a nation's relative wealth and power were best secured by the accumulation of land, gold, and silver. The accumulation of overseas colonies also generated national wealth and relative power by assuring the export of home country goods to loyal colonists while limiting the number of foreign products available for purchase in those colonies. In the mid-1700s, France squandered its mercantilist advantages in continental land mass and in its overseas colonial presence. It lagged in modern techniques of crop rotation and fertilizer use, and its industrial advances in textiles, mining, and metallurgy came mainly from innovation by British entrepreneurs. The Seven Years' War (1756–1763) increased royal debt and then lost France nearly all its North American colonial possessions. At the same time, the British industrial revolution began. Its innovations in steam engines, textile machines, tool-making, and railroads vaulted the UK into position as the world's most prosperous economy. In turn, UK businessmen became leaders in international commerce, trade, shipping, and banking—with London quickly becoming the financial capital and focus of the world economy. The British military, and especially its Royal Navy, grew from the wealth of the nation. London leveraged this military advantage to assure preferential trade and exchange between growing British colonies and the home country.

Early British public empathy for the 1789 French Revolution waned by 1793. Never amused by the revolution, the British government first supported a failed Austro-Prussian military effort to march on Paris and end the revolution in the fall of 1792. Then the vulgar beheading of King Louis XVI and the bloody excesses of the Reign of Terror compromised all but the rashest British common folk sympathies for the rebels. Britain passed an Aliens Act that prohibited French radicals from travel into the UK, and London kept a wary eye on France's activities. While the early years of revolutionary chaos in France helped Britain's overall power status, persistent French-inspired turbulence on the continent left London worried about roiling instability there. The populist interim French government and its successor Napoleonic Empire both promised to topple or replace the Divine Right and standing of the monarchies across Europe. With this persistent ideological threat, the French Revolution introduced outright political and ideological conflict into what had been a serious but often constrained competitive rivalry among fellow monarchies. The rules of competition that dominated (and often moderated) the normally bitter French-English competition from the late 17th to mid-18th centuries vanished.

Populist France also posed a threat to the UK and fellow continental monarchies' preferred means of communication and information exchange among royal elites—threatening to directly agitate anti-monarchy massed unrest in London and across the continent.[33] The UK's economic access to the continent through the Low Countries and Spain was put in jeopardy by revolutionary France's crusade-like activism, sending mass armies into Austria, Belgium, Italy, the Netherlands, and Spain. England's lead in industrial productivity also seemed in jeopardy should France conquer England's favored European economic partners.[34] France's turn to universal military conscription for its army (*levée en masse*) and a new preference for total war instead of limited, seasonal campaigns—begun during the Directorate and perfected by Napoleon—disadvantaged traditional monarchic armies and threatened unconstrained French continental dominance. Fearful that France might establish absolute continental power and turn that power outward into serious confrontation against the UK's overseas colonial holdings—a fear crystalized during the 1798–1801

French campaign into Egypt and Syria—British resolve steeled. London forged continental military alliances against France and commenced armed military conflict geared to contain and then collapse France's expansionist aims and ambitions.[35]

This UK-France period of dyadic rivalry was contested during a 26-year period following a dramatic upheaval in French politics and against a backdrop of multiple Great Powers jockeying for position in Europe—a relatively unstable multipolar system. It peaked into full-out warfare when London's ascendance on the seas and largely unfettered access to preferred overseas colonies, once contested by Spain and France, seemed to be jeopardized by a radicalized France. The period of French-British competition turned exceptionally violent when the prospects for collaboration and/or accommodation between them in the five major areas of state-to-state interactions became seemingly impossible. The UK turned to anti-French military ground alliances across continental Europe and leveraged its superior navy to destroy the French fleet at Trafalgar in 1805. These direct military clashes confined revolutionary France into a landlocked country with limited economic activities and constrained ideological reach.[36] The UK's clever exploitation of allied and partner continental armies to converge against French military forces from 1813 to 1814 and again in 1815 eliminated the main French threat and reset the norms of monarchy-to-monarchy power competition on the European continent in political, ideological, informational, and economic areas of interaction. In a display that realist theorists would label an astute balance of power maneuver, Great Britain reestablished—for a time—its self-perceived relative power advantage against all European states, its general freedom of economic action on the continent, and its unrivaled ascendance in overseas commerce. It is important to note that the main domain of commerce and communications/information of that time—the high seas—was the arena of competition where the UK worked most vigorously and independently to sustain its dominance and to secure future ascendance over its Great Power rival, revolutionary France.

Great Britain and Imperial Germany, Late 19th to Early 20th Centuries

From 1870 to 1945, the United Kingdom again found itself challenged by a new and rising Great Power, Imperial Germany. Germany rose to challenge UK dominance in an era marked by a multipolar distribution of global power. The UK was the globally ascendant power; France was an established but constrained Great Power; Russia, Austria-Hungary, and the Ottoman Empire were established but declining Great Powers; and the United States, Germany, and Japan were economically rising states and aspiring Great Powers.

Berlin threatened London by direct competition for overseas colonies enabled by an ascent to be a global sea power and with potential dominance on the European continent. This dyadic rivalry played out within a wider era of GPC and culminated in two major global conflagrations: World War I and World War II. Initially, Imperial Germany's challenge to an ascendant United Kingdom was an economic one and without sharp competition in the other four categories of major state interaction (see table 2.2). As they consolidated control of a majority of the European continent via wars in 1864, 1866, and 1870–1871, Imperial Germany's founders effectively leveraged expanding German access to natural resources and labor. They forged a state with industrial prowess and manufacturing capacity that surpassed that of the long-dominant United Kingdom.[37] In 1870, the UK produced almost

Table 2.4. Great Power Iron and Steel Production in Selected Years (in Tons)

	1870	1910	1935	1950
UK	5,819,492	12,050,361	12,905,243	18,800,000
Germany	1,560,000	25,500,000	6,498,873	10,600,000
United States	375,000	25,643,871	51,100,000	80,100,000
France	1,417,073	11,200,000	33,301,000	10,600,000
Russia	2,336,000	11,900,000	27,918,000	53,200,000
Japan	0	180,000	4,703,000	7,800,000

Sources: Tibor Fabian, "A Linear Programming Model of Integrated Iron and Steel Production," *Management Science* 4, no. 4 (July 1958), 415–449; M.S. Birkett, "The British Iron and Steel Industry," *Economica*, no. 5 (June 1922), 149–161; John B. Parrish, "Iron and Steel in the Balance of World Power," *Journal of Political Economy* 64, no. 5 (October 1956), 369–388; Muzaffer Erselcuk, "Iron and Steel Industry in Japan," *Economic Geography* 23, no. 2 (April 1947), 105–129; Abraham Berglund, "The Iron and Steel Industry of Japan and Japanese Continental Policies," *Journal of Political Economy* 30, no. 5 (October 1922), 623–654; Charles Will Wright, *The Iron and Steel Industries of Europe*, Economic Paper 19 (Washington, DC: Government Printing Office, 1939); S.L., "Iron and Steel in the Soviet Union," *The World Today* 8, no. 5 (May 1952), 210–222; Robert C. Allen, "International Competition in Iron and Steel, 1850–1913," *The Journal of Economic History* 39, no. 4 (December 1979), 911–937; James E. Rowe, "The Development of the Russian Iron and Steel Industry," *The Geographical Bulletin*, vol. 10 (May 1975), 24–30; Daniel J. Morrell, "Iron and Steel," in *Reports of the United States Commissioners to the Paris Universal Exposition, 1878*, vol. 3, *Iron and Steel, Ceramics and Glass, Forestry, Cotton* (Washington, DC: Government Printing Office, 1880), 1–112; William P. Blake, "Ceramics," in *Reports of the United States Commissioners to the Paris Universal Exposition, 1878*, vol. 3, 113–224; John B. Parrish, "Iron and Steel in the Balance of World Power," *Journal of Political Economy* 64, no. 5 (October 1956), 369–388; Henry Harrison, "Iron Ore, Pig-Iron, and Steel Production," *Scientific American* 110, no. 22 (May 1914), 444.

four times as much iron and steel as Imperial Germany and by 1910 the Germans twice as much as the British (see table 2.4). In the subset of steel—the product of a more advanced industrial process and of greater use in modern machine tools, construction, and advancing implements—the UK produced twice as much steel as Imperial Germany in 1870, but by 1910 the Germans twice as much as the British.[38]

Over the same 40-year period, Germany increased coal production by 800 percent; the British increase was only 200 percent.[39] As it grew, Imperial Germany protected its industrial manufacturing and its agricultural production from outside competition with steep import tariffs.[40] The UK had quit protectionism and embraced free trade in 1840 so had no similar import tariffs to counter the German taxes (or, for that matter, similar American tariffs). Despite recurring British government efforts to establish countervailing protectionist tariffs, domestic British export merchant and financial interests prevailed in preventing any new UK tariff regime that could hurt their strong export businesses.[41] In 1910, the UK had twice as much in credit bank assets as Germany.[42]

Beginning in the 1890s, Berlin turned its growing manufacturing advantage—especially in steel—into the quest for a world-class navy. The Kaiser and key German interest groups (or leagues) wanted a navy that could rival that of the UK for prestige and that could compete with imperial London for acquisition and maintenance of global colonies.[43] In 1897, Imperial Germany began emphasis of a so-called world policy (*Weltpolitik*) that shifted popular attention from growing domestic social issues to foreign policy by focusing on overseas colonial expansion and the construction of a high seas fleet.[44]

Kaiser Wilhelm II perceived Germany's quest for a dominant navy as one to gain London's respect as a peer Great Power to be accommodated. But this fateful policy choice had an opposite effect in London.[45] Badly spooked, the UK made diplomatic moves during the 1890s to curtail Anglo-French enmity that had lasted over 800 years. London's diplomats also took steps to moderate a 60-year, often intense competition with Russia over colonies and boundaries in the Near East and Far East: the "Great Game."[46] London took these steps in order to seek an agreement with Paris and later Moscow to constrain Germany's rise on the European continent.[47] British diplomacy also undertook a "Great Rapprochement" with another putative Great Power rival of the era—the United States.[48]

Figure 2.2. Germany, Britain, and Russia in Pursuit of Colonies. *Source*: Thomas Nast, "The World's Plunderers: Germany, England, and Russia Grab What They Can of Africa and Asia," *Harper's Weekly*, 1885 (Sarin Images/Granger).

By 1905, the UK turned the full British Empire's attention—including London's notorious press—toward the German threat. Germany returned the favor. The popular press in both Germany and the UK played a substantial role in accelerating Anglo-German hostilities. From about the mid-1890s, the British mass press featured a steady diet of invective against a militarized and menacing Germany. At the same time, the German press took delight in selling copy by accusing Britain of standing in the way of Germany's rightful place as a global leader. German papers also made their mark by publicizing British troops in South Africa as cravenly bayonetting to death innocent Boer babies in their conduct of the Boer War.[49] German publications fanned the flames of extreme nationalism advocated by the Pan-German League, founded in 1891 by Ernst Hasse.[50] This xenophobic, right-wing league had a notable influence on German public opinion against Anglo-Saxons, Yankees, and Russians before World War I and set the stage for the interwar rise of Nazism's hateful intolerance of all things insufficiently German.[51]

Of note, Imperial Germany and the UK had relatively similar political systems during their pre–World War I era of rivalry. Both were constitutional monarchies, and their aristocratic classes were heavily intermarried and related by blood. Both were growing more democratic during the period, each enfranchising more and more voters into its political systems. But unlike the cases of the UK and the United States addressed later, this political "sameness" did not limit descent into toxic rivalry.[52]

UK fears of decline vis-à-vis Germany and German grievances against British haughtiness contributed to the development of a European military alliance structure steeped in complex animosities and tethered to hair-trigger war plans in the event of crisis. Germany's

major alliance partner, Austria-Hungary, was wrapped into a mesh of self-determination breakaway wars across Eastern Europe where Russian meddling fueled military grievance and a seemingly inevitable Russo-Austrian armed clash. In turn, the UK's 1907 Entente with Russia did not fully appreciate St. Petersburg's risky adventurism in the Balkans or the degree to which the Russian army was no match for the German war machine. Thus, each rival tethered itself to allies with great incentives to fight, and these incentives produced extremely risky war plans that set the conditions for the miscalculations of 1914 and the calamity of World War I.[53]

The aftermath of World War I featured a "victor's peace," with stifling economic war reparations against Germany, insufficient British economic power to moderate global economic shocks, and a postwar economic titan—the United States—unwilling to undertake an economic or diplomatic leadership role.[54] These conditions accelerated global economic instability and military rivalries that fueled the rise of fascist and communist ideologies. The struggle over power transition and ascendance that generated World War I also set the conditions of fragmentation and confrontation between the UK, its allies, and Nazi Germany that followed the Great War. By the early 1930s, Nazi Germany and the UK again had major, intractable grievances across the political, economic, ideological, and informational dimensions of state-to-state interaction. These combined to produce a second, even more all-consuming global conflagration: World War II in Europe and the North Atlantic.[55]

The Anglo-German competitive dyad was contested over a 75-year period and in a multipolar world—one that neorealism views as the least stable and most prone to interstate war. It evolved from a period of wary competition between the UK and Germany that lasted from 1870 to 1895, when political, ideological, informational, and economic forms of interaction were reasonably collaborative.[56] By 1900, this GPC dyad devolved into stark competition, confrontation, and major war when Germany moved to turn its economic advantage toward creation of a globally relevant navy and sought to become a colonial power on equal footing with the UK and France. After World War I, Germany's grievances, Britain's inability to fully recognize its accelerating decline of economic and political power as an outcome of the Great War, and the very wide differences between London's and Berlin's narratives about proper political, economic, human rights, and institutional norms set the stage for another violent and even more vicious clash of arms, World War II.

It is again worth noting that the UK became most worried that it would be eclipsed once Germany asserted a clear challenge for dominance over the principal medium of commerce and communications in that era—the high seas. After London's early 1900s determination of the primacy of Germany's challenge, the UK shifted into diplomatic, informational, and then military confrontation and clash with Imperial Germany.

The United Kingdom and the United States, Late 19th to Mid-20th Centuries

The United States and the UK participated in a dyad of Great Power competition from the 1880s through 1940. Their competition nested in the multiple rivalries between the many Great Power states of the era. The UK was the ascendant but declining power and the United States the rising one. London and Washington mainly contested naval dominance across the Western Hemisphere and about the rules and ascendant order in global economic exchange.[57] In 1870, U.S. gross domestic product became equal to that of the UK. By 1890, American industrialization rapidly eclipsed that of the UK, and by the turn of the

Figure 2.3. U.S. and UK Rapprochement—Uncle Sam and John Bull Shake Hands. *Source*: Victor Gillam, "Hands across the Sea," *Judge*, June 11, 1898.

century, American economic industrialization and manufacturing prowess was on the path to eclipse the size of the entire economy of the British Empire.[58] While the UK pursued an economic policy of openness, the United States established and maintained post–Civil War protectionist tariffs with special preference to industrial manufacturing and agriculture.[59] Yet U.S.-UK trade expanded throughout the period as London tolerated American protectionism while pursuing the consumer and financial services economic benefits of liberal international trade.

A century of Anglo-American political and ideological animus began a slow decline in the 1880s. From before the American Revolution, the United States demonstrated a strong distaste for the British colonial empire. So, too, British politicians had a deep disdain for American views about liberal democracy that denigrated constitutional monarchies and often called for toppling old European dynasties and the demise of colonial empires.[60] But during the 1880s and 1890s the UK became more democratic by enfranchising more voters, and the United States gained its own form of territorial empire.[61] This growing sense of sameness along political and ideological lines allowed London and Washington to view each other's power in less threatening ways. Between 1887 and 1901, London concluded a number of treaties and agreements with the United States that settled residual questions about Canadian boundaries, Alaskan fisheries, and the future of the Panama Canal Zone, among others.[62]

By the late 1890s, Americans began to convert economic might into diplomatic initiatives and naval military power. Where the Royal Navy had been ascendant over the Atlantic Ocean from the late 1790s, a small but increasingly capable and active U.S. Navy now began to assert itself. Rumors of possible war between the United States and the UK during 1895

Table 2.5. Percentage of International Exports: Selected Years

	1900	1910	1920	1935	1950
United States	14	11.1	22.4	11.6	16.7
Germany	10.9	11.2	3.8	8.9	3.2
UK	14.6	13.5	14	12.1	10
France	7.9	7.6	7.5	5.3	5
Russia	N/A	N/A	N/A	N/A	N/A
Japan	1	1.4	3.1	4	1.3

Source: United Nations (UN), *International Trade Statistics 1900–1960* (New York: UN, 1962).

and 1896 involving a territorial row between London and Venezuela caused panic in New York and worry in London.[63] Yet cooler heads prevailed in both countries. Diplomats navigated Anglo-American frictions, so they were viewed less moralistically and with greater realism, inhibiting the potential for violent clash.

Around the same time, dynamics in the multipolar international system came to reinforce the nascent U.S.-UK rapprochement. As previously noted, the UK perceived greater risks to its colonial holdings and to a hostile takeover of the seas from Germany.[64] British admiralty worries about the German naval buildup closer to home caused the War Office of the early 1900s to de-prioritize planning for possible war with the United States. Gradually, British politicians joined Royal Navy analysts in determining that America's economic might meant that Washington could afford a navy that Britain could never hope to match. Moreover, without any powerful UK allies in the Western Hemisphere, it would be folly to engage in a military quarrel with the United States.[65] The UK's decision to seek accommodation and collaboration with the United States at the turn of the 19th century (the Great Rapprochement) paid future dividends.[66] A historically isolationist United States eventually joined the UK in its fight against Imperial Germany during World War I and later against the consolidated European fascist powers led by Adolf Hitler's Germany in World War II. The United States also became the global standard bearer for liberal democratic norms and institutions after World War II when the UK's power and prospects for global influence sharply declined. Yet the British decision to accommodate rather than confront U.S. power negatively impacted long-term UK interests in one significant area—economics. Washington's distaste for the British colonial empire generated a post–World War II set of global commercial and financial rules and norms that transferred fiscal and trade dominance from the UK to the United States and that saw the rapid disintegration of the once mighty British colonial empire and an attendant decline in British trade as a percentage of global trade (see table 2.5).[67]

The Great Rapprochement between the UK and the United States during 1895 and 1915 was far from the certain thing that is often assumed today.[68] In many ways, the Anglo-American competition prior to the 1880s featured more areas of confrontation (political, economic, and informational) than areas of collaboration (ideological and military). However, Britain made a proper assessment of its inherent economic and military-industrial power limitations compared to those held by a late 19th-century America. It also came

to see the United States as a Great Power rival with tolerable political, ideological, and information preferences. Realists contend that it was London's balance of power calculus against Germany that led to a strategic decision to contest the rise of Berlin and convert tensions with its former American colonists into a long-term special relationship and geostrategic partnership. Liberal institutionalists argue this as a case where common norms, values, and political systems facilitated a peaceful Great Power transition. HST proponents view British acquiescence to the ascent of American power as a logical outcome between a dominant, declining hegemon and a rising state that viewed the future of global norms, orders, and procedures in a similar way.

The United States and Imperial Japan, Early 20th Century

Japan and the United States engaged in a 45-year period of rivalry over economic influence across the Asia-Pacific and for control of the Pacific Ocean sea lines of communication. Although both were largely rising powers in the Asia-Pacific region when compared to established Great Powers such as Britain and France, the United States perceived itself as the dominant commercial and maritime power in the region and the Japanese as the rising challenger to its regional hegemony. This contest culminated in a 5-year, deeply destructive war across Asia-Pacific fought as part of World War II.

American interest in commerce and free enterprise in the Asia-Pacific traced back to Commodore Matthew Perry's maritime engagement with the Japanese in the early 1850s. U.S.-Japan relations were relatively positive and featured modest economic trade and cooperation during the late 1800s. After the Spanish American War of 1898, the United States took a great and growing interest in setting the rules for trade and commerce across the Asia-Pacific. Rapidly increasing American industrial might resulted in high-volume exports that needed import partners across Asia. American industrial prowess also was invested into a modern recast: iron- and steel-hulled U.S. Navy capable of enforcing commercial exchange in the Pacific Ocean. The 1899 U.S. declaration of an Open Door Policy calling for equal trading rights for all nations in China and recognition of Chinese territorial integrity set the stage for increasing friction with Imperial Japan. Japan already had territorial interests in China and on the Korean Peninsula, secured during the First Sino-Japanese War (1894–1895). Tokyo believed that it had to control selected tracts of territory on the Asian land mass to access natural resources and control markets necessary to be a regional Great Power. Japan reaffirmed its intent and its capability to assert imperial control of continental Asian territories with victory in the Russo-Japanese War (1904–1905) where Japanese victory confirmed its control of land in Korea and Manchuria. In 1915, Japan announced its Twenty-One Demands for the Republic of China, asserting a far greater Japanese economic and territorial remit there.[69]

During late World War I and its immediate aftermath, the United States sought modest accommodation with Japan in a manner that enhanced Japan's belief that it had the right to special territorial interests in China due to its geographic proximity but that maintained the public perception that America's Open Door Policy remained intact.[70] The United States and the UK also sought to constrain the burgeoning post–World War I naval arms race among them, Japan, France, and Italy with a Five-Power Treaty (1921–1922) that locked warship ratios among the UK, United States, and Japan at a 5:5:3 ratio.[71] Initially acceptable to Japanese

Figure 2.4. U.S. Army Anti-Japanese Propaganda Poster. *Source*: "Our Next Boss?" World War II propaganda poster (U.S. Army/University of Minnesota Libraries, Upper Midwest Literary Archives).

politicians, this treaty became a growing aggravation with Japanese military leadership during the 1920s and 1930s. It also became a poster child codifying Tokyo's grievance that, led by the United States, Western powers were treating Japan unfairly as a second-class power.[72] At the same time, longstanding ideological and racial tensions between the United States and Japan hardened when President Woodrow Wilson refused a Japanese request for a racial equality clause or an admission of the equality of the nation in the League of Nation's charter. U.S. isolationism in the 1920s and early 1930s meant that competition between Washington and Tokyo festered beneath the surface in the United States. But Japanese frustration with the United States grew increasingly palpable as its 1920s economy suffered from a post–World War I recession and an early 1930s depression jolted by the U.S. stock market collapse and subsequent draconian U.S. tariffs on all imports.[73]

Jarred by severe economic depression, Japan's military leaders gradually muscled aside its political leaders from 1931 to 1937, pressing the government into ever greater military adventures throughout eastern Asia. Japanese military and strident nationalist politicians became increasingly assertive in claims for colonial ascendance across Asia and in China. Japan invaded Manchuria in 1931, exciting international condemnation. It withdrew from the League of Nations in 1933 over this criticism and increasingly turned away from international diplomatic and economic fora. In 1937, Japan launched an open war against China in Beijing, seeking expanded control of critical infrastructure and resources. From 1937 to 1940, the United States and Japan coexisted in an uneasy truce—with the United States refusing formal entry into the war on the side of China and continuing to abide by the terms of the 1911 U.S.-Japan Treaty of Commerce and Navigation. But by 1940, Japan's continuingly brutal war in China, coupled with its diplomatic and economic overtures toward the Axis powers of Germany and Italy and its formal declaration of a "Greater East Asia Co-Prosperity Sphere" against all Western interests in the Pacific, triggered a much sharper U.S. reaction.

As a strong signal of growing worry about Japan's unrelenting war in Asia and its growing naval fleet, America repositioned its Pacific Fleet Headquarters from San Diego to the territorial port of Pearl Harbor, Hawaii, during the summer of 1940. In late 1940, Washington levied restrictive sanctions against Japan's economy and stepped up overt aid and assistance to China. America sought to contain Japanese imperial expansion in the Asia-Pacific with an embargo of Japan's access to critical materials, such as oil, rubber, and scrap iron. Japan viewed this policy with increasing alarm and perceived that it was being placed under existential threat. After the United States placed a full oil embargo on Japan in the middle of 1941, Japan's military leadership resolved to preemptive war—hoping to strike a decisive blow against the U.S. Pacific Fleet early in a clash that would cause Washington to sue for peace in the Asia-Pacific. Japan properly recognized that U.S. industrial might and latent military capability would inevitably dwarf that of Japan, but its military junta would not auger long-term accommodation with Washington, instead gambling on success in a short, sharp 6-month war.[74] This military gambit failed at Pearl Harbor, and 4½ years later, Japan's imperial ambitions and its country lay in ruins.

During the early 1900s, U.S.-Japan GPC in the Asia-Pacific was contested in a multipolar world where the major powers of Europe along with Japan and the United States sought political and economic influence on the continent of Asia. A relatively dominant United States—led by its modern growing navy and strong economic influence—managed the palpable tensions with Japan through restraint and a number of frequently secret bilateral and multilateral arrangements involving Tokyo's continental aims. Economic interests on the continent of Asia greatly diverged, but Japan and the United States continued direct trade with each other in a number of key categories, including those of energy and mineral resources. The two countries also found space for mutual financial benefit in secret deals impacting China. Ideological differences were obvious as U.S. aversion to Japanese and Chinese immigrants played out in public, but American and Japanese diplomacy sidestepped the issue until the outbreak of war. Japan's growing military might was addressed in a series of temporal arms control treaties that weathered poorly when Japanese military leadership took center stage in Tokyo during the 1930s. Disarmament and arms control efforts at collaborative competition also fell short because they did not address emerging technologies with critical warfighting impact such as naval aviation and aircraft carriers, submarines, and electromagnetic sensing devices. Political and diplomatic niceties remained ascendant until the 1930s, but then sharply eroded once Japan's government took a militaristic and fascist tone.

A destructive U.S.-Japan military clash was not foreordained. But the deep divisions in all the major dimensions of state-to-state interaction between them by the 1930s made peaceful competition exceptionally fraught. Economic accommodations made from the early 1900s to the late 1930s waned as Japan's government turned militaristic, and long-festering cultural and ideological differences were thrown into stark relief as Japan pursued empire and America pushed back. Japan's military became Tokyo's preferred means of interaction as its quest for self-contained regional economic hegemony in the Asia-Pacific confronted America with a choice to abandon the region or engage in confrontation. Japan's initial advantage in naval aviation and amphibious military operations did not hold up well in the face of America's enormous industrial and manpower advantages. Its quest for ascendant power in the Asia-Pacific lay in ruins by late 1945.

Insights from Selected GPC History

There are a number of insights about GPC that can be drawn from analysis done in this chapter—including the selected analysis made of our four historic rivalry dyads. Among these insights, 10 stand out.

First, for all but liberal-institutionalist theorists, international relations scholars and modern strategic analysts identify the historical relations among the most powerful states (the Great Powers) as critical to determining the levels of peace and stability across the international system. All agree that GPC involves more than just military power, and many view military power as the most critical attribute. Geopolitical scholars agree that soft power matters to GPC and includes political, ideological, informational, economic, and emerging technological dimensions. Most of these strategic dimensions or instruments are interdependent to some degree.[75]

Second, over the past 500 years, interactions among Great Powers in the international system normally are dominated by competition in one or more of the major interactive categories (see table 2.2) with simultaneous elements of collaboration and conflict. Pure cooperation (unfettered peace and stability) and direct violent clash (war) among them have been the rarest forms of interaction.[76] Thus, the unipolar moment featuring unchallenged American military ascendance, absence of war among major states, and the primacy of cooperation and collaboration in the international order from 1992 to 2008 was atypical.

Third, Great Power transitions play out over decades or centuries, not years. Three-quarters of transitions since 1500 have culminated with—or featured during—a destructive period of war. The inevitability of war among states during times of transition is not foreordained; Great Powers may channel or expend their worst animus in one of several other nonviolent categories of competition: politico-diplomatic, economic, ideological, and informational. Great Powers also may vent matters of confrontation or clash through surrogate agents, covert activities, and proxy forces short of war. In addition, GPC among nuclear armed actors may decrease the likelihood of rivalry moving into direct violent conflict due to the swift, comprehensive destruction threatened should nuclear weapons be used.[77]

> "The history of relations among Great Powers is a story of persistent rivalry and recurrent warfare, punctuated by occasional, usually brief, periods of peace. . . . In the absence of a [global] higher power, states are always, in some measure, insecure. . . . The mistrust, military buildups, and diplomatic maneuvering . . . can sometimes result in periods of dynamic balance and tenuous stability . . . however, these have always broken down eventually, giving way to major wars."
>
> *Aaron L. Friedberg,*
> A Contest for Supremacy *(2012)*

Fourth, an alignment of conflictual demands or grievances across the five major areas of interstate competition (political and diplomatic, ideological, informational, economic, and military) sets the conditions for GPC to drift toward direct military clash. This fateful five-layer negative alignment occurred between the United Kingdom and Revolutionary France, and again between the United States and Imperial Japan. Such alignment did not occur between the United States and the UK. Late 19th-century leaders in Washington and especially in London found enough common ground in political, ideological, and economic interactions that they moved beyond residual diplomatic challenges and military

power realignments. Here, enlightened leadership mattered. Like those in late Victorian England and the United States, leaders can inhibit the alignment of intractable demands across all five areas, looking for avenues to undertake collaborative or cooperative activities where such opportunities exist.

Fifth, once a GPC rivalry is under way, the most reliable indicator of when a clash will erupt is when one side or both recognizes a shift in the relative alignment of economic and military power that is perceived as immutable and untenable. As states view the relative power alignment moving against them in an unacceptable way, they are much more inclined to risk a preemptive conflict than when they perceive a stable power status quo.[78] The UK most acutely feared loss of naval ascendance in its rivalry with Revolutionary/Napoleonic France and later Imperial/Nazi Germany. Also, Imperial Japan perceived its imperative for naval dominance in the Pacific untenable if it did not strike first against encroaching U.S. forces. Applied to 2020, longstanding U.S. ascendance at sea, in space, and in cyberspace points to areas where a perceived shift in relative power among the Great Powers in these areas could foretell growing risk of direct armed clash.

Sixth, although incompatible ideologies and caustic informational exchanges about the rival's people are not a lone determinant of when Great Power rivalry will devolve into direct violent clash (war), they are strong lagging indicators of insurmountable contentiousness. Limited but noteworthy UK popular support for the French Revolution turned irredeemably hostile when an increasingly bloody insurrection generated popular press revulsion for everything French across Great Britain. The UK press and that of Imperial Germany turned to ad homonym attacks on each other's national character, and this crescendoed as the contest over colonies and naval ascendance peaked. U.S. antipathy for Japanese militarism and governance choices played out in crass press attacks against Japanese society during the late 1930s, and Tokyo propaganda returned the favor. Conversely, U.S. and UK similarities in culture, governance, and general worldview found positive press in America and Britain during the dawn of their late 1800s rapprochement. Modern analysts must beware when U.S. and/or Chinese press caricatures of "others" become uniformly negative—a historically bad sign for peaceful resolution of GPC transitions.

Seventh, during power transition periods, competitors may not perceive their own various forms of power accurately. Moreover, even when accurate assessments of relative decline or vulnerability are made, domestic or bureaucratic interests may retard agile adaptation necessary to mitigate risks. The UK of the late 1800s was afflicted by this challenge. It was aware of relative economic decline and made sensible foreign policy changes regarding the United States. But it found itself unable to persuade domestic constituencies favoring unfettered free trade to consider some targeted tariffs as a means to generate manufacturing innovation into new critical technologies. This inability to adapt domestic resource priorities left the UK disadvantaged versus Imperial Germany in emerging technologies such as industrial chemicals, machine tools, and military-grade steel. London required Swedish, Swiss, and U.S. assistance to compensate during World War I. Like the UK a century ago, American politicians in 2020 already may be finding themselves confronting similar resistance from exporters and financial business leaders to any adaption of national production priorities and trade activities toward Great Power competition.

Eighth, perceptions of relative power, rather than detailed and empirical assessments of power, are likely to inform and then drive policymakers.[79] Late 19th-century America and Germany might have benefited more domestically and seemed less threatening abroad with reduced economic tariffs as they grew, but politicians could not sway powerful agrarian and export political constituencies demanding such immutable protections. Here again, leadership matters. Enlightened state leaders can seek and promulgate factual assessments of national strengths and weaknesses. They can guard against the pitfall of blaming others and then acting out violently based on false perceptions, instead turning to and educating their people about empirical assessment of relative economic or military strengths.[80] As the siren's song of rapacious protectionism plays out in 2020, the United States and China might benefit from contemplation of this lesson from past GPC.

Ninth, during periods of dynamic technological change, the likelihood of strategic surprise or operational obsolescence is greater in the military dimension of GPC. States may overestimate or underestimate the potential combat power of new innovations, whether they are technological or conceptual. Napoleon's tactical genius and his innovative use of massed artillery made him a formidable land opponent but did not translate into strategically vital sea power in his rivalry with the UK. Similarly, Imperial Germany's superior battlefield use of railways and Nazi Germany's perfection of the tactical use of airpower in blitzkrieg did not translate into an effective strategic challenge to the Royal Navy. Imperial Japan had a temporary advantage in strategic naval airpower, but insufficient national economic power to survive a U.S. industrial onslaught when its Pearl Harbor gambit fell short. In 2020, the rapid rise of new and novel forms of military and protomilitary technologies may contribute to improper estimates of relative power.

Finally, Great Power success in geostrategic competitions requires extraordinary political leadership, in both the conduct of statecraft and generating requisite forms of domestic renewal and institutional adaptation.[81] The UK exhibited such statecraft in its competitions with post-revolutionary France and with a rising United States. The UK proved less adept during competition with Imperial and then Nazi Germany. Japan did not succeed in its contest with the United States over ascendance in Asia-Pacific. The challenge for leaders in 2020 is at least as great as it was for those in past eras of GPC.

Conclusion

The history of Great Power competition and related debates over power rise and decline offer numerous insights. The most important conclusion is that while GPC is the historical norm, relative decline and violent clash among rivals are not predestined in any way. Instead, these outcomes reflect choices that leaders make and their capacity to assess and adapt. In 2020, contemporary debates about the evolving era of GPC among the United States, China, and Russia often betray a degree of fatalism about American power and where Washington stands in economic, military, or geostrategic influence terms.

As Aaron Friedberg noted in the afterword to his 1988 study of Great Britain's policies vis-à-vis the United States at the dawn of the 20th century, "it would be unwise to bet against the resilience and adaptability of the American system."[82] But it would be equally unwise to allow complacency or inertia to drive national security strategy. In a world defined by disruptive political and socioeconomic change, and a potentially revolutionary

altered character of warfare, the United States finds itself at the dawn of an era where it can no longer assume that its power advantages will adapt. Leadership matters. Understanding the emerging dynamics in an era of interstate relations dominated by three Great Powers across the five major arenas of interaction—politico-diplomatic, ideological, informational, economic, and military—cannot be underappreciated. When it comes to the proper development and utilization of U.S. power from 2020 to 2025, a competitive mindset in Washington is necessary. In turn, a solid historical understanding of GPC is important. Finally, a proper assessment of the strategic imperatives and relational dynamics as well as the competitive elements and power toolsets available to Washington, Beijing, and Russia must be established. The next two chapters provide an overview of these critical geostrategic elements for our new era of GPC.

The authors thank Michael S. Bell, Bernard Finel, Laura J. Junor, and James Lacey for helpful reviews and suggestions for this chapter.

Notes

[1] Hans Morgenthau, *Politics Among Nations* (New York: Knopf, 1948).

[2] Kenneth N. Waltz, *Theory of International Politics* (New York: Random House, 1979).

[3] Robert O. Keohane and Joseph S. Nye, Jr., *Power and Interdependence* (Boston: Little, Brown, 1977). In this seminal work on this topic, Keohane and Nye identified three pillars of soft power: political values, culture, and foreign policy. Each extends these constructs in subsequent works, including Joseph S. Nye, Jr., *Bound to Lead: The Changing Nature of American Power* (New York: Basic Books, 1990); Joseph S. Nye, Jr., *The Paradox of American Power* (London: Oxford University Press, 2002); Joseph S. Nye, Jr., *The Future of Power* (New York: Perseus Books, 2011); Robert O. Keohane, *International Institutions and State Power* (New York: Westview Press, 1989); Robert O. Keohane, *Power and Governance in a Partially Globalized World* (New York: Routledge, 2002).

[4] Alexander Wendt, "Anarchy Is What States Make of It: The Social Construction of Power Politics," *International Organization* 46, no. 2 (Spring 1992), 391–425; E. Adley, "Seizing the Middle Ground: Constructivism in World Politics," *European Journal of International Relations* 3, no. 3 (1998), 319–363; Steve Walt, "International Relations: One World, Many Theories," *Foreign Policy*, no. 110 (1998), 29–46.

[5] Robert Gilpin, *U.S. Power and the Multinational Corporation: The Political Economy of Foreign Direct Investment* (New York: Basic Books, 1975); Robert Gilpin, *War and Change in World Politics* (Cambridge: Cambridge University Press, 1981); Jack S. Levy, "Theories of General War," *World Politics* 37, no. 3 (April 1985), 344–374.

[6] Gilpin, *War and Change in World Politics*; Robert Gilpin, *The Political Economy of International Relations* (Princeton: Princeton University Press, 1987); Duncan Snidal, "The Limits of Hegemonic Stability Theory," *International Organization* 39, no. 4 (Autumn 1985), 579–614. Economist Charles Kindleberger also is considered a proponent of hegemonic stability theory, but with a focus on trade and finance tools (soft power), rather than military ones, as the primary means for the hegemon to establish and sustain a liberal, free trade order. See Charles P. Kindleberger, *The World in Depression, 1929–1939* (Berkley: University of California Press, 1973), 288–305.

[7] Robert O. Keohane, *After Hegemony: International Change and Financial Reform* (Princeton: Princeton University Press, 1984); John Ikenberry, *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order After Major Wars* (Princeton: Princeton University Press, 2001); John Ikenberry, *Liberal Leviathan: The Origins, Crisis and Transformation of the American World Order* (Princeton: Princeton University Press, 2011).

[8] E. Adler, "Seizing the Middle Ground: Constructivism in World Politics," *European Journal of International Relations* 3, no. 3 (1998), 319–363.

[9] Graham Allison, *Destined for War: Can America and China Escape Thucydides's Trap?* (New York: Houghton Mifflin, 2017), 244–286. Even the conclusion of 25 percent is generous; one of the four cases studied was that of Germany versus the United Kingdom and France for political influence in Europe from 1990 onward. Arguably, this case is indeterminate because the overwhelming influence of American military power and political preferences across Europe remains both dominant and an inhibitor of political tensions migrating toward violent confrontation, and because the case is not yet concluded, so no final outcome is known.

[10] Charles Krauthammer, "The Unipolar Moment," *Foreign Affairs* 70, no. 1 (1991), 23–33; Fareed Zakaria, *The Post-American World* (New York: Norton, 2008); Hal Brands, *Making the Unipolar Moment: U.S. Foreign Policy and the Rise of the Post–Cold War Order* (Cornell, NY: Cornell University Press, 2016).

[11] As the Soviet Union was wavering, American political scientist Francis Fukuyama questioned whether this moment of ascendant Western liberal democracy represented an unabashed and irreversible victory of economic and political liberalism. His pregnant question was premature. Liberalism and free trade orthodoxy may prove rather fragile achievements. Instead, the "desire for recognition and respect" may not be satisfied by prosperity or political participation. See Francis Fukuyama, "The End of History?" *The National Interest*, no. 16 (Summer 1989), 3–18; Francis Fukuyama, *Identity: The Demand for Dignity and Politics of Resentment* (New York: Farrar, Straus and Giroux, 2018).

[12] Kurt M. Campbell and Ely Ratner, "The China Reckoning: How Beijing Defied American Expectations," *Foreign Affairs* (March/April 2018).

[13] Michael Howard, "Military Science in an Age of Peace," *The RUSI Journal* 119, no. 1 (March 1974), 4–23.

[14] Aaron L. Friedberg, *The Weary Titan: Britain and the Experience of Relative Decline, 1895–1905* (Princeton: Princeton University Press, 1988), 3–20.

[15] Paul Kennedy, *The Rise and Fall of the Great Powers* (New York: Random House, 1987).

[16] Michael J. Mazarr et al., *Understanding the Emerging Era of International Competition: Theoretical and Historical Perspectives*, RR2726 (Santa Monica, CA: RAND, 2018), available at <www.rand.org/pubs/research_reports/RR2726.html>. These seven objectives meld classic realist definitions of state competitive objectives and those later defined by liberal institutionalists. See Morgenthau, *Politics Among Nations*, 29–114; Keohane and Nye, *Power and Interdependence*, 11–19.

[17] Allison, *Destined for War*, 244–286.

[18] James Lacey, ed., *Great Strategic Rivalries: From the Classical World to the Cold War* (New York: Oxford University Press, 2016).

[19] See "COW Typology of War: Defining and Categorizing Wars" and "COW War List" at the *Correlates of War Project*, available at <www.correlatesofwar.org/>.

[20] Gary Goertz and Paul F. Diehl, "Enduring Rivalries: Theoretical Constructs and Empirical Patterns," *International Studies Quarterly* 37, no. 2 (June 1993).

[21] Waltz, *Theory of International Politics*.

[22] But that same research into this "democratic peace theory" indicates that war is more likely between liberal democratic states and those that are not and that the propensity for war between liberal democracies and those perceived as illiberal democracies also is greater than between two similar liberal democratic states. See Michael W. Doyle, "Kant, Liberal Legacies, and Foreign Affairs," *Philosophy & Public Affairs* 12, no. 3 (Summer 1983), 222; David Lake, "Powerful Pacifists: Democratic States and War," *American Political Science Review* 86, no. 1 (March 1992), 24–37.

[23] The economic interdependence argument is made in Keohane and Nye, *Power and Interdependence*. The counterargument regarding the origins of World War I and the intense economic interdependence among European monarchies that did not inhibit major Great Power war is found in Barbara Tuchman, *The Proud Tower: A Portrait of the World Before the War, 1890–1914* (New York: Macmillan, 1966).

[24] Walt, *Theory of International Politics*, 40–42.

[25] Mazarr et al., *Understanding the Emerging Era of International Competition*, 6–11.

[26] This controversial "nuclear peace theory" is established in such major works as Kenneth N. Waltz, "The Spread of Nuclear Weapons: More May Be Better," *Adelphi Papers* 21, no. 171 (1981), available at <https://fliphtml5.com/lhec/zexq>; John Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," *Foreign Affairs* 73, no. 2 (Summer 1993), 50–66; Robert Rauchhaus, "Evaluating the Nuclear Peace Hypothesis: A Quantitative Approach," *The Journal of Conflict Resolution* 53, no. 2 (2009), 258–277, available at <www.jstor.org/stable/20684584>. The rare but important exception is the war between nuclear weapons states India and Pakistan in July 1999, known as the Kargil War. While neither state was a Great Power by the definition used in this volume, the fact that each state possessed large and relatively modern militaries and engaged them in a month-long major war despite the specter of nuclear escalation stands as a caution against any orthodoxy that an absence of Great Power war in the nuclear weapons era is valid. See Neil Joeck, "The Kargil War and Nuclear Deterrence," in *Nuclear Proliferation in South Asia Crisis Behavior and the Bomb*, ed. Sumit Ganguly and S. Paul Kapur (New York: Routledge, 2008).

[27] We chose a short list of historical cases that represents several important dimensions of modern Great Power competition (GPC). This case study exercise is intended as illustrative rather than comprehensive. In that context, the U.S.–Soviet Union Cold War competition from 1945 to 1991 was considered but not chosen for review. It was omitted due to the expansive trove of analytical literature that already exists to describe the critical dynamics and outcomes from the 46-year rivalry. Cold War case study literature establishes in great detail the kinds of analytical observations featured in this chapter about the four less well-understood cases chosen. Under Mikhail Gorbachev, the Soviet Union (temporarily) ended the Cold War rivalry by quitting the competition in its three key dimensions: ideology, economic organization, and political identity. In this chapter and those that follow, the authors refer to many of the authoritative texts on the Cold War, with special consideration to the following seminal works: John Lewis Gaddis, *We Now Know: Rethinking Cold War History* (Oxford: Oxford University Press, 1997); Mikhail Gorbachev, *Memoirs* (New York: Doubleday, 1995); John Lewis Gaddis, *The Cold War: A New History* (New York: Penguin, 2005); Sergey Radchenko, *Two Suns in the Heavens: The Sino-Soviet Struggle for Supremacy, 1962–1967* (Stanford: Stanford University Press, 2009); Vladislav M. Zubok, *A Failed Empire: The Soviet Union in the Cold War from Stalin to Gorbachev* (Chapel Hill: University of North Carolina Press, 2007).

[28] Some of our reviewers specifically questioned why the rise of Japan from the 1970s to 1990s was not chosen for this chapter. Although briefly considered, the Japan-U.S. trade competition of the Cold War was not selected as a critical case for understanding modern GPC for a number of reasons. Three stood out. First, Japan never met the operational definition of a Great Power provided in chapter 1. Specifically, Japan never had unusual capabilities in terms of the other states during the Cold War and was never perceived by the other states in the system as a state able to leverage its commercial capabilities for a change in the international order. Second, Japan at that time was a veritable client of the United States in its military, political, and diplomatic activities, thus not truly an independent actor (much less a Great Power) in four of the five aspects of international competition defined in table 2.2. Third, the "competition" between the United States and Japan over economic practices had no parallel ideological, informational, communications, or military competitive dimensions. Also, the limited economic dimensions contested in this power dyad never infected other critical bilateral interactions. For these and additional conclusions rendering the U.S.-Japan trade competition during the Cold War relatively unhelpful for understanding GPC historically or today, see Keyu Jin Keyu, "No, China Is Not the 'Next Japan,'" *World Economic Forum*, October 13, 2016, available at <www.weforum.org/agenda/2016/10/no-china-is-not-the-next-japan/>; and Wendy Wu, "Why China's U.S. Trade Stand-Off Is Not a Replay of Japan's in the 1980s," *South China Morning Post* (Hong Kong), April 16, 2018, available at <www.scmp.com/news/china/diplomacy-defence/article/2141824/why-chinas-us-trade-stand-not-replay-japans-1980s>.

[29] For details, see Klaus Schwab, *The Fourth Industrial Revolution* (New York: Crown Publishing Group, 2016).

[30] World War II took an estimated 70 million lives over the course of 15 years. World War I cost about 17 million dead in a 4½-year period. The Napoleonic Wars ended an estimated 6.5 million lives over a 14-year series of military clashes. Only the 13th-century Mongol conquest of Europe (about 60 million dead) and the 17th-century, 60-year Qing Dynasty conquest

of China (about 25 million dead) rank in the same category of deadliness for Great Power warfare. This accounting omits incorporation of civil war periods such as the multiple instances in China and that in 19th-century Russia—many of which are estimated to have killed more than 10 million people. See Matthew White, *Atrocities: The 100 Deadliest Episodes in Human History* (New York: Norton, 2011).

[31] In the 1500s, Portugal and Spain were ascendant Global Powers with international trade reach, naval prominence, and growing colonies. But in 1578, King Sebastian I of Portugal, who had no heir, was killed in the Battle of Ksar El Kebir. This led to the Portuguese succession crisis of 1580, which allowed Philip II of Spain to unite the two kingdoms under the rule of the Spanish kings for the next 60 years. Philip II mismanaged Portuguese colonies, declared war on England, and suffered the disastrous destruction of a large part of the Spanish Armada in 1588, which marked the end of Spanish colonial supremacy. During the 1600s, France, England, and the Netherlands overtook Spain and Portugal in commercial and naval supremacy. The Dutch gained an early trade advantage in South Asia, the Far East, and North America. England and France reduced the Dutch advantage with a century of shifting alliance combinations, continental battles, and proxy fights over disputed colonies. Beginning with the Treaty of Westphalia (1648) and culminating during the collapse of the Spanish monarchy and the War of Spanish Succession (1701–1714), France attained an ascendant power position on the European continent and a relative ascendance in global colonies that it retained during the early 18th century. See Kennedy, *The Rise and Fall of the Great Powers*, 99; John A. Lynn, *The Wars of Louis XIV, 1667–1714* (Harlow, UK: Longman, 1999), 17; and Francois Crouzet, *Britain Ascendant: Comparative Issues in Franco-British Economic History* (Cambridge: Cambridge University Press, 1990), 12.

[32] Many historians mark the UK rise and ascendance over France to the erosion of France's colonial reach and its naval prowess, highlighted most dramatically in Paris's loss of the Seven Years' War to the UK and its allies in 1763, and from the attendant erosion of its colonial possessions worldwide—especially in North America—that ensued from the 1763 Treaty of Paris. See Kennedy, *The Rise and Fall of the Great Powers*, 120.

[33] William Doyle, *The Oxford History of the French Revolution* (Oxford: Oxford University Press, 2002), 197; Michael V. Leggiere, "Enduring Strategic Rivalries: Great Britain vs. France During the French Wars (1792–1815)," in *Great Strategic Rivalries: From the Classical World to the Cold War*, ed. James Lacey (New York: Oxford University Press, 2016), 289–390.

[34] Ironically, British economic concerns with Revolutionary France lagged in the finance markets. In 1803, England's Barings Bank financed two-thirds of the U.S. Louisiana Purchase price of $15 million by giving the French $10 million in cash for American bonds used in the purchase, then selling the bonds on international markets. Since Napoleon sold the Louisiana territories to fund France's military war efforts, a major British bank basically enabled the growth of its Great Power military rival. See Paul Strathern, *Empire: A New History of the World* (New York: Pegasus Books, 2020), 225.

[35] Clive Emsley, *Britain and the French Revolution* (London: Routledge, 2014), especially 53–76; Michael V. Leggiere, *The Fall of Napoleon* (Cambridge: Cambridge University Press, 2007), 2–5; and Kennedy, *The Rise and Fall of the Great Powers*, 124.

[36] Paul Kennedy, *The Rise and Fall of British Naval Mastery*, 2nd ed. (New York: Humanity Books, 1983), 123–148.

[37] Kennedy, *The Rise and Fall of the Great Powers*, 202.

[38] Joachim Remak, *The Origins of World War I, 1871–1914* (Hinsdale, IL: Dryden Press, 1967), 77–78.

[39] Ibid., 77.

[40] These German import tariffs, forged from the so-called Marriage of Iron and Rye and implemented in 1879, became sacrosanct domestic political features that limited Germany's politicians from adjusting to British calls for tariff reductions as Germany's manufacturing moved from developing to dominant in the early 1900s. See Cheryl Schonhardt-Bailey, "Parties and Interests in the 'Marriage of Iron and Rye,'" *British Journal of Political Science* 28, no. 2 (April 1998), 291–332; Edgar Crammond, "The Economic Relations of the British and German Empires," *Journal of the Royal Statistical Society* 77, no. 8 (July 1914), 777–824; Friedberg, *The Weary Titan*, 39–40.

[41] Friedberg, *The Weary Titan*, 33–36.

[42] Crammond, "The Economic Relations of the British and German Empires," 784–785.

[43] Paul Kennedy, *The Rise of the Anglo-German Antagonism, 1860–1914* (New York: Humanity Books, 1980), 410–432; Remak, *The Origins of World War I, 1871–1914*, 35. For more on the role of Germany's influential web of "interest leagues" and their important role in colonialism and a growing navy, see Gordon Craig, *Germany, 1866–1945* (Oxford: Oxford University Press, 1981), 250–297.

[44] *Weltpolitik* took over as Germany's foreign policy at the same time as the Kaiser's adoption of the Tirpitz Plan (named for its author, Admiral Alfred von Tirpitz, head of the German navy). The plan was for Germany to achieve world power status through buildout of its navy while at the same time co-opting and minimizing growing economic and social issues by elevating a domestic policy of social imperialism. See James Joll, *The Origins of the First World War* (London: Pearson Education Limited, 1984), 131–134.

[45] Remak, *The Origins of World War I, 1871–1914*, 78–80.

[46] After almost 40 years of intense rivalry over influence in Central Asia and South Asia, British and Russian conflicting interests in 1900 centered on Afghanistan, Iran, and Tibet. Each of these states comprised competitive buffers between Britain's and Russia's colonial possessions in Asia. Germany's rise as a competitive empire with global aspirations, along with the Russian navy's embarrassing defeat by the Japanese in the Russo-Japanese War of 1904–1905, persuaded key leaders in London and Moscow to resolve their respective differences across Asia. By 1914, Russia and Britain agreed on terms to divide Iran, to recognize the standing Afghanistan border, and to conclude an agreement on Tibet that established the McMahon Line. See George P. Gooch and Harold Temperley, eds., *British Documents on the Origins of the War, 1898–1914*, vol. 4, *The Anglo-Russian Rapprochement, 1903–07* (London: Her Majesty's Stationery Office, 1929), 618–621.

[47] London's diplomacy resulted in the Triple Entente of Britain, France, and Russia. See George P. Gooch, "Chapter V: Continental Agreements, 1902–1907," in *The Cambridge History of British Foreign Policy, 1793–1919*, ed. A.W. Ward and George P. Gooch, vol. 3, *1866–1919* (Cambridge: Cambridge University Press, 1923), 305–365; Remak, *The Origins of World War I, 1871–1914*, 44–46.

[48] Charles S. Campbell, *From Revolution to Rapprochement: The United States and Great Britain, 1783–1900* (New York: John Wiley & Sons, 1974), especially 194–204.

[49] Remak, *The Origins of World War I, 1871–1914*, 82–85.

[50] Mildred S. Wertheimer, *The Pan-German League, 1890–1914* (New York: Octagon, 1924), 101–102.

[51] Ibid., 198.

[52] Some argue that Imperial Germany's democracy was too new to withstand the rapid rise of its industrial era and social interest groups, thus making it less resilient than the UK. See Kennedy, *The Rise of the Anglo-German Antagonism, 1860–1914*, 361. A Chinese author on Germany's rise even goes so far as to intimate that it was too much democracy in Germany that set a course for German adventurism and eventual clash with the UK. This interpretation is far from persuasive given other factors but is a window into a potential particular psyche in modern China regarding the inherent dangers of too much democracy in a rapidly expanding economic state. See Xu Qiyu, *Fragile Rise: Grand Strategy and the Fate of Imperial Germany, 1871–1914* (Cambridge: MIT Press, 2017), 150–153.

[53] Kennedy, *The Rise of the Anglo-German Antagonism, 1860–1914*, 167–222; James Lacey, "Great Strategic Rivalries and the Return of Great Power Politics," *The Strategy Bridge*, August 22, 2018, available at <https://thestrategybridge.org/the-bridge/2018/8/22/great-strategic-rivalries-the-return-of-geopolitics>; H.C. Allen, *Great Britain and the United States: A History of Anglo-American Relations, 1783–1952* (New York: Saint Martin's Press, 1955), 518–610; Gordon Martel, *Origins of the First World War*, 4th ed. (New York: Routledge, 2017).

[54] Kindleberger, *The World in Depression, 1929–1939*, 288–300. For evidence of U.S. economic ascendance during the interwar period, see table 4.2, where steel and iron production is a good proxy for relative economic size and strength.

[55] Williamson Murray, "Britain and Germany: 1914–1945," in Lacey, *Great Strategic Rivalries* (New York: Oxford University Press, 2016), 371–416; William Shirer, *The Rise and Fall of the Third Reich: A History of Nazi Germany* (New York: Simon and Schuster, 1960).

[56] Kennedy, *The Rise of the Anglo-German Antagonism, 1860–1914*, 291–410; William Harbutt Dawson, "Chapter III: Imperial Policy in the Old and the New World, 1885–1899," in Ward and Gooch, *The Cambridge History of British Foreign Policy*, vol. 3, 125–130, 200–222.

[57] Kennedy, *The Rise and Fall of British Naval Mastery*, 149–176.

[58] Kennedy, *The Rise and Fall of the Great Powers*, 200–201; Adam Tooze, *The Deluge: The Great War, America, and the Remaking of the Global Order, 1916–1931* (New York: Viking, 2014), 13. Also see table 4.2 for relative steel and iron production.

[59] Douglas A. Irwin, *Historical Aspects of U.S. Trade Policy* (Cambridge, MA: The National Bureau of Economic Research, 2006), available at <https://data.nber.org/reporter/summer06/irwin.html>.

[60] Allen, *Great Britain and the United States*, 30–52, 518–548, 941–948; Charles Kindleberger, *World Economic Primacy, 1500–1990* (New York: Oxford University Press, 1996), 35–36, 125–148, 172–189.

[61] While London and many other world capitals viewed American expansion and subsequent acquisition of former Spanish colonies in the Caribbean and the Pacific as evidence of Washington's own imperialism, American lore rejects any notion of American empire in favor of manifest destiny and expulsion of Spanish empire. It was the British perception that helped advance UK-U.S. rapprochement irrespective of divergent viewpoints about empire. See Kori Schake, *Safe Passage: The Transition from British to American Hegemony* (Boston: Harvard University Press, 2017), 280–281; Strathern, *Empire*, 10–11, 224–225.

[62] Dawson, "Chapter III," in Ward and Gooch, *The Cambridge History of British Foreign Policy*, 223–227.

[63] Campbell, *From Revolution to Rapprochement*, 174–189; Ernest R. May, *Imperial Democracy: The Emergence of America as a Great Power* (New York: Harcourt, Brace and World, Inc., 1961), 57–59; Kenneth Bourne, *Britain and the Balance of Power in North America, 1815–1908* (Berkeley: University of California Press, 1967), 351; Walter A. McDougall, *Promised Land, Crusader State* (Boston: Houghton Mifflin Company, 1997), 101–121; Kennedy, *The Rise and Fall of British Naval Mastery*, 185–210.

[64] Kaiser Wilhelm II's 1896 telegram of congratulations to the Boer president after the capture of British citizens in the Transvaal of Africa was effective as well. The Kaiser's missive led many Americans to take the British side and reminded the British that they could use friends offshore from Europe. Campbell, *From Revolution to Rapprochement*, 183–184; Valentine Chirol, "Chapter IV: The Boer War and the International Situation, 1899–1902," in Ward and Gooch, *The Cambridge History of British Foreign Policy, 1783–1919*, vol. 3, 263–266.

[65] Bourne, *Britain and the Balance of Power in North America, 1815–1908*, 351; Kennedy, *The Rise and Fall of the Great Powers*, 203; Friedberg, *The Weary Titan*, 97.

[66] Campbell, *From Revolution to Rapprochement*, 91–204.

[67] Allen, *Great Britain and the United States*, 944–948; Kindleberger, *The World in Depression, 1929–1939*, 302–305.

[68] For a similar conclusion, see Schake, *Safe Passage*.

[69] Herbert Feis, *Road to Pearl Harbor: The Coming of the War Between the United States and Japan* (Princeton: Princeton University Press, 1950), 3–7, available at <www.jstor.org/stable/j.ctt13x0wpg.4>; S.C.M. Paine, "China, Russia, and Japan and the Competition to Create a New World Order," in Lacey, *Great Strategic Rivalries*, 417–448; William M. Morgan, "Enduring Strategic Rivalries: U.S.-Japan Strategic Rivalry to 1941," in Lacey, *Great Strategic Rivalries*, 479–510.

[70] Of particular note in this respect was the Lansing-Ishii Agreement of 1917, where the United States and Japan agreed in public that the Open Door Policy would remain intact but established in a secret annex that Japan had "special rights" in territories across China and that the two would share financial spoils from major rail and infrastructure investments into China in a special banking consortium. Lansing-Ishii set the stage for numerous other secret post–World War I treaties that promised colonial enclaves in China be passed from Germany, Russia, and Austria-Hungary to Japan and the victorious World War I Allies. See Barbara Tuchman, *Stillwell and the American Experience in China, 1911–1945* (New York: Grove Press, 2001); J. Chal Vinson, "The Annulment of the Lansing-Ishii Agreement," *Pacific Historical Review* 27, no. 1 (February 1958), 57–69.

[71] Michael Graham Fry, "The Pacific Dominions and the Washington Conference, 1921–22," in *The Washington Naval Conference, 1921–22*, ed. Erik Goldstein and John Maurer (London: Frank Cass & Company, 1994), 60–101.

[72] Sadao Asada, "From Washington to London: The Imperial Japanese Navy and the Politics of Naval Limitation, 1921–1930," in Goldstein and Maurer, *The Washington Naval Conference, 1921–22*, 147–191.

[73] "Japanese-American Relations at the Turn of the Century, 1900–1922," *Milestones in the History of U.S. Foreign Relations* (Washington, DC: Department of State Office of the Historian, n.d.), available at <https://history.state.gov/milestones/1899-1913/japanese-relations>; Masato Shizume, *The Japanese Economy During the Interwar Period: Instability in the Financial System and the Impact of the World Depression*, Bank of Japan Review 2009-E-2 (Tokyo: Institute for Monetary and Economic Studies, May 2009), available at <www.boj.or.jp/en/research/wps_rev/rev_2009/data/rev09e02.pdf>.

[74] Hiroyuki Agawa, *The Reluctant Admiral: Yamamoto and the Imperial Navy*, trans. John Bester (Tokyo: Kodansha International, Ltd., 1979), 202–223. The 6-month quote is to Fumimaro Konoe, *Konoye Ayamaro Ko Shuki: Memoirs of Prince Ayamaro Konoye* (Tokyo: Asahi Shimbun-sha, 1946), 3.

[75] Mazarr et al., *Understanding the Emerging Era of International Competition*; Robert D. Blackwill and Jennifer M. Harris, *War by Other Means: Geoeconomics and Statecraft* (Boston: Harvard University Press, 2017).

[76] Kennedy, *The Rise and Fall of the Great Powers*; Mazarr et al., *Understanding the Emerging Era of International Competition*.

[77] On proxy wars, see Andrew Mumford, "The New Era of the Proliferated Proxy War," *The Strategy Bridge*, November 16, 2017, available at <https://thestrategybridge.org/the-bridge/2017/11/16/the-new-era-of-the-proliferated-proxy-war>; Zack Gold and William Rosenau, "The Future of Conflict Is Proxy Warfare, Again," *Defense One*, July 25, 2019, available at <www.defenseone.com/ideas/2019/07/future-conflict-proxy-warfare-again/158697/>; Geraint Hughes, *My Enemy's Enemy: Proxy Warfare in International Politics* (Chicago: Independent Publishers Group, 2012).

[78] Lacey, "Great Strategic Rivalries."

[79] Friedberg, *The Weary Titan*, 14–17, 286.

[80] Ibid., 282–283, 286.

[81] Ibid., 10, 15–16; Brian D. Blankenship and Benjamin Denison, "Is America Prepared for Great Power Competition?" *Survival* 61, no. 5 (October–November 2019), 43–64.

[82] Friedberg, *The Weary Titan*, 318.

Chapter 3a

Contemporary Great Power Geostrategic Dynamics

Relations and Strategies

By Thomas F. Lynch III and Phillip C. Saunders

This chapter provides a comparative assessment of the strategic objectives for the three contemporary Great Powers: the United States, China, and Russia. It first traces the evolution of each power's strategic interests from 2000 to 2017, indicating where important milestones transitioned the powers' relations from relative cooperation and collaboration into de facto rivalry (by 2014 to 2015) and then a formally acknowledged rivalry (in 2017). The chapter next outlines the Great Powers' current strategic viewpoints and how they contrast across the five major categories of state interaction: political and diplomatic, ideological, informational, military, and economic. It demonstrates that each power has many divergent strategic interests, making rivalry inevitable. The chapter indicates where varying strategic interest intensity combines to make risks of Great Power clashes most worrisome in the coming 5 years: the Indo-Pacific, cyberspace, outer space, and, to a receding degree, the Middle East. It concludes that Russian strategic aims make Moscow a transient security risk to U.S. geopolitical dominance, while China's ideological vision and aspirations make it the most important, albeit presently less threatening, rival to the U.S. status as the head of the global liberal international order.

This chapter focuses on the three modern Great Powers—the United States, China, and Russia—and the broad framework of their contemporary interactions. It provides an overview of the ongoing major debates about the nature and degree of challenges posed by these three major states. It traces the recent trajectory of their strategic interaction narratives from 2000 to 2014–2015, establishing the dominant evolutionary themes for each over that time. The chapter next sketches the national strategy and major strategic aims for each country in 2020 and what these mean for the upcoming 5 years of Great Power competition (GPC). It then makes an analytical evaluation of what each of these national strategies implies about the Great Power's aims for international norms, rules, and institutions, followed by a discussion of what these strategies suggest for Great Power relations in major geographic regions. It concludes with 10 major insights and implications for GPC from 2020 to

2025, setting the table for a more detailed assessment of specific Great Power capabilities to achieve their strategic aims found in the next chapter.

Great Power Relevance and Geostrategic Dynamics in the Early 21st Century

As described in chapter 1, this volume defines *Great Power state* as one that has three main characteristics: unusual capabilities in comparison with those of other states, behavior that indicates a willingness to use those capabilities in and beyond the state's immediate neighborhood, and the perception by other actors in the system that the state has both unusual capabilities and the will to use them, making it an actor that must be treated as a major power.[1] From the late 20th century and into 2020, three states have satisfied these criteria: the United States, China, and Russia.

Yet these three Great Powers are far from uniform in status. Each differs substantively in terms of the strategic outcomes it wishes to assure, the relative capabilities it possesses, and the specific cases and places where it seems ready to pursue its main strategic goals. In turn, these differences color the perceptions held by other global actors—states and nonstate entities—about where and how to treat each major power.

> "First, who is America's principal competitor? The Trump administration's national security strategy and the aforementioned national defense strategy often refer to China and Russia jointly. That two countries of such significantly different economic proportions can both be considered Great Powers—China's gross domestic product in 2017 was nearly eight times as large as Russia's ($12.2 trillion versus $1.6 trillion)—suggests that analysts should delineate more clearly the criteria for earning that designation."
>
> —*Ali Wyne, "America's Blind Ambition Could Make It a Victim of Global Competition,"* The National Interest, *February 2019*

Although most global analysts and international relations scholars generally agree that the United States remains the most powerful of the three contemporary Great Power states in 2020, pundits diverge widely in terms of how great the challenge from Russia or China is to current U.S. dominance.[2] They also diverge in practical terms about how the U.S. Government should conceive of competition between these two rivals.[3] Some observers even question the pairing of Russia and China as Great Power competitors to the United States, noting that Beijing is a resurgent, selective revisionist power, while Moscow is a faltering, disruptive, and opportunist one.[4] Among those pundits worried about conflation of Russia with China, most agree that China will pose a greater long-term challenge to Washington. History reminds us, though, that declining powers can enact more acute short-term disturbances.[5]

These debates make it important to carefully compare the commonalities and differences among the three modern Great Powers. This chapter does so first with a direct comparison of two dimensions of current global Great Power relations: their recent geostrategic trajectories and their contemporary national strategies for current and future geostrategic relations. Once established, these comparisons are applied to an overview of the major aspects of their interactions, with the current global institutions and norms and then in the major geographic locations of interaction. The following chapter then compares

and evaluates the Great Power national capabilities (tool sets) and their capacity and willingness to use these tools in pursuit of geostrategic ambitions as developed in this chapter.

In keeping with the framework developed in chapter 2 (table 2.2), this chapter and the next address Great Power strategies, capabilities, and willingness to use their tool sets in a framework focusing on five competitive categories: political and diplomatic, ideological, informational, military, and economic. A credible assessment of GPC in the emergent era must begin with a brief summary of the recent trajectory of geostrategic relations from the perspectives of each major power.

U.S. Perspectives from 2000 to 2015

From 1992 to 2008, the United States stood alone—atop all aspects of the international power structure—at a unique unipolar moment.[6] Its post–World War II rival, the Soviet Union, was vanquished in 1991 with the end of the Cold War, and so was Moscow's vision of universal communism and the superiority of command-directed economies. Another latent potential rising power, China, began its own "opening up and reform" in late 1978, when the Chinese Communist Party (CCP) incorporated market principles into "socialism with Chinese characteristics."[7] With a pragmatic foreign policy focused on external stability, China began a gradual but accelerated integration into global economic and governance structures; this effort was accompanied by an end to CCP efforts to control thought and micromanage peoples' daily lives. Relative to life during the Mao era, Chinese citizens gained increasing control over their life choices and enjoyed greater political and ideological freedom as long as they did not challenge CCP political control.[8] Policymakers in Washington welcomed these trends toward internal liberalization and external moderation. They were cautiously optimistic that a liberalizing China would eventually become integrated into the web of global economic, informational, political, and ideological norms established by the United States after World War II. Washington pursued "strategic engagement" in its official relations with both Moscow and Beijing.[9] Thus, U.S. strategy and policies toward China and Russia from 1992 through 2008 were dominated by cooperative interactions and collaborative programs. The goal of this collaboration was supporting domestic reforms and integrating both countries as responsible members of the global community defined by U.S. norms and preferences. As documented in chapter 2, this dominant cooperative paradigm coincided with a period of U.S. military ascendance rarely seen in the past 500 years.

From a U.S. perspective, the era of stable cooperative/collaborative relations wavered and then collapsed between 2008 and 2014–2015 due to a series of Russian and Chinese military and paramilitary actions in Georgia, Ukraine, the South China Sea, and the East China Sea and in commercial interactions that demonstrated clear disagreement with key aspects of the U.S.-led liberal international order.[10] Russia conducted a covert military invasion of Crimea in 2014 and then annexed it from Ukraine. U.S.-led Western countries slapped Russia with various economic sanctions and expelled Moscow from diplomatic and economic organizations it had joined in the immediate post–Cold War world. From 2013 through 2015, Chinese assertiveness in maritime territorial disputes, increasing state intervention to support Chinese businesses at the expense of foreign competitors, and Xi Jinping's centralization of power and tightening of political and information controls catalyzed U.S. responses. In 2014 and into 2015, the Obama administration asserted freedom

of navigation rights and challenged Chinese Pacific maritime claims. It openly condemned Chinese industrial espionage and intellectual property practices, and it reimagined a broad new Trans-Pacific Partnership as a lever to reshape Chinese economic policies. The U.S. policy toward its former geopolitical "strategic engagement" partners chilled gradually during the second term of the Obama administration, with a public hardening toward both nations during 2014 and 2015.[11] Thus, 2014 and 2015 were the years that a de facto, three-party Great Power rivalry became obvious—although not yet fully acknowledged.[12] The formal declaration of the Great Power rivalry was acknowledged and conveyed in U.S. strategy documents published in 2017 and 2018: the 2017 National Security Strategy (NSS) and the 2018 National Defense Strategy (NDS).[13]

China's Perspectives from 2000 to 2014–2015

The central challenge facing Chinese leaders in the post–Cold War era was to take advantage of the opportunities provided by a globalizing world economy and rebuild domestic legitimacy while managing China's vulnerability to outside pressure, especially that of ideological and military pressure from what it viewed as a dominant and unrestrained United States. After the United States imposed sanctions following the 1989 Tiananmen domestic political crackdown, Chinese leaders concluded that Washington was pursuing a strategy of "peaceful evolution" to end CCP rule and seeking to Westernize (*xihua*) and split up (*fenhua*) China. They adopted a strategy of trying to resist U.S. ideological subversion and limit pressure while maintaining a cooperative relationship with Washington by compromising on less important interests and deferring goals, such as unification with Taiwan and China's maritime territorial claims.[14] Chinese leaders sought to extend a post–Cold War "period of strategic opportunity" to build China's comprehensive national power relative to that of the United States and to allow an inevitable global trend toward multipolarity to erode U.S. dominance and constrain its unilateral behaviors. This restrained policy was consistent with Deng Xiaoping's dictum after the collapse of the Soviet Union that China should "bide its time and hide its capabilities" and avoid premature efforts to play an international leadership role.[15]

The U.S. response to the September 11, 2001, terrorist attacks aided China's strategic approach. Washington's plunge into long-term commitments in Afghanistan and Iraq diverted U.S. attention to the Middle East and ensnared the U.S. military. Then the 2008 global financial crisis—which produced a prolonged U.S. recession even as China's economy returned to its rapid growth trajectory—led many Chinese analysts to see an acceleration of U.S. relative economic decline as a sign of growing multipolarity that created new opportunities for China. Although Chinese leaders sought to avoid a direct clash with Washington, they hastened efforts to expand China's regional and global economic presence and influence, sometimes at the expense of the United States. Rapid and sustained economic growth, especially following China's accession to the World Trade Organization (WTO) in 2001, helped the CCP increase domestic legitimacy based on its ability to build China's power and raise living standards. Growth also gave Chinese leaders more resources and new channels of influence as additional countries became dependent on access to China's market and sought loans and economic assistance from Beijing.

China's economic success was based largely on orthodox development economic advice about maintaining a stable financial system while giving markets the dominant role in reallocating labor and resources to their most productive uses.[16] China's openness to foreign direct investment brought an infusion of Western capital, technology, and management practices that contributed to rapid growth and turned China into an export powerhouse, as Western and Asian multinational corporations incorporated inexpensive Chinese labor into their production networks. At the same time, China rejected advice from the International Monetary Fund and World Bank to fully liberalize its capital account, preferring to manage its currency in order to create competitive advantage and avoid the risk of the destabilizing capital flight that brought down multiple governments in the 1997–1998 Asian financial crisis. China also drew from the post–World War II experiences of Japan, South Korea, Singapore, and Taiwan, all of which adopted economic policies that involved a higher degree of state intervention to accelerate export-oriented development and build domestic companies into globally competitive national champions.

China's model involved a large role for state-owned enterprises in which the CCP directly controlled management and provided support in the form of subsidies; preferential access to capital; protected domestic markets; and favorable laws, regulations, and courts. A series of reforms allowed Chinese state-owned enterprises to become more competitive by rationalizing their operations and jettisoning older workers as well as pension and social welfare obligations.[17] China's rapid and sustained growth, while maintaining a communist political system, yielded a growing sense of self-confidence among CCP leaders and theorists. Although CCP leaders initially downplayed praise of a "Beijing consensus" by Western analysts, in recent years Chinese leaders have argued that China's development experience with authoritarian capitalism is a valid alternative model that deserves respect and has useful lessons for other developing countries.[18] Some even argue that China's performance in responding to the 2020 novel coronavirus demonstrates the superiority of China's model over Western approaches.

At the same time, Chinese leaders worried about a range of potentially serious domestic threats to sustained CCP rule. These included separatist threats in Tibet and Xinjiang, where ethnic minorities mounted violent protests in 2008; the political impact of rising inequality and worries about what might happen if economic growth slowed; and a growing number of mass incidents in which citizens protested local CCP corruption and governance. CCP leaders also worried about U.S. subversion. Beijing shared Russia's view that the United States had fomented a series of "colored revolutions" in the Middle East, Georgia, Kyrgyzstan, and Ukraine to overthrow authoritarian governments, and it worried that China was a future target. China had conditionally tolerated U.S. alliances in Asia, as long as they were not aimed against China and contributed to regional stability. As Washington sought to modernize its alliances for the post–Cold War era and to increase security cooperation with Taiwan, Chinese leaders and strategists began to view the United States as encircling and constraining China in order to slow its growth and obstruct its regional ambitions. These concerns increased with the Obama administration's rebalance to Asia, which was formally announced in 2011.[19]

By the time of Xi's accession to the CCP Secretary General position in November 2012, China's political leadership saw a new strategic moment, with both opportunity and threat.

The strategic opportunity came from China's dramatic economic and technological advances, increased influence and military power, and the perception that the United States and the West were entering a state of irrevocable economic and moral decline. The strategic threat came from internal pressures that could jeopardize stability and the potential for the United States to step up ideological efforts to subvert the Chinese socialist system and economic and military efforts to encircle and contain China. Although internal scholarly debates about whether its "moment had come" continued into Xi's premiership, China's self-concept and CCP leaders' vision of a proper future world order dramatically changed between 2000 and 2014.[20]

Russian Perspectives from 2000 to 2014

Vladimir Putin ascended to political leadership in Russia at the end of 1999. Under his predecessor Boris Yeltsin—Russia's first post–Cold War elected leader—the country emerged from an unraveling Soviet Union as a weakened international power with an agenda to adapt to a global world order valuing individual freedoms, liberal democracy, capitalism, openness, and transparency. Yeltsin's Russia aimed for accommodation and assimilation into the U.S.-led world order. The 1990s saw Moscow enter such economic and financial institutions as the G7/G8 and the WTO and witnessed Russia grudgingly accede to expansion of the North Atlantic Treaty Organization (NATO) military alliance into Eastern Europe while gaining an observer status in NATO as a form of compensation.[21]

Russian cooperation with and convergence into a Western set of norms and institutions wavered as early as the mid- to late 1990s, with Washington and Moscow disagreeing over U.S./NATO intervention in the Balkan wars and aggressive U.S. expansion of NATO.[22] Russian cooperation with the West reversed fully under Putin, who swiftly generated a Russian national security concept that decried the post–Cold War world as fundamentally unjust and untenably dismissive of Russia's proper role as a Great Power:

> *The world situation is characterized by a system of international relations . . .* [with] *attempts to create an international relations structure based on domination by developed Western countries in the international community, under U.S. leadership and designed for unilateral solutions (primarily by the use of military force) to key issues in world politics in circumvention of the fundamental rules of international law. . . . Russia is one of the world's major countries, with a centuries-old history and rich cultural traditions. Despite the complicated international situation and difficulties of a domestic nature, Russia objectively continues to play an important role in global processes by virtue of its great economic, science-technological, and military potential and its unique strategic location on the Eurasian continent.*[23]

Putin immediately singled out NATO as an entity hostile to Russian security interests and insisted that the Alliance's eastward expansion represented a dire threat to Moscow.[24] Later, in a 2007 speech, he explicitly warned NATO to cease eastward expansion.[25] Putin also tapped into historic Russian nationalism to contest U.S. and Western "disrespect" for Russia's rightful role as a Great Power. Many Russian elites joined Putin, amplifying an already extant narrative that the United States and its Western allies had taken advantage

of Russia at its moment of greatest weakness—building a sense of national victimhood.[26] Putin began a two-decade pushback on U.S. military and political power, tactically and operationally challenging the military and its allies in a series of global activities that included an invasion of the state of Georgia in 2008 and an annexation of its province, Abkhazia.[27] Six years later, Putin orchestrated a paramilitary invasion and annexation of Crimea, followed by the initiation of a proxy war in eastern Ukraine that continues into 2020. Tough Western financial sanctions followed the Crimea/Ukraine adventures of 2014, and Russia withdrew its observers from NATO, found itself expelled from the G7/G8, and became a key player in the dissolution or abrogation of multiple post–Cold War arms control regimes.[28]

Russian domestic politics regressed from the early 1990s, with Putin crafting rules that moved Russia toward illiberal democracy and authoritarian rule, including abrogation of term limits for the Russian president. Economics under Putin devolved into what many Western analysts decried as a "military-industrial-political-criminal complex" designed to launder high volumes of Russian money captured by Putin-friendly oligarchs. Russian economic growth became increasingly tethered to global oil prices—its main export. Rising prices underwrote a period of heady prosperity in Russia from 2000 to 2006, but the majority of the country's economy entered into long-term stagnation before and especially after the global financial crisis of 2008–2009. Putin's team failed to diversify or modernize Russian industries. Massive state-backed construction projects became a gold mine for crooked officials in Russia, and a vast amount of Russian wealth got transferred out of the country by a cohort of Putin-connected oligarchs into Western banks, real estate ventures, and other personal investments.

Putin and his oligarch consorts welcomed those aspects of the international financial system that circulated their personal expropriation of Russian wealth. At the same time, they chafed against economic and financial institutions that joined in various ever-increasing sanctions against Russian individuals and entities indicted for illegal transactions, participation in lethal Russian espionage against "disloyal" expatriates, and involvement in Russian paramilitary interventions and encounters in Ukraine, Syria, and elsewhere. For most of the 2010s, Russia invested heavily in traditional and modern media agencies around the world—leveraging military intelligence expertise as well as commercial technologies—to develop and deliver an array of anti-Western propaganda, conspiracy theories, and disinformation. This novel "information management" undertaking has generated enormous global impact by questioning the legitimacy of longstanding Western political institutions, societal norms, and leader legitimacy—enhancing the Russian narrative that U.S. and Western values and frameworks are illegitimate (except for those that the Putin kleptocracy deems useful).

At the end of 2019—20 years into the era of Putin—Russia stood as a Great Power state with pride in its recent past. It is a military Great Power. It has a reorganized military on which Putin has spent a disproportionate amount of Russian gross domestic product—an average of 4 percent per year since 2010—to ensure that its nuclear weapons remain a viable deterrent and its ground and air forces can protect its borders and act decisively against threatening states in its near abroad, and it continues to demonstrate limited but effective global projection abilities while leveraging Russian airlift and some sealift to enable a mixture of military and paramilitary forces.[29] At the same time, Putin's Russia displays

characteristics in its economic, political, and ideological elements that make it seem less than a Great Power. To some extent, Putin has offset these serious liabilities masterfully while leveraging modern communications and information messaging to "question everything" about the Western-led world order.

With this short analytical overview of the past 20 years of U.S.-China-Russia relationship trajectories established, this chapter now turns to delineation of the current strategies of each of the Great Powers and what these strategies indicate for specific activities and policies from 2020 to 2025.

Great Power Strategies

U.S. National Strategy and Geostrategic Trajectory

The National Security Strategy (NSS) of December 2017 asserted that the United States and fellow Great Powers Russia and China had transitioned formally from an almost 20-year period of cooperation and collaboration into a new era of competition.[30] The 2017 NSS identified three additional threats to U.S. security—North Korea, Iran, and transnational terrorist and criminal organizations—but clearly premised U.S. security and future prosperity on the ability to compete with Moscow and Beijing.[31] Although the advancement of NSS and NDS premises into action during 2017–2020 generated tensions between U.S. economic and security aims as well as between U.S. administration political aspirations and ideological norms, these documents clearly build on trends present prior to 2016.

First, the United States continued its halting but longstanding efforts to rebalance economic, military, and informational priorities toward the Asia-Pacific region. The Trump administration formalized a new term, *the Indo-Pacific region*, to highlight the increasing priority placed on India and South Asia by successive U.S. administrations.[32] The George W. Bush administration had declared the 21st century to be the "Asia-Pacific century" but then got enmeshed in the South Asian and Middle Eastern wars against terrorist organizations.[33] Beginning in 2011, the Obama administration announced a long-anticipated "Rebalance to Asia" but, like its predecessor, found itself shackled to counterterrorism activities in other parts of the world that reduced the salience of a rebalance to Asia.[34]

Second, the 2017 NSS embedded several U.S. economic, military, and ideological norms for the Indo-Pacific region that evolved during the Bush and Obama administrations and adhered closely to longstanding post–World War II U.S. preferences for global order and interaction. Prior to the 2017 NSS, they were most clearly articulated in the U.S.-India Joint Strategic Vision for the Indo-Pacific Region of January 2015: commitment to growth and broad-based prosperity in the region; assurance of free and unfettered trade; assurance of freedom of navigation and flight; commitment to the peaceful resolution of disputes among states; adherence to international norms and protocols (especially those regarding sovereignty); collective action against terrorism, piracy, and the proliferation of weapons of mass destruction; and the commitment to universal human rights.[35]

Third, growing U.S. energy independence in the early 21st century began to erode American interests in the provision of stability in and commercial access to areas of the world important primarily for their fossil fuel exports, particularly in the Middle East. This

trend was encouraged by growing domestic wariness of overseas military activities and a move toward insular nationalism that emerged before 2017.[36]

Conversely, the 2017 NSS exhibited a new and skeptical attitude toward post–World War II U.S. alliance structures and partnerships. NSS language focusing on the autonomous, unilateral imperatives of U.S. national strategy threw into stark relief the longstanding U.S. valuation of international institutions, multilateral alliances, and partner nations. An unwavering U.S. commitment to politico-military institutions such as NATO and its bilateral Pacific alliances with Japan and South Korea could no longer be taken for granted.[37] This change signaled reduced U.S. interest in bearing the costs of maintaining global norms, rules, and procedures in economic, military, diplomatic, and informational domains. In 2020, it remains to be seen how this devaluation of post–World War II institutions and alliances can be reconciled with consistent and continuing U.S. preferences for global rules and norms.

At the same time, U.S. foreign policy ended the 2010s in an ambiguous place. Strategic writings champion the importance of alliances, economic norms, and multilateral institutions, but U.S. actions between 2017 and 2019 veered between strong support and the view that these institutions are "fundamentally unfair." U.S. foreign policy has focused on renegotiating agreements to redress the U.S. trade deficit but has found itself unable to "easily win" bilateral trade wars with an array of states, including China. Its efforts revealed that many domestic economic constituencies value multilateral free trade and fear American decoupling from both the Chinese economy and the wider global one. These tensions in early 2020 suggest that current foreign and domestic policies are impediments to the U.S. ability to successfully engage in the kind of strategic Great Power competition envisioned by the NSS and NDS.[38]

China's National Strategy and Geostrategic Trajectory

Avoiding a hostile relationship with Washington has been a consistent element of China's post–Cold War national strategy. Simultaneously, Beijing has sought to reduce its vulnerability to U.S. power by building its own comprehensive national power (a Chinese construct that includes all elements of power) and improving relations with other major powers, countries on its periphery, and developing countries in other regions. Chinese leaders have relied primarily on economic, diplomatic, and informational instruments to advance foreign policy goals. China has pursued strategic partnerships with other Great Powers and major regional powers around the world to strengthen political and economic relations without the binding commitments inherent in alliances. China also has begun establishing and supporting new regional and global institutions that can expand its influence and provide a counterweight to the United States. They include the Shanghai Cooperation Organization, focused on Central Asia; the Brazil, Russia, India, China, South Africa (BRICS) grouping; the Conference on Interaction and Confidence-Building Measures in Asia; and the Asian Infrastructure Investment Bank, which provides an alternative to the World Bank and the Asian Development Bank.[39] To dampen concerns about rising Chinese military power, Beijing launched a so-called charm offensive that articulated "win-win" policies based on economic cooperation and sought to downplay growing Chinese military capabilities and economic leverage over smaller states.[40]

Beijing's efforts have been most complicated in the Indo-Pacific region, where economic and military power from China poses the greatest direct threat to its regional neighbors (see chapter 9). For countries outside the region, China successfully portrayed itself as an economic partner of opportunity with a vast supply of cheap labor that could reduce production costs for multinational companies; a large market with 1.3 billion potential consumers; and, by the mid-2000s, an important source of foreign direct investment, loans, technology, and foreign aid that could help other developing countries.

China's rapid growth was achieved through increased integration into the global economy, a course that not only took advantage of opportunities in a globalizing world but also created new vulnerabilities. As China became the "workshop of the world" following its 2001 entry into the WTO, its large trade surpluses meant that employment of many Chinese workers became dependent on continued access to developed country markets in North America and Europe. These critical markets were subject to unpredictable and unpleasant external economic developments, such as the 2008 global financial crisis. The production and consumption needs of China's booming economy made Beijing increasingly reliant on imported oil and natural gas, natural resources, and foodstuffs. In response, the Chinese government urged Chinese companies to "go global" in search of markets, natural resources, and technology.[41]

China's strategic successes produced an expanded overseas footprint of investments, loans, companies, and workers—many in unstable parts of the world—that had to be protected. Success also increased China's dependence on sea lines of communications that passed through maritime chokepoints such as the Malacca Strait and the Gulf of Aden. These areas were vulnerable to disruption by nonstate actors (such as Somali pirates) and to interdiction by major naval powers such as the United States and India. President Hu Jintao articulated the "new historic missions" for the People's Liberation Army (PLA) in 2004, tasking the Chinese military to expand beyond its traditional missions of defending China's sovereignty and territorial integrity and ensuring CCP rule to also protect China's overseas interests and right to development. This shift led the PLA to begin antipiracy patrols in the Gulf of Aden in December 2008 and to conduct evacuations of Chinese citizens from Libya (2011) and Yemen (2015).

Under President Xi, these various economic, diplomatic, and military initiatives have been drawn together into a more coherent strategy. In 2013, Xi launched the Belt and Road Initiative (BRI), which gathers many of China's overseas investments, loans, and infrastructure projects under one grand banner.[42] BRI seeks to strengthen China's land and maritime connections to Eurasia with new ports, roads, and railroad infrastructure, funded by Chinese loans and built by Chinese companies. The vision is of a future in which China stands at the center of a vast Eurasian regional system, integrated economically and tied together by road, rail, and pipeline infrastructures. The economic benefits to China are obvious, but the BRI also has strategic implications in terms of expanding Chinese economic influence over participating countries and constructing alternative trade routes that bypass maritime chokepoints.[43] Western critics of BRI fear that it will not only enhance China's access to material resources and markets but also enable future capabilities for surveillance and social control and boost Chinese influence to push for broader changes in global governance and

international norms.[44] BRI has expanded geographically to include Africa, the Middle East, and Latin America and functionally to encompass a "digital silk road."

During its reform era, China initially focused on exploiting its comparative advantage in cheap labor, but Chinese leaders also sought to help state-owned enterprises and private companies innovate and move up the global "value chain." This effort initially involved relatively decentralized joint ventures and efforts to acquire foreign technology, quality control, and management skills. But increasingly this strategic endeavor involved national-level industrial policy tools to promote indigenous innovation and help Chinese companies become globally competitive producers and exporters. Promulgated in 2015, Beijing's Made in China 2025 is a 10-year economic development plan that leverages a range of government subsidies to make China dominant in global high-tech manufacturing. It includes a range of practices that skirt global investment, intellectual property rights, and technology transfer norms.[45]

China's economic development has benefited greatly from access to an open, globalized world economy supported by relatively liberal rules, norms, and institutions and undergirded by U.S. power. As China's power has grown, Beijing has expanded efforts to strengthen China's influence in various international institutions and to seek changes in international rules and norms to better accommodate its national interests. In early 2020, China does not seek to challenge the United States for global leadership; China's domestic fragility would make it difficult for Beijing to take on many of the responsibilities and burdens that such a role would entail.[46] At the same time, China has no interest in shoring up the foundations of U.S. global leadership and is working with other countries such as Russia to promote a multipolar world where the United States is less dominant. Chinese scholars and officials have articulated a range of areas where China seeks modifications in international rules and norms: ensuring that China and other developing countries have more influence in global institutions, increasing the degree to which the United States is actually constrained by global rules and norms, and reducing the role of U.S. alliances and military deployments that might constrain China.[47]

China is broadly comfortable with the existing United Nations (UN) system and its formal emphasis on sovereign equality of states, not least because Beijing possesses a veto on the Security Council and can block actions against its interests. Chinese complaints are usually couched in terms of the need for fairness for developing countries and increased "democracy" in international relations. But the underlying demand is for a Chinese seat at the table and a greater role for Beijing in shaping international rules and norms. That said, China opposes many of the liberal principles embedded in the U.S.-led system, such as the emphasis on individual political rights rather than collective economic rights. It favors stronger norms of nonintervention and the rights of sovereign states to choose their political systems and control what happens inside their borders. After years of downplaying Western claims that China has a unique development model, the so-called Beijing consensus, China has begun to argue that its economic success showcases strengths of its CCP-controlled political system and presents a new development model that may have useful lessons for other countries.[48] This message has appeal for authoritarian governments that hope to replicate Chinese economic success without liberalizing their political systems, although the extent to which China has a coherent model that other countries could emulate is debatable.[49]

Articulated after Xi became secretary general in 2012, his China Dream of national rejuvenation includes the aspiration to build a powerful and prosperous China by 2049. Subsequent CCP statements indicate that unification with Taiwan is considered part of "national rejuvenation." This broad goal is accompanied by the "two centenary goals" of building both a moderately prosperous society by 2021 and a "prosperous, strong, democratic, civilized, harmonious, and beautiful modernized socialist strong country" by 2049.[50] Xi's 2017 report to the 19th Party Congress also articulated a three-step goal for military modernization: The PLA should achieve mechanization and make strides in applying information technology and developing strategic capabilities by 2020; national defense modernization should be basically completed by 2035; and the PLA should become a "world class military" midcentury, on its 100th anniversary in 2049.[51] China has also published a range of narrower national plans and strategies in fields such as high-tech manufacturing, space, and artificial intelligence.

As the preceding discussions suggest, Chinese leaders proclaim national objectives formulated in terms of power and employ a range of diplomatic, economic, and military tools to advance those objectives; however, China's public articulations of such regional and global goals consistently emphasize vague principles—"mutual respect for each other's territorial integrity and sovereignty" and "peaceful resolution of disputes through dialogue"—while downplaying conflicts of interest between states and the central role that power plays in international relations. For example, China's 2017 white paper on Asia-Pacific security cooperation stresses "common development" and "political and security partnerships" but expresses a negative view of alliances.

The document draws a distinction between "major powers" and "small and medium powers," which "need not and should not take sides among big countries."[52] However, the white paper does not mention relative power or balance of power, even though the perceived vulnerability of other Asian countries to China's rising power is the central dynamic in the Indo-Pacific. This diplomatic effort to obscure relative power and discourage regional efforts to balance against Chinese power is inconsistent with Chinese internal, military, and academic analyses, which regularly stress the importance of relative power and power trajectories. It is also inconsistent with Chinese diplomatic practice, which reflects an acute awareness of power relations and a willingness to use power to reward and punish.[53] China's efforts to articulate a global vision for a "harmonious world" and a "community of common destiny" suffer from similar shortcomings—the implication being that less powerful countries facing a more powerful China must rely on China's uniquely peaceful nature. The real message is that China will not compromise in pursuing its interests and that less powerful countries must be prepared to give way.

> "As they begin to assert themselves, rising powers usually feel impelled to challenge territorial boundaries, international institutions, and hierarchies of prestige that were put in place when they were still relatively weak. Their leaders and people typically feel that they were left out unfairly when the pie was divided up, and may even believe that because of prior weaknesses, they were robbed of what ought to be theirs. . . . This is what typically brings them into conflict with the established Great Powers."
>
> —*Aaron L. Friedberg,* A Contest for Supremacy *(2012)*

Beijing's lack of candor about its regional and global objectives leaves space for competing assessments of China's international ambitions. There is an increasing consensus that China seeks to dominate the Indo-Pacific region; the analytic differences lie mostly in whether this authority will involve an intrusive effort to micromanage the region or a looser sphere of influence where China seeks a veto on actions that might damage its security interests.[54] There is agreement that Beijing seeks greater influence over global rules, norms, and institutions, but disagreement on the scope and urgency of China's ambitions and likelihood of realizing them.

Some analysts view China as a moderate revisionist power that seeks to change aspects of global rules and norms that affect its specific national interests, but that has limited ideological ambitions and remains willing to deal with countries regardless of their regime type.[55] Those with this view see China's articulation of the goal of building a "community of common destiny for mankind" as a continuation of past Chinese efforts to express normative principles that should govern international relations rather than a coherent program for systematic changes in the current rules, norms, and institutions of the post–World War II order. From this perspective, China's efforts to use its economic achievements to win international respect for its governance model are aimed more at building domestic legitimacy than at forcing others to follow China's example. Others view China's authoritarian regime as requiring external validation and an accommodating international environment in order to keep the CCP in power, and thus see "a community of common destiny" as a far more ambitious effort to transform international rules and norms and propagate authoritarian values in order to maintain domestic stability.[56] Both groups agree that China prefers authoritarian norms in areas such as cyber sovereignty and prioritizing collective economic rights over individual political rights, but the latter faction suggests that liberal norms pose an existential political threat to the CCP and thus require its active efforts to transform the international system rather than simply adapt to it.

In early 2020, China seems to conceive a national security strategy in concentric circles. Its primary focus is on internal security, both by maintaining political support from the Han majority and by managing a host of separatist and nontraditional security challenges. For China, this includes preventing Taiwan independence, which it considers a domestic issue. The second ring involves countries on its periphery in the Asia-Pacific region (the Indo-Pacific). China will work to maintain regional stability, achieve a satisfactory resolution of its territorial disputes, and reconcile the region to a dominant Chinese role. The United States stands as an obstacle to these ambitions, so China will work to erode U.S. power and influence in the region while seeking to avoid direct confrontation. The third ring lies outside Asia, where China will seek to maintain access to resources and markets, protect its expanding overseas interests, and expand its influence in regional and global institutions while introducing alternative institutions where feasible. China's approach to relations with its fellow Great Powers will be to seek recognition of its status as a global player and deference to its interests in Asia and beyond. Beijing will avoid direct military challenges or confrontations where possible and will compete in the economic, technological, military, and diplomatic spheres to improve its regional and global position.[57]

> "The competition for global influence between the United States and Russia has been exaggerated and fueled in large measure by a combination of inflated assessments of Russian capabilities and ambitions, the United States' expansive definition of its interests, and a pervasive consensus within the foreign policy establishment that the exercise of U.S. leadership demands a central role for Washington in engineering American solutions to global problems. . . . The only realistic and sustainable solution to these challenges is to focus on their root causes and adopt a more realistic view of Russia and a more disciplined, restrained, and judicious approach to defining U.S. interests around the globe."
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> —*Eugene Rumer and Richard Sokolsky, "Thirty Years of U.S. Policy Toward Russia,"* Carnegie Endowment for International Peace, *June 20, 2019*

Russia's National Strategy and Geostrategic Trajectory

In Vladimir Putin's Russia in 2020, the perception of existential threats drives its strategy of "aggressively defensive" policies aimed at disrupting the Western world.[58] Russian global strategy is loosely tethered to a nostalgic view of imperialism and the bygone era of the Russian Empire.[59] Unlike the Soviet Union, with its positivist strategic aim of promulgating global communism, Putin's Russia pursues reactive and limited strategic outcomes. It asserts rights of control in the historic lands of the Russian and Slavic peoples of its "near abroad" and domestic borders, sometimes referred to as the construct of neo-Eurasianism.[60] Simultaneously, Russia seeks to despoil U.S.-led rules, norms, and institutions around the globe. It pursues a strategy of reactive resistance to U.S. leadership internationally and proactive assertion of the right to historic imperial dominance over the states of its near abroad. Moscow seeks a multicentric world that impedes and resists U.S.-led Western institutions. Simultaneously, it asserts regional power and authority based on bilateral, transactional military and economic relations advantages.[61] Both elements of this strategic approach (versus a formal, lucid strategy) represent Putin's desire that Russia be viewed as a global power despite Moscow's demonstrably weak position across all but the military and informational dimensions of strategic interaction.[62]

Russia seeks to manage its relationship with the United States, the European Union, and NATO to deter "supposed" hostile action by weakening the cohesion of these alliances.[63] Moscow also leverages a tactical relationship with China, the Chinese-led Shanghai Cooperation Organization, and the international BRICS consortium countries to tarnish U.S. influence abroad.[64] Although the Russian government cooperates with China on a handful of political issues, it remains wary of its Asian Great Power competitor and seeks to limit Chinese influence in the former Soviet states.[65] Russia's regional priorities closely focus on consolidating Russian ascendance in former Soviet space and Eurasia and on projecting relevance in the Middle East and the Arctic.[66]

Putin understands that his control in Russia is not limitless, and his policy actions directly reflect his wishes to maintain personal power and legitimacy.[67] He has become a master of deflection, shifting the dialogue from the problems Russia faces at home to managing conflicts abroad through diplomatic and military force.[68] By flexing Russian specialized military and diplomatic power in the Middle East, Putin cultivates solidarity from "other dictators threatened by revolution," but he does not demonstrate any capacity to bring nations together or work toward common goals or mutual betterment.[69] Simulta-

neously, Putin seeks Russia's status as a Great Power, but his reliance on the narrative of neo-Eurasianism (sometimes referred to as *confessional imperialism*) is a far cry from the comprehensive ideological framework of the former Soviet Union or the modern, cohesive ideology of China.[70] Unlike the Soviet Union, which oversaw the First and Second Communist International forums that proselytized a formal and structured vision of world rules, norms, and institutions featuring Marxist/Leninist sociopolitical and command-driven economies, Putin's Russia does not have any form of a positivist vision for reordering the world political space.[71]

Thus, Russia is a contemporary Great Power with a peculiar mix of short-term power capabilities and long-term challenges. It leverages a history of martial prowess with unique global capabilities in several areas of military might, especially nuclear weapons, space, and aerospace, and specialized but limited precision weapons and elite forces power projection through recently modernized air and sea platforms. Modern Russia also generates considerable disruptive capacity and will do so over cyberspace and social media, undermining Western political, ideological, and informational narratives with a limited-aspiration, maximum-confusion campaign. As chronicled in the following chapter, Russia's current capabilities match well with Putin's limited strategic aspirations and transactional aims; however, the future of Russia's Great Power status is in doubt, as its major power indicators are receding today and promise an even greater downward turn into the future.

Evolving GPC Bilateral and Trilateral Geostrategic Dynamics: Norms, Institutions, and Geographic Regions

Based on the national strategies and geostrategic trajectories of the three Great Powers in early 2020, one can discern in and among them today broad philosophical and specific regional dynamics that are likely to remain salient over the coming 5 years. Some have to do with U.S.-Russia relations; several involve U.S.-China relations; and others engage Chinese and Russian dynamics.

First, all three Great Power states have unique perspectives and attitudes about the *established rules, norms, and institutions of the international system*, which produce consequential strategic contrasts and policy imperatives.

The United States was the dominant architect of post–World War II norms, rules, and institutions for international interactions and exchange. In general, these American preferences continue to dominate the contemporary global system, which bears the hallmarks of a U.S./Western desire for multilateralism, the peaceful resolution of disputes, cultural pluralism, free and open global trade and finance, open and transparent communications, and individual human rights.[72]

However, Washington increasingly has become sensitive to the fiscal and human costs of maintaining and enforcing the existing order. Since 2017, the Trump administration has amplified existing American concerns that preferred U.S. rules and norms are too costly and other states are unwilling to pay a fair share of maintenance costs (the free-rider problem). The Trump administration has chafed more openly than its predecessors at the fact that multilateral organizations and regimes constrain unilateral U.S. bargaining power. Growing insularity and nationalism have masked U.S. self-awareness that it derives enormous benefits from current rules that are unlikely to last should the standing order erode.

Simultaneously, the United States remains oblivious to the ways in which it has acted outside of global rules when convenient. It also has been unable and/or unwilling to generate new rules about international issues, such as currency valuation, the use of space, the policing of cyberspace, and others.[73]

Although invited into the global order during 1945–1946, the Soviet Union spent the Cold War ideologically opposed to the U.S./Western "first-world" order, limiting its participation to parts of the United Nations (UN) system. After a brief period of attempted assimilation during the 1990s, Putin's Russia entered 2020 with a mixed attitude toward that order: working to erode many aspects of the system while leveraging the selective benefits of the order where Russian national interests are met, such as at the UN and in the international banking and finance system. Working with China and other states, Russia desires to reshape some international rules and norms that constrain its power. At the same time, Russia is unlikely to accept integration into institutions that it did not design, as Putin believes Great Powers do not dissolve into other integration projects but forge their own.[74]

Contemporary Russia can be expected to support rules that allow for authoritarian regimes, resisting those that assert a "duty to intervene" against totalitarian or abusive governments. Russian political and diplomatic interests remain aligned with tethering friendships and transactional state-to-state engagements with all states willing to entertain Moscow's presence—especially when those friendly states join Russia in opposing longstanding Western norms. Putin's Russia will work against norms of nonintervention and military restraint—actively cultivating paramilitary and proxy forces that violate fellow-state sovereignty—in the pursuit of dominance in its near abroad and when responding in support of a friendly state anywhere in the world.[75] Moscow will exploit today's trade and finance systems to its advantage but will resist and subvert economic system norms when they mandate too much transparency or exact too much fiscal pain. Its approach to cyberspace, social media, and other forms of mass communication will continue to sow confusion and derision in the activities of competitor states, resisting the creation of new rules and norms mandating reciprocal freedom and openness in this informational realm.

The People's Republic of China was not involved directly in the establishment of the post–World War II global order.[76] As mentioned, Beijing began engaging global institutions beyond the UN system as part of its reform and opening up policy in 1978, with a focus on those areas with direct benefit to China's growth and development. China claims to act as a representative of developing countries in global institutions, even though its own status and interests have diverged as its power has grown. China has benefited from many economic institutions that support trade and commerce, such as the WTO and the World Bank; however, China has sought to use its status as a developing country to resist or evade some commitments and has taken advantage of gaps in international rule and norms in areas such as currency valuation. China has sought a greater voting share and increased influence in institutions such as the World Bank, the International Monetary Fund, and the Asia Development Bank, but it has also begun to develop parallel institutions such as the Asian Infrastructure Investment Bank as vehicles for its interests.[77]

Great Power national strategies and geopolitical aims combine in 2020 in a manner that highlights some areas where collaboration may remain feasible. They also indicate

Table 3a.1. Basic Postures and Compatibility of Strategic Aims, 2020–2025

	United States	China	Russia	Remarks
Political and Diplomatic	Liberal democratic governance	Authoritarian, one party state rule	Authoritarian rule with illiberal democratic facade	U.S.-China = incompatible; China-Russia = short-term compatible; U.S.-Russia = short-term incompatible
Ideological	"Free and open societies" with individual freedoms, universal human rights, and pluralism	"A community of common destiny" (ambiguous); state sovereignty and collective order, limited human rights	Loose "neo-Eurasianism" and multipolarity; state ascendance, Russian sovereignty and disruption of global norms	U.S.-China = incompatible; U.S.-Russia = short-term clash/long term? China-Russia = short-term compatible, long term?
Informational	Free and open exchange, only limited restrictions	State control and cyber sovereignty restrictions; increasing external propaganda	State overwatch with selective closure; complementary disinformation	U.S. incompatible with China and Russia
Military	High-tech, robust quantity mix of regular and irregular forces, great deployment reach	Improving tech, high-quantity, regular forces; gradually expanding regional deployability	Some critical high-tech, limited quantity regular with irregular forces; global deployability in selected areas/missions	(details provided in chapter 3b)
Economic (Trade and Finance)	Free and open trade; transparent, free-flowing finances	Open trade with strong state role; managed financial system; barriers to trade	State-monopolized trade; exploitation of international finances for oligarch gains	U.S.-China = compatible in near term if U.S. underpins; China-Russia = compatible and largely complementary; U.S.-Russia = compatible if U.S. accepts Russia free riding and stops use of trade sanctions and financial listing to achieve political aims

areas where strategic aims and values are likely to be competitive or even confrontational. Table 3a.1 helps paint a picture of the prospects for strategic compatibility in the five areas of state interactions that underpin global rules, norms, and institutions.

Political and Diplomatic

The current system aligns with U.S. goals and strategic aims, supporting the role of the UN, multinationalism in diplomatic relations, and peaceful and collective resolution of disputes. It also is biased toward a U.S./Western preference for liberal democratic governance. Yet Washington demonstrates increasing ambivalence about many of these norms and institutions; it remains stolid in declared support but far less certain in its policy actions to sustain them. China values the UN and its protection of state sovereignty but is increasingly using its economic and military power to pursue its interests in the Indo-Pacific region at the expense of other countries. With its domestic CCP dominance and preference for a state-centric global order, China is opposed to liberal democratic governance norms and is

seeking to expand its influence in regional and global institutions. Russia, with its Security Council veto power, also favors the status quo institution of the UN. Moscow has recently demonstrated a desire to take charge of multilateral political institutions such as Interpol and global counterterrorism organizations, presumably from a desire to bend these toward Russian interests.[78] Moscow is less accepting of peaceful, collective resolution of disputes. Under Putin, Russia practices single-man authoritarianism with illiberal democratic institutions. After Putin, Russia's political culture may change, but that outcome seems unlikely in the coming decade.

Ideological

In 2020, the U.S./Western ideology valuing free and open societies, commercial markets, and protection of political rights clashes directly with Beijing's desire to leverage Chinese power to obtain regional deference, preference for authoritarian norms, and pursuit of the ambiguous goal of a *community of common destiny*. There is a growing awareness of this clash, but the impacts from it moving forward remain uncertain. Moscow has no overarching ideology save that of sustaining historic Russian pride and prominence, maintaining ascendance in its territorial near abroad, and exercising global access and avoiding cooption by a U.S./Western order.

Informational

U.S. preferences are for the free and open exchange of ideas with little restriction and a global communications architecture that features consensus-based cooperation. Russia and China find this construct threatening and prefer closed and restrictive communications and exchange, with the state having the right to control the flow of information within and across its borders. Both states have well-developed propaganda and censorship apparatuses for both online and traditional media and seek to use these operations to shape foreign perceptions. China denies Western accusations that it engages in extensive commercial and cyber espionage. Russia also has been willing to leverage the current openness in the system to flood it with disinformation and discordant themes, confronting its regional opponents and the United States with uncomfortable dissonance in open communications systems.

Military

The current international system espouses the peaceful resolution of disputes and multilateral cooperation to deal with aggressor states. The UN was founded on this premise, and many subsequent regional and functional organizations and norms have grown up around sustainment of the practice. But this promise has not been met in practice, and in 2020, there are differing views by the Great Powers on where and how to use the military instrument. In general terms, the United States has a dominant military across most of the use-of-force spectrum and an unparalleled ability to project military power. Washington continues to emphasize a high-tech, large-quantity force with a dominant set of deployment and sustainment resources. China has a military that is rapidly improving its technological capabilities and has a limited but growing reach. Chinese military reforms are improving naval, air, and missile capabilities and beginning to build a joint force focused on fighting and winning informationalized wars. Over the past decade Russia has recapitalized its

military in a manner that has sustained its nuclear ascendance, incorporated some critical advanced technologies, and moved toward utilization of a mixture of regular military forces with irregular and commercial forces. Russia also has modernized to sustain global deployability in limited numbers for much of its limited-sized military force. (The following chapter addresses in much greater detail the capabilities of the Great Power military forces.)

Economic (Trade and Finance)

Never perfect in the post–World War II era, modern trade and finance systems were built around the norms of freedom and openness. The General Agreement on Trade and Tariffs established relative norms for free and open trade and was succeeded by the WTO. The World Bank provided pooled funds from developed countries to foster economic growth in underdeveloped ones. The International Monetary Fund offered donor funding to offset short-term imbalances in international payments between countries. As world currencies became convertible, tariffs were reduced and private international investment again became robust.[79] The United States continues to underwrite the norms of freedom and openness represented in these institutions—but with increasingly obvious "donor fatigue." China has greatly benefited from these norms and institutions and continues to support many of them. Beijing values free-flowing trade and finance, but with a model that emphasizes a large state role in economic decisionmaking. China has been slow to fundamentally lower domestic barriers to overseas ownership and has chafed at making its state-led economic decisions transparent. As noted, China has recently begun to establish parallel institutions and programs to compete with Western institutions in trade and finance, such as the BRI and the Asian Infrastructure Investment Bank. Russia, too, prefers state-monopolized trade. Moscow openly accepts and welcomes the elements of international trade and financial flows that sustain Putin and his oligarch constituency's financial gains. Russia does not support or adhere to norms of freedom or openness in its general commercial activities.

> "From the outset [June 2018], it was clear that the friction between the world's two largest economies was about far more than just trade. At issue were long-simmering differences of ideology and values and a context for global geostrategic influence that was increasingly being played out in the economic and technological spheres."
>
> —*"China's Concept of World Order: Theory and Practice,"* IISS Strategic Survey 2019

As of 2020, trade and financial disputes have become primary flashpoints among the three global powers, and especially between the United States and China. Russia has bridled under U.S. and Western trade and financial sanctions in response to Moscow's military adventures in its near abroad. More substantively, the United States and China entered a trade war in mid-2018 that continues into 2020. This emergent economic rivalry between the United States and China seems unlikely to just ease into a "normal business struggle," similar to that between Japan and the United States in the 1980s, which waned with a decade of Japanese stagnation in the 2000s. Many in Washington are growing more and more convinced that an authoritarian, CCP-led China seeks to use unfair competition to challenge U.S. economic leadership and displace U.S. military dominance in the western Indo-Pacific in the near term. Beijing also may wish to supplant Washington's preferred

Table 3a.2. Geographic Regions and Great Power Strategic Interest Intensity, 2020–2025

	United States	China	Russia	Remarks
Indo-Pacific	Primary	Primary	Secondary	Elevated risk of confrontation or clash between the United States and China
Europe	Secondary	Tertiary	Primary	Competition unless Russian near-abroad security interests challenged
Middle East	Secondary	Secondary	Secondary	Mainly competition over resources, but increasingly for prestige
Africa	Tertiary	Secondary	Tertiary	China resource interests—mainly competition
Latin/South America	Primary	Tertiary	Tertiary	U.S. pride and prestige interests
The Arctic	Secondary	Tertiary	Secondary	Limited risk of confrontation short of miscalculation
Space	Primary	Primary	Primary	Very high risk of confrontation and clash in this unregulated competitive space
Cyberspace	Primary	Primary	Primary	Already evident confrontation and concern about greater clash without new norms and rules

international rules, norms, and processes with a more state-centric model of economic activity in the more distant future.[80]

All three Great Power states also have different aims and attitudes toward different *geographic regions* in the competitive space of GPC.

As demonstrated in table 3a.2, there are eight major global regions and environments where the three Great Powers will compete. The strategies of each Great Power reveal that each nation has differing levels of interest intensity in these regions—all do not have primary interests in all spaces. A primary strategic interest intensity is defined as one in which the Great Power believes a significant risk to national security is found in that region, and where it could risk military conflict with a Great Power rival to defend that interest in the next decade. A secondary strategic interest intensity is one in which the state believes only a modest risk to its national security is in play, and where its preferred means of interaction with the other Great Powers will remain competitive and avoid confrontation or direct clash in other than accidental circumstances. A tertiary strategic interest involves a limited to no perceived risk to state security, and where Great Power interactions might be focused on activities that feature at least some collaboration, as well as subdued or proxy-level competition and (very rarely) confrontation.

As noted in this chapter's review of the main Great Power strategic interests, the United States and China have primary interests in the Indo-Pacific region that conflict. Here, their competition could turn toward confrontation or a military clash if careful diplomacy is not exercised. Russia has a primary interest in Europe, with special sensitivity to its near abroad—the former Soviet Union provinces. American and European diplomacy will remain challenged to stanch Russian misadventures without generating overt confrontation or clash. The United States retains a historic interest in primacy across the

Western Hemisphere, and this appears unlikely to be similarly important in the near term by the other two and likely to remain an area of less direct competition absent unforeseen miscalculation. Conversely, the Middle East promises to be an area of dynamic competition and occasional nonmilitary confrontation in the coming decade—with access to resources as the principal focal point of interaction. However, as U.S. and Russian interests in energy sources wane, the competitive focus in the Middle East seems destined to be that of prestige and resonance of ideological narratives.

Interestingly, two nontraditional competitive venues, space and cyberspace, are those where all three Great Powers have primary interests engaged now and into the foreseeable future. There is high risk that intensifying competition in space could lead to greater confrontation there between the modern Great Powers. Agreement on some viable rules and norms for collaborative use and cooperative actions in space would seem a vital undertaking to reduce the growing risks of confrontation and miscalculation leading to clash. Likewise, the absence of cooperative rules and norms in cyberspace has already witnessed this medium for state interaction take a dark turn toward confrontational dynamics; in the absence of new norms and standards for cooperation, this medium of Great Power interaction risks an even greater set of malevolent and confrontational activities in coming years.

Major GPC Comparative Insights and Implications

This chapter's analytical review of Great Power strategic postures and geostrategic preferences provides several important insights about the new era of GPC. Among them, 10 stand out.

First, the United States enters this new era as the dominant Great Power of the three rivals—its preferred norms, rules, and institutions for interstate interactions color all major categories of global activity. But the strategic aims of the three modern Great Powers are incompatible and thus assure the return to a historically dominant pattern of competition between Great Powers in the international system.

Second, China is the one rising Great Power with the combination of a positivist vision for the future and the ambition to push for changes in the international system on a near-term and long-run basis. China may not intend to do so, but the United States finds this combination disruptive to the standing—and Washington's preferred—international order. China's lack of a meaningful boundary between public and private ventures and its wide-ranging and intrusive efforts to gain competitive advantage and coercive leverage over states within its region carry significant risk of escalating confrontation with the United States. Thus, the primary competition in the emerging era—the only truly global, comprehensive national-level competition—likely will be between the United States and China.[81]

Third, Russia's Great Power aims are not grounded in a positivist global strategy with discernible alternative norms, institutions, and procedures for an international order. Instead, Moscow in 2020 practices a reactive and often disruptive strategy oriented toward questioning contemporary institutions and processes by which it feels threatened and simultaneously keeping subservient the smaller states on its geographic boundaries. Putin's Russia, therefore, has the potential to cause difficulties on specific issues but does not have the global aspiration to reshape the international system.[82]

Fourth, Chinese and Russian challenges to the existing U.S.-established global order of 2020 should be sharply distinguished. It is incorrect and unhelpful to lump China and

Russia together as the same kind of comprehensive U.S. rival now or into the future. The divergent degree of their global ambitions means that, for the United States, the future portends an overarching political, ideological, information, and economic competition with China, with secondary, largely regional contestations with Russia.[83]

> "China and Russia refer to their relationship as a 'comprehensive strategic partnership,' in which Russia supplies oil to China and the two countries hold joint military exercises. And, officially, their relationship has rarely been better. But trade is lopsided in China's favor; the fall in energy prices has made China considerably less dependent on Russia. Russia sells arms to China's adversaries, India and Vietnam. And China has copied Russian weapons designs. These deeper geopolitical realities mean China and Russia will be only allies of convenience."
>
> —*Robert Kaplan,* The Return of Marco Polo's World *(2018)*

Fifth, despite China's long-term strategic vision and ambition, both China and Russia have regional interests in 2020 that appear more important and urgent than their global interests. Each desires de facto spheres of influence free from outside interference—on their borders and in nearby regions.[84] This is especially true in Central Asia and in the Russian Far East.

Sixth, China and Russia may continue their tactical entente over the coming 5 to 10 years, working together to erode U.S. power, frustrate U.S. actions, challenge U.S.-dominated institutions, and question U.S.-underwritten norms and rules they deem threatening. However, divergent long-term Sino-Russian strategic interests make it unlikely they will form an enduring alliance.[85] The United States should remain careful not to misunderstand, as evidence of some deeper strategic cooperation, tactical coordination between Beijing and Moscow that balances U.S. power.[86]

Seventh, all three contemporary Great Powers are dissatisfied with some aspects of international order and are growing less willing to make compromises and sacrifices to keep it running. Thus, there is heightened potential for GPC rivalrous activities to reduce effectiveness of global institutions in managing complex regional and global problems. Some observers argued that the absence of Great Power cooperation or collaboration during the height of the early 2020 coronavirus pandemic was symptomatic of this breakdown.[87]

Eighth, U.S. economic and strategic interests in the Indo-Pacific and in Europe challenge Chinese and Russian regional interests most. These are competitive regions with the greatest near-term salience. The Middle East is evolving as a secondary area of GPC where less important Great Power interests collide in various ways. Other regional areas are of tertiary importance, where GPC interests exist but vary greatly and where competitive dynamics are less clear.

Ninth, space is an arena where longstanding cooperation and a relative absence of strategic competition is giving way to Great Power rivalry and the potential for confrontation. Great Power geopolitical competition is increasingly observed from and managed by space-based platforms. Thus, as global Great Power rivalries heat up, more and more states will develop technologies, including antisatellite weapons, that put human access to or effective use of space at risk. The risk of confrontation and clash in this unregulated competitive

arena is great, but so too is an opportunity to craft norms and rules of cooperation and deconfliction capable of reducing the risk of confrontation in space.[88]

Tenth, cyberspace is already a major medium impacting relative state power and an important element of the emerging era of Great Power competition. The risk of cyber-clash will grow without concerted effort to effect agreed-to global standards and norms that reconcile cyber-openness with security and safety concerns.[89]

From Aspirations to Actions: From "What to Do" to "How to Do It"

The end of the 2010s heralded an indisputable shift of the major dynamics of international affairs from cooperation and collaboration and into a far more competitive set of international relations, especially between the United States, Russia, and China.

In a nutshell, the modern Great Powers have divergent strategic interests, meaning they will compete across five major interaction categories in the next 5 years. Cooperation and collaboration remain possible, but episodes of confrontation and clash are likely, even over nonmilitary issues. The United States must proceed with a clear-minded strategic approach that understands that Putin's strategic aims make Russia a transient security risk, while Beijing's ideological vision and aspirations make China the more important, albeit presently less threatening, security threat. A U.S. strategy that cooperates when possible, competes smartly, confronts only when necessary, and concurrently builds out unique U.S. strategic tools and power capabilities across all of its economic, diplomatic, ideological, informational, and military categories appears to be one best suited to the beginning of a new era of GPC.

> "[I]f China's power continues to grow, and if it continues to be ruled by a one-party authoritarian regime, its relations with the United States are going to become increasingly tense and competitive. That is the path along which events are presently proceeding, and like it or not, it is the future for which America and its allies have no choice but to prepare."
>
> —*Aaron L. Friedberg,* A Contest for Supremacy *(2012)*

The next chapter moves beyond an assessment of the strategic aims and intentions of the modern Great Powers. It will explore whether the United States, China, or Russia can achieve their aims. Do they have now, or will they soon possess, the capabilities necessary to achieve their strategic goals? It will itemize and evaluate many of the most important power capabilities and the relative abilities of the United States, China, and Russia now and into the coming decade—with special attention to the next 5 years.

Notes

[1] This operational definition is derived from Thomas J. Volgy et al., "Major Power Status in International Politics," in *Major Powers and the Quest for Status in International Politics: Global and Regional Perspectives*, ed. Thomas J. Volgy et al. (New York: Palgrave Macmillan, 2011), 1–26. Their definition derives from an amalgam of several other classic efforts at defining Great Power status, including the following historic references: Melvin Small and J. David Singer, "Formal Alliances, 1815–1939: A Quantitative Description," *Journal of Peace Research* 3, no. 1 (1966), 1–32; Jack Levy, *War in the Modern Great Power System, 1495–1975* (Louisville: University Press of Kentucky, 1983); John Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001); Benjamin O. Fordham, "Who Wants to Be a Major Power? Explaining the Expansion of Foreign Policy Ambition," *Journal of Peace Research* 48, no. 5 (2011), 587–603.

[2] For examples of the range of these perspectives on China, see Aaron L. Friedberg, *A Contest for Supremacy: China, America, and the Struggle for Mastery in Asia* (New York: W.W. Martin and Company, 2011); Charles Edel and Hal Brands, "The Real Origins of the U.S.-China Cold War," *Foreign Policy*, June 2, 2019,

available at <https://foreignpolicy.com/2019/06/02/the-real-origins-of-the-u-s-china-cold-war-big-think-communism/>; Xiaoye Pu and Chengli Wang, "Rethinking China's Rise: Chinese Scholars Debate Strategic Overstretch," *Chatham House Papers* 94, no. 5 (September 2018). The range of views about the challenge posed by Russia to the United States and the international order is discussed in "How Big a Challenge Is Russia? Foreign Affairs Asks the Experts," *Foreign Affairs*, November 13, 2017, available at <www.foreignaffairs.com/ask-the-experts/2017-11-13/how-big-challenge-russia>.

[3] Michael J. Mazarr et al., *Understanding the Emerging Era of International Competition: Theoretical and Historical Perspectives* (Santa Monica, CA: RAND, 2018), available at <www.rand.org/pubs/research_reports/RR2726.html>; Ashley J. Tellis and Robert D. Blackwill, *Revising U.S. Grand Strategy Toward China* (New York: Council on Foreign Relations Press, 2015), available at <www.cfr.org/report/revising-us-grand-strategy-toward-china>; Ian Bremmer, "The End of the American International Order: What Comes Next?" *Time*, November 18, 2019, available at <https://time.com/5730849/end-american-order-what-next/>.

[4] Chapter 10 of this volume addresses the perspective that Russia is not really a Great Power but instead a disruptive (or spoiler) state. Those looking for an alternative view of Russia's role in an era of Great Power competition are encouraged to turn to that chapter.

[5] Ali Wyne, "America's Blind Ambition Could Make It a Victim of Global Competition," *The National Interest*, February 11, 2019, available at <https://nationalinterest.org/feature/americas-blind-ambition-could-make-it-victim-global-competition-44227>. Among those concerned with the short-term Russian risks, Soviet-expat-turned-Norwegian research fellow Pavel Baev's concern is most concise: "Russian revisionism from a position of weakness is both ambitious and desperate." See "How Big a Challenge Is Russia? Foreign Affairs Asks the Experts."

[6] Charles Krauthammer, "The Unipolar Moment," *Foreign Affairs* 70, no. 1 (1990/1991), 23–33; Fareed Zakaria, *The Post-American World* (New York: Norton, 2008); Hal Brands, *Making the Unipolar Moment: U.S. Foreign Policy and the Rise of the Post–Cold War Order* (Ithaca: Cornell University Press, 2016).

[7] Susan L. Shirk, *How China Opened Its Door: The Political Success of the PRC's Foreign Trade and Investment Reforms* (Washington, DC: Brookings Institution Press, October 1, 1994); Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform, 1978–1993* (Cambridge, MA: Cambridge University Press, 1995).

[8] The 1989 crackdown on Tiananmen protestors and the Chinese Communist Party's 1999 campaign to eradicate the Falun Gong movement stand out as exceptions to these general trends.

[9] The belief that China's economic liberalization would most likely lead to middle-class demands for greater national political participation and a weakening-to-collapse of Communist Party control became somewhat bipartisan political orthodoxy in Washington. See Henry Kissinger, *On China* (New York: Penguin, 2011), 356–367, 393; "Asia," *Strategic Survey* 119, no. 1 (January 1, 2019), 68–133, available at <https://doi.org/10.1080/04597230.2019.1676992>.

[10] Russian experts observe that Moscow saw the United States as a Great Power rival much earlier. This is documented in subsequent paragraphs. China experts suggest that Beijing would argue that its rivalry with the United States did not become public until 2015. China's perspective is documented in the following section.

[11] Among the tell-tale U.S.-China events signaling the arrival of their de facto Great Power rivalry in 2014 and 2015, several stood out. First, the U.S. Department of Justice made a first-ever public indictment of Chinese military hackers for cyber espionage against U.S. corporations in May 2014. See Department of Justice, Office of Public Affairs, "U.S. Charges Five Chinese Military Hackers for Cyber Espionage Against U.S. Corporations and a Labor Organization for Commercial Advantage," May 19, 2014, available at <https://www.justice.gov/opa/pr/us-charges-five-chinese-military-hackers-cyber-espionage-against-us-corporations-and-labor>. Second, the U.S. Department of State published a paper formally challenging China's assertion of sovereignty over maritime claims related to its "dashed line" encircling islands and waters in the South China Sea. This paper set the legal predicate for freedom of navigation operations conducted in the South China Sea by U.S. warships that began in 2015. See *Limits in the Seas: Maritime Claims in the South China Sea*, Paper no. 143 (Washington, DC: Bureau of Oceans and International Environmental and Scientific Affairs, December 5, 2014), available at <www.documentcloud.org/documents/1376464-us-limits-in-the-seas-dos-no143-china-in-scs-12.html>. Finally, President Barack Obama's November 2014 summit in China did realize agreement by both states to sign the Paris Accord, but it did not find formal compromise for simmering grievances on the two critical issues of Chinese cyber espionage or maritime disputes. See Jane Perlez, "China's 'New Type' of Ties Fails to Sway Obama," *New York Times*, November 9, 2014, available at <www.nytimes.com/2014/11/10/world/asia/chinas-new-type-of-ties-fails-to-sway-obama.html>.

[12] See the similar conclusion found in International Institute for Strategic Studies (IISS), "A New U.S. Consensus on China?" in *Strategic Survey: The Annual Assessment of Geopolitics* (London: Routledge, 2019), 390–391.

[13] *National Security Strategy of the United States* (Washington, DC: The White House, December 2017), available at <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>; *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: Department of Defense, 2018), available at <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>. The 2018 National Defense Strategy (NDS) is a classified document and thus not in public circulation; this NDS summary is the published, public record of that strategy.

[14] Phillip C. Saunders, "Managing Strategic Competition with China," in *Global Strategic Assessment 2009: America's Security Role in a Changing World*, ed. Patrick M. Cronin (Washington, DC: NDU Press, 2009), 260–264.

[15] Deng Xiaoping's statement came in the context of whether China should seek leadership of the international communist movement but was applied more widely as a guide to Chinese policy vis-à-vis the United States.

[16] Naughton, *Growing Out of the Plan*; Nicholas Lardy, *Sustaining China's Economic Growth After the Global Financial Crisis* (Washington, DC: Peterson Institute for International Economics, December 2011).

[17] For an example from the Chinese steel industry, see Edward S. Steinfeld, *Forging Reform in China: The Fate of State-Owned Industry* (Cambridge, MA: Cambridge University Press, 1998).

[18] The "Beijing Consensus," also known as the Chinese Economic Model, is a phrase coined by Joshua Cooper Ramo to distinguish China's economic growth experience featuring authoritarian politics and state-managed capitalist economics from the "Washington Consensus," which blends privatized, deregulated capitalism and liberal democratic politics. See Joshua Cooper Ramo, *The Beijing Consensus: Notes on the New Physics of Chinese Power* (London: Foreign Policy Centre, 2004); Joshua Kurlantzick, "Why the 'China Model' Isn't Going Away," *The Atlantic*, March 21, 2013, available at <www.theatlantic.com/china/archive/2013/03/why-the-china-model-isnt-going-away/274237/>. Some Western observers see the Chinese model as emphasizing the need for a strong, centralized state to constrain rampant economic inequality and social injustice associated with rapacious capitalism and liberal democracy.

See IISS, "China's Concept of the World Order: Theory and Practice," in *Strategic Survey 2019*, 27–28; Friedberg, *A Contest for Supremacy*, 245–263; Aaron Friedberg, "Getting the China Challenge Right," *The American Interest*, January 10, 2019, available at <www.the-american-interest.com/2019/01/10/getting-the-china-challenge-right/>.

[19] See Yawei Liu and Justine Zheng Ren, "An Emerging Consensus on the U.S. Threat: The United States According to PLA Officers," *Journal of Contemporary China* 23, no. 86 (2014), 255–274; "Why Is the U.S. So Keen on 'Color Revolutions'?" *People's Daily Online*, October 11, 2014, available at <http://en.people.cn/n/2014/1011/c98649-8793283.html>; Phillip C. Saunders, *The Rebalance to Asia: U.S.-China Relations and Regional Security*, INSS Strategic Forum 281 (Washington, DC: NDU Press, August 2013).

[20] For evidence of a continuing debate, see Pu and Wang, "Rethinking China's Rise." On the certainty of China's change in strategic approach, see Kissinger, *On China*, 478–513.

[21] Eugene Rumer and Richard Sokolsky, *Thirty Years of U.S. Policy Toward Russia: Can the Vicious Circle Be Broken?* (Washington, DC: Carnegie Endowment for International Peace, 2019), available at <https://carnegieendowment.org/2019/06/20/thirty-years-of-u.s.-policy-toward-russia-can-vicious-circle-be-broken-pub-79323>.

[22] For a review of the trajectory of Russian grievances against its post–Cold War treatment by the United States and the West, see Angela Stent, *The Limits of Partnership: U.S.-Russian Relations in the Twenty-First Century* (Princeton: Princeton University Press, 2014).

[23] "Section I: Russia in the World Community," in *National Security Concept of the Russian Federation* (Moscow: The Ministry of Foreign Affairs of the Russian Federation, January 1, 2000), available at <www.mid.ru/en/foreign_policy/official_documents/-/asset_publisher/CptICkB6BZ29/content/id/589768>.

[24] "Section III: Threats to the Russian Federation's National Security," in *National Security Concept of the Russian Federation*.

[25] The 2008 promise of membership to Georgia and Ukraine—a U.S.-led North Atlantic Treaty Organization (NATO) announcement—pushed across an invisible but distinct Putin line in the sand. Russia viewed it as another sign of NATO's boundless ambitions, and it raised the prospect that Moscow might lose control, or at least immediate influence, over two neighbors that it saw as critical to its security, well-being, and prestige as a major power. Given the Alliance's commitment to spreading democracy, Russia also perceived its neighbors' intended accession as a threat to its domestic stability. See Rumer and Sokolsky, *Thirty Years of U.S. Policy Toward Russia*.

[26] Ibid.

[27] The Russo-Georgian war of 2008 was a turning point in U.S.-Russia relations and in Russian relations with the West and proved a harbinger of competitive relations into the future, despite brief efforts by the Obama administration to "reset" them to a more cooperative footing. See Michael Kofman, "Raiding and International Brigandry: Russia's Strategy for Great Power Competition," *War on the Rocks*, June 14, 2018, available at <https://warontherocks.com/2018/06/raiding-and-international-brigandry-russias-strategy-for-great-power-competition/>.

[28] Rumer and Sokolsky, *Thirty Years of U.S. Policy Toward Russia*. Of course, the United States took the lead in abrogating some Cold War arms-control treaties with Russia as well, most notably the Anti-Ballistic Missile Treaty.

[29] Ibid. Also see John W. Parker, *Putin's Syria Gambit: Sharper Elbows, Bigger Footprint, Stickier Wicket*, Strategic Perspectives 25 (Washington, DC: NDU Press, July 2017), 6–20, available at <https://inss.ndu.edu/Portals/68/Documents/stratperspective/inss/Strategic-Perspectives-25.pdf>. For a review of Russian military spending as a percentage of gross domestic product—greater than that by the United States, China, or any Western country since 2010—see SIPRI Military Expenditure Database, available at <https://www.sipri.org/databases/milex>.

[30] *National Security Strategy of the United States*, 2–3.

[31] Ibid., 2–4.

[32] Rex Tillerson, "Defining Our Relationship with India for the Next Century: An Address by U.S. Secretary of State Rex Tillerson," Center for Strategic and International Studies, 2017, available at <https://www.csis.org/events/defining-our-relationship-india-next-century-address-us-secretary-state-rex-tillerson>; "President Trump's Administration Is Advancing a Free and Open Indo-Pacific Through Investments and Partnerships in Economics, Security, and Governance," The White House, November 18, 2018, available at <https://www.whitehouse.gov/briefings-statements/president-trumps-administration-advancing-free-open-indo-pacific-investments-partnerships-economics-security-governance/>.

[33] For a review of the George W. Bush administration efforts to increase the priority on Asia, see Nina Silove, "The Pivot Before the Pivot: U.S. Strategy to Preserve the Power Balance in Asia," *International Security* 40, no. 4 (Spring 2016), 45–88.

[34] "Fact Sheet: Advancing the Rebalance to Asia and the Pacific," The White House, November 16, 2015, available at <https://obamawhitehouse.archives.gov/the-press-office/2015/11/16/fact-sheet-advancing-rebalance-asia-and-pacific>; Brian Michael Jenkins, "President Obama's Controversial Legacy as Counterterrorism-in-Chief," *RAND*, August 22, 2016, available at <https://www.rand.org/blog/2016/08/president-obamas-controversial-legacy-as-counterterrorism.html>. For a perspective suggesting that the Obama administration did more toward realizing an Asia rebalance before 2011 than is accepted in other accounts, see Jeffrey A. Bader, *Obama and China's Rise: An Insider's Account of America's Asia Strategy* (Washington, DC: Brookings Institution Press, 2012).

[35] "U.S.-India Joint Strategic Vision for the Asia-Pacific and Indian Ocean Region," The White House, January 25, 2015, available at <https://obamawhitehouse.archives.gov/the-press-office/2015/01/25/us-india-joint-strategic-vision-asia-pacific-and-indian-ocean-region>.

[36] Alec Tyson, "Should U.S. Strike First If Threatened? Americans Are Divided," Pew Research Center, November 28, 2017, available at <https://www.pewresearch.org/fact-tank/2017/11/28/americans-are-split-on-the-principle-of-pre-emptive-military-force/>; "Public Opinion on Foreign Affairs, Terrorism, and Privacy," Pew Research Center, June 26, 2014, available at <https://www.people-press.org/2014/06/26/section-6-foreign-affairs-terrorism-and-privacy/>.

[37] "New Troublemakers Emerge," *The Economist*, December 7, 2019, available at <www.economist.com/leaders/2019/12/07/new-troublemakers-emerge>; Maria Bartiromo, "President Trump Touts Tariffs as 'Very Powerful' Tool," video, Fox News, June 26, 2019, available at <www.youtube.com/watch?v=citAb7fdq44>; @realDonaldTrump, "South Korea Has Agreed to Pay Substantially More Money to the United States in Order to Defend Itself from North Korea. Over the Past Many Decades, the U.S. Has Been Paid Very Little by South Korea, but Last Year, at the Request of President Trump, South Korea Paid $990,000,000," Twitter, August 7, 2019.

[38] IISS, "China's Concept of the World Order," 390–398; Brian D. Blankenship and Benjamin Denison, "Is America Prepared for Great-Power Competition?" *Survival* 61, no. 5 (October–November 2019), 43–64, available at <www.iiss.org/publications/survival/2019/survival-global-politics-and-strategy-octobernovember-2019/615-04-blankenship-and-denison>.

[39] See Marc Lantaigne, *China and International Institutions: Alternative Paths to Global Power* (New York: Routledge, 2005); Scott L. Kastner, Margaret M. Pearson, and Chad Rector, *China's Strategic Multilateralism: Investing in Global Governance* (New York: Cambridge University Press, 2018).

[40] Joshua Kurlantzick, *Charm Offensive: How China's Soft Power Is Transforming the World* (New Haven: Yale University Press, 2008).

[41] Phillip C. Saunders, *China's Global Activism: Strategy, Drivers, and Tools*, Occasional Paper 4 (Washington, DC: NDU Press, 2006); David Shambaugh, *China Goes Global: The Partial Power* (New York: Oxford University Press, 2013); Elizabeth Economy and Michael Levi, *By All Means Necessary: How China's Resource Quest Is Changing the World* (New York: Oxford University Press, 2013).

[42] Nadege Rolland, "A Concise Guide to the Belt and Road Initiative," National Bureau of Asian Research, April 11, 2019, available at <https://www.nbr.org/publication/a-guide-to-the-belt-and-road-initiative/>.

[43] Joel Wuthnow, *Chinese Perspectives on the Belt and Road Initiative: Strategic Rationales, Risks and Implications*, China Strategic Perspectives 12 (Washington, DC: NDU Press, 2017).

[44] Daniel Kliman and Abigail Grace, *Power Play: Addressing China's Belt and Road Strategy* (Washington, DC: Center for a New American Security, September 2018), available at <https://www.cnas.org/publications/reports/power-play>; IISS, "China's Concept of the World Order," 35.

[45] Jost Wübbeke et al., *Made in China 2025: The Making of a High-Tech Superpower and Consequences for Industrial Countries* (Berlin: MERICS, 2016), available at <https://www.merics.org/en/papers-on-china/made-china-2025>; Max J. Zenglein and Anna Holzmann, *Evolving Made in China 2025: China's Industrial Policy in the Quest for Global Tech Leadership* (Berlin: MERICS, 2019), available at <https://www.merics.org/en/papers-on-china/evolving-made-in-china-2025>. By early 2019, China had begun to downplay "Made in China 2025," not mentioning it in public since the beginning of a very public trade war launched against Beijing by the United States in summer 2018. Nonetheless, most observers believe Made in China 2025 remains a major Chinese economic and foreign policy underpinning. See Emily Crawford, "Made in China 2025: The Industrial Plan that China Doesn't Want Anyone Talking About," *Frontline*, May 7, 2019, available at <https://www.pbs.org/wgbh/frontline/article/made-in-china-2025-the-industrial-plan-that-china-doesnt-want-anyone-talking-about/>.

[46] For example, the United States kept its goods and financial markets open after the 2008 global financial crisis at the cost of a deeper recession and increased domestic unemployment. The Chinese system would have difficulty bearing that strain.

[47] Thomas Fingar, "China's Vision of World Order," in *Strategic Asia 2012–13: China's Military Challenge*, ed. Ashley J. Tellis and Travis Tanner (Washington, DC: National Bureau of Asian Research, 2012), 342–373.

[48] Ramo, *The Beijing Consensus*; "The China Model: The Beijing Consensus Is to Keep Quiet," *The Economist*, May 6, 2010, available at <https://www.economist.com/asia/2010/05/06/the-beijing-consensus-is-to-keep-quiet>.

[49] For an affirmative view, see Stefan Halper, *The Beijing Consensus: How China's Authoritarian Model Will Dominate the Twenty-First Century* (New York: Basic Books, 2010); for a skeptical view, see Scott Kennedy, "The Myth of the Beijing Consensus," *Journal of Contemporary China* 19, no. 65 (June 2010), 461–477.

[50] These dates are the 100th anniversary of the establishment of the Chinese Community Party and the People's Republic of China, respectively.

[51] Xi Jinping, "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era," Report to the 19th National Party Congress of the Communist Party of China, Xinhua, October 18, 2017, available at <www.xinhuanet.com/english/download/Xi_Jinping's_report_at_19th_CPC_National_Congress.pdf>.

[52] *China's Policies on Asia-Pacific Security Cooperation* (Beijing: State Council Information Office of the People's Republic of China, January 2017), available at <http://english.www.gov.cn/archive/white_paper/2017/01/11/content_281475539078636.htm>.

[53] For a useful assessment of the Chinese white paper that illustrates these points, see Daljit Singh, "China's White Paper on Security Cooperation in the Asia-Pacific Region and Chinese Grand Strategy," ISEAS Yusof Ishak Institute Perspective 22, April 7, 2017, available at <https://www.iseas.edu.sg/images/pdf/ISEAS_Perspective_2017_22.pdf>.

[54] Graham Allison, "The New Spheres of Influence: Sharing the Globe with Other Great Powers," *Foreign Affairs* (March–April 2020), available at <https://www.foreignaffairs.com/articles/united-states/2020-02-10/new-spheres-influence>.

[55] Fingar, "China's Vision of World Order"; Phillip C. Saunders, "Implications: China in the International System," *The PLA in 2025* (Carlisle, PA: U.S. Army War College Press, 2017); Alastair Iain Johnston, "China in a World of Orders: Rethinking Compliance and Challenge in Beijing's International Relations," *International Security* 44, no. 2 (Fall 2019), 9–60.

[56] In the less benign interpretation, "a community of common destiny" is the core of a Chinese revisionist strategy that is incompatible with the current international order; it is based on the ideology that a strong centralized state is the only way to arrest the inherent inequalities and unacceptable aspects of Western-model electoral democracy, pluralistic civil society, and laws that emphasize protection of individual rights. In this framework, the Belt and Road Initiative and "Made in China 2025" are viewed as strategic enablers aimed toward the Chinese global economic dominance and integration necessary for a new international order where political and social norms of noninterference within state borders will supplant the freedom and openness norms predominant today. See IISS, "China's Concept of the World Order," 27, 390–398; Blankenship and Denison, "Is America Prepared for Great-Power Competition?"; Rolland, *A Concise Guide to the Belt and Road Initiative*; Liza Tobin, "Xi's Vision for Transforming Global Governance: A Strategic Challenge for Washington and Its Allies," *Texas National Security Review* 2, no. 1 (November 2018), 155–166; François Godement, "Global Values: China's Promotion of New Global Values," in *Strategic Asia 2019: China's Expanding Strategic Ambitions*, ed. Ashley J. Tellis, Alison Szalwinski, and Michael Wills (Washington, DC: National Bureau of Asian Research, 2019); Melanie Hart and Blaine Johnson, *Mapping China's Global Governance Ambitions* (Washington, DC: Center for American Progress, 2019); Friedberg, *A Contest for Supremacy*.

[57] IISS, "China's Concept of the World Order," 35–36.

[58] Peter B. Zwack and Marie-Charlotte Pierre, *Russian Challenges from Now into the Next Generation: A Geostrategic Primer*, INSS Strategic Perspectives 29 (Washington, DC: NDU Press, 2019), available at <https://inss.ndu.edu/Portals/82/Documents/Strategic%20Perspectives/SP%2029%20Final%20for%20Web.pdf?ver=2019-03-25-100758-543>.

[59] Jeffrey Mankoff, "A Century After the Armistice, the World Is Still Coping with the End of Empires," Center for Strategic and International Studies, November 13, 2018, available at <https://www.csis.org/analysis/century-after-armistice-world-still-coping-end-empires>.

[60] The oft-cited declaration of this construct of neo-Eurasianism is found in Vladimir Putin's October 2011 article in *Izvestia*,

"A New Integration Project for Eurasia: The Future in the Making." See Christopher S. Chivvis, *Understanding Russian Hybrid Warfare and What Can Be Done About It* (Santa Monica, CA: RAND Corporation, 2017), available at <https://www.rand.org/content/dam/rand/pubs/testimonies/CT400/CT468/RAND_CT468.pdf>; Nadezda Arbatova, "Three Faces of Russia's Neo-Eurasianism," *Survival* 61, no. 6 (December 2019/January 2020), 7–24.

[61] Each of these core elements of Russian strategy is detailed in "Section I: General Provisions," *Foreign Policy Concept of the Russian Federation* (Moscow: Ministry of Foreign Affairs of the Russian Federation, February 18, 2013), available at <https://www.mid.ru/en/foreign_policy/official_documents/-/asset_publisher/CptICkB6BZ29/content/id/2542248>.

[62] Rumer and Sokolsky, *Thirty Years of U.S. Policy Toward Russia*; Chivvis, *Understanding Russian Hybrid Warfare*, 2.

[63] Karl-Heinz Kamp, "From Wales to Warsaw: NATO's Future Beyond the Ukraine Crisis," *American Foreign Policy Interests* 36, no. 6 (November 2014), 361–365, available at <https://doi.org/10.1080/10803920.2014.995544>.

[64] Rachel S. Salzman, *Russia, BRICS, and the Disruption of Global Order* (Washington, DC: Georgetown University Press, 2019), available at <www.jstor.org/stable/j.ctvcj2sb2>.

[65] "Russia, China Agree to Natural Gas Deal," *Stratfor*, May 21, 2014, available at <https://worldview.stratfor.com/article/russia-china-agree-natural-gas-deal>; "China, Russia: An End to an Island Dispute," *Stratfor*, July 17, 2008, available at <https://worldview.stratfor.com/article/china-russia-end-island-dispute>; and, Zwack and Pierre, *Russian Challenges from Now into the Next Generation*.

[66] Zwack and Pierre, *Russian Challenges from Now into the Next Generation*.

[67] Michael Crowley and Julia Ioffe, "Why Putin Hates Hillary," *Politico*, July 25, 2016, available at <http://politi.co/2EwrOVM>. Putin's grab for permanent control took a new twist in March 2020 when a Putin-inspired initiative passed the Russian Duma, which allows him to serve another two 6-year terms beyond 2024—effectively allowing him to be president for life. See "Russia's President Reluctantly Agrees to 16 More Years in Power," *The Economist*, March 12, 2020, available at <https://www.economist.com/leaders/2020/03/12/russias-president-reluctantly-agrees-to-16-more-years-in-power>.

[68] Tom Kutsch and Michael Pizzi, "Russia May Be Wading into a Quagmire in Syria," Al Jazeera America, October 2, 2015, available at <http://america.aljazeera.com/articles/2015/10/2/the-risks-of-russias-intervention-in-syria.html>.

[69] Anne Applebaum, "Putin's Grand Strategy," *South Central Review* 35, no. 1 (2018), 22–34, available at <https://doi.org/10.1353/scr.2018.0001>; Jeffrey Mankoff, *Russian Foreign Policy: The Return of Great Power Politics* (Lanham, MD: Rowman and Littlefield, 2011), 197; Stephen M. Walt, "I Knew the Cold War. This Is No Cold War," *Foreign Policy*, March 12, 2018, available at <https://foreignpolicy.com/2018/03/12/i-knew-the-cold-war-this-is-no-cold-war/>.

[70] Chris Buckley, "Xi Jinping Thought Explained: A New Ideology for a New Era," *New York Times*, February 26, 2018, available at <https://www.nytimes.com/2018/02/26/world/asia/xi-jinping-thought-explained-a-new-ideology-for-a-new-era.html>; James H. Anderson, "A New Global Paradigm: The United States versus Russia," in *Great Strategic Rivalries: From the Classical World to the Cold War*, ed. James Lacey (New York: Oxford University Press, 2016), 479–510.

[71] Applebaum, "Putin's Grand Strategy"; David Gibbs, "Does the USSR Have a 'Grand Strategy'? Reinterpreting the Invasion of Afghanistan," *Journal of Peace Research* 24, no. 4 (December 1987), 365–379. For a review of the Communist International framework for a global world and the Soviet Union's domination of that entity throughout its history, see Edward B. Richards, "The Shaping of the Comintern," *Slavic and East European Review* 18, no. 2 (April 1959), 197–204, available at <https://www.jstor.org/stable/3001362>; Robert H. McNeal, "The Legacy of the Comintern," *International Journal* 201, no. 2 (Spring 1966), 199–204, available at <https://www.jstor.org/stable/40200330>. For a discussion of how Putin's Russia oversees no such cohesive, globalist positive vision, instead preferring a strategic approach that sustains Russian oligarch kleptocracy and the destabilization of global norms and institutions along with disruption of rival state political cohesion, see Fiona Hill and Clifford G. Gaddy, *Mr. Putin: Operative in the Kremlin* (Washington, DC: Brookings Institution Press, 2015), especially 312–384; Walt, "I Knew the Cold War. This Is No Cold War."

[72] Robert O. Keohane and Joseph S. Nye, Jr., *Power and Interdependence*, 2nd ed. (Glenview, IL: Scott, Foresman and Company, 1989), 279–282; Charles P. Kindleberger, *Manias, Panics, and Crashes: A History of Financial Crises*, 3rd ed. (New York: John Wiley and Sons, Inc., 1996), 179–186.

[73] Ivo H. Daalder and James M. Lindsay, "The Committee to Save the World Order," *Foreign Affairs* 97, no. 6 (November–December 2018), available at <https://www.foreignaffairs.com/articles/2018-09-30/committee-save-world-order>; Matthew Bey, "Trump and the WTO's Uncertain Future," *Stratfor*, November 1, 2018, available at <https://worldview.stratfor.com/article/trump-and-wtos-uncertain-future>.

[74] Timofie Bordachev, "Russia and the Eurasian Economic Union: The View from Moscow," European Council on Foreign Relations, January 21, 2015, available at <https://www.ecfr.eu/article/commentary_russia_and_the_eurasian_economic_union_the_view_from_moscow403>.

[75] Simultaneously, Putin's Russia will both obfuscate its interventionism and assert that multiple shameless U.S. interventions into sovereign states—Iraq, Libya, Syria, etc.—during the post–Cold War era make the United States ill-positioned to offer criticism.

[76] It was Chaing Kai-Shek's China—and Mao Zedong's civil war rival—that was awarded a seat on the United Nations Security Council that the People's Republic of China finally inherited in 1971.

[77] The Asian Infrastructure Investment Bank (AIIB) "is a multilateral development bank with a mission to improve social and economic outcomes in Asia. Headquartered in Beijing." See "About AIIB Overview—AIIB," available at <https://www.aiib.org/en/about-aiib/index.html>; David Dollar, "The AIIB and the 'One Belt, One Road,'" *Brookings*, June 21, 2015, available at <https://www.brookings.edu/opinions/the-aiib-and-the-one-belt-one-road/>.

[78] "Russia," *Interpol*, available at <https://www.interpol.int/en/Who-we-are/Member-countries/Europe/RUSSIA>; Matt Apuzzo, "Interpol Rejects Russian as President, Electing South Korean Instead," *New York Times*, November 21, 2018, available at <https://www.nytimes.com/2018/11/21/world/europe/interpol-russia-south-korea.html>; Amy Mackinnon, "The Scourge of the Red Notice," *Foreign Policy*, December 3, 2018, available at <https://foreignpolicy.com/2018/12/03/the-scourge-of-the-red-notice-interpol-uae-russia-china/>; Robbie Gramer, "China and Russia Take the Helm of Interpol," *Foreign Policy*, November 10, 2016, available at <https://foreignpolicy.com/2016/11/10/china-and-russia-take-the-helm-of-interpol/>.

[79] For a review of these economic system traits, see Charles P. Kindleberger, *World Economic Primacy: 1500–1990* (Oxford: Oxford University Press, 1996), 225.

[80] Joel Gahrke, "State Department Preparing for Clash of Civilizations with China," *Washington Examiner*, April 30, 2019,

available at <https://www.washingtonexaminer.com/policy/defense-national-security/state-department-preparing-for-clash-of-civilizations-with-china>; Edward Wong, "U.S. Versus China: A New Era of Great Power Competition, but Without Boundaries," *New York Times*, June 26, 2019, available at <https://www.nytimes.com/2019/06/26/world/asia/united-states-china-conflict.html>.

[81] Mazarr et al., *Understanding the Emerging Era of International Competition*, 32–33.

[82] Ibid., 32.

[83] Ibid., 18.

[84] See Graham Allison, "The New Spheres of Influence: Sharing the Globe with Other Great Powers," *Foreign Affairs* (March/April 2020).

[85] For more details on the limits to greater Sino-Russian strategic cooperation, see Robert Sutter, *China-Russia Relations: Strategic Implications and U.S. Policy Options*, NBR Special Report #73 (Washington, DC: National Bureau of Asian Research, September 2018), available at <https://www.nbr.org/wp-content/uploads/pdfs/publications/special_report_73_china-russia_cooperation_sep2018.pdf>.

[86] Of particular note, Beijing and Moscow have been careful not to use the word *ally* in regard to each other until relatively recently. Russia began using it quite casually, but China has not gone along. Beijing continues to avoid the term at an official level, preferring official wording about an "all-encompassing partnership and strategic interaction." See Vasily Kashin, "Tacit Alliance: Russia and China Take Military Partnership to a New Level," Carnegie Moscow Center, October 22, 2019, available at <https://carnegie.ru/commentary/80136>.

[87] Colum Lynch and Robbie Gramer, "U.S. and China Turn Coronavirus into a Geopolitical Football," *Foreign Policy*, March 11, 2020, available at <https://foreignpolicy.com/2020/03/11/coronavirus-geopolitics-china-united-states-trump-administration-competing-global-health-response/>.

[88] For a brief review of contemporary Great Power competition in space—a topic not addressed in great detail in this volume—see the paragraph in chapter 1.

[89] For greater detail, see Justin Sherman, "How the Internet Is Taking Center Stage in Great Power Competition," *New America*, February 7, 2019, available at <https://www.newamerica.org/weekly/edition-235/internet-great-power-world-order-china/>. Also see chapter 6 in this volume.

Chapter 3b

Contemporary Great Power Geostrategic Dynamics

Competitive Elements and Tool Sets

By Thomas F. Lynch III and Phillip C. Saunders

The chapter assesses the hard and soft power tools of the three contemporary Great Powers. It focuses on the tools that each has today and is likely to attain in the coming 5 to 7 years, analyzing how each might use these tools to advance its major interests and strategic aims in the five major categories of state interaction: political and diplomatic, ideological, informational, military, and economic. The chapter observes that the tools of competition traditionally associated with one category of interaction in less rivalrous eras will be used more often in other categories in this era of Great Power competition. It assesses that for the foreseeable future, Russia's tool kit makes it an urgent but transient security challenger to the United States, while China's growing power tools make it the true challenger to American national interests and global policy preferences. An assessment of both gross and net power indicators between the United States and China indicates that Beijing's ongoing power transition timeline is longer than some now fear. This allows American and Chinese leaders time to negotiate mutually acceptable changes to contemporary international norms, rules, and institutions in order to prevent what would be a truly unwelcome and destructive direct military clash, should such accommodation be elusive.

Chapter 3a establishes the geostrategic trajectories and primary strategic aims of the three contemporary Great Powers: the United States, China, and Russia. It provides analysis of where their major strategic narratives align and diverge. The chapter also provides an assessment of each state's national interest intensity in specific locations and domains—indicating where its most critical strategic interests come into conflict.

This chapter turns to an evaluation of the tools and main capabilities possessed by each Great Power to advance its general strategic aims and specific strategic goals. It considers the assets the Great Powers bring to their competitive interactions, with a focus on the tools each power now possesses, those likely to be attained in the next 5 to 7 years, and each nation's ability to employ these tools to advance its interests and attain strategic aims. The chapter

first evaluates power as the physical resources that states can draw on to attain strategic interests—their *means*. It then assesses each power's potential to employ these means to attain strategic aims—their *ends*.[1] The chapter briefly addresses the difference between gross power indictors and net power indicators, using net indicators to demonstrate that a power transition between the United States and China may be less imminent than most now imagine. Although the details anticipated from contemporary Great Power competition across many specific regions of the world are provided in chapters that follow, this chapter concludes with an assessment of how current and forecast future power tools of the major Great Powers should be anticipated to interact in major competitive areas from 2020 to 2025.

From Aspirations to Actions: Measuring State Ability to Do What Is to Be Done

As operationalized in the chapter 1 definition, a *Great Power state* has three substantive features: capabilities, behavior, and status attribution by other states in the system.[2] In chapter 3a, we establish the major goals and strategic interests of the three Great Powers and demonstrate that their interests display broad, global foreign policy aims and activities, with China's strategic aims more ambitious and global in reach than Russia's, and that other states in the international system view all three as major players and treat them accordingly. Chapter 3b now turns to an analytical review of the first aspect of our Great Power definition: the power capabilities (tool kits) they possess with which to pursue these strategic interests.

As observed in chapter 2, measuring power is a fraught enterprise and the subject of extensive scholarly debate. Determining what to measure as state power is contentious. So too is determining how to measure even agreed-on categories of state power.

The historic challenge of power assessment is manifested today in the fact that many scholars argue that the United States is in relative *overall decline* given China's rapid economic growth. But this conclusion is far from certain. First, the baseline premise is debatable. Gross domestic product (GDP), the most frequently utilized state power metric, is a narrow basis for making an assessment. GDP was originally designed to measure mid-20th-century manufacturing economies, not those of the 21st century.[3] The more knowledge-based and globalized a country's production, the more GDP underestimates its true size. Thus, GDP likely overvalues China's economic prowess and undervalues American advantage on the cutting edge of economic modernization. A significant amount of China's economic success can be explained by the fact that it started from a low base and took good advantage of "catchup" opportunities, although the country is now trying to move up the value chain and pursue indigenous innovation. While China has been catching up in manufacturing, the United States has been expanding advantage in key industries, in nonindustrial processes, in financial services growth and rent extraction, and (generally) in the quality of higher education.[4] At the same time, the GDP gap between the United States and Russia is growing, and the United States continues to outperform Europe and Japan in economic growth since the end of the late 2000s financial crisis.[5]

Based on these economic considerations and a review of major military factors, some authors argue not only that the conventional wisdom of relative U.S. decline is off base but also that America is actually still a Great Power on the rise.[6] They admit that America's military advantage in 2020 has eroded in locations proximate to Russia and China, such as in

Crimea and the South China Sea, compared to 2000 and that these are now intense strategic interest areas and likely to be contested sternly in Moscow and Beijing. But they assess that with enough at stake and enough political will, the United States still has an unmatched capacity to concentrate overwhelming military in any area of armed hostilities.[7] They argue that the advantage is greater to the extent that America's allies in a given armed conflict zone are willing participants. Their judgment is that America's advantage in this area of hard power deployment/concentration ability will remain robust through 2030.

This chapter cannot grapple with all the details involved in measuring state power. Most scholars measure power in terms of resources, specifically wealth and military assets. They assume these gross power indicators are good enough, serving as "rough but reliable" measures of power, and they are the "best comparable indicators available given data constraints."[8] In general, the chapter acknowledges inherent measurement limitations but mainly utilizes canonical measures of Great Power capabilities. Yet it also moves beyond canonical economic and military factors to consider some other nonstandard power tools important to Great Power strategic influence in the 21st century, such as levels of economic innovation and engagement with private global financial markets; resonance and popular appeal of state ideology, language, and culture; and a consideration of a relatively new approach to understanding national power and comparison of relative state power with an index that better considers net economic and military resources (assets less costs) than historic national capability indicators. The chapter thus focuses on the power factors most germane to the five categories of major state interaction developed in table 2.2, table 3a.1, and reprised in table 3b.1.

> "Since the 1990s, and especially since the 2008 financial crisis, hundreds of books and thousands of articles and reports have asserted that the United States' economic and military edge over other nations is eroding and that the world will soon become multipolar. . . . The main evidence cited for these trends is China's rising GDP and military spending and various statistics that are essentially subcomponents of GDP—most notably, China's massive manufacturing output; volume of exports; trade surplus with the United States; infrastructure spending; consumer spending and large government bureaucracy and scientific establishment. . . . The problem, however, is that these are the same gross indicators that made China look like a superpower during its century of humiliation: in the mid-1800s. . . . China may (today) have the world's biggest economy and military, but it also leads the world in debt; resource consumption; pollution; useless infrastructure and wasted industrial capacity; scientific fraud; internal security spending; border disputes; and populations of invalids, geriatrics, and pensioners. China also uses seven times the input to generate a given level of economic output as the United States and is surrounded by nineteen countries, most of which are hostile toward China, politically unstable, or both."
>
> *—Michael Beckley, "The Power of Nations,"* International Security *43, no. 2 (Fall 2018)*

Major Political and Diplomatic Tools

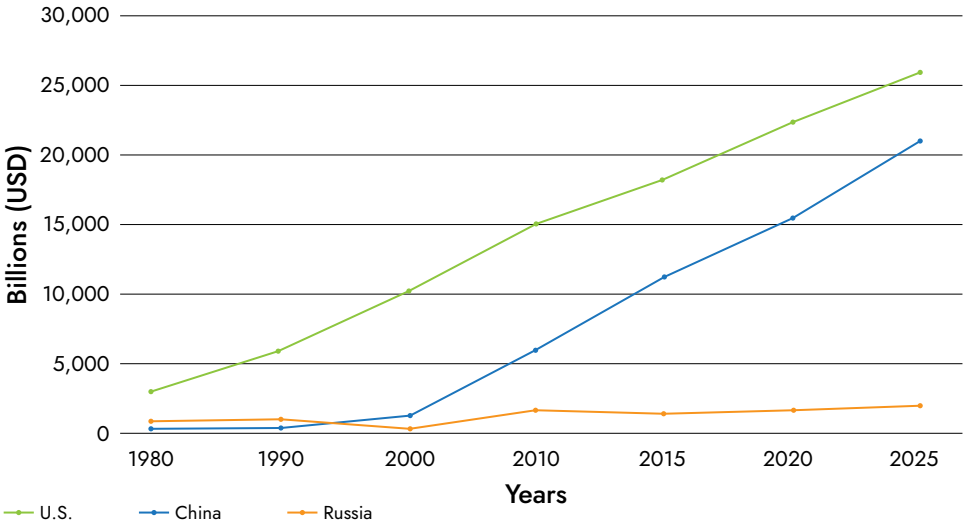
These tools include objective measures of the state's presence in multilateral political institutions and qualitative assessment of its influence in intergovernmental organizations. They

Table 3b.1. A Framework for Assessing the Aspects/Categories of Competition	
Competitive Aspect/Category	**Main Competitive Elements**
Political and Diplomatic	Levels of influence in multilateral institutions, key posts held that control multilateral institutions, and number and strength of political alliances.
Ideological	Values and political systems' appeal.
Informational	The manner and degree of transnational communications: open and transparent vs. closed and restrictive. Extent of denigration of "the other" in mass communications.
Military	Size, posture, and technological edge of armed forces. Cohesion and capacity of military alliances.
Economic	Size, technological breadth, diversity, and resource base of national economy. Innovation ecosystem of national economy, including access to and management of financial capital.

also include a quantitative overview of the state's geopolitical diplomatic presence and its political tools for securing key state partners and multistate alliances.

- Major Ideological Tools: These power factors consist of qualitative assessments regarding the attractiveness of the Great Power's values, narratives, and political system in other states. The trajectory of this soft power attractiveness is best evaluated in geopolitical polling results.
- Major Informational and Communications Capabilities: The qualitative dimensions of this competitive category are more important than the quantitative ones. State power tools include the degree of penetration by key communications technologies in vital geostrategic regions and around the globe. In addition, the state tool kit in this area incorporates the manner in which competitive visions of information pathways and system openness play with Great Power states and those lesser states integrated/integrating in the communications networks.
- Major Military Capabilities: These capabilities include the classical quantitative hard power comparative assessments of available major weapons systems, which are the easiest to measure. This chapter also focuses on military systems and capabilities harnessing emerging commercial technologies from leading-edge commercial areas. Military tools include those with the potential for influence and suasion, such as the cohesion and capacity of military alliances and the manner in which military technology sales and military personnel exchanges work to enhance state aims and potential adversary perspectives.
- Major Economic Tools—Commercial and Financial: Economic power is often understood as the ultimate foundation of military power and a strong influence on the other forms of state power. Here, the canonical economic growth dynamics are measured in nominal GDP, nominal GDP per capita, and level of industrialization. The chapter also considers the amount and impact of outbound direct foreign investment—governmental and private. To properly understand the influence of modern and future economic power factors, financial linkages and innovation potential are described and analyzed with reference to the percentage of global

Figure 3b.1. Comparison of Great Power GDP



Source: Chart generated by authors. Data sources are at the online appendix B of this volume, available at <https://ndupress.ndu.edu/Contemporary-GPC-Dynamics-Matrix/>.

private investment transactions. Additionally, the level and trajectory of economic innovation potential in the state is discussed.

The chapter ends with the use of a relatively new index of net overall power that purports to better capture economic and military capabilities less cost by combining GDP with GDP per capita as well as military capabilities and internal costs—yielding an indicator that better accounts for overall net national size and efficiency.[9]

Great Power Competitive Postures and Tool Sets

U.S. Competitive Posture and Tool Sets

General American Power Factors and Approaches. Nominal U.S. GDP in 2019 was an estimated $22.32 trillion, ahead of China's $15.3 trillion and Russia's $1.7 trillion (see figure 3b.1). America remained the world's top and most dynamic national economy, generating 23.9 percent of global GDP in 2019, far ahead of its nearest competitor, China, with 15.9 percent that year.[10] The U.S. share of the global GDP remains in slow relative decline, but it is anticipated to generate about 21 percent of global GDP in 2035. Given canonical projections in 2020, China's nominal GDP would be about 25 percent of the global total in 2035, surpassing that of the United States in about 2030.[11] The United States is not an export-dependent economy, but about 10 percent of its nominal GDP in 2018 was goods exports ($2.5 trillion). America also is the world's leader in services exports, with $828 billion in 2018 nominal value led by audiovisual technology, banking services, energy, express delivery, information technology, insurance, and telecommunications service industries.[12] Top U.S. export customers in the 2010s were China, Canada, and Mexico, all of which were

Table 3b.2. Percentage Disparity Between Gross and Net Overall Power Factors Using Beckley's Net Power Index

Great Power Rivalries				
	1990	**2000**	**2010**	**2015**
U.S. vs. Russia	10	10	4	5
U.S. vs. China	24	30	35	23
Russia vs. China	32	45	49	37

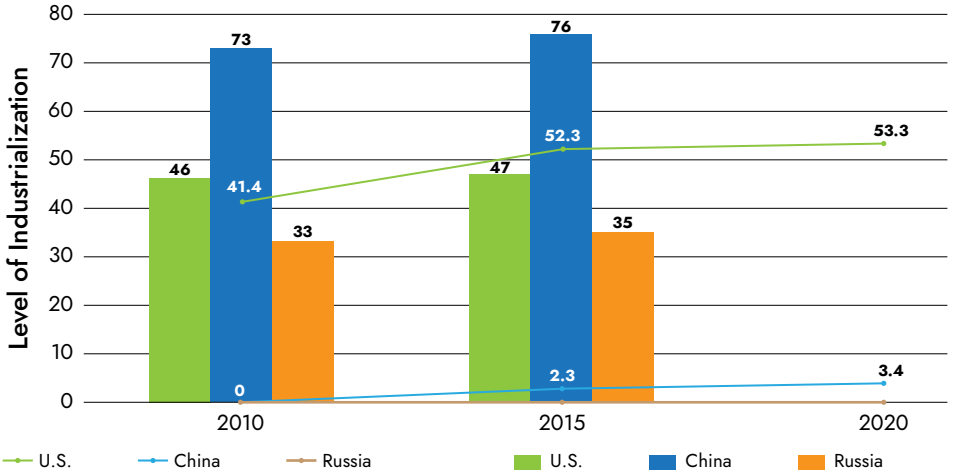
Note: Values calculated with the formula provided by Michael Beckley and from the data found at tab 2 of the online appendix B of this volume, available at <https://ndupress.ndu.edu/Contemporary-GPC-Dynamics-Matrix/>. The noteworthy "blip" in these comparative gross-to-net power index values beginning in 2010 comes from the revaluation of one of the input Correlates of War (COW) Composite Index of National Capability index values significantly reevaluated in the late 2000s by COW to better account for economic factors.

linked into complex regional and global supply chains accounting for a high percentage of U.S. manufactured exports.[13] Forty-seven percent of the U.S. economy is industrialized (see table 3b.2). Almost 19 percent of American manufactured exports were in the high-technology category in 2018, lower than the 31 percent of China's exports in 2017 but near the global average of 18 percent for 2018.[14] In mid-2018, the United States began a trade war with China, which over its first 18 months had become the most serious disruption in global commerce in nine decades.[15] Analysis of the Sino-U.S. trade war through September 2019 revealed the effort to be a double-edged sword. China's lost export revenue was triple that of the United States ($53 billion to $14.5 billion), but it had not achieved any substantive movement in the Chinese economic behaviors it was seeking to change. Moreover, key sectors of the U.S. economy—exporters of minerals and ores, forestry products, agribusiness, and transportation systems—lost substantial amounts of revenue and were disturbed that China has found alternative global suppliers, meaning potential lasting damage to their export revenues.[16] The "phase one" U.S. trade deal with China announced in January 2020 involved Chinese agreement to lift some retaliatory tariffs and commit to substantial increases in imports from the United States.[17] But trade disruptions due to the novel coronavirus (COVID-19) pandemic of 2020 make it unlikely that China will fulfill those commitments.

> "Those [states] that have the resources to do so will generally try to increase their military capabilities so as to reduce their vulnerability to coercion and attack. . . . Both strong and weak states may also enter into alliances intended to fend off potential enemies, or to overwhelm opposing powers or coalitions. . . . As a state's capabilities grow, . . . rising powers typically attempt not only to secure their borders but also to reach beyond them, taking steps to ensure access to markets, materials, and transportation routes; to protect their citizens far from home and defend their foreign friends and allies; to promulgate their religious or ideological beliefs; and, in general, to have what they consider to be their rightful say in the affairs of their region and of the wider world."
>
> —*Aaron L. Friedberg,* A Contest for Supremacy *(2012)*

The United States has been ranked in the top dozen innovative countries over the past decade and is expected to remain a global leader as an incubator for innovative manufacturing and services delivery for at

Figure 3b.2. Correlation Between Level of Industrialization and Percentage of Commercial Global Financial Markets



Source: Chart generated by authors. Data sources are at the online appendix B of this volume, available at <https://ndupress.ndu.edu/Contemporary-GPC-Dynamics-Matrix/>.

least the next decade. The United States also has been the dominant nation in private global financial markets for decades, accounting for 53 percent of activity in 2018.[18] China and Russia barely register on this measure of financial activity and corresponding revenue from global commodity and services exchange (see table 3b.2). The U.S. share of commercial financial markets has continued to grow over the past decade, and the anticipated continuation of this trend is a significant future U.S. economic growth advantage not easily accessed by other governments, so long as U.S. financial entities remain attractive compared to other options.[19]

At the same time, U.S. Government management of foreign access—governments and individuals—to America's dominant financial markets is both a power opportunity and a challenge. It gives the United States a unique coercive economic power tool to modify foreign entity behaviors by denying or restricting foreign access to preferred U.S. financial institutions should their behaviors counter American national interests. Sharper than diplomatic censure while gentler than military confrontation, financial sanctions can be appealing as an asymmetric U.S. power tool. The United States has used sanctions with far greater frequency since 2000, especially against known and suspected terrorists and their financing agents during the war on terror.[20] But overuse of financial sanctions can backfire, encouraging U.S.-sanctioned countries and groups to turn to alternative financial arrangements, reducing the effectiveness of the sanctions and straining relations with longstanding U.S. economic partners affected by the secondary impact. Over time, sanctioning can create incentives for friends and foes to develop alternative financial structures and arrangements that can work around U.S. entities and erode American current dominance in commercial financial services.[21]

Another risk to U.S. economic strength and future power standing lies in its level of national debt. As of late 2018, the United States had a nominal total national debt of $21.8

trillion, almost 100 percent of its nominal GDP. About 28 percent of that debt ($6.3 trillion) was held by foreign entities, with the top three holders being China ($1.1 trillion), Japan ($1 trillion), and Brazil ($0.3 trillion).[22] Thus, 72 percent of U.S. total national debt was held by U.S.-based investors, making it more of a domestic than a foreign relations challenge. The risks to U.S. economic standing and military investments would come in the out years if debt continues to grow. Interest on the national debt and spending for mandatory government programs, such as Medicare, could eat an ever-increasing piece of the Federal budget, leaving fewer dollars for the application of U.S. military, diplomatic, and economic power and influence activities around the world. Financing the debt also could drive up interest rates and reduce private investment in economic activity and technological innovation.[23]

The 2020 COVID-19 pandemic will have significant impact on the global economy as a whole, but its impact will not be evenly distributed. The United States could conceivably come out of the pandemic with economic scars that would see atrophy in these significant advantages. However, unless it makes some truly intemperate health or economic policy decisions, it seems more likely that post-COVID-19 America will remain in a relatively similar economic posture with respect to its Great Power rivals.

America's three-decade advantage of military-technological superiority—especially in precision-guided weapons and their sensors, information technology, and space-based networks—can no longer be assumed in this dawning era of Great Power competition. Yet the United States remains demonstrably superior across most major measures of military power. Absent some crushingly ill-considered decisions, America should remain the dominant military state for at least the coming decade. After several years of low-level increases, American military spending grew from $716 billion during fiscal year 2019 to $738 billion for fiscal year 2020. These figures triple the Chinese official defense budget and are 16 times that of Russia. This spending is forecast to slow again into the 2020s as domestic priorities and concerns about U.S. national debt return to political prominence.[24]

The U.S. nuclear arsenal remains below its treaty-limited number of 1,600 warheads, with 1,350 strategic nuclear warheads deployed on 650 land-based intercontinental missiles, 158 strategic bombers, and 18 nuclear submarines. In 2018, the United States launched a program to modernize its nuclear weapons arsenal and delivery systems—especially the overworked, dual-capable strategic bomber fleet—to assure its strategic deterrent value in the face of fast-emerging delivery technologies. The all-volunteer U.S. military consists of approximately 1.29 million Active-duty forces as of 2017: 470,000 active in the Army, 183,000 in the Marine Corps, 320,000 in the Navy, and 313,000 in the Air Force. The United States maintains forces with global reach and operational capability across a full spectrum of military operations.

The Navy is optimized for global presence with 12 top-end aircraft carriers and 12 smaller ones, compared to 1 operational carrier for China (with 2 more on the way) and 1 inoperable carrier in Russia. Its surface fleet features almost 90 frigates and destroyers, most with antiair, antiballistic missile, and antisubmarine capable systems. The Navy has 68 modern submarines, 18 of which are ballistic missile carriers and all of which are nuclear powered and thus capable of extended range and duration operations. Sixty percent of Navy assets and operations took place in the Pacific Ocean during 2018. The combined U.S. aviation fleet constitutes a force with global reach, featuring 2,300 modern fighter aircraft,

2,800 attack aircraft, 1,150 transport aircraft, and over 5,700 total helicopters, including 970 attack helicopters.[25] As of 2017, the United States also has a fleet of 7,500 unmanned aerial systems (UAS), 10 percent of which (786) were strategic-range, mid- and high-altitude, long-endurance intelligence or strike platforms. The United States will spend about $12 billion per year in 2020 and 2021 to retain its lower end UAS fleet while investing in research and development for new strategic UAS technologies to modernize a strategic fleet that has become increasingly vulnerable to the growing number of air defense and electronic warfare capabilities of the Great Powers and other international actors.[26] America's number of troop transports, helicopters, and fighter jets dwarfs those of any other nation, and more than doubles those found in the next largest force, the Chinese military. The Army has engaged in two decades of low-intensity conflict and special operations forces counterinsurgency and counterterrorism operations but retains a fleet of 6,000 technologically sophisticated main battle tanks, 39,000 armored fighting vehicles, and 3,000 artillery and rocket forces—most of which are operational and deployable worldwide.

America's military reach and power capacity are significantly augmented by formal military alliances in Europe and Asia and strategic partnerships with individual nations in the Middle East, South Asia, Africa, and the Americas. These alliances have come under increasing duress in the late 2010s, but their structures remain intact. U.S. military forces have military interoperability with the 28 North Atlantic Treaty Organization (NATO) nations and with two dozen other key allies and strategic partners across the Middle East and the Pacific. Perhaps more significantly, in a 2019 Pew International Survey, a median of 27 percent of respondents in 17 countries named the United States as their state's most dependable partner, while only 6 percent cited China and 4 percent Russia.[27] The United States remains the world's largest arms exporter, with 36 percent of the global total in 2018. Of the 25 countries buying the most weapons from the United States, 10 are either NATO member nations or part of other alliances formed with the United States since the Cold War.[28] With many of its military partners, the United States conducts security assistance and arms sales programs. Annual government-to-government U.S. defense assistance to foreign allies and partners averaged approximately $43 billion per year over the decade of the 2010s, with conspicuous spikes above that in 2012 and 2018.[29] Major partner states for U.S. Government military foreign sales support and security assistance are the states of the Middle East, Israel, Egypt, and Pakistan.

American diplomatic and political assets have been under strain for a decade, but they still provide the United States with unmatched structural power and opportunities to favorably compete with would-be rivals. The United States is a full member of 22 formal international government organizations, including the United Nations Security Council Permanent Five, and the largest voting member of the International Monetary Fund and World Bank, and has been a leading member of the World Trade Organization and World Health Organization.[30] For the past two decades, and especially since 2017, American policymakers have confronted a persistent question: Are the benefits of leadership of post–World War II, cooperative international organizations that help lock in predictable, U.S.-friendly policy orientations and minimize the need for Washington's use of coercive power worth the price of the institutional maintenance costs and the sacrifice of a degree of political autonomy?[31]

Well before the administration of Donald Trump, American skeptics of global institution participation tapped insular and nationalist tendencies in the U.S. public to erode support for participation and maintenance, but national polling in 2018 indicated that a majority of Americans continue to view U.S. international engagement and leadership of global institutions and alliances worth the cost.[32] U.S. leaders, if they choose to do so, have the public support and material resources to reverse the recent accelerated skepticism of U.S. international engagement. The still-dominant U.S. position in many intergovernmental and nongovernmental organizations means it can recover from the domestic political exploitation of ordinary citizens' grievances with "globalism." American influence in longstanding international institutions can be reinvigorated with the political will to sponsor and fund programs that enhance transparency into global institutions and, at the same time, generate domestic policies that do a much better job of compensating aggrieved U.S. national constituencies that consider themselves "losers" from the economic and social adjustments resultant from the international trade, financial flows, migration, technological change, and international legal decisions identified with globalization.[33]

Measures of American ideological resonance and cultural identity are mixed in 2020, but generally remain stronger than those for its main competitors. The years 2017 and 2018 witnessed a sharp decline in international views of the United States and its Presidential leadership. In 2016, a median of 64 percent of international respondents in the Pew Global Attitudes Survey held a favorable view of the United States and had confidence in President Barack Obama to direct America's role in the world. By 2017, only 49 percent viewed the Nation positively and just 22 percent felt confident in President Trump's leadership.[34] Yet a subsequent 2019 Pew survey revealed that despite this decline, many countries still view the United States as the nation their country can most rely on as a dependable ally into the future. The allure of the American Dream—the interdependence of prosperity, individual freedom, and liberal democracy—remains a positive attribute in most corners of the world.[35] While not without backlash, American products, popular culture, and basic individual rights are resonant around the globe. They are well marketed and do not require Americans to be physically present to exert this influence.[36]

Despite some notable erosion in confidence about the American ideal, its global appeal dwarfs that of any other country's narrative and provides a fungible power attribute if applied wisely. The COVID-19 pandemic provides another opportunity for Washington to market this appeal wisely. Equally important, English is the dominant global language for business, industry, and cultural exchange—1.8 billion people speak English, and an increasing number of multinational corporations require English as their common corporate language.[37] Fifty-five of the top 100 universities in the world are in the United States, and despite a decline in international student applications that began in 2012 and accelerated in 2017, revenue generated by American higher education in 2018 was nearly $41 billion—double the value of soybean exports and only modestly below U.S. automobile exports ($53 billion).[38]

In the information dissemination and communications arenas, longstanding American preferences are under duress in 2020. Yet here again, the United States possesses the economic strength and technological know-how to compete favorably, if not perfectly, across the information domain. Global acceptance of the U.S. preference for free and open

communications, including over the Internet and social media networks, has been badly bruised in the decade since 2010. The once dominant U.S.-led Internet Corporation for Assigned Names and Numbers oversight framework and its preference for openness and multi-stakeholder cooperation have encountered political challenges and then technological ones. China, Russia, and a number of other authoritarian states around the world believe that free and open communications on a mass scale present a threat to their national sovereignty and maintenance of domestic political order.[39] They each have developed technologies and protocols to constrain the free flow of information across and within their borders; some, mainly China and Iran, have completely blocked Internet and global telecommunications flows during periods of public unrest or government worry.

The United States today relies primarily on the private sector to project external information about American values and ideals—the core of the liberal capitalist brand.[40] During the Cold War, the U.S. Government invested substantial resources in *public diplomacy*, a term that covered a host of overseas activities—from libraries to lecture tours, art exhibits to world's-fair-style expositions, international visitor programs to radio and television broadcasts meant to undermine Soviet censorship.[41] As conducted by the United States Information Agency and the Department of State's Division of Cultural Relations, these activities sought to convey "a full and fair picture" of America. The Voice of America, Radio Free Europe, Radio Liberty, and Radio Free Asia were all publicly funded efforts to counter propaganda and provide alternative sources of information to oppressed populations.[42] Today, these U.S. public information activities are mostly gone, repurposed for other diplomatic duties, or cash-starved enterprises. The State Department does maintain a Bureau of Educational and Cultural Affairs and a Bureau of Global Public Affairs that perform some similar functions (including Internet and social media outreach), but with significantly less funding and impact than their Cold War–era equivalents.[43]

Instead, America's most successful export, commercial entertainment, has stepped into the void and become far more influential than the remaining public diplomacy activities. Recently, a U.S. political scientist investigated the implications of this privatization of public diplomacy and found it often to be counterproductive: "Instead of showing the interdependence of prosperity, democracy, and freedom, contemporary [American] popular culture tends to single out freedom and portray it in ways that are very entertaining, but often also very alien to the concerns of most people in the world."[44] There is a case to be made for far greater U.S. Government attention to its external information messaging in the era of Great Power competition. America's projection of information during and after the COVID-19 pandemic will provide an opportunity to generate such additional attention. One recent positive step that might be built on was the establishment of the interagency Global Engagement Center in 2016 to coordinate U.S. Government efforts to "recognize, understand, expose, and counter foreign state and nonstate propaganda and disinformation efforts aimed at undermining or influencing the policies, security, or stability of the United States, its allies, and partner nations."[45]

But even if the U.S. Government devoted more resources and attention to external messaging and counter-propaganda activities, it would face a major challenge given Russian and Chinese robust propaganda and domestic censorship activities—including those that block or distort the global Internet. Technology may provide a bit of an answer to this

challenge, for satellites do not currently play a major role in global Internet infrastructure. As addressed in chapter 5, within the next decade, a new generation of satellites could lay the foundations for an "Internet from space." That fast-emerging concept would use thousands of satellites instead of the tens of satellites used in contemporary telecommunications systems today. Laser light could then link these satellites to each other to form a network that would be able to reach remote, isolated, or even blocked regions of the world that today have no or limited access to the Internet.[46] Should America choose leadership in developing these technologies, and those associated with land-based relay stations and handheld phone receptors, Washington may again leverage the advantages of innovation and technology to counter the ongoing balkanization of the Internet and compete to see its norms for telecommunications and information exchange dominate this domain of state-to-state interaction. In turn, this could provide a rejuvenated U.S. public diplomacy with a conduit to project a more realistic, cohesive, and attractive American brand.

Key American Power Tools and Their Strategic Utility. For the period 2020 to 2025 and beyond, the United States remains relatively strong in military hard power and most of the soft power tools necessary to compete favorably in the five major areas of Great Power competition. Washington's military might—while not as dominant as in the early 2000s—is still unmatched in global power projection capacity. Although the relative size of the U.S. economy and its manufacturing base is in decline compared to China, American financial dominance is unchallenged, its innovation dynamism far more robust, and its demographic profile more conducive to long-term economic adaptation and expansion. Combined, its economic power tools—unless self-limited—remain most formidable in modern economic competition.

Core U.S. ideological messages featuring freedom, openness, transparency, and universal human rights resonate in many parts of the world, providing America with an ability to attract other states and individuals to act favorably toward American objectives and interests. Nevertheless, Washington's internal information management has been under duress from outside interference, and its external messaging remains largely a private commercial enterprise without a mandate or the means to compete with other Great Power narrative projections. Moreover, the government's recent uneven policy support for these influential soft power attributes has begun to reduce the decades-long U.S. role as the most influential Great Power in the information and ideological domains. The U.S. response to the 2020 COVID-19 pandemic, and how it is publicized domestically and internationally, will determine if America's advantages in these vital areas are eroded or reinforced.

American political and diplomatic power tools are now and will remain under duress in many specific locations around the globe in the decade of the 2020s. But even these are unlikely to be displaced by Russia or China in the near term.

China's Competitive Posture and Tool Sets

General Chinese Power Factors and Approaches. China's emergence as a global power is the product of its three-decade ascent to economic superpower status. From 1979 to 2018, China's economy grew at an annual rate of 9.4 percent. China became the world's second largest economy, largest manufacturer, largest trader in goods, second largest consumer of commodities, second largest recipient of foreign direct investment (FDI), and

largest holder of foreign exchange reserves.[47] In 2019, China's GDP was second only to that of the United States, at an estimated $15.27 trillion in exchange rate terms (see figure 3b.1). China's percentage of global GDP almost tripled in the decade from 2007 to 2017, moving from 6.18 percent to 15.25 percent.[48] Should China continue annual growth between 5 and 6 percent per year and the U.S. growth per year remain around 2.2 percent, then China's GDP will pass that of the United States between 2030 and 2034.[49] Less optimistic estimates of China's growth rate and the negative implications to productivity from a rapidly aging Chinese population versus that of the United States pushes this crossover point out to beyond 2040, or later—if ever.[50]

China's economic rise has been significantly fueled by export growth, as Western and Asian companies relocated production to tap low-cost Chinese labor. Chinese exports as a percentage of its GDP fell 8 percentage points in the decade from 2007 to 2017, down to 9 percent by 2017. This decline reflects China's increasing reliance on domestic consumption for growth. At the same time, Asian economies tightly coupled to Chinese supply chains, resource-rich countries that export to China, and developed countries selling to China's consumer market are growing more dependent on China.[51]

Manufacturing plays a critical role in the Chinese economy. By 2018, China accounted for 35 percent of global manufacturing output.[52] China's manufacturing base is largely industrialized, with a 73 percent industrialization rate in 2010 and a 76 percent rate in 2015 (see figure 3b.2). Thirty-one percent of China's manufactured exports were high-tech ones in 2017.[53] Most of these exports were originally produced by Western and Asian multinationals using imported components assembled in China, but Chinese firms are moving up the technology chain to produce more of these goods on their own. Sustaining strong economic growth and accelerating China's advantages in high-end manufacturing and cutting-edge technologies are critical objectives of the Chinese Communist Party (CCP). As noted in chapter 3a, these objectives were codified in the 2015 Made in China 2025 10-year economic development plan. China's trade surplus has been as high as 10 percent of GDP but declined to 2.2 percent of GDP (about $336 billion) in 2018. China's trade profile has been put under duress from a trade war with the United States that began in mid-2018, when the Trump administration implemented multiple rounds of tariffs on goods imported from China to force changes in Chinese industrial policies.

This trade war is the most serious disruption in global commerce in nine decades. Although China's losses from a year of this bilateral trade war totaled $53 billion, China found alternative partners for its exports, shifted some imports away from U.S. suppliers in retaliation, and has refused to make the policy changes the United States demanded.[54] As addressed, the phase one bilateral trade deal aimed at easing the trade war signed in January 2020 consisted primarily of Chinese pledges to increase imports of U.S. goods and some modest measures to address U.S. concerns about forced intellectual property transfers.[55] But the economic impacts of COVID-19 make it unclear if China will fulfill those commitments.

Despite policies aimed at stimulating "indigenous innovation," China ranks as the 29th nation in the world for economic innovation, much closer to Russia's 48th-place ranking than America's 5th-place ranking. However, some analysts see Chinese progress. One 2019 study observed that over the past decade, China narrowed the gap with the United States

on 36 indicators of scientific and technological progress and led the United States on some indicators.[56] As of 2015, China accounts for only 2.3 percent of global commercial financial transactions, massively below the American 52.3 percent share and well below Japan and Western European countries (see figure 3b.2). China's trajectory in the innovation and financial markets categories suggest that it will not be immune to challenges over the coming decade in an increasingly service-based and high-tech global economy.[57]

Long a net recipient of foreign direct investment, China became a net exporter of investment capital in 2015. China's Belt and Road Initiative (BRI) investments have driven its outward FDI flows to above $150 billion per year since 2015, while its FDI inflows have remained near $140 billion annually.[58] The China Global Investment Tracker estimates total Chinese outbound FDI at $1.2 trillion from 2005 to 2019 and total Chinese overseas construction projects (often funded by loans from Chinese state banks) at $800 billion. Chinese overseas investment is focused on access to resources (especially oil and natural gas), factories, and infrastructure projects that piggyback on Chinese trade and efforts to acquire advanced technology that will support China's innovation and industrial upgrading from the United States, Europe, and Asia. Overseas construction largely focuses on the energy, telecommunications, and transportation sectors.[59] In addition to direct investment, China has about $3.1 trillion in foreign currency reserves and is one of the two (with Japan) largest holders of U.S. Government securities, with about $1.1 trillion as of January 2020.[60] In addition to economic value, China's state-managed investments generate influence with foreign elites by contributing to economic development in other countries, while at the same time potentially enabling coercion if countries cannot service their loans and become overly indebted to Beijing.[61]

In 2020, China has an increasingly capable military with many instruments of power but does not yet match the United States and Russia. China is competitive in many areas of conventional force and weapons numbers but lags U.S. and Russian forces in several notable areas: overall level of technology, capabilities of individual systems, and power projection capacity. However, the modernization of the People's Liberation Army (PLA) has made impressive progress over the last 15 years toward the goal of being able to "fight and win informationized wars," including a major reorganization in late 2015 that will greatly improve its ability to conduct joint operations.[62]

The PLA Army is the largest of the services, making up about half of the PLA's 2 million soldiers (China also has about 510,000 reservists). The postreform army is organized in a standardized group army-brigade-battalion structure, with each of the 13 group armies equipped with 6 combined-arms operational brigades and 6 specialized support brigades, including artillery, air defense, special operations forces, and army aviation. PLA combined-arms brigades have operational (armored, mechanized infantry, or light infantry) and support battalions. The result is modular, relatively flexible units that can perform multiple functions and deploy by rail or air to fight away from their home garrison.[63] As part of efforts to build a fully mechanized force by 2020, the PLA operates 5,850 main battle tanks, although only about half of these are modern, frontline systems, along with 5,800 infantry fighting vehicles and 3,950 armored personnel carriers.[64] The army also has six amphibious brigades that could be used in an invasion of Taiwan.

The PLA Navy has been upgrading and developing new major combat platforms (surface ships, submarines, and aircraft) that incorporate modern technology, including advanced antiship cruise missiles and advanced surface-to-air missiles. Its best surface platforms, such as the new Type-055 cruiser currently in sea trials, approach U.S. and Russian capability levels, and it is outbuilding the U.S. and Russian navies as it replaces older ships with much more capable modern replacements. The navy currently operates one rebuilt Ukrainian aircraft carrier, is conducting sea trials on an indigenously built carrier, and is building a third flat-deck carrier that can launch aircraft capable of offensive operations. The navy's aircraft carriers, advanced destroyers (28) and frigates (52), replenishment vessels, and amphibious assault ships give it an increasing ability to operate further from China's coast, including into the Western Pacific and Indian Ocean. This capability is necessary to protect China's overseas interests and is reflected in China's new naval doctrine of "near seas defense and far seas protection."[65]

Over the last 20 years, purchases of advanced aircraft from Russia and improvements in the ability of China's aviation industry to produce modern aircraft have significantly enhanced the PLA Air Force's combat capabilities. Although not on technical par with the most advanced U.S. and Russian aircraft, the Chinese air force now operates more than 900 modern fourth-generation fighters such as the J-10 and J-11, has deployed its first squadron of J-20 stealth fighters, and is developing new medium- and long-range stealth bombers to augment its existing force of about 176 H-6 bombers. The air force also controls China's paratrooper corps and transport aircraft, which provide the PLA a degree of strategic mobility. Air force doctrine has shifted from territorial air defense to conducting both offensive and defensive missions, including a growing emphasis on long-range strategic attack and bombing operations over water.[66] China has a growing UAS program that features robust low-altitude, low-endurance systems; three known variants of mid-altitude, long-endurance surveillance or strike drones; and at least one high-altitude, long-endurance UAS that has been observed in the South China Sea and near the disputed Sino-Indian border.[67]

China's Rocket Force, formerly known as the Second Artillery Corps, operates China's intercontinental (about 100), intermediate-range (about 72), and medium-range (about 80) nuclear ballistic missiles and a large conventional force with ballistic and cruise missiles of various ranges that can target Taiwan and U.S. bases throughout the region. It has primary responsibility for deterring a nuclear attack and being prepared to retaliate if deterrence fails. China's nuclear policy calls for a "lean and effective" nuclear force focused on deterring nuclear attack in accordance with China's "no first use" nuclear policy. Accordingly, China has been satisfied with a much smaller nuclear arsenal than the United States and Russia (which both have about 1,600 deployed strategic warheads), although the size has expanded to about 300 deployed warheads as the Rocket Force has increased the number of missiles (including some with multiple warheads) and the navy has deployed four ballistic missile submarines.[68] The Rocket Force probably also controls other strategic capabilities based on missiles, such as China's direct-ascent antisatellite weapons and the antiship ballistic missile versions of the DF-21 and DF-26 missiles.

The PLA performs a range of tasks, including domestic missions such as maintaining political security and social stability, traditional military missions such as nuclear deterrence and protecting China's sovereignty and security, new missions such as protecting

China's economic development and China's interests in space and cyberspace, and nontraditional security missions such as emergency rescue, disaster relief, and international security cooperation. The PLA also supports China's foreign policy and broader strategic objectives by engaging in military diplomacy, with a focus in 2020 on the United States and Russia, and by engaging with the countries on China's periphery in the Pacific region.[69] PLA diplomacy places special emphasis on senior-level visits, exercises with foreign militaries, and naval port calls. In 2018, the PLA conducted more than 60 bilateral and multilateral exercises with foreign militaries.[70]

China has the second largest defense budget. Its estimated $250 billion in expenditures in 2018 was roughly 40 percent of the U.S. base defense expenditure budget of $650 billion, but 4 times higher than Russia's $61.4 billion.[71] China remains a major importer of weapons and military technology, depending on Russia for jet engines, advanced missiles, sensors, and other military systems—although this dependence has declined significantly over time and will probably end in the next decade.[72] China's improved military industrial base makes it a major arms exporter to developing states, particularly in Asia. Between 2008 and 2018, China exported some $15.7 billion worth of conventional weapons across the globe, making it the fifth largest arms supplier in the world—behind the United States, Russia, Germany, and France. The lion's share of these exports—about 75 percent—went to Asia. An additional 20 percent flowed into Africa.[73] China's arms exports niche has historically been medium-cost, medium-capability systems, and its export potential is also limited by the fact that many countries will not procure Chinese arms for political reasons. From 2014 to 2018, China delivered major arms to 53 countries, compared with 32 from 2004 to 2008. Pakistan was the main recipient (37 percent) from 2014 to 2018, as it has been for all 5-year periods since 1991. From 2014 to 2018, China became the largest exporter in the niche market of unmanned combat aerial vehicles, partly because the United States has restrictions on exports of these systems, and Russia has lagged in UAS development.[74]

China's principal military weakness relative to the United States and Russia is its limited power projection capability. China has invested in antiaccess/area-denial capabilities such as advanced diesel submarines, advanced surface-to-air missiles, antiship cruise missiles, and an innovative antiship ballistic missile designed to attack U.S. aircraft carriers. These capabilities raise the costs and risks for U.S. forces operating near China. The PLA's current limitations are partially offset by its geographic location and priority area for strategic focus in the Pacific. The United States, Russia, and other potential military contestants face challenges in projecting power and influence into the Western Pacific and Asia, where the Chinese are most obviously optimizing military capabilities for the coming decade.

However, the PLA's power projection capabilities fall off rapidly with distance, and China lacks allies or a network of overseas bases that could extend its range into other regions.[75] Nevertheless, the PLA is gradually expanding its global reach.[76] China has invested in a range of antisatellite capabilities that could degrade, interfere with, or directly attack U.S. satellites and has extensive cyber capabilities to collect intelligence and attack U.S. military computer networks. The PLA is developing a range of hypersonic weapons (and has deployed the DF-17 medium-range ballistic missile with a hypersonic glide vehicle) and is investing heavily in military applications of artificial intelligence.[77]

China is using its political and diplomatic clout to advance its influence within existing global institutions and by creating alternative ones.[78] In the late 2010s, China was a full member of 15 major intergovernmental organizations and an observer in two dozen others. These numbers were unremarkable and actually only two-thirds the number (22) of formal intergovernmental organization (IGO) memberships held by the United States and Russia at the same time.[79] However, China has been using its influence within the United Nations (UN) system and with other intergovernmental organizations to pick up diplomatic and political "distressed assets" abandoned by the United States and its allies and repurpose them to serve its strategic goals. China is now the second largest funder of the UN (behind the United States) and provides more troops to UN peacekeeping missions than any of the other permanent members of the UN Security Council (UNSC). Over the past decade, Chinese candidates have taken on senior leadership positions at the World Bank, Interpol, the United Nations Industrial Development Organization, the International Telecommunication Union, and the Montreal-based International Civil Aviation Organization. China has also sent military officers to lead UN peacekeeping missions in Western Sahara and Cyprus.

China's pursuit of crucial international organization posts has raised alarm among human rights and free speech advocates who fear Beijing will set back progress on these issues. After a former Chinese official was appointed head of Interpol in 2016, Beijing successfully used Interpol's "red notice" system to pursue critics living abroad. Beijing has also pressed to cut funding for human rights investigators in UN peacekeeping operations. In Geneva, the UN has stifled Chinese human rights advocates from making their case before the world. China's play for leadership of UN Educational, Scientific, and Cultural Organization (UNESCO) revealed that it views the Paris-based organization as more than just an overseer of world heritage sites and educational programs. Beijing also sees UNESCO as a vehicle to regulate the global Internet.[80] In addition, China practiced "lawfare" by leveraging its positions in treaties and regimes to ignore or reinterpret canonical provisions of international agreements when these undercut Beijing's preferences, as with UN Convention on the Law of the Sea provisions involving the right of all ships to innocent passage through its territorial seas.[81]

A second line of effort involves China creating alternative organizations that compete with existing international arrangements. Its BRI and Asian Infrastructure Investment Bank (AIIB) stand out as state-led infrastructure development programs that provide alternatives to multilateral UN development organizations such as the World Bank, International Monetary Fund, and Asian Development Bank. India and the United States rejected the state-led BRI model, and the United States shunned participation in the AIIB for similar reasons. Some argue that China's effort to build a parallel alternative framework for global infrastructure development does not pose a major challenge due to resource limitations and the AIIB's status as a multinational entity relying on standing commercial markets.[82] However, the existence of alternatives undercuts World Bank efforts to incorporate anticorruption, labor, and environmental standards in lending to developing countries. Others note that as BRI reached its 5-year anniversary in late 2018, as many as 14 percent of its projects (accounting for 32 percent of global BRI project value) had run into some kind of trouble. Many BRI projects confront local pushback from performance delays, lack of local workforce participation, and predatory project loan terms—including in states friendly

> "We assess that China's intelligence services will exploit the openness of American society, especially academia and the scientific community, using a variety of means."
>
> —*Daniel R. Coats,* Worldwide Threat Assessment of the U.S. Intelligence Community, *ODNI, January 29, 2019*

to China such as Pakistan, Sri Lanka, and Malaysia.[83] The extent to which China's alternative global institutional framework will gain traction and produce significant leverage for Beijing in the coming decade remains unclear.

China has extensive propaganda and communications tools to get its message out to international audiences, but the content of that message limits its effectiveness. Beijing's ability to craft and disseminate its preferred ideology in a resonant and positive message has been improving over the past decade but still exhibits significant liabilities and shortcomings. China's ideological framework of "a community of common destiny" glosses over conflicts of interest between nations and instead places emphasis on state sovereignty at the expense of human rights and freedoms, which inherently limits appeal. These values resonate with autocratic elites but not so much with ordinary citizens.

China has historically maintained an extensive censorship and propaganda apparatus to get the party's message out and to control and censor competing messages within China. The ruling Communist Party has adapted this apparatus to the Internet age, investing heavily in modern technologies (sometimes called the Great Firewall of China) to ban unwanted information from public view on the Internet and on social media. China has also increasingly pursued an assertive ideological strategy aimed at international audiences. With massive infusions of money—funding advertorials, state-owned newspapers and television networks, sponsored journalistic coverage, and positive messages from coopted boosters—China has been trying to reshape global views of itself by exploiting the vulnerabilities of the international free press and higher education establishments.

Beijing's main means of international influence has been through print, television, and radio. Its pays for Chinese "information supplements" to appear in respected international newspapers like the *Washington Post*. It oversees Xinhua, a state-run global media service that produces CCP-friendly stories for worldwide dissemination in multiple languages and boasts an 11.5-million-follower Twitter account (despite the fact that Twitter access is banned in China). It endorsed the acquisition of Hong Kong's *South China Morning Post* in 2015 by the CEO of the Alibaba Group (e-commerce), who inserted a management team that promised to provide a positive view of China. It generates content from its state-run China Radio International for use by broadcast networks from Norway to Turkey to Australia. It has generously funded a globally positioned China Global Television Network—rebranded in 2016 as the international arm of China Central Television—promising local journalists across the world excellent money and opportunity so long as they tell China's story well. The content emphasizes the generosity of the Chinese people and the benign nature of the Chinese government while amplifying the chaotic and unpredictable nature of Western politics and liberal democracies. Finally, China invested extensively in several hundred Confucius Institutes at universities around the world to promote Chinese language and culture and to promulgate CCP perspectives on an array of international and Chinese-related issues. These have drawn scrutiny in recent years for stipulating that the Chinese government must

approve teachers, events, and speakers at events on Western university campuses, while the Chinese government has refused U.S. State Department efforts to set up American Cultural Centers on Chinese college campuses.[84]

These efforts at information dissemination and image-making have met with uninspiring results. Across 34 countries surveyed, the 2019 Pew Global Attitudes Survey found a median of 40 percent had a favorable opinion of China, compared with a median of 41 percent who had an unfavorable opinion. Asia-Pacific, North America, and Western Europe saw a decline in favorable views of China compared to 2018.[85] But it will be interesting to see how Western European perspectives trend after China's very public assistance to states hard hit by the 2020 COVID-19 pandemic there. Conversely, African views of China are generally positive, averaging 62 percent favorable ratings.[86] Polling results indicate that China's image-making tools are having limited success in the regions of greatest concern—the Asia-Pacific and South Asia. Just one state in the region considers Beijing to be a friend: Pakistan. Even North Korea and Iran have transactional relations with Beijing. The Chinese language also limits the effectiveness of Chinese propaganda efforts. Very few people speak Chinese fluently as a second language around the world, while English is spoken fluently by almost 1.8 billion people, including hundreds of millions across the Indo-Pacific. The language barrier and the heavy role of state censorship has limited China's ability to use music, film, and entertainment as global soft power tools. These also are impediments to China's ability to use education as a source of cultural influence. Although China hosted 492,000 foreign students in 2019 (third most in the world), the quality of Chinese higher education institutions varies widely, and Xi Jinping's efforts to tighten the CCP's ideological grip over college lesson plans are likely to leave a negative impression on foreign visitors.[87]

Key Chinese Power Tools and Their Strategic Utility. China's contemporary overall power rests largely on its status as an economic global giant with growing resources and a steadily improving technology base. Beijing's global economic influence already exceeds that of the United States in some important categories that will continue to expand over the coming 5 to 7 years. Its capital reserves, level of industrialization, and attention toward high-tech innovation and military modernization underpin ongoing efforts both to assume leadership in current international economic and political institutions and to develop new ones more conducive to Beijing's interests. Yet China's projected economic power advantages may not be sustainable in the out years, unless it finds a way to redress weaknesses that may constrain growth, including a fast-aging population, an educational and intellectual culture that constrains innovation, and an undersized presence in financial markets that limits the revenue potential and influence of Chinese financial services.

Beijing is spending far more on military forces than Russia and more than any other country except the United States. If its military spending and investment trends continue, China has the capacity to equal or surpass the U.S. economy and U.S. military forces at some point during the next two decades but not in the coming one. China's emergence as a full superpower is uncertain, and the timing is impossible to predict.[88]

China's military capabilities have grown over the last decade to the point where it can compete with the U.S. military in East Asia and the Western Pacific. Its forces can deny U.S. naval and air forces uncontested access to areas near the Chinese coast, and it can hold

major U.S. air and naval weapons platforms at risk. However, China will be pressed to project power outside the second island chain over the next 5 to 10 years.

China's diplomatic power tools are important but not impressive. Beijing has filled leadership vacuums left by recent American and European withdrawals from international organizations and attempted to use these to advance Chinese national interests and/or change the institutional rules to suit Beijing's preferences.

China displays clear deficiencies in its ideological, cultural, and communications power dynamics. Beijing has no real multilateral political or military alliances, and only one true long-term strategic relationship. It pursues transactional interactions with economic and investment partners often wary of Chinese interests and financial terms. China gets poor ratings and survey responses regarding levels of international respect and trust. Despite an intense effort to improve global messaging, its national narrative focused on state control and social order over individual liberties resonates poorly outside of authoritarian circles. Finally, China continues to demonstrate limited language, cultural, or academic appeal. Beijing's proactive global response to the 2020 COVID-19 pandemic may help overcome these deficiencies and offset criticism that its repressive internal politics hid the problem from the rest of the world for far too long. How this plays out remains to be seen.[89]

China's power tools are skewed toward the economic today but have long-term potential to develop more broadly. China's trade and investment prowess make it a major force in the economic competitive space, and its long-term plan to leverage this economic advantage to develop military, political, informational, and ideological capability is palpable. China's contemporary power factors do not present a current urgent military threat, but in the long term, China's growth and global aspirations make it the most important potential Great Power challenger to the current U.S. global position and to longstanding American/Western values, norms, and institutions.

Russia's Competitive Posture and Tool Sets

General Russian Power Factors and Approaches. In 2020, Russia's application of its power resources to international competition remains as it has been for the prior decade: tactically successful despite severe structural shortcomings. Some analysts assert that Russia has a viable long-term strategy for use of its limited power base, a "raiding" strategic framework.[90] They see an underlying strategic logic behind a decade of Russian activism that includes Moscow's ongoing interventions into Georgia and Ukraine; its ventures into Syria and Libya; its norms-busting interactions with Iran, North Korea, and Venezuela; its ongoing use of cyber tools to disrupt and discredit elections in Europe and the United States; and its tactical rapprochement with China. Yet most strategic observers do not believe Russia has a true international strategy and credit Prime Minister Vladimir Putin with masterfully playing a weak and eroding power base to maximum short-term effect.[91]

Russia's major power factors are not generally positive but do include critical military capabilities. Russian military power tools are a mixed bag. Moscow retains a vast nuclear arsenal, one equal in size to that of the United States, with an estimated, treaty-authorized 1,600 active deployed strategic nuclear warheads.[92] Russian nuclear weapons underpin Moscow's claim to Great Power status and are distributed between an estimated 860 land-based delivery missiles, 10 ballistic missile submarines, and 50 bomber aircraft.[93] Russia is actively

modernizing this nuclear weapons force with new single-warhead and multiple-warhead missiles, a hypersonic glide missile delivery vehicle, new cruise missiles for its bombers, and reportedly new intermediate-range missiles and a rail-mobile missile—both long banned by Cold War–era arms control treaties that have either expired or are not likely to survive in the future.[94] Despite many reported delays and frequent testing challenges, Russian modernization efforts convince many military analysts that Moscow will be able to sustain a secure, second-strike nuclear deterrent at a price far more affordable than the prohibitive costs of developing robust antiballistic missile systems.[95]

Since 2011, Putin's Russia also has modernized its conventional military forces. The modernization has not generated a globally relevant conventional force. In 2019, Russia had 1 million members in its active-duty, conscript-based military, with more than 800,000 of these in ground and aviation units with home-country defense missions rather than deployment-capable ratings. Its navy featured 1 inoperable aircraft carrier, 56 aging submarines in varying states of repair, and a surface fleet heavy on Corvettes and shore patrol craft compared with an American fleet featuring 12 capital aircraft carriers, 68 fully operable submarines, and a surface fleet dominated by more than 90 frigates and destroyers. Russia's air force possessed fewer than 900 fighters compared to the 2,400 in the U.S. Air Force; an attack aircraft fleet of 1,500 that was half that of the United States; helicopter units with only 25 percent of the U.S. military's 5,800; and a transport aircraft fleet of 400, barely more than one-third the size of the U.S. force.[96] In addition, Russia's recent conventional military track record features multiple mishaps and embarrassments that call into question its ability to sustain global reach: Its only aircraft carrier, the geriatric *Admiral Kuznetzov*, suffered debilitating mechanical and safety incidents from 2016 to 2018 that have placed it in dry dock through at least 2021; its vaunted and extremely expensive T-14 Armata main battle tank reportedly failed many operational tests before its prototype broke during rehearsal for the May 2015 Victory Parade in Moscow; and its military aircraft—fighters and transports—began crashing at a regular and alarming rate from 2015 to 2019.[97]

However, since the 2008 Russo-Georgian war, strategically targeted military investments have underwritten a significant and meaningful upgrade of conventional and gray zone Russian military capabilities.[98] Generating a small annual defense budget compared to China and especially the United States, Russia spent 50 percent of its military budget over the decade—a disproportionately large share—on procurement of precision-guided and enhanced conventional strike weapons.[99] It capitalized a new generation of precision-guided munitions, modernized almost 1,000 of its current helicopter fleet of 1,485, and generated 1,000 new or modernized combat aircraft out of a force of 1,500.[100] The Russian military has increased its operational UAS fleet to over 2,000 systems, most of which are tactical and all of which are intelligence and surveillance models, not strike variants. Moscow has budgeted over $10 billion to develop combat UAS programs by 2020, and it has been aggressively developing counter-UAS capabilities featuring electronic warfare, counter-GPS spoofing, and kinetic detect-and-kill systems.[101] These enhanced and modernized systems mesh well with a smaller and more professional and deployable Army and Special Forces military cadre, often intermixed with civilian Russian private military company or mercenary forces.[102] Russia also has built flotillas of small surface ships and diesel-powered submarines in the Black Sea and Caspian Sea—both equipped with long-range, sea-launched cruise missiles—

and a number of cruise missile–carrying frigates. These weapons expand Russia's military strike reach to waters around most of Eurasia.[103] Russia aims to build a similar fleet in the Baltic Sea over the coming decade.

As of 2020, Russia's nominal GDP is only $1.7 trillion compared with $15 trillion for China and $22 trillion for the United States (see figure 3b.1). Russia is a "one crop economy" with a heavy dependence on energy exports (mainly oil and natural gas) that accounted for almost 60 percent of Russian exports and almost all of Moscow's $120 billion trade surplus in 2017.[104] Russia's dependence on energy export revenue is high, but its share of global exports remains low for its size—only 2.6 percent in 2018. Almost 55 percent of Russian exports went to Europe, with another 37 percent going to Asian trading partners, mainly China and South Korea.[105] Russia's level of industrialization hovers in the 30 percent range, well below other modern economies, and has remained relatively unchanged for more than two decades (see figure 3b.2). Russian high-tech manufacturing is subpar and declining, with only 11 percent of its 2018 manufactured exports consisting of high-tech products—just over one-half of America's 19 percent, one-third of China's 31 percent, and well below the global average of 18 percent.[106]

These numbers correspond with Russia's relatively low rankings on two other measures of modern economic performance: level of business innovation and share of global financial market transactions. In 2018, Russia's global innovation ranking was 46 out of 118 countries, relatively unchanged in the last decade, far below other modern economies, and a factor that restrains Moscow's ability to modernize its economy for a fast-changing future. Russia's share of global financial market transactions in 2018 was less than 1/10 of 1 percent—far below all other modern economies and a statistic indicating the inability of Russia—save for a handful of Putin-linked autocrats—to derive profit from the dynamic and expanding elements of the broader global services economy. The political institutions for an effective market economy in Russia are largely missing, its currency (the ruble) is an untrustworthy investment instrument, and robber-baron state capitalism lacks the kind of effective regulation and predictability that generates the trust necessary for economic investment, exchange, or growth.[107] Combined, Russia's trade as well as its financial and innovation limitations bode ill for its ability to generate sustainable tools for successful Great Power competition today or into the future.[108]

Russia fares just as poorly in measures of ideological resonance and cultural identity. It has demonstrated some success in promulgating a message of mistrust for Western institutions and values around the world, modestly increasing Russia's relative stature as an influential state.[109] Russia also has obvious linguistic and cultural affinity in former Soviet states and its "near abroad," especially in Belarus, Central Asia, and Mongolia, but the Russia brand and narrative do not resonate more widely. Only 34 percent of global respondents in a 2018 Pew International Survey had a favorable view of Russia, and 63 percent had no confidence in Vladimir Putin.[110] Few outside Russia speak Russian or watch Russian films or Internet programming in Russian. No Russian universities are ranked in the global top 100. Putin's Russian lifestyle lacks global appeal. Its public health system is weak; average Russian life expectancy is 5 years shorter for men and women than in Europe and a dozen years lower for men than in the United States. Russia's current population of 145 million

is forecast to decline to 121 million by mid-century, calling into question the ability of the Russian social system to support itself.[111]

Despite a negative global image and constrained ideological appeal, Russia does possess and wield several diplomatic and communications power tools to good effect. Putin's Russia has been a member of 22 major intergovernmental organizations for a decade or more (it was expelled from the G7/8 in 2015 after its annexation of Crimea and invasion of eastern Ukraine). Its political IGO affiliations include permanent member status on the UNSC, International Atomic Energy Agency (IAEA), and Interpol.[112] Moscow applies this diplomatic power to advance Russian policy interests and to make its case for recognition of controversial policies. For example, in 2015 Moscow protested listing a Sevastapol nuclear facility as belonging to Ukraine in an annual IAEA report annex, insisting that the facility in the Crimean city be listed as Russian.[113] Putin's Russia also advances its preferred standards of international policing and criminal accountability via Interpol, where in late 2018 the Russian nominee for the president was rejected by Western delegates based on Moscow's history of using Interpol to target Putin's political foes.[114]

In the information and communications space, Putin's Russia has funded and managed three substantive agencies for overt and covert dissemination of its global viewpoints: Russian Television (RT), Sputnik radio, and the Internet Research Agency (IRA). All are funded by the Russian government and work to disseminate propaganda and put out disinformation intended to polarize and confuse non-Russian audiences in a manner aimed to sow mistrust of Western media and institutions.[115] These tools modernize and update techniques used by Soviet Union intelligence agencies during the Cold War, today making the viewpoints of Putin's Russia available in 24 languages, especially English. They also amplify manifestly fake but disturbing stories that are difficult to disprove and create the feeling that no one knows quite what is real.

Relying heavily on the multiplier effect of high-volume retweeting and forwarding of its specious stories, the daily deluge of disinformation produced by RT and Sputnik has a nontrivial societal impact across much of the West and is a tactic that other authoritarian regimes are seeking to replicate.[116] The IRA is the covert social media influence and operation funded by the Russian government that works with Russian military intelligence hacking units to promulgate targeted disinformation and propaganda designed to distort voter perceptions and manipulate participation in democratic elections across Europe and in the United States.[117] At the same time, Putin's Russia has been developing the tools to isolate Russia from the global Internet, passing a 2019 law that allows such a cutoff and testing the technology necessary to operate a Russia-only Intranet.[118]

Russia has attempted to counter a longstanding negative humanitarian image in reply to the COVID-19 pandemic. Moscow sent hard-hit Italy a shipment of pandemic assistance materials in late March 2020, in an apparent effort to contrast itself with the European Union that reportedly sent Italy nothing. It remains to be seen if Putin's humanitarian gesture is remembered as genuine or a publicity ploy, especially since reports from Italy were that 80 percent of what Russia sent was of little use to Italy.[119]

Key Russian Power Tools and Their Strategic Utility. Even though Putin's Russia is in unambiguous relative economic decline compared to the United States and China, Russia in 2020 possesses a geographic expanse, a skilled workforce, and the vast natural resources

to balance against U.S. hegemony and China's rise for at least the coming decade. Its most important power tools are its nuclear weapons, its skills in cyber technology and the promulgation of information/disinformation, and its vast stores of oil and gas. Russia also has a diplomatic gravitas and a limited, modernized military and paramilitary capability necessary for projection of force in selected areas where its most significant strategic interests are engaged.

Russia's limited economic and ideological power attributes and potent but declining military, diplomatic, and communications tools make Moscow most capable of achieving foreign policy outcomes in its near abroad: Eurasia.

Outside Eurasia, the region where Russian diplomatic, military, and communications capability appears to be the most relevant is the Middle East. There, Moscow can use military bases in Syria and Iran to selectively employ its new conventional strike assets—conventional military and contractor ground forces equipped with precision-guided conventional weapons including missiles, rotary and fixed-wing attack aircraft, and conventional long-range cruise missiles launched from land and sea.

Russia's power limitations require it to avoid direct military confrontation with the United States and to seek tactical accommodation with China in areas where Sino-Russian key interests align for the coming decade. For at least the next 5 years, the two will continue to cooperate closely in the UNSC, take similar positions on cyber sovereignty and Internet governance, and use various diplomatic frameworks such as the BRICS (Brazil, Russia, India, China, and South Africa) grouping and the Shanghai Cooperation Organization to coordinate joint security and policy positions. They also should be anticipated to continue arrangements that share nonnuclear military technology and to conduct joint military exercises on a symbolic, limited basis. Despite the Sino-Russian entente, Russia continues to sell arms and provide advanced military technology to countries that have territorial disputes with China, such as Vietnam and India.

Russia's relative power capabilities are heavily concentrated in the military arena, with tools ranging from a formidable nuclear weapons arsenal, to significant conventional military power projection capabilities, and to a successfully employed set of gray zone armed actors. Moscow's information operations potential is equally impressive and unscrupulous, adding to the short-term capacity of Russia to pursue a strategy of disruption against Western institutions and organizations. Yet Russia's economic, ideological, and political power tools are substandard for a durable global power now and are likely to atrophy further over the next 5 years. Its severe limitations in many critical areas of power development and projection make Russia an urgent but not a grave threat to many immediate American/Western competitive interests. They also render it a dubious long-term challenger for Great Power ascendance.

Net Power vs. Gross Power Indicators: A Less Imminent Great Power Transition?

The conclusions reached above about the relative status of American, Chinese, and Russian power attributes today and into the future—a future featuring the disruptive technologies of the fourth industrial revolution (addressed in chapter 4) and increasingly service-based economies—were made from comparison of their gross factors of power—that is, factors of power available for use before any internal "costs" or "taxes" on them from domestic needs

and constraints are factored in. Some political scientists, most notably Michael Beckley of Tufts University, contend that gross power indicators misrepresent actual state power. Beckley believes that one must move beyond gross power factors and calculate the net index of Great Power factors to get a realistic feel for relative state power.

Beckley has generated such a net power index. It focuses on *net power resources*, which he defines as the resources available to a country after subtracting production costs, welfare costs, and security costs. His net power approach captures the fact that countries with large populations and potential domestic challenges will spend most of their gross power resources supporting their people and maintaining domestic stability, leaving fewer net resources available for external use in Great Power competition. Beckley argues that for populous countries such as China, gross power often significantly overstates actual capabilities and net power provides a more accurate assessment. His determination of net power factors can be applied by a comparative index to the U.S.-China, U.S.-Russia, and China-Russia competitive dyads over the past 25 years. Table 3b.2 makes this application and demonstrates the discrepancy between gross power balances between two states and net power balances, measured as a percentage difference in the two calculations.

Low numbers indicate a small gap between gross power factor comparisons (from the Correlates of War Composite Index of National Capability) and net power comparisons, while higher numbers indicate a greater disparity.[120] The calculated numbers for 2015 indicate that the net power disparity between Russia and the United States closely matches the gross power disparity, which validates a large gap in overall power attributes. Conversely, the figures for the United States vs. China and Russia vs. China show large disparities, suggesting that gross power calculations significantly exaggerate China's actual power. The 23 percent gap between U.S. and China net and gross power comparison reflects the high costs China faces in maintaining domestic stability and generating military forces that is not captured in gross power calculations. This difference is similar to the number Beckley calculated in net-vs.-gross power between Germany and Russia in the 1890 to 1917 period, where gross power calculations severely overestimated Russian power. The even higher 37 percent gap for Russia and China in 2015 is similar to the disparity Beckley calculated between Britain and China between 1840 and 1910, a period where Britain's small size misassessed the huge power deficiency that came from China's enormous internal security and societal costs. The implication is that China's contemporary internal challenges and costs again make its gross power indicators exaggerate its actual overall power potential.[121] In turn, the use of a net power comparison indicates that a Great Power transition between the United States and China is far from imminent.

Comparative Insights and Implications: 2020–2025 and Beyond

This detailed review of contemporary Great Power factors and their strategic utility reveals eight major insights.

First, the modern Great Powers—the United States, Russia, and China—will compete across the five categories listed in table 3b.1 in a manner featuring some cooperation and collaboration but with increasing episodes of confrontation, especially over nonmilitary issues. The tools of competition traditionally associated with one category of interaction in a less rivalrous era will be used more and more often to achieve strategic effects in another

> "The competition is likely to be multilayered and interactive. No single theme or model will capture the complex mosaic of global competition, and the intersections among diverse types of competition—how success or failure in one area exacerbates or mitigates others—will be a crucial determinant of relative success."
>
> —*Michael J. Mazarr et al.,* Understanding the Emerging Era of International Competition*, RAND (2018)*

category during Great Power competition. This is both a return to historic dynamics of interstate rivalry and a reason that concepts such as sharp power, gray zone operations, and geoeconomics now appear frequently in the writing and thinking of those today grappling with old geopolitical concepts now made new.

Second, the most important gross power indicators available today and their projections for the next 5 to 10 years clearly indicate that for Washington, Russia is an urgent but transient security risk, while China is the most important—albeit presently less threatening—Great Power challenger to U.S. national interests and global policy preferences. A net power comparison between the United States and China indicates that their power transition timeline is longer than some now fear.

Third, America's military advantage—albeit not what it was in the two-decade period from 1992 to 2014—remains robust. America remains largely unrivaled in the one area that matters most to its military power potential: its ability to deploy effective forces anywhere in the world in the event of a crisis.[122] However, this advantage could be less definitive if China or Russia is able to pick favorable political and geographic ground for a short but decisive military conflict and limit America's ability to bring its full power advantages to bear in a particular setting. This is especially true in the Indo-Pacific region and is addressed in detail in chapter 9.

Fourth—and in alignment with the third insight—neither Russia nor China possesses the power to prevail in a protracted military clash with the United States today or for the foreseeable future. Each knows this and, unless guilty of a serious miscalculation, will seek to avoid a direct military clash with the United States if at all possible, between now and 2025. Washington can leverage this to its advantage while pursuing a strategy that collaborates when possible, competes smartly, and confronts unacceptable behaviors and policy challenges adroitly. American military dominance is an asset in this new era of Great Power competition, but the United States needs to develop new competitive tools in nonmilitary areas. Its current strength gives it the opportunity to wean itself from its post–Cold War addiction to military instruments and develop more fungible capabilities across the diplomatic, ideological, informational, and economic categories of Great Power interaction. Improving America's capacity and ability to wield nonmilitary instruments effectively is necessary to compete effectively in a new era of Great Power rivalry.

Fifth, China today has the economic and communications/information power necessary to compete with the United States (and Russia) for access and influence around the world. Its use of foreign investment through the BRI and the AIIB demonstrates China's ability to win access and influence, at least in the short run. The longer run strategic impact remains uncertain as the downsides of Beijing's ideological message and its often-criticized predatory economics model may not provide sustainable influence in the future. China has the ability to seriously constrain U.S. (or Russian) military activities in East Asia, in

the Western Pacific, in cyberspace, and increasingly in space. These factors suggest that the United States must calibrate a competitive strategy for these regions that leverages U.S. ideological and soft power advantages and seeks to undercut China's economic strengths by highlighting the downsides for its partners.

Sixth, Russia's power factors align well with the short-term, geographically limited strategy it has been pursuing. Moscow has clear military, economic, and communications advantages in its near abroad (Eurasia) and a limited but nontrivial ability to project these tools for influence in the Middle East, the Arctic, and cyberspace. However, Russia's economic, ideological, and political challenges are likely to erode its power tools for influence beyond its near abroad as the decade of the 2020s progresses. A worthy U.S. approach to competition with Russia might optimize soft power and deterrent postures along Russia's immediate periphery combined with more assertive competition (and, where necessary, nonmilitary confrontation) against Moscow's use of global institutions and communications structures to delegitimize openness, transparency, and truth in the rest of the world.

Seventh, the combination of Great Power strategic interests and their current and future power potentials makes it clear that Russia is a dangerous near-term strategic competitor to the United States with the potential to do enormous military damage to America and the world if miscalculation leads to a military clash. China is a less insidious short-term challenger, but it is the Great Power with the strategic interests and the growing power potential to dramatically alter current norms, rules, and procedures preferred for international interactions by the United States and its Western allies. Washington must treat each Great Power accordingly. In the 2020 to 2025 window, Washington must choose whether, where, and how to compete. Put starkly, the United States can contest or confront its Great Power rivals today in accordance with a resolve to sustain its global position and the standing rules, norms, institutions, and alliances of the current international order, or it can abdicate leadership of the global order and allow a much more powerful China to extended its own version of global norms, rules, and institutions. The former course entails risks, but the latter course would not necessarily avoid a military confrontation, especially if the United States comes to view an increasingly Chinese ordered world to be unacceptable.[123]

Finally, past performance is not a guarantee of future results. The United States, China, and Russia each face major internal structural, economic, and demographic challenges.[124] The choices each state's political leadership make about how to address these domestic dynamics as well as their international challenges will determine the future power they will possess and the future policy options they might pursue.

Technology, Innovation, and GPC Considered

The next chapter rounds out this volume's first section dedicated to providing a conceptual framework for understanding a new era of Great Power competition. Major advances in technology have been demonstrated to empower the rise of new states into international preeminence. Emerging powers become dominant because they develop new economic spheres that become leading sectors of the global economy, underpinning the economic vitality and military power of that state in a reordered global hierarchy.[125] At the same time, the diffusion of key technological know-how or inventiveness to other countries has been correlated with Great Power decline.[126] Chapter 4 looks at the Great Powers in context with

the ongoing fourth industrial revolution—one being driven by the rapid emergence and convergence of multiple technologies, including robotics, artificial intelligence, 3D printing, energy, biotechnology, and food production. Chapter 4 considers critical technologies and their meaning for a new era of Great Power competition.

Notes

[1] This distinction from power literature, in particular, can be found in David Baldwin, *Paradoxes of Power* (New York: Bail Blackwell, 1989). The priority focus of this chapter on power-as-material-resources, before consideration of power as the ability-to-realize-ends, aligns with the approach in Stephen G. Brooks and William C. Wohlforth, *America Abroad: The United States' Global Role in the 21st Century* (Oxford: Oxford University Press, 2016).

[2] This operational definition was derived from Thomas J. Volgy et al., "Major Power Status in International Politics," in *Major Powers and the Quest for Status in International Politics: Global and Regional Perspectives*, ed. Thomas J. Volgy et al. (New York: Palgrave Macmillan, 2011), 1–26. Their definition derives from an amalgam of several other classic efforts at defining Great Power status, including the following historic references: J. David Singer and Melvin Small, "Formal Alliances, 1815–1939: A Quantitative Description," *Journal of Peace Research* 3, no. 1 (March 1966); Jack Levy, *War in the Modern Great Power System: 1495–1975* (Lexington: University Press of Kentucky, 1983); John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001); and Benjamin O. Fordham, "Who Wants to Be a Major Power? Explaining the Expansion of Foreign Policy Ambition," *Journal of Peace Research* 48, no. 5 (2011), 587–603.

[3] On the basic point of the misleading nature of gross domestic product (GDP) to capture overall national power decline, see Brooks and Wohlforth, *America Abroad*, 14–47.

[4] As an example, the United States realized $127 billion in receipts for the use of intellectual property in 2017, while China only netted $4.8 billion. On the number of America's nonmanufacturing economic advantages underrepresented in GDP and other economic measurements, see Thomas J. Wright, *All Measures Short of War: The Contest for the Twenty-First Century and the Future of American Power* (New Haven: Yale University Press, 2017), 165–168; Brooks and Wohlforth, *America Abroad*, 14–15. For data on comparative revenue from the global use of intellectual property in 2017, see "Charges for the Use of Intellectual Property, Receipts (BOP, Current US$)—China, World, United States, East Asia & Pacific," World Bank, available at <https://data.worldbank.org/indicator/BX.GSR.ROYL.CD?end=2017&locations=CN-1W-US-Z4&start=2000>.

[5] Wright, *All Measures Short of War*, 165.

[6] Ibid., 165–168.

[7] Ibid.

[8] Insight from Michael Beckley, "The Power of Nations: Measuring What Matters," *International Security* 43, no. 2 (Fall 2018), 8–9, who argues for a use of net power indicators (power assets minus power liabilities). For insights on the historic use and defense of gross measures of state power in theory and in practice, see Paul M. Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000* (New York: Random House, 1987); John Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2014), 55–138; Joseph Nye, Jr., *The Future of Power* (New York: PublicAffairs, 2011), 25–81; Ashley J. Tellis et al., *Measuring Power in the Postindustrial Age* (Santa Monica, CA: RAND, 2000), 1–33; Beckley, "The Power of Nations," 8–12.

[9] This new index is based on the premise that while GDP systematically exaggerates the wealth and military capabilities of poor and populous countries—because they tally countries' resources without deducting the costs countries pay to police, protect, and serve their people—thoughtful military studies show that the higher a country's GDP per capita, the more efficiently its military fights in battle. The reason is that a vibrant civilian economy helps a country produce advanced weapons, train skillful military personnel, and manage complex military systems. GDP per capita provides a rough but reliable measure of economic and military efficiency. The new index reduces the distortions described by multiplying GDP and GDP per capita before making power comparisons. See Beckley, "The Power of Nations," 14–19; Michael Beckley, "Economic Development and Military Effectiveness," *Journal of Strategic Studies* 33, no. 1 (February 2010), 43–79.

[10] Jeff Desgardins, "The $86 Trillion World Economy—In One Chart," *World Economic Forum*, September 10, 2019, available at <www.weforum.org/agenda/2019/09/fifteen-countries-represent-three-quarters-total-gdp/>; Rob Smith, "The World's Biggest Economies in 2018," *World Economic Forum*, April 18, 2018, available at <www.weforum.org/agenda/2018/04/the-worlds-biggest-economies-in-2018/>.

[11] Desgardins, "The $86 Trillion World Economy."

[12] "The Benefits of International Trade," U.S. Chamber of Commerce, available at <www.uschamber.com/international/international-policy/benefits-international-trade>.

[13] Ken Roberts, "In Top 10 U.S. Exports for 2017, 3 Countries Keep Popping Up: China, Canada and Mexico," *Forbes*, February 28, 2018, available at <www.forbes.com/sites/kenroberts/2018/02/28/in-top-10-u-s-exports-for-2017-three-countries-keep-popping-up-china-canada-and-mexico/#3965f39860d3>.

[14] World Bank, "High-Technology Exports (% of Manufactured Exports)," available at <https://data.worldbank.org/indicator/TX.VAL.TECH.MF.ZS?view=chart>.

[15] Ken Roberts, "China Trade War Losses at $84 Billion and Counting—Does New Data Suggest Tide Turning Toward U.S.?" *Forbes*, December 16, 2019, available at <www.forbes.com/sites/kenroberts/2019/12/16/china-trade-war-losses-at-84-billion-and-counting—-does-new-data-suggest-tide-turning-toward-us/#35c3b543bd40>. Clearly, the global economic disruption from the 2019–2020 novel coronavirus will eclipse this trade war by quite some margin.

[16] Steve Liesman, "Trade War Losses for the U.S. and China Grow into the Tens of Billions of Dollars," CNBC, November 5, 2019, available at <www.cnbc.com/2019/11/05/trade-losses-for-the-us-china-mount-into-tens-of-billions-of-dollars.html>.

[17] See *Economic and Trade Agreement Between the Government of the United States of America and the Government of the People's Republic of China* (Washington, DC: Office of the U.S. Trade Representative, 2020), available at <https://ustr.gov/sites/default/files/files/agreements/phase%20one%20agreement/Economic_And_Trade_Agreement_Between_The_United_States_And_China_Text.pdf>.

[18] In 2018, U.S. financial markets contributed 7.4 percent ($1.5 trillion) to nominal U.S. GDP. In context, this was equal to the total size of the Russian economy that year. See "Financial

Services Spotlight: The Financial Services Industry in the United States," *Select USA*, n.d., available at <https://www.selectusa.gov/financial-services-industry-united-states>.

[19] Unless otherwise specified by individual note, the economic data cited in this paragraph and the prior one are found in the online appendix B of this volume, available at <https://ndupress.ndu.edu/Contemporary-GPC-Dynamics-Matrix/>.

[20] In 2014, the U.S. Treasury had some 6,000 financial sanctions in place; by late 2018, that number had reached 7,967. See Cathy Gilsinan, "A Boom Time for U.S. Sanctions," *The Atlantic*, May 3, 2019, available at <www.theatlantic.com/politics/archive/2019/05/why-united-states-uses-sanctions-so-much/588625/>.

[21] Ibid.

[22] *Foreign Holdings of Federal Debt*, RS22331 (Washington, DC: Congressional Research Service, July 26, 2019), available at <https://fas.org/sgp/crs/misc/RS22331.pdf>.

[23] Although not without economic pain and political risk, the United States has generated viable plans to reduce national debt and attendant risk to future power. For the most prominent recent one, the so-called Simpson-Bowles Plan, see Kevin Robillard, "Report: New Simpson-Bowles Plan," *Politico*, February 19, 2013, available at <www.politico.com/story/2013/02/report-new-simpson-bowles-plan-087769>.

[24] Mark E. Cancian, "U.S. Military Forces in FY 2020: The Strategic and Budget Context," Center for Strategic and International Studies (CSIS), September 30, 2019, available at <www.csis.org/analysis/us-military-forces-fy-2020-strategic-and-budget-context?gclid=CjwKCAiAuqHwBRAQEiwAD-zr3W5VXp25g3B_08uUJYHBc5_q9z58pywaOs_SZD5HGS-xRlobyECggxoC2dEQAvD_BwE>.

[25] All U.S. military data derived from "Chapter 2: Comparative Defence Statistics," in *The Military Balance* (London: Institute of International Strategic Studies [IISS], 2019).

[26] Zachary Morris, "U.S. Drones: Smaller, Less Capable Drones for the Near Future," *Military Review* (May–June 2018), available at <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2018/US-Drones-Smaller-Less-Capable-Drones-for-the-Near-Future/>.

[27] Laura Silver, "U.S. Is Seen as Top Ally in Many Countries—But Others View It as a Threat," Pew Research Center, December 5, 2019, available at <www.pewresearch.org/fact-tank/2019/12/05/u-s-is-seen-as-a-top-ally-in-many-countries-but-others-view-it-as-a-threat/>.

[28] Arms transfers from the United States bring security guarantees, which basically entail diplomatic and military assistance in case of troubles. See *SIPRI Yearbook 2019: Armaments, Disarmament and International Security—Summary* (Stockholm: Stockholm International Peace Research Institute [SIPRI], March 2019), 6–9, available at <www.sipri.org/sites/default/files/2019-06/yb19_summary_eng.pdf>.

[29] "U.S. Arms Sales and Defense Trade," fact sheet, Department of State, May 21, 2019, available at <https://www.state.gov/u-s-arms-sales-and-defense-trade/>. Many analysts question the strategic value of military assistance and arms sales programs. For example, see Mara Karlin, "Why Military Assistance Programs Disappoint," *Foreign Affairs* (November/December 2017), <www.brookings.edu/articles/why-military-assistance-programs-disappoint/>.

[30] "Diplomatic Dashboard," available at <http://diplodash.pardee.du.edu/>.

[31] For this conceptualization, see John Ikenberry, "State Power and the Institutional Bargain: America's Ambivalent Economic and Security Multilateralism," in *U.S. Hegemony and International Organizations: The United States and Multilateral Institutions*, ed. Rosemary Foot, S. Neil MacFarlane, and Michael Mastanduno (Oxford: Oxford University Press, 2003).

[32] Dina Smeltz et al., *America Engaged: American Public Opinion and U.S. Foreign Policy* (Chicago: The Chicago Council on Global Affairs, 2018), available at <www.thechicagocouncil.org/sites/default/files/report_ccs18_america-engaged_181002.pdf>.

[33] Stewart M. Patrick, "President Trump and the Future of Global Governance," Council on Foreign Relations, January 31, 2017, available at <www.cfr.org/blog/president-trump-and-future-global-governance>.

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[120] The Composite Index of National Capability (CINC) is a statistical measure of gross (not net) national power used in the University of Michigan Correlates of War (COW) Project that began in 1963. CINC uses an average of percentages in six different components that represent economic, demographic, and military strength to generate a "CINC number" for relative power. Its six components are total population of a country ratio, urban population of a country ratio, iron and steel production of a country ratio, primary energy consumption ratio, military expenditure ratio, and military personnel ratio. The COW Project is available at <http://www.correlatesofwar.org/data-sets/national-material-capabilities>.

[121] For the historical comparative numbers, see Beckley, "The Power of Nations," 22–25.

[122] This conclusion aligns with that of Wright, *All Measures Short of War*, 166. However, it is modified to focus on U.S. predominance in a "protracted" military clash—the kind that neither Russia nor China would willingly fight today with the United States. The third insight indicates that China or Russia might today prevail in a military clash proximate to their own territory and where America's full power advantages might never be brought to bear.

[123] Here, "unacceptable" relates to the phrase "immutable and untenable" in the fifth major insight of chapter 2's historic review of Great Power competition: "The most reliable indicator of when a clash (war) will erupt is when one or both sides recognize a shift in the relative alignment of economic and military power that is perceived to be immutable and untenable."

[124] Anthony H. Cordesman, *China and the U.S.: Cooperation and/or Conflict: An Experimental Assessment—Part Two: China's Emerging Economic Power*, with Max Molog (Washington, DC: CSIS, October 2019), 3, available at <https://csis-prod.s3.amazonaws.com/s3fs-public/publication/191001_China_Grand_Strategy_Part%202_.pdf>.

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Chapter 4

Contemporary Great Power Technological Competitive Factors in the Fourth Industrial Revolution

By T.X. Hammes and Diane DiEuliis

The convergence of new technologies is creating a fourth industrial revolution that will transform almost every aspect of 21st-century life. Even as the new technologies generate much greater wealth, the revolution will reshape trade patterns as it returns both manufacturing and services to home markets. The United States is particularly well positioned to take advantage of these changes—but only if it revises its immigration policies to attract and retain the best minds from around the world. China is also well positioned, but it must overcome increasing distrust of its government. Russia is dealing with an ongoing demographic crisis even as foreign and domestic investors have lost trust in its potential for growth.

As with earlier iterations, the fourth industrial revolution is developing from the convergence of multiple technologies. Despite the shorthand sometimes used to identify the three previous revolutions—steam, electricity, digital—none was driven by a single technology.[1] Each needed a merging of numerous new technologies alongside relevant economic, social, and political change before it could evolve.

In *The Fourth Industrial Revolution*, Klaus Schwab states that the unifying of new technologies—"artificial intelligence [AI], robotics, internet of things, autonomous vehicles, 3D printing, nanotechnology, biotechnology, material science, energy storage, and quantum computing, to name a few"[2]—is going to revolutionize almost every aspect of life, mostly in a positive way. But when discussing the fourth industrial revolution's impact on international security, he was concerned that the technologies will provide much greater power to nonstate actors and create instability in many regions. Therefore, the fourth industrial revolution is a critical factor in the emerging era of Great Power competition (GPC) headlined in 2020 by the United States, China, and Russia.

In this chapter, we do not attempt to deal with all the technologies driving the fourth industrial revolution; instead, we focus only on those that will most directly impact GPC, economic potential, and international trade in the short term: robotics, AI, 3D printing, energy, and biotechnology. The chapter also considers two important factors essential to

U.S. efforts to exploit new technologies: current immigration policy and research and development (R&D) investments.

Although we discuss each of these technologies individually, it is the combination of them in new ways that will revolutionize the global economy. For instance, the first industrial revolution is often referred to as steam driven, but steam had to be combined with improved steel production, new manufacturing techniques, the telegraph, and other technologies both new and old to create the railroads that revolutionized trade and production. While space limitations forced us to select only a few of the technologies driving today's revolution, readers should keep in mind that the others are essential to enabling the chosen technologies (for instance, advances in material science are essential to advances in the chosen technologies).

Robotics

Robotics covers a vast field that will fundamentally alter how humans do things—from in the deep sea to outer space. We start by examining industrial robots and then move on to collaborative robots.

General Motors purchased its first industrial robots in 1961. Since then, robots have steadily evolved with improvements in degrees of freedom, range of motion, strength, speed, reliability, accuracy, and repeatability. Industrial robots' increasing flexibility and effectiveness are resulting in rapid and steady growth of sales. Sales averaged 115,000 per year from 2005 to 2008 but increased to 422,000 by 2018.[3]

Sales keep growing because robots dramatically improve productivity. The U.S. steel industry offers a prime example. From 1962 to 2005, it shed 75 percent of its workforce, but its shipment of steel products in 2005 equaled that of the early 1960s. Robots increased output per worker by a factor of five. Despite the massive shedding of jobs in the industry, steel manufacturing has been one of the fastest growing industries in the past three decades, behind only computer software and equipment.[4]

New sensors and improved mechanics mean industrial robots are becoming cost effective even in high-tech industries. China's Changying Precision Technology Company has automated its mobile phone production lines and cut factory personnel from 650 to just 60 while increasing productivity by 250 percent.[5] Although perhaps an extreme example, this type of streamlining is driving chief executive officers to explore how industrial robots can improve their companies' competitiveness. Robots tasked with routine computer electronics assembly cost about $7.25 per hour to operate, and the purchase cost of robots is expected to come down 22 percent by 2025, even as these machines become easier to integrate into current operations.[6] In 2020, Chinese labor costs $6.50 per hour.[7]

Products with potential for even greater growth—and hence greater impact on many aspects of life—are collaborative robots, or *cobots*. Unlike industrial robots, which must be separated from humans for safety, cobots are specifically designed to work in collaboration with people. And unlike industrial robots, which are expensive and have limited flexibility, cobots are cheap and flexible. Designed to be mobile, they are easy to be moved to different locations and assigned new tasks. They are already working in homes, laboratories, hospitals, nursing homes, warehouses, farms, and distributions centers to tend, test, carry, assemble, package, pick, place, count, secure, and inspect.[8] They are even being used as

exoskeletons to provide strength and protection to people. And unlike most large industrial robots, cobots are relatively easy to upgrade.[9]

In 2019, basic cobots cost about $24,000.[10] Assuming a 40-hour workweek and 3-year lifespan, this works out to approximately $4 an hour—well below U.S. labor costs and competitive with wages in emerging economies. And if a plant is running with three shifts, the hourly cost is about $1.35—well below even most emerging economy wages. Of course, robots need no medical, retirement, or leave benefits. Just as important, cobots are easily programmable. In fact, a "non-technical person can teach [a cobot] what to do through arm movement and simple button presses, and [a cobot] can master a new task in half an hour or so. There is also little assembly or setup required."[11] Moreover, the low prices, minimal technical support required, and flexibility mean that many of the 6 million small and medium enterprises worldwide will buy cobots. Goldman Sachs notes that today's versions have a payback period as short as 6 months.[12] ABI Research predicts global revenue from cobots will "grow at an annual rate of 49.9 percent between 2016 and 2025 compared to 12.1 percent for industrial robots."[13]

Even as costs of cobots come down quickly, their capabilities are growing at an exceptional rate. In 2012, the Defense Advanced Research Projects Agency awarded a $1.3-million grant to develop a robot that could sew. Inevitably nicknamed "sewbots," these systems are mastering the complex task of sewing—and thus are threatening to disrupt the global clothing industry.

The field of robotics seems to have reached the knee of its exponential growth curve—the point at which the curve turns vertical. From heavy-duty industrial robots to small personal robots, the range of capabilities is expanding rapidly even as cost drops and ease of use improves. By eliminating any labor-cost advantage to production in low-cost regions, robots are, and will continue to be, central to the return of production to home markets. Even as industry masters the mechanical aspects of robotics, key advances are being made in the field of AI, which will further enhance the advantages robots provide in production.

Artificial Intelligence

AI will play the role electricity did in the second industrial revolution, when the world moved from steam to electrical power; it will be an integral part of every new technology. From task-specific AI that autonomously executes a job such as controlling a mining truck in an open pit to more powerful AI that assists with complex planning, analysis, and decisionmaking, this technology will be essential. Unfortunately, the term *artificial intelligence* causes considerable confusion. Much of the current discussion concerns artificial general intelligence (AGI), which itself boasts a range of different definitions. In fact, there is a great deal of disagreement in the AI research community as to when or even if AGI is achievable. However, this chapter focuses on how limited, or task-specific, AI is rapidly improving productivity. Task-specific AI is essentially a machine operating with a set of guidelines to accomplish chores. Although such a system will provide great practical capabilities in its specific field, it will not be capable of fully independent operation.

Task-specific AI-driven robots are executing manual tasks in virtually every field of human endeavor, but AI is not limited to physical work. In January 2017, Japanese insurance company Fukoku Mutual Life Insurance replaced 34 insurance claim workers with

software from IBM Watson Explorer. The software scans hospital records and other documents to determine insurance payouts, factoring in the specific injuries, each patient's medical history, and the procedures administered. Fukoku Mutual reportedly spent $1.7 million (200 million yen) to install the AI system, and now pays $128,000 per year for maintenance. By using the software, the firm saves roughly $1.1 million per year on employee salaries—meaning it hopes to see a return on the investment in less than 2 years.[14]

This kind of breakthrough acts as a major incentive for other firms to follow suit—simply to remain competitive in their industries. The result has been a steady return of service industries to their home countries as AI takes over many of the back-office tasks, such as computer programming, bookkeeping, handling insurance adjustments, and manning call centers, that used to be contracted to firms in India or the Philippines.

Another form of AI can develop optimal designs for a wide variety of structures. Autodesk's "Dreamcatcher system allows designers to input specific design objectives, including functional requirements, material type, manufacturing method, performance criteria, and cost restrictions."[15] But the improved designs often cannot be produced using conventional manufacturing techniques,[16] thus the need for another emerging technology: 3D printing.

3D Printing

The first 3D-printing patent was granted in 1986. Slow speeds and uneven finishes meant that 3D printing was initially used mainly to produce prototypes and a limited number of unique low-volume products. But in the past decade, it has transformed from an industry focused on prototyping to one engaged in creating a wide range of products. In addition to increasing the speed of printing and refining the finishes, a great deal of effort has gone into expanding the number of materials that can be used. More exciting, 3D manufacturing is rapidly developing entirely new materials: "up to 140 different digital materials can be realized from combining the existing primary materials in different ways."[17] 3D printing is quite literally changing what can be made.

Meanwhile, researchers and 3D-printing companies continue to pursue both versatility and speed. Multimaterial printers were one of the big steps in this effort. Instead of printing a series of pieces that then must be assembled, the multimaterial machine forms the assembly in one go. As businesses learn to use these multimaterial printers, the range of products they will be able to print will expand exponentially. Furthermore, 3D printing's efficiency is unmatched: Its material wastage is near zero.

The range of products—from medical devices and aircraft parts to buildings and bridges—and the order of magnitude increase in the speed of printing are already challenging traditional manufacturing.[18] Better printing speeds mean that 3D printing has moved beyond prototyping and high-value parts. In April 2016, Carbon3D released a commercial printer that was 100 times faster than existing printers. Such improvements allowed 3D printing to capture 20 percent of the global plastics manufacturing market in 2016.[19] Not to be outdone, metal printers have combined high speed and low cost to make them a system of choice even for mass production of small parts. The fact that key patents are expiring soon will further accelerate enhancements in printer capabilities and capacities.[20]

3D printing opens up the possibility of a totally different supply chain, one that runs with lower costs and a smaller carbon footprint. The materials and energy required for manufacturers to create new parts will be harnessed into electronic design files that can be printed on demand anywhere in the world. In these new transformative supply chains, many spare parts may not even need to exist, which could translate into huge savings on warehousing costs.[21]

3D printing is revolutionizing manufacturing in many industries. The ability to change each product by changing the software means the era of mass customization and local production is on us. No longer will parts have to be shipped across oceans and then trucked to the user; they will be printed on site. 3D printing is clearly on the path to causing major disruptions in global supply chains.

Energy

Energy, in the form of petroleum, natural gas, and coal, has been a key component of global trade for the past half-century, but the influence of petroleum on both global trade and national security may be waning. Rapid advances in energy technology are changing the world's energy markets—and in many cases moving energy sources from overseas companies to locally produced oil, gas, and renewables. In its *World Energy Outlook 2017*, the International Energy Agency stated, "Four large-scale shifts in the global energy system set the scene for the World Energy Outlook 2017: the rapid deployment and falling costs of clean energy technologies, the growing electrification of energy, the shift to a more services-oriented economy and a cleaner energy mix in China, and the resilience of shale gas and tight oil in the United States."[22]

Gas and Oil

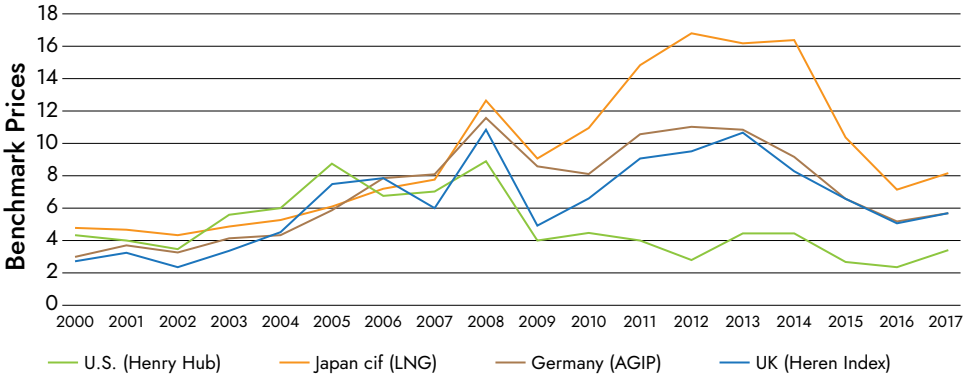
The U.S. fracking revolution is driving a global increase in demand for natural gas, even as oil use may have peaked. In November 2016, the *Wall Street Journal* ran a front-page article reporting that global oil producers such as Royal Dutch Shell and even state-owned Saudi Aramco anticipate that the world has reached peak oil usage and are preparing for a future decline in demand.[23]

U.S. shale oil production (fracking) has been the fastest growing source of oil globally. In 2012, the U.S. Energy Information Administration (EIA) estimated that shale oil production could reach 2.8 million barrels per day (bpd) by 2035; it did so by 2013.[24] In late November 2014, the EIA predicted the United States would become the world's largest oil producer by 2020.[25] This milestone was reached by June 2014.[26]

Perhaps the most powerful aspect of U.S. shale oil operations is the speed with which they can be closed or reopened in response to demand. From October 2016 to January 2017, U.S. crude production increased 500,000 bpd in response to the West Texas Intermediate (WTI) price increasing from $45 to $50 a barrel.[27]

The combination of the novel coronavirus pandemic and the short-term Saudi-Russian "oil wars" resulted in a collapse in the price of oil to less than $20 a barrel. Even the April 2020 tentative pact between Russia and Saudi Arabia did not result in major price increases. In mid-April 2020, *The Economist* predicted that oil prices will remain low as the oil industry restructures post-pandemic.[28] Although price spikes will still occur during times of crisis, U.S.

Figure. Global Natural Gas Benchmark Prices in USD per MMbtu



shale oil supplies may well ensure that the WTI price will not exceed $60 a barrel (in 2018 dollars). Even the September 14, 2019, attack on Saudi oil facilities resulted in only a few days' increase to the mid-$60s before WTI returned to the mid-$50s.

Natural Gas

Fracking has also created a natural gas boom in the United States. As recently as 2007, U.S. companies were racing to build liquid natural gas (LNG) import facilities. The demand for natural gas was growing quickly, and U.S. production was falling. In October 2005, the Henry Hub (U.S.) spot price rose to $13.42 per million British thermal units (MBTU). Then the fracking revolution occurred, which forced a massive drop in price to $1.93 per MBTU by December 2015—a reduction of 85 percent (see figure). Suddenly companies were applying for permits to turn their LNG import facilities into LNG export facilities.

As late as 2005, those U.S. industries that made heavy use of natural gas for their products (for instance, the petrochemical industry) or to generate energy for production were at a disadvantage in global competition. U.S. companies paid significantly more for this vital input. By 2008, fracking had completely reversed the situation, and the cost advantage to U.S. manufacturers has only increased since then.[29] The result has been heavy investment in new U.S. petrochemical plants that use natural gas as a feedstock, with 310 new projects under way that will satisfy most U.S. demand and increase U.S. exports from $17 billion in 2016 to $110 billion by 2027.[30] This unplanned advantage for America's chemical subsector will have spillover benefits as the expansion stimulates local development of directly related service and manufacturing businesses.

Renewables and New Transmission Lines

In its 2017 report, the International Energy Agency (IEA) noted new renewables installation increased to almost two-thirds of all newly installed electrical energy production.[31] By 2021, global generation from renewables should be "equivalent to the total electricity generation of the United States and the European Union put together today."[32] In its 2019 *Global Energy Perspective*, McKinsey & Company predicted that, even as energy consumption doubles by 2050, renewables will generate over 50 percent of the world's electricity by 2035.[33]

In 2006, the IEA predicted that by 2013 global installed photovoltaic capacity would be 20 gigawatts; it was actually 7 times larger—140 gigawatts—and increased to 227 gigawatts by 2015. These statistics reflect only utility-scale generating capacity and thus do not account for the growing private installation of renewable energy. Both developing and developed countries are seeing huge growth in local production and grids.[34] In fact, Bangladesh is the world's largest market for home-based solar power systems.

During the first three quarters of 2016, 15 percent of additional residential and nonresidential solar generating capacity was privately installed in the United States.[35] Business is also growing in providing renewable energy to major corporations.[36] However, two major problems with renewables persist. First, they are inherently intermittent. Wind intensity varies in unpredictable ways, and solar fails every night and during bad weather. Even hydropower is subject to reduction during periods of drought. Second, the best solar exposure or steadiest winds are often far from the places where people live. Thus, renewable energy and power transmission must be thought of as an integrated problem. Around the world, nations and private business are installing renewables along with long-line high-voltage transmission systems.

Like Europe and China, the United States needs to invest in transmission lines if it is to maximize the use of renewables. Fortunately, it has a successful model—Texas. Because its power grid is contained within the state, Texas overcame the various forms of political resistance and built transmission lines from its windy western plains to its energy-hungry eastern cities. At times, wind provides 40 percent of the state's power needs. Other regions have great potential for renewables—for example, the Great Plains and offshore for wind and the Southwest for solar. In March 2017, Xcel announced plans to install 800 megawatts of new wind generation capability in the Dakotas and Minnesota.[37] Delayed by regulators since 2005, a 3,000-megawatt line is finally being built to take Wyoming's wind energy to southern California.[38] Other investors are seeking to link wind and solar energy to the southeastern and eastern United States.

Impact of Batteries on Energy Sources

Whether users are major power companies looking for a way to store power to feed back into the grid or individual homeowners seeking to get off of it, batteries can offer them an alternative to fossil fuel backups. This is another field in which many researchers—commercial, government, and academic—are pursuing a variety of possibilities. Major battery technology breakthroughs in 2019 include a battery that can fully charge in 10 minutes, thermal-energy devices that can store 1.2 megawatt-hours and can be hooked in series to create almost unlimited storage, and new processes that could double the storage capacity of lithium-ion batteries.[39]

Commercial power companies need massive storage capability to take over the "peaker" function now performed by natural gas–burning plants. These plants come online only during periods of peak load to prevent brownouts or even blackouts. Driven partly by California's Public Utilities Commission, Southern California Edison plans to install a 100-megawatt storage battery by 2020. Moving much more quickly, Elon Musk combined Tesla Motors and SolarCity to create a new way of supplying power. In July 2017, he signed a contract to provide 100 megawatts of storage in Australia and had the system running

and highly profitable by January 2018.[40] By October, it was on "track to make back a third of its construction costs in its first year of operation."[41] Tesla has contracted to increase the capacity of this system by 50 percent in 2020.[42]

The convergence of fracking, renewables, energy grids, and batteries means that more and more energy production will be local or regional. Renewables can be moved vast distances via transmission lines, so they can tie a region together. But there will not be a global market for renewables. Unlike oil, propane, coal, and LNG, it is impractical and unnecessary to move renewable energy across oceans. Thus, unlike the gas/oil market, which contributes to globalization, the renewables market will contribute to regionalization—and even to localization—as more and more businesses and homes take advantage of better battery capacity to move off-grid.

Emerging Biotechnology

Just as information technology and the Internet have transformed society, business, government, and warfare since the late 20th century, emerging biotechnology will shape the global landscape for the next several decades. The world is entering a new era of biotechnology, highlighted by the advancing ease with which genomes can be engineered for specific purposes. Synthetic biology and associated genome-editing tools will be essential for addressing the global challenge of resource scarcity and environmental sustainability, while providing unprecedented advances in public health and medicine. The expanding U.S. biotechnology industry, including a wide range of startup companies, along with larger scale corporations, is already exploring capabilities for manufacturing high-value products, creating what is now referred to as the bioeconomy. Products of the bioeconomy include the creation of biology-based commodities, fuels, textiles, and consumer goods—all of which are proposed to be produced on innovative biomanufacturing platforms. Because the locus of this economic innovation is in industry, and particularly startups, government funding does not primarily drive the bioeconomic trajectory, making government just one of many actors shaping the field. In order to establish and maintain global leadership in biotechnology, the United States requires a holistic national approach that supports innovation and growth in the bioeconomy, establishes strategic priorities, and ensures responsible use.

Emerging biotechnology will have important implications for the Department of Defense (DOD), and internal DOD leadership has acknowledged this by including biotechnology as one of its 11 modernization priorities.[43] Moreover, DOD intends to create a community of interest in biotechnology to coordinate biotechnology R&D across the Armed Forces. Just some of the many promising advances for defense could include innovative body armor designed from spider silk, jet fuels or runway material produced from algae, living plant-based sensors, and flame-resistant coatings. Many other advances, such as those related to skin or gut microbiotics, could benefit the health or performance of warfighters directly; however, DOD is not driving biotechnology innovation, and many challenges exist to the most beneficial incorporation of biotechnology into DOD requirements. Outside of traditional force health protections and the development of medical countermeasures, what advantages over adversaries could biotechnology provide? What unique DOD challenges and problems are best met with biotechnological solutions versus

other emerging technologies? These questions have yet to be addressed as industry continues to innovate.

At the same time, new dual-use technologies for defense will present significant challenges to biodefense, in addition to the ethical and moral dilemmas they have already created; the capabilities that drive the U.S. bioeconomy are the same tools that could allow for the creation of bioweapons (see also chapter 8). Most recently, the National Academy of Sciences published a biodefense consensus report, providing a framework for assessing those capabilities that are the most concerning to the DOD warfighter—namely, the creation of viruses from scratch, the modification of harmful bacteriological pathogens, and the development of harmful chemicals through biomanufacture.[44] DOD will need to address these issues in ways that do not stifle the technology's advancement or America's competitiveness in the global bioeconomy.

Enabling Factors

As noted in the introduction, two factors should enable U.S. technological advances. The first, investment, is on a positive trend; the second, immigration policy, is having a powerful negative effect.

Obviously, in a period of swift technological change, robust investment in R&D is essential to leveraging those shifts. Fortunately, despite all the hype about the Made in China 2025 plan to dominate 10 key emerging technologies, the United States still invests significantly more in R&D than does China. Unfortunately, from 2003 to 2016, U.S. Government spending in nondefense R&D was essentially flat. Since then, government investment has increased sharply.[45] In 2018, the United States invested 2.84 percent of its gross domestic product (GDP) in R&D. China invested only 1.97 percent of a significantly smaller GDP.[46] The key question is whether the United States will sustain this investment in the face of rapidly increasing debt-servicing costs and continued deficit spending.

The bad news is that current U.S. immigration policy is having a major negative impact on America's progress toward a fourth industrial revolution economy. While immigration policy is a hot political issue, one element that is not usually associated with immigration is the intellectual nature of the fourth industrial revolution. Exploiting the revolution requires large numbers of smart, skilled, and educated people. Innovation at the top of the scale requires advanced education in science, technology, engineering, and math (STEM) skills. The 330 million people of the United States cannot hope to stay ahead of the 7 billion people in the rest of the world. In the past, the United States has had great success by encouraging the best STEM students from around the world to come to America for an education and then stay to work.

In 2017, foreign nationals in the United States accounted for 81 percent of the full-time graduate students in electrical engineering and petroleum engineering; 79 percent in computer science; 75 percent in industrial engineering; 69 percent in statistics; 63 percent in mechanical engineering, and economics; 59 percent in civil engineering; and 57 percent in chemical engineering.[47]

The United States is generally recognized as having the finest university system in the world, and it attracts large numbers of the best foreign students. This is a major advantage, but what really counted was the fact that the number of foreign STEM graduates who chose

to remain in the United States to work increased by 400 percent from 2008 to 2016. Essentially, the United States was attracting and keeping some of the finest minds in the world.

The policy of encouraging immigrants to stay paid off. Despite representing only 13 percent of the U.S. population, immigrants start more than 25 percent of the new businesses in the United States. More than 20 percent of the chief executive officers of the 2014 Inc. top 500 business are immigrants.[48] And 55 percent of the new companies worth more than $1 billion have at least 1 immigrant as a founding member.[49]

Then, in 2017, two things happened that dramatically reversed the flow of foreign students into U.S. universities. First, the U.S. Government made it much harder for students to obtain visas or to be certain they could renew them year to year. At the same time, the Trump administration restricted the number of graduates who can remain in the country to work. The result has been a major downturn in the number of foreign students enrolled in U.S. universities. Other countries, having seen the success that the United States was having, have started their own aggressive recruiting programs to attract foreign students—and current U.S. policy is only assisting those foreign programs in attracting top students. It makes no sense for a foreign student to invest heavily in a U.S. education when the visa might not be renewed and thus the investment will not pay off in a degree; even if he or she succeeds in getting a degree, the U.S. job market, which needs STEM graduates, will be closed. It makes much more sense for these students to go to school in Canada, Australia, or the United Kingdom. Canada and Australia, in particular, are encouraging overseas students.

Not only do current U.S. policies deprive the United States of intelligent, productive students and potential citizens, they also hurt America universities. Overseas students pay much higher tuitions than do U.S. citizens and so, in effect, subsidize their education. Universities across the country are having to cut STEM programs due to the reduction in funds flowing in from overseas.[50] In short, U.S. immigration policies in 2020 are directly responsible for reducing the flow of the people America needs to thrive in the fourth industrial revolution. By failing to effectively distinguish between types of potential immigrants, the United States is excluding a great deal of talent. In sharp contrast, forward-thinking governments elsewhere are enticing the best and brightest from around the world to move to their nations. Current immigration policies are damaging American prospects for success in a rapidly changing global economy.

Conclusion

The convergence of the aforementioned technologies will change societies in ways that are hard to imagine. It is already clear these technologies will change what, how, and where we manufacture commodities. Most important, manufacturing will be located near the market, which means the trend of onshoring manufacturing to America will continue. New technologies are also returning service-industry jobs to the markets they aid, and renewable energy is inherently regional rather than global. Environmental movements will reinforce these trends by pushing to reduce the impact of manufacturing and agriculture on the environment.

The fourth industrial revolution is shifting trade networks from the global to regional and even local levels. The United States may well be the nation best positioned to benefit from this shift. The U.S. economy already derives 84 percent of its GDP from the United

States, Canada, and Mexico. Although the supply chains are deeply embedded in Asia, U.S. manufacturing and services have been in the process of moving production back to the United States for years. The United States benefits from effective rule of law, strong protection of intellectual property, the largest market in the world, an exceptional university system, heavy investment in R&D, and a pervasive entrepreneurial spirit. These attributes will allow the country to thrive in this era of rapid technological change.

Until 2017, foreign investors thought so too. Foreign direct investment (FDI), particularly in manufacturing, was running at record levels in 2015 and 2016. Unfortunately, the uncertainty introduced by tariffs has reduced FDI into the United States by over 50 percent. However, the long-term advantages are still present, and FDI flows should recover once the United States establishes and sticks to stable trade agreements. America must also ensure its immigration and R&D policies do not hold it back. Economically, the United States has distinct advantages over both China and Russia as the fourth industrial revolution begins to reshape our world. The one key weakness is the gridlock in America's current political systems. Failure to adjust our laws and regulations to the new reality risks squandering those advantages.

China could also benefit greatly from the fourth industrial revolution. The Chinese Communist Party specifically developed its Made in China 2025 plan to take advantage of the new technologies. The party selected 10 priority sectors to subsidize, which included robotics, green energy, artificial intelligence, biosciences, and materials. Essentially, China is investing heavily in each of the technologies discussed in this chapter; it is also working hard to shift its economy from export based to consumption based, to decrease its reliance on exports. It needs to do so because it is already suffering from businesses leaving to protect intellectual property rights and increasing labor costs. However, even as these efforts progress, China will have to deal with the dramatic reduction in labor required in its industries and its rapidly aging, and hence less productive, population. It must do so even as its economy slows significantly and pushback to its Belt and Road Initiative grows. While the Chinese government has once again turned to stimulus spending, a key question is whether the cumulative public and private debt is manageable.

On the positive side, China's working population has been declining for the past couple of years and will continue to do so. Thus, it will need fewer jobs. At the same time, China has an enormous talent pool due to the sheer size of its population. Furthermore, Chinese universities have steadily improved in global rankings. Most important for China's future is the fact that Asian trade is also regionalizing and China is central to the fastest growing region in the world. If the Chinese Communist Party's use of centralized management can mitigate these challenges, China too can be a big winner in the fourth industrial revolution.

In contrast, Russia is not well positioned to benefit. Transitioning to advanced manufacturing requires major investment, and Russia currently suffers from a lack of investor confidence. The Institute of International Finance ranked Russia "last among 23 emerging economies in terms of 'real' FDI."[51] Russian businesses have not been particularly innovative, nor has the country created an environment that encourages foreign innovators to establish businesses there. Compounding its problems, Russia's economy remains dependent on exporting energy, which generated 60 percent of its GDP.[52] Today, technological improvements in various fields as well as global warming concerns are driving a worldwide

shift to alternative energy. Russia also faces major human capital issues due to its demography and low-quality university system. No Russian institution rated in the top 250 of *U.S. News & World Report*'s university rankings, and only 2 made it into the top 400.[53] Finally, as a kleptocracy, Russia does a poor job of allocating capital to the industries that benefit most from the convergence of these new technologies.

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Part II
Warfighting, Innovation, and Technology in a New Era of Great Power Competition

Chapter 5

Key Technologies and the Revolution of Small, Smart, and Cheap in the Future of Warfare

By T.X. Hammes

The convergence of fourth industrial revolution technologies is making possible smaller, smarter, and cheaper weapons systems that will challenge the few and exquisite systems of today's militaries. Based on land, sea, and air, these small, smart, and cheap weapons will fundamentally change the character of war and may come to dominate Great Power conflicts.

The U.S. Civil War demonstrated the impact of the Industrial Revolution on warfare. The advent of mass production, railroads, telegraphs, and steam warships meant mass became a dominant, if not *the* dominant, element on the battlefield. World War I reinforced this fact. Even with the advent of maneuver warfare, World War II remained largely a competition of mass. In the 1980s, American leaders turned to precision weapons to defeat the Warsaw Pact's mass.[1] Thankfully, we never found out if precision weapons could defeat the Warsaw Pact, but the technologies developed to do so proved devastating in the 1991 Gulf War and Operation *Iraqi Freedom*. Unfortunately, these weapons and the platforms to deliver them have become progressively more expensive. The result is the United States entered the 21st century building fewer but ever-more-capable weapons systems.

Twenty years into the new century, the United States, China, and Russia continue to pursue high-end systems such as fifth-generation fighters, heavy bombers, and aircraft carriers. Yet by reducing the price of precision and advanced manufacturing, the fourth industrial revolution is creating a new generation of smaller, smarter, and cheaper weapons that challenges these weapons systems. In short, we are moving to an era of mass *precision*. A key question in the unfolding era of Great Power competition is which nation can most rapidly and effectively adapt to this revolution.

Technological Convergence

Like all previous industrial revolutions, this one is not based on a single technology but the convergence of an array of technologies that are rapidly maturing. This chapter studies only those most directly affecting military capabilities in the next 5 years (2020–2025).

Nanotechnology has made long-range precision systems affordable. Hypersonic weapons, although expensive, are creating yet another challenge. Furthermore, since each of these technologies is new, improvements in capability are happening fast while, with the exception of hypersonic weapons, costing a fraction of what it costs to improve current weapons systems technology.

Nanotechnology

Nanotechnology is science, engineering, and technology conducted at the nanoscale, which is about 1 to 100 nanometers. To put this scale into perspective, a sheet of newsprint is about 100,000 nanos thick.[2] Nanotechnology is applicable to chemistry, biology, physics, and materials science to dramatically increase a range of properties such as strength, combustibility, and conductivity.

The most immediate military application of nanotechnology is nano-explosives. Open-source reporting indicates nano-explosives have demonstrated an explosive power 10 times that of conventional explosives.[3] Nano-research continues, which means much greater conventional explosive power is available to states and, inevitably, nonstate actors as well. Increased explosive capacity can give new, smaller weapons the same effectiveness of much larger older ones.

The second area of interest is nanomaterials. Carbon nanotubes (created from graphene) are over 400 times stronger than steel and are exceptional conductors.[4] They are being used to reduce the weight needed for structural strength in many products—electronics, vehicles, medical devices, and even water purification. When techniques under development eventually make graphene available cheaply in large quantities, they will free designers to improve performance across the spectrum, from bicycles to high-end military applications.

Nanomaterials also dramatically increase battery storage capacity, and graphene-based supercapacitors can recharge almost instantly.[5] Nanomaterials are making smart, adaptive fabric that changes to match the background and nano-based paints, making the acquisition of electronically or visually coated objects challenging.[6] Potentially, some of the most valuable nanoproducts are radiation-hardened circuits to protect electronics from microwave weapons. In short, improvements in materials, circuitry, energy storage, and explosives based on nanotechnology will lead to major increases in range, payload, and stealth for various vehicles.

Drones

Exponential improvements in drone capabilities are being driven by commercial interests. Autonomous air, ground, and maritime drones are available to anyone who wishes to purchase them for surveillance/reconnaissance, communications, logistics, and even strike.

Surveillance/Reconnaissance Drones. Long-endurance (30+ hours), military, remotely piloted unmanned aerial vehicles such as the Global Hawk are expensive ($130 million) and require extensive support structures to maximize their effectiveness—up to 171 personnel for each orbit.[7] Today, commercial demand for long-endurance surveillance systems is resulting in solutions that are much less expensive and require only a few personnel. Defiant Labs' DX-3 autonomous vertical takeoff and landing (VTOL) drone has a mission range of 900 miles and carries light detection and ranging technology or integrated optical and ther-

mal cameras with high-resolution zoom.[8] Aerovel's autonomous VTOL Flexrotor provides long-term (32 hours) and long-range (1,800 miles) observation. It carries visual and infrared video and still cameras as well as synthetic aperture radar.[9] Each costs about $200,000.

Clearly, the rapid advances in commercial, autonomous surveillance drones and machine interpretation is lowering the cost of operating long-range, multispectral, and radar surveillance missions.

Communications Relay Drones. Long-endurance or tethered drones can provide temporary nodes either to extend the range of existing systems or to provide rapid replacement for a node that has sustained damage.

Strike Drones. Predator-type remotely piloted military strike drones have received extensive coverage over the past two decades. Like a traditional airplane, it is a runway takeoff and runway landing platform. But the important advances are taking place in autonomous, VTOL drones. At the high end, for $2 million or 1/45th the cost of an F-35, the Kratos XQ-222 drone features a 3,000-mile range (over two times the F-35) with a 600-pound payload.[10] The cost advantage actually increases with time. With its vertical takeoff and recovery system, the XQ-222 has minimal monthly training costs, needs no airfield, and requires no training pipeline for pilots and maintainers, no pilot bonuses, no retirement costs, no health care, and so forth. The U.S. Air Force is testing a version it has designated the XQ-58A. Unfortunately, the XQ-222's presence at the Paris Air Show in 2017 indicates America will not be the only nation with this capability.

Strike drone technology is not limited to million-dollar systems, however. The United States has shipped over 4,000 of its $15,000 Switchblade drones to Afghanistan since 2011. Measuring 2 feet long and 3 inches wide, and weighing only 6 pounds, it can fly for approximately 6.2 miles and provide live video to the operator. Because it is armed, operators can use it to "suicide" into any targets they find.[11] Moreover, major states do not have a monopoly on strike missions. Iran demonstrated its capabilities in the strike on the Saudi Arabian Abqaiq oil facility in September 2019. Tehran also provided weapons for Yemeni cruise missile attacks on U.S. warships. Even before Iran's activities, the so-called Islamic State conducted over 80 drone attacks between October 2016 and January 2017 that resulted in about a dozen dead and 50 injured enemy soldiers.[12]

Commercial firms are testing autonomous VTOL drones that are GPS-independent, hardened against electronic interference, range hundreds of miles, deliver with an accuracy of 1 meter, and are inexpensive enough to be disposable.[13]

Maritime Drones. The commercial shipping industry is working on an array of unmanned surface vessels (USVs), from North Sea ferries to electric coastal cargo vessels to full-size container ships and tankers. By 2018, the U.S. Navy was developing its own USVs to detect and strike enemy combatants, clear a mined strait within hours using a swarm of vessels, trail an adversary's submarines, and guard a critical infrastructure.[14]

Imaginatively employed, unmanned underwater vehicles (UUVs) could be a relatively inexpensive substitute/augmentation for a submarine force. Both the U.S. and Chinese navies are pursuing numerous autonomous maritime platforms.

Ground Drones. In Iraq, Shia militia employed four armed robots to fight the Islamic State.[15] Russia deployed its Uran-9 remotely operated minitank to Syria with mixed results.[16] This is not surprising. All revolutionary systems encounter major problems during

initial deployments. Despite early setbacks, many nations continue to develop unmanned ground vehicles.

In short, both military and commercial drone usage—on the ground, at sea, in the air—is exploding. The global smart commercial drone market is projected to reach $179 billion by 2025,[17] and there appear to be few limits to the planned uses.

Counter-Drone Efforts. Since 2002, Defense Advanced Research Projects Agency (DARPA) has sponsored the annual Black Dart live-fire exercise to explore ideas for defeating drones. Since then, anti-drone technology has taken many different paths: kinetic kill, directed energy (lasers and electromagnetic pulse), software attacks, and electronic and GPS jamming.

Lasers, software attacks, and electromagnetic pulse initially appeared to have the most potential impact on swarms. Unfortunately, each approach has significant limitations. Certain atmospheric conditions (dust, haze, water vapor) as well as reflective paints and ablative coatings can significantly reduce the effectiveness of lasers. Software attacks require the enemy to cooperate by leaving a path into his system to insert the software. Electromagnetic weapons can be defeated by hardening a drone's electronics. During the Cold War, mission-critical electronics were protected from the potential electromagnetic pulse of a nuclear detonation by enclosing the electronics within Faraday cages.[18] Today, radiation-hardened electronics can be placed into a system during its manufacture.[19]

In a new approach, DARPA is exploring the use of drone swarms to *defeat* drone swarms. It sponsored a 2017 competition among teams from the U.S. Service academies to see which could develop the most effective software and tactics for one swarm to defeat another. The teams then flew mixed swarms of 25 drones against each other with remarkable success.[20] This concept has not been tested against larger swarms, and no attempt has been made to operationalize the concept. The fact remains, however, that current civil and military systems cannot defeat swarms of autonomous drones.

Artificial Intelligence

Artificial intelligence (AI) is a wide-ranging, dynamic field. Chapter 6 of this volume addresses a number of AI implications for wider defense and security. In this chapter, we address two AI areas of particular importance in the rapid evolution of small, smart, and cheap weapons: GPS-independent navigation and target identification. At the cheap end, a University of Pennsylvania quadcopter "uses a smartphone for autonomous flight, employing only onboard hardware and vision algorithms—no GPS is involved."[21] At the expensive end, DARPA is developing precise navigation using variations in Earth's magnetic field.[22] Both systems are immune to GPS jamming or spoofing—a growing challenge from Russia and inevitably China.[23] These systems can get a drone to the target area but they cannot ensure it can hit a specific target.

Thus, the second key element for truly autonomous drone strike operations is accurate target identification. Many researchers are working on limited AI that will provide accurate identification from onboard sensors.[24] At the low end, an early 2019 online journal rated seven commercial drones that can identify and follow a person.[25] These drones can certainly identify an aircraft on a parking apron. At the high end, the Air Force Research Lab is using a neuromorphic chip to identify military and civilian vehicles in radar-generated aerial imagery.[26]

Swarms

Truly autonomous drones will require no human intervention to execute missions, thus they will be able to operate in large numbers. This requires they be inexpensive. In 2014, a University of Virginia team 3D printed a drone in a single day, then added a small electric motor, 2 batteries, and an Android phone for guidance to produce an $800 autonomous drone with a range of approximately 30 miles.[27] Today, a factory with 1,000 Carbon3D printers could print 100,000 such drone bodies daily. The limitation is now the assembly and shipment of the finished products. Both processes can be automated with robots.

Launching thousands of drones will be challenging, but by using standard shipping containers set up like multiple-launch rocket systems, numerous drones can be moved and employed quickly. Sheer numbers will overwhelm any current antiair system.

Small states and insurgents are not only operating but also manufacturing military drones. Azerbaijan builds a licensed version of Israel's Orbiter 1K.[28] In 2016, the Polish army contracted to buy 1,000 Polish-manufactured combat drones annually at a price of about $7,000 each.[29] They have high-explosive, high-explosive anti-tank, and fuel-air explosive (also known as thermobaric) warheads.

Small Warheads Technology

As of 2020, design is clearly mastering the first two challenges to drone swarms: autonomous navigation and target identification. The last challenge—the payload limitation of small drones—can be overcome by three separate approaches. The first and least technically challenging approach is "bringing the detonator." The second approach, the use of explosively formed penetrators (EFPs) as warheads, requires more technical expertise. The third approach uses swarms and counts on the cumulative damage of dozens of small warheads to accomplish the mission.

"Bringing the detonator" uses the drone to deliver a small initiating charge to the much larger supply of explosive material provided by thin-skinned targets such as ammunition dumps, parked aircraft, fuel trucks, or rocket launchers. A few ounces of explosives delivered to the right point on these targets will initiate secondary explosions that completely destroy them. Russian separatists have repeatedly used small drones to drop simple thermite grenades on Ukrainian ammunition dumps. The resulting secondary explosions have destroyed hundreds of thousands of *tons* of ammunition.[30]

To penetrate nonexplosive targets such as supply trucks or light armored vehicles, one can use the second approach, EFPs. A properly built thumb-sized EFP weighing only 3 ounces can penetrate up to one-half inch of steel. Increasing the size of the EFP to only a few pounds allows it to destroy even well-armored vehicles.

The combination of drones, AI, and advanced manufacturing means there could be thousands of mobile, smart, active hunters spread widely over tomorrow's battlespaces.

Space

Even as governments and large firms squeeze more capability out of expensive satellites, cube satellites—or CubeSats—measuring about 4 inches on a side are creating cheaper alternatives.[31] Costing under $125,000, CubeSats are key to a new industry that sells space as a service. Using a network of CubeSats, Planet, a commercial venture, has achieved the

elusive goal of taking a medium-resolution photo of every place on Earth every day.[32] Viasat is building a network that will allow customers to view images and video from the ever-increasing network of observation satellites in near real time.[33]

Major powers have lost their monopoly on the use of space. "Cheap space" means that in an era of disruptive technologies and Great Power competition, all military planners must assume almost any enemy can see their forces whenever they are moving.

Hypersonic Weapons

Hypersonic weapons, also known as hypervelocity weapons, travel between 5 and 25 times the speed of sound.[34] There are three distinct approaches to achieving hypersonic weapons—boost-glide rockets, cruise missiles, and artillery projectiles. Each approach is rapidly maturing and will dramatically change the character of conflict. Most are not projected to be operational in large numbers within the next 5 years.

Boost-glide rocket systems require a ballistic missile to attain speed and altitude before they maneuver in the manner that gives them their name. When operational, they will provide maneuverable, long-range precision with devastating destructive power.[35] Both Russia and China seem to be developing boost-glide as strategic weapons with a focus on carrying nuclear warheads. The United States hopes to have a boost-glide system operational by 2028.[36]

In contrast, hypersonic cruise missiles have the potential to be much cheaper and launched by a variety of ground, sea, and air platforms but are much smaller and have limited range. China's DF-17 hypersonic glide vehicle will have a range of about 1,200 miles and is nearing operational readiness.[37] Russia's Tsirkon hypersonic cruise missile, with a range of 250 to 600 miles against land and sea targets, will be operational by 2023. It can be fired by surface ships and submarines.[38] The U.S. Air Force is working on the AGM-183 air-launched rapid-response weapon, and the U.S. Army is developing a long-range hypersonic weapon that it plans to transition to a program of record in 2024.[39] Both provide specific threats to fixed facilities such as airfields and seaports.

The final technology, hypersonic artillery shells, is cheaper but with much less range—currently only about 50 miles.[40] The U.S. Army has set a goal of an artillery piece with a 1,000-mile range but has no projected date for fielding such a system.[41]

In sum, these advances in nanotechnology—drones, AI, swarms, space, and hypersonics—will revolutionize combat in all domains of warfare in the emerging era of Great Power competition and change the tactical and operational context of future conflicts.

Tactical Impact

The ascent of small, smart, cheap technologies will have major tactical impacts on each individual domain of combat: ground, sea, air, space, cyber, and electromagnetic—and more importantly on cross-domain operations.

Ground

When we combine simple drones, additive manufacturing, autonomous navigation, and target identification, ground forces may face thousands or even tens of thousands of autonomous aerial drones. Furthermore, if packaged in standard commercial containers or trucks for movement within the battlespace, they will be difficult to identify or preempt.

Combined with mines, GRAMM (guided rockets, artillery, mortars, and missiles) fires, and other precision weapons, the emerging family of drones can create a deep zone denied to movement by either side.

Today, ground forces are in the first stage of the historically demonstrated process where a new technology starts out assisting the old. Then, as the technology improves, it becomes a partner until it finally replaces the old system (assistant-to-partner-to-replacement process). Ground forces are working out how to employ weapons to assist their current forces in combat. However, with the rapid improvements in cruise missiles and drones, division commanders may soon control weapons with a 1,000-mile range and be full partners with manned aircraft. Moreover, joint doctrine will have to adjust if ground forces must soon control weapons that exceed the range of fighter bombers.

The final step—replacement—will require careful consideration of which combat functions can be allocated to autonomous drones. The AI limitations of such autonomous systems indicate they will be better at conventional conflict than unconventional, where determining human intention is much more challenging. This area requires extensive wargaming, computer simulation, field experiments, and air-ground coordination.

Sea

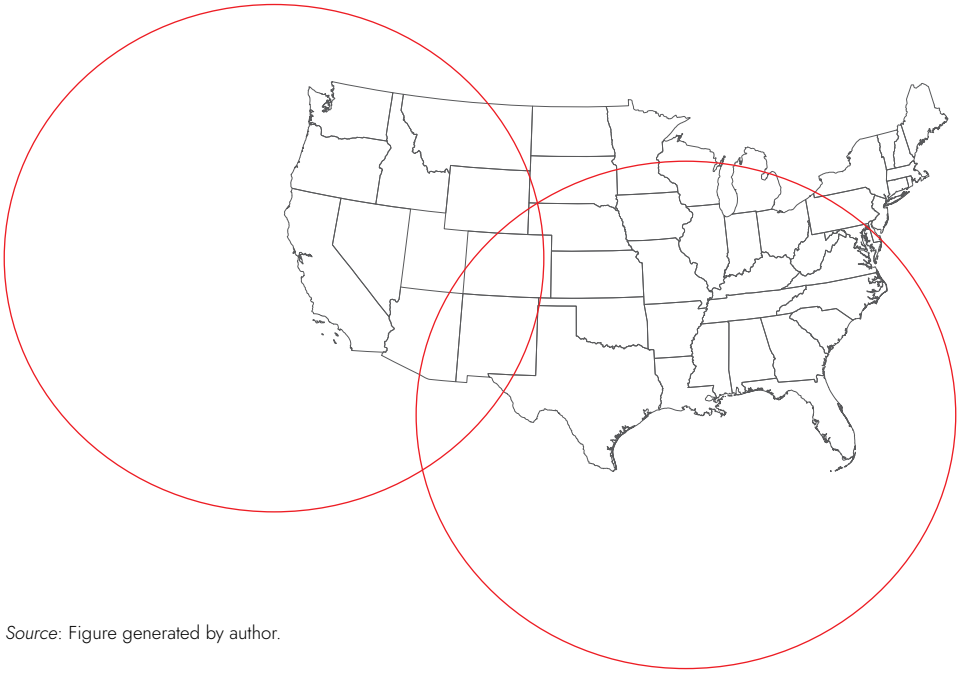
At sea, it will soon be possible to pit numerous relatively cheap drones as well as cruise and ballistic missiles against the few but exquisite platforms of the U.S. Navy. Studies by the Navy's assessment division indicate that in naval combat the first salvo wins.[42] Although winning the first salvo wins the battle against another conventional fleet, it is less applicable for a fleet fighting a land-based force. The ground force can hide, creating no signature until it fires. In contrast, ships and aircraft create signatures merely by moving.

Russia, China, and Israel have already produced containerized cruise missiles, which can provide various platforms with ship-killing weapons. Container ships could be converted to warships by the addition of 40 to 50 containerized weapons and a simple command and control system for about $125 million, or a fraction of the purchase price of a Navy littoral combat ship (LCS). Unlike the LCS, container ships are well built due to the requirement to resist hogging and sagging of their long hulls in heavy seas. In short, they could be a survivable and cheaper class of ship and could add numerous missiles to a fleet.

In addition to increasingly capable cruise missiles, VTOL drones such as the XQ-58A described earlier in this chapter mean almost any seagoing vessel can be a small aircraft carrier. Drones do not have to carry weapons large enough to sink a ship to achieve a mission kill. A drone detonating against an aircraft on the deck of a carrier or firing a fragmentation charge against a phased array radar will significantly degrade that platform's capabilities. In addition, many warships carry weapons in box launchers topside. These provide easily identifiable target points and great potential for secondary explosions. Aircraft carriers may well be the most vulnerable. The USS *Oriskany*, USS *Forrestal*, and USS *Enterprise* fires all demonstrate that a small explosion on a deck full of armed, fueled aircraft can result in a carrier being put out of action for weeks to months.[43]

Undersea weapons pose an even greater challenge to navies. The wide array of commercial unmanned underwater vehicles may provide even small nations with a submarine force. If developed as weapons systems, commercial UUVs could dramatically change naval

Figure 5.1. Kalibr Cruise Missile Ranges if Launched from West or Gulf Coasts



Source: Figure generated by author.

combat; the skills and organization needed to build and employ a short-range UUV force are orders of magnitude less than those needed for a submarine force.

While currently unable to intercept ships under way, UUVs can serve as self-deploying smart mines. With the right fuze, they could wait for a specific class of ship—commercial or military—before attacking. Although these systems cannot stop trade, damaging a few ships will cause major increases in maritime insurance rates. To date, no nation is capable of rapidly clearing smart mines with a high degree of confidence. Clearly, mines provide another major advantage to the defense.

The arrival of numerous relatively cheap, autonomous drones and cruise missiles will drastically change war at sea in the emerging era of Great Power competition. To adapt, navies must conduct rigorous and ruthless wargames to examine how a near-peer competitor will use many small, smart, and cheap weapons as well as a limited number of hypersonic missiles to destroy the few and exquisite platforms most navies currently deploy.

Air

Small, smart, cheap new technologies present two enormous challenges to aviators: how to protect critical high-demand, low-density assets and how to protect aircraft at their bed-down sites.

Clearly, China sees U.S. enablers—Airborne Warning and Control Systems aircraft and aerial tankers—as a critical vulnerability and have dedicated major resources to crippling American airpower by defeating enablers with long-range, air-to-air missiles. Beijing is

working hard to extend its cruise and ballistic missile ranges to force the United States to base its enablers and fighters so far from China's shore that they are no longer a threat. In 2018, China announced the activation of a brigade of 22 DF-26 missile launchers that can range U.S. bases on Guam.[44] Prudent planners must also assume China will experiment with antiaircraft missiles in shipping containers. Mounted on various commercial ships, these could ambush tankers en route to the fight. Another way China seeks to reduce the effectiveness of and perhaps even defeat America's advanced aircraft like the B-21 is to destroy them on the ground. Or, as figure 5.1 shows, Chinese ship-based *Kalibr*-class cruise missiles can range almost all U.S. tanker and bomber bases from launch positions off the coasts of the United States. Without tanker support, manned aircraft are rendered impotent in the Pacific.

Fortunately, destroying air bases will not affect mobile, vertical launch drones, which can hide easily in urban or most rural terrain. These drones can also almost turn any ocean-going vessel into an aircraft carrier—particularly if they are employed as suicide drones and the ship does not have to be around for recovery. Small ships will carry only a few containers, but it is important to remember that 18 Harpy drones fit in a single 20-foot container. Each Harpy can carry a 55-pound payload to a range of 600 miles—and hunt autonomously in visual, infrared, and electromagnetic spectrums. From mainland China, these drones can reach Kadena Air Force Base in Okinawa, Japan. A Chinese battery could launch 54 Harpies while a battalion could launch 162. Thus, the sheer number of drones could overwhelm defensive systems.

The combination of cheap drones and much more capable cruise missiles offers opportunities to overcome legacy, manned airpower's key vulnerabilities. But it also may offer even small- and medium-sized states antiaccess/area-denial and precision, long-range strike capabilities. Airpower is facing enormous change. Relatively cheap, autonomous drones and somewhat more expensive but more capable cruise and ballistic missiles and potentially hypersonic missiles are rendering manned aircraft obsolete. The United States does not currently have a way to defend airbases against this new generation of weapons. Aircraft carriers, although tougher targets, are also under increasing threat. Nor can current or envisioned systems find and attack these mobile systems to preempt them. Airmen must embrace drones and work rapidly to transition them from their current status as partners for manned aircraft to that of replacements.

Space

In space, the advent of micro- and cube satellites, paired with commercial launch platforms, will provide space surveillance and even make attack from space a possibility. In April 2020, the Northrup Grumman Mission Extension Vehicle successfully docked with Intelsat 901 and serviced it in orbit.[45] The system could be used to destroy as well as repair. Whether space assets will be used to attack targets on Earth remains an open question.

Because China has demonstrated the ability to use both kinetic and soft kill on satellites, we should assume the United States is developing similar capabilities.[46] This evinces a clear understanding that any major conflict will involve fighting in space to defend one's own assets. Resilience is also required. A combination of small satellites, long-endurance solar-powered drones, and perhaps even balloons can mitigate the loss of current space

assets and is being actively explored by the United States. It is good news that the U.S. Air Force is shifting the emphasis of U.S. Space Command from that of a service provider to that of a warfighting command.[47]

Cyber

Cyber operators have enjoyed enormous success in stealing data and money but much more varied results in attempts at physical damage. China has been at the forefront of cyber espionage and focused its teams "on the satellite, aerospace, and communications sectors."[48] The Snowden files confirmed that China had penetrated Lockheed Martin's top-secret data on the F-35.[49] There is no question that many nations continue to pursue cyber espionage. Even the most advanced cyber actors that have attempted it (Russia, Israel, and the United States) have achieved relatively modest physical destruction outcomes despite often months or even years of intensive efforts.[50] Perhaps the only reassuring aspect of the increasing state-sponsored cyber activity is that it may be reducing the chance of a major surprise. Historically, devastating surprise attacks have usually taken place after a long period of peace when new operational concepts clash for the first time.

In contrast, cyber warfare is constant, global, ongoing, and evolving. The many sides in these cyber contests are constantly sharpening both offensive and defensive skills and testing them against each other. In addition, cyber attacks focused on societies are, by definition, attacking complex adaptive systems. These systems show remarkable resilience and power of recovery. The ongoing conflict in cyber space will accelerate as the fourth industrial revolution continues. However, it is virtually impossible to predict if a specific attack will succeed or how long it will remain effective.

One aspect not normally discussed is the potential for physical attacks on an enemy's cyber capability. All networks have nodes in the real world. For instance, satellite downlinks, servers, and fiber-optic networks are vulnerable. Furthermore, unlike cyber attacks that have great uncertainty, physical attacks on known locations can cause more predictable major damage to an opponent's cyber networks. It is also easier to coordinate real-world attacks than to mix cyber and real-world attacks. This is an area ripe for cross-domain exploitation.

Electromagnetic

Use of the electromagnetic (EM) spectrum is essential to conduct warfare in every other domain. If a force can dominate the spectrum, it can severely limit or even defeat an enemy's efforts in land, sea, air, space, and cyber. With proper and constant training, naval and air forces can operate in emission-controlled environments, but such a posture severely degrades their capabilities. Land forces can fight without communications, but unless well trained and practiced in maneuver warfare, the result is a series of disconnected local engagements. If an enemy truly dominates the EM spectrum, it can make it difficult for an adversary to communicate with space assets. Also, cyber systems often rely on EM communications links that could be subject to jamming, degradation, or deception.

Although the United States has not yet officially recognized the EM spectrum as a domain of war, China has made it a key element of its newly organized Strategic Support Force (SSF). The SSF not only integrates space, cyber, information, and electronic warfare

(EW) in support of Chinese operations, but also directs advanced research in EW.[51] For its part, Russia has dedicated millions of dollars to upgrading its EW capabilities. As a result, Moscow has been able to use EW to damage or destroy Ukrainian command networks; jam radios, radars, and GPS signals; and control fires.[52] Clearly both China and Russia have assigned high priority to operating in this environment.

Miniaturization of electronics, massive increases in computer power, creation of electromagnetic pulse systems, and improved sensors are driving the EM spectrum to be a key area of high-tech competition—one that may well determine the outcome of future engagements. The vulnerability of current communications systems provides great impetus to develop truly autonomous, sealed weapons systems.

Operational Implications

Technological convergence is driving the "democratization" of military power by providing small states—and even groups—capabilities that used to be the preserve of major powers. Five factors will have a direct impact on the operational level of war: range obsolescence, the loss of immunity to attack, the tactical dominance of defense, the return of mass, and the requirement to mobilize.

Range Obsolescence

As discussed, missiles and drones have three major advantages over manned aircraft—range, basing flexibility, and cost. An increasing number of drones and ballistic and cruise missiles outrange all fighter bombers. Because many are truck mobile, they are extremely difficult to suppress, much less destroy. Moreover, they are forcing U.S. warfighters to be based so far from the frontlines that the fighters are effectively neutralized. Finally, they are relatively cheap (see figure 5.2).

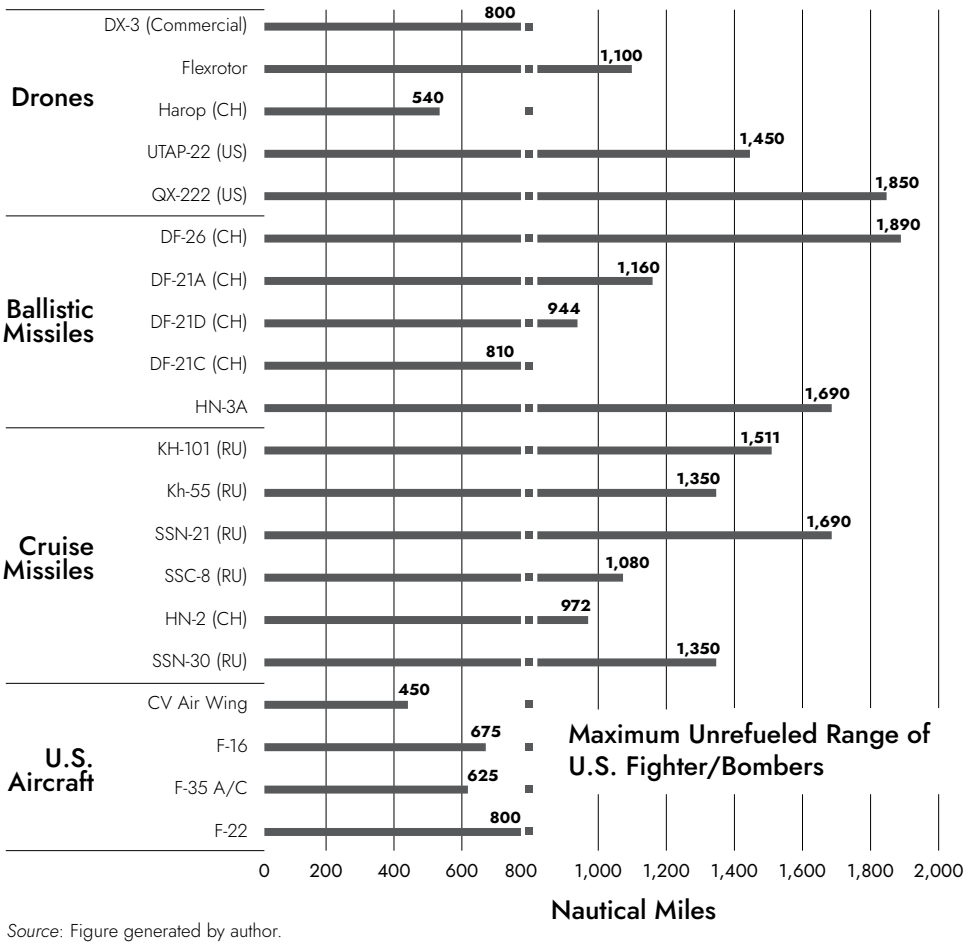
Loss of Immunity to Attack

Long-range drones, containerized weapons on commercial ships, sea mines, and submersible drones will provide small states and even nonstate actors the capability to strike air and sea ports globally. The United States will no longer project power anywhere in the world with impunity. Future enemies will be able to impose real costs that directly affect U.S. citizens, and they may not be shy about employing these weapons. Small states and nonstate actors have shown cyber capabilities that have distinctly reduced U.S. immunity to counterattack when America gets involved in a conflict overseas.

Internationally, attacks on Saudi oil facilities and U.S. facilities on Iraqi bases have demonstrated major increases in opponents' abilities to threaten intermediate bases. If threatened, would friendly nations allow U.S. forces to use their transit facilities? Can the United States protect commercial airfields, key government facilities, and key economic assets in host countries to ensure continued access?

Small precision weapons also provide opportunities for state sponsors to vastly improve the capabilities of proxies, as demonstrated by the Yeminis firing cruise missiles at U.S. warships.[53] Of more immediate concern will be the far larger number of weapons that can hit critical operational support bases such as Bagram, Afghanistan. Even if the United States can protect major fixed bases, can it defend all patrol bases, gatherings of local leaders, and

Figure 5.2. Range of Missiles, Drones, and Aircraft in Nautical Miles



Source: Figure generated by author.

host-nation facilities essential to current U.S. operations? Even more challenging than protecting fixed facilities will be defending the convoys that move personnel, equipment, and supplies within the theater.

Tactical Dominance of Defense

Emerging autonomous systems will provide an inherent advantage to defenders because they do not have to generate any active signature until they choose to fire. Finding a defender's system hidden in urban clutter, underground facilities, or even the complex littoral environment is much harder than finding the aggressor's system as it moves to attack—particularly if it moves in the air or on the sea.

This is a major advantage of the United States and its allies because we are on the operational defensive in both Asia and Europe. If the United States chooses to create a new generation of inexpensive, smart weapons, it can share them with its allies. Japan, South Korea, Australia, and Europe all have defense industries that could produce these weapons

to provide their nations with affordable, effective defensive capabilities against either China or Russia. In addition, the United States could provide these systems to smaller allies like those on the First Island Chain and the Nordic and Baltic countries. With allies adopting these systems, U.S. forces could integrate more effectively into the defense of these nations. This ability could significantly improve the capabilities of U.S. contact and blunt layers (as described in the National Defense Strategy) while making it easier for the surge forces to enter the theater.[54]

The proliferation of precision weapons may create a situation similar to World War I, where any person in range above the ground could be cheaply killed. The result was static, trench warfare. Able to reach out 1,000 miles in the surface, subsurface, and air domains, these drones and cruise and ballistic missiles may again make defense the tactically dominant form of warfare. Power projection may be limited to strike operations using a family of drones and cruise and hypervelocity missiles.

Proponents of directed energy weapons (DEW)—lasers and microwave systems—suggest their systems will defeat such drone and missile swarms and thus return offense to the tactical battlefield. Unfortunately, these systems are still expensive and power hungry, ineffective under some environmental conditions, and may be subject to defeat by relatively inexpensive countermeasures. At the same time, DEW will favor defenders who have the huge advantage of fixed-power facilities and the ability to blend into complex terrain.

If DEW systems ever become capable of defeating thousands of drones, they may also be able to defeat the much fewer conventional aircraft, guided bombs, and missiles the United States can deploy. This ability would reinforce the dominance of the defense. A key question that must be explored is whether land power—by taking advantage of complex terrain, unlimited magazines, massive power networks, and the ever-increasing range and speed of land-based weapons—will come to dominate the sea, air, and space domains.

Return of Mass

As noted at the beginning of this chapter, technological convergence means that mass with precision has arrived. Additive manufacturing will make numerous cheap drones and advanced GRAMM systems available. Sheer numbers of cheap, mass-produced, unmanned precision weapons may simply overwhelm the exceptionally capable but manned U.S. legacy weapons systems. Large numbers of relatively inexpensive precision weapons will defeat the current U.S. inventory of exquisite but few systems. In response, the Pentagon must figure out how to produce precision weapons in mass.

Requirement to Mobilize

Mobilization in World War II was possible because civilian industry could rapidly convert to military production. By 1990, the complexity of modern military weapons systems made rapid mobilization difficult if not impossible.[55] Advanced manufacturing—particularly 3D printing and robotics guided by task-specific AI—may radically change this situation. 3D printing is inherently flexible because the product produced depends only on the materials the printer can use, the design of the printer, and the software that is loaded. With a change of software, 3D printers can go from producing commercial products to producing weapons. Thus, as 3D printing assumes a greater role in industry, the possibility

of industrial mobilization will reemerge. However, successful mobilization cannot be accomplished quickly without a significant planning effort. The Pentagon must be prepared to provide the computer files for the 3D printers as well as produce the required government-furnished equipment. The Pentagon must also be prepared to enlist and train new personnel, build them into coherent units, and then move those units and the weapons to an overseas battlefield. Unfortunately, the Pentagon has only recently begun to think about these issues.[56]

Cumulative Impact on Military Operations

The convergence of technology over the next 10 to 20 years means everyone—even nonstate actors—will have precision strike capabilities. Nations with access to as few as 100 3D printers could have access to thousands of precision drones. By pairing these drones with passive sensors, defenders will not have to emit any signal until they choose to fire. In contrast, attackers must create a signal when moving to the target area. Thus, defenders will choose when to initiate the fight and will be able to do so with a massive barrage of precision weapons. In short, a prepared defense will be able to create tactical dominance.

Unfortunately, because of the huge physical and electronic signature of major military bases, they will prove the exception to the dominance of the defense. Rapidly improving inexpensive drones can reach 500 miles today. Relatively inexpensive cruise missiles reach 1,000 miles or more. Both can be deployed on platforms that will offer new opportunities for surprise mass attacks on U.S. bases at home and overseas.

The combination of these factors means that states and nonstates will be able to impose significant casualties and even economic damage to opponents who try to land ground forces in their home territories. In human and financial terms, intervention will be much more costly in the future than it is today.

Impact on Great Power Competition and Conflict

The technologies of the fourth industrial revolution will not change the fundamental nature of war. It will still be driven by Carl von Clausewitz's primary trinity of passion, chance, and reason. It will remain the domain of fog, friction, and uncertainty. Technology will not bring clarity or brevity. For millennia, political and military leaders have embarked on wars where they thought they understood the situation and could win a short and decisive war—and subsequently paid the price for ignoring the true nature of war.[57]

In the conventional arena, the revolution of small, smart, and cheap favors the United States over China or Russia. Operationally and tactically, the United States is on the defensive in both Eastern Europe and Asia.

China is obviously the most serious military challenge. Its rapid buildup of conventional forces, fundamental reorganization to improve jointness, and intensive development of "system attack and destruction warfare" directly challenges U.S. doctrine for force projection.[58] In response, the Department of Defense is working on a joint warfighting concept to meet these new challenges. While still a work in progress, the emergence of small, smart, and cheap technologies can do much to neutralize China's ongoing investments in system attack.

By adopting mobile missile systems, VTOL drones, missile merchants, and smart mines, U.S. forces could move from dependence on large, fixed, easily targeted bases and platforms to systems that can disperse and hide throughout the First Island Chain as part of both the contact and blunt layers noted in the National Defense Strategy.[59] This would greatly strengthen the American strategy that is based on defending the First Island Chain, denying China use of the seas inside the First Island Chain, and dominating the seas outside that chain.

As noted, the relatively low cost and simplicity of these systems mean the United States can share production of these weapons with Australia, Japan, Singapore, and South Korea. The United States can also share them with the Philippines and Indonesia to provide these nations with weapons that can challenge Chinese forces. Forward basing or rotating similarly equipped U.S. forces to train with these allies will reinforce political aspects of the alliances even as it strengthens their military power.

In Europe, the fundamental challenge for the North Atlantic Treaty Organization (NATO) is to prevent Russia from seizing territory before the Alliance can mobilize and respond. The concern is that once Russia seizes territory, it will "escalate to deescalate" by threatening to use tactical nuclear weapons against any forces moving to eject Russian forces. Given the reluctance of the population of NATO member states to engage in conflict with Russia, it is uncertain if many states will fight even if not threatened by nuclear weapons.[60] If Russia threatens the use of nuclear weapons, the probability of NATO action will decrease significantly. Given the long mobilization and deployment times of Alliance forces, the only way to prevent this outcome is to prevent Russia from seizing the territory in the first place.

By equipping front-line states with a mix of inexpensive drones and improvised explosive devices, NATO could create a tough, quickly mobilized, and deep defense on its borders. If NATO states invest heavily in autonomous drones and cruise missiles, they could provide supporting fires in a matter of hours rather than the weeks or months currently envisioned.[61]

The Changing Character of War

In contrast to the unchanging nature of war, the character of war—how it is fought—has changed continually. Despite America's love of technology, how people fight wars will remain based more on the political, economic, and social aspects of their societies than the technology involved. Historically, each society's employment of new technology has been heavily shaped by these same aspects. For over 200 years, Swiss pikemen dominated the battlefields of Europe. There was no technological mystery to making or even using pikes, but only the Swiss had the necessary social cohesiveness and trust to fight in tight formations under elected leaders. The hierarchical political entities of Europe could not.

Each society will use the emerging technologies in ways best suited to its unique needs. Furthermore, conflict will not be based solely on those aspects of one society but the interactions of all the societies in the conflict. In the dawning era of Great Power competition, wars are likely to be bloodier, longer, and more financially ruinous. Fortunately, the emergence and convergence of fourth industrial revolution technologies provide real advantages for the United States—if it can seize them.

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Chapter 6

Emerging Critical Information Technology and Great Power Competition

By Richard Andres

Over the past few decades, the foundation of Great Power competition has changed. Where control of industrial resources was once the key to geopolitical power, today control of information resources is most important. China is currently investing heavily in three critical new information technologies—5G wireless, quantum computing, and artificial intelligence—that, as part of its information strategy, will vastly increase its control of the global information flow. The United States has a short window to contest China's state-led ascent in these technologies, as well as in the underlying conditions that are allowing China to outpace the United States in this wider field. If the United States does not prevent China from dominating global flows of information, China will attain a clear advantage in its rise to replace the United States as the world's leading Great Power.

Over the past few decades, and as observed in the chapter 4 discussion of the fourth industrial revolution, the foundation of Great Power wealth and competitive advantage has fundamentally changed from one dominated by industrial era technology to one in which information technology (IT) has become the primary source of geopolitical power. U.S. businesses were quick to recognize and act on this change. Today, the top three U.S. IT companies are worth 70 times as much as the top three U.S. car manufacturers. Apple Incorporated alone could buy all five major U.S. defense contractors with its cash on hand. Like U.S. private businesses, China's government has seen and acted on this new IT reality. It has poured billions of dollars into key information technologies and bankrolled its so-called private company Huawei's schemes to dominate global information infrastructure. China has focused vast military and commercial resources on stealing its adversaries' intellectual property, infesting their critical infrastructure with malware, and conducting social media–based influence campaigns at home and abroad. Unfortunately, unlike U.S. commercial interests and the Chinese government, U.S. Government defense policy has been slow to respond to the changing foundations of global power. Today, U.S. defense resources generally go toward industrial era capabilities, and America's strategy remains fixed on winning industrial era battles.

This chapter focuses on the critical role of IT in current geopolitics. It argues that the foundation of geopolitical power has shifted from industrial output to information control. This change has been affecting the global balance of power in favor of China for over a decade but is about to enter a dramatic new phase as China pours state-managed resources into new technologies—most critically, 5G wireless communication, quantum computing, and artificial intelligence (AI)—with the goal of increasing its control over the global flow of information. Meanwhile, although recognizing the problem on paper, U.S. defense policy remains wedded to the quixotic Cold War–era notion that U.S. entrepreneurialism and technology will eventually overcome China's aggressive information policy—something that cannot happen so long as China continues to steal technology as fast as U.S. entrepreneurs and laboratories develop it.

It is imperative that U.S. policymakers recognize and act on the new reality. Information, not physical resources, is now the foundation of geopolitical power. Just as IT has reversed the relative value of physical- and information-based businesses in the past decade, in the next decade, IT will invert the effectiveness of physical- and information-based Great Power policies and politics. The United States has only a short window to come to grips with and act on the new foundation of global power. To do this, America must prioritize countering China's current ability to steal intellectual property and otherwise control the flow of information within the United States and other developed nations while reprioritizing resources into key technologies and capabilities that will allow it to contest China's ability to increase its future power and act in cyberspace.

This chapter is presented in six sections. The first describes the relationship between technology and geopolitical power. The second describes the difference between the way industrial and information era technologies affect global power. The third describes the way autocratic countries are currently using information technology against the United States and its allies. The fourth discusses the race for the three information technologies that will determine which country leads in the emerging geopolitical contest over control of the global flow of information. The fifth describes the problem with current U.S. defense policy, focusing on the futility of racing to develop technology when China can quickly steal it. The chapter concludes with a call to prioritize information over physical conflict as the key to success in Great Power competition.

Technology and Geopolitical Power

Throughout history, states have pursued their political interests using various instruments of national power. The types of issues that states compete over vary. In the second half of the 20th century, the two main actors—the United States and the Soviet Union—vied over which superpower would control which regions of the globe and whether weaker states would be governed by communist or capitalist economic systems. Today's main players are the United States and China, and the main issues in contention center on whether the U.S.-led liberal global order will persist or be supplanted by one based on China's autocratic system and preferences. While the United States still dominates in industrial age military power, China has acted aggressively using information-based power. As a result, China's system is beginning to hold sway over important issues in a number of countries in Asia and, increasingly, in Europe. On some key issues, such as its right to steal intellectual prop-

erty without penalty or to force foreign business such as the National Basketball Association to conform to Chinese Communist Party *dictat*, its system could be said to prevail even inside the United States.[1]

In the current system, as in previous eras, geopolitical power is mainly determined by the amount of economic and military capabilities major players can project abroad, and these abilities in turn are shaped by the era's dominant technology. Between the 15th and 19th centuries, both economic and military power were principally shaped by ocean-borne trade and sea power. During this period, the nations best able to control the flow of commerce on the world's seas tended to make the world's rules. During the 20th century, the major powers best able to harness industry tended to dominate global politics; the countries able to bring the most men and materiel to bear tended to make the rules. In the current era, information technology is the key to both economic and military power. In this era, the countries best able to control the flow of information across the world's networks tend to make the system's rules.[2]

Industrial vs. Information and Global Power

To understand how states have been using information technology to shape geopolitics and how they are likely to utilize emerging IT over the next decade, it helps to consider how the dynamics and incentives connected with IT differ from those associated with traditional industrial power.

In the past century, a state's power was closely linked with its industrial capacity. To increase their power, major players worked to bolster their manufacturing base at home and often attempted to seize other states' resources through military action. Both world wars were caused by nations acting on the belief that they could increase their power by seizing territory, and throughout the Cold War, the United States and Western Europe based much of their defense policies on the fear that the Soviet Union would invade Western Europe in order to seize its industrial resources.

To counter the industrial era incentive for invasion during the Cold War, nations built alliances to bolster their military capability; they expanded their conventional military power and developed large, often hair-trigger nuclear forces. By the end of the war, the Earth was encircled in competing military alliances and ringed in bases, bombers, and aircraft carriers. The United States and the Soviet Union, with the largest industrial capacities, dominated geopolitics, generally set the rules within their respective spheres of influence, and used their economic and military power to shape world politics.

Yet, even during the Cold War, there were signs that industrial power was beginning to lose its place to information power as the dominant technology in geopolitics. In a well-known story, the Soviets were among the first to recognize this change. At the height of the Cold War, Soviet analysts noted that, while the Soviet Union could produce far more steel and mobilize a far larger army than the United States (the two traditional indicators of industrial-military capability), the West's information economy allowed it to more than overcome its industrial disadvantages with superior information-based military technology.[3] Even worse, from the Soviet perspective, was the West's ability to use what the Soviets saw as psychological-information operations to foment insurrection within the Eastern

bloc. The first fear was proved accurate by the success of U.S. information age weapons in the 1990 Gulf War, the second by the fall of Soviet communism to internal insurrection.

While the Soviet Union did not survive long into the information age, the People's Republic of China did. Writing in the early 2000s, holding up the fall of the Soviet Union as evidence, Chinese geopolitical strategists, such as Major General Xu Hezhen, spoke of the threat posed by the United States to the Chinese Communist Party.[4] As a counter to this, China proposed a national strategy based on information rather than industrial era methods. According to this argument, the most effective route to geopolitical power in the current century involved information. This led China to an overall strategy that sought control over the flow of knowledge, secrets, and beliefs rather than simply raw materials and industrial output.[5] This included, for instance, its Three Warfares doctrine and an industrial policy aimed at controlling key industries that produced, among other things, software, undersea cables, microchips, and telecommunications rather than an approach aimed at merely controlling territory.[6]

With the advantage of hindsight, a U.S. strategist might characterize the idea as attempting to encircle the world in a virtual network rather than trying to compete directly with America's physical network of bases, bombers, and ships. The new information age methods do not make conventional and nuclear war obsolete any more than nuclear forces made industrial era technology irrelevant or railroad and other industrial era technology made navies irrelevant. Rather, information technology has been layered on top of and throughout the older system. This overall philosophy has infused much of China's geopolitical strategy for the past two decades.[7]

Geopolitical Targets of Autocratic Countries

The Chinese strategy is effective. To benefit economically from emerging IT, the United States and other developed nations have connected essentially everything in their territories to computer networks. This includes businesses, critical infrastructure, and social media networks. Once connected, all these institutions are potentially vulnerable to exploitation or destruction by anyone connected to the global telecommunications grid.[8] Meanwhile, as an autocratic state, China's government has been able to control information domestically by fencing off many of its own information vulnerabilities from outside penetration.[9]

After two decades of experimentation by states attempting to use information as an instrument of geopolitics, three main types of targets have emerged. The first is economic. In traditional industrial era economies, wealth is generated and stored in physical assets, and this pattern continues in many less developed countries, including China and Russia. In the developed world, over the past few decades, firms have increasingly generated and stored wealth in nonphysical assets. By one estimate, as early as 2010, about 80 percent of U.S. corporate value was stored in intellectual property and trade secrets vulnerable to cyber theft.[10] That percentage is almost certainly considerably higher today. Beyond this, in the United States, large amounts of wealth—much of which can be stolen—are stored in the knowledge and research held within state-funded universities.

In the industrial age, if an ambitious Great Power hoped to plunder the most valuable resources of the United States or Europe, it would have had to physically defeat North Atlantic Treaty Organization armed forces. Today, to steal the West's assets, it is necessary only

to penetrate the computer networks where companies and nonprofit organizations store their wealth. According to the independent U.S. Intellectual Property Commission, China uses these methods to steal hundreds of billions of dollars of intellectual property from U.S. and European firms every year.[11] The overall effect is to stunt the economies of plundered nations while vastly accelerating China's economic growth. Over the past two decades, this approach has contributed to China's rapid economic growth. Information theft is not the only cause of China's economic miracle, but it is a necessary one. If it stops, China's swift economic progress would slow considerably, but if it continues over the next decade, all things equal, it will likely lead to China's economy eclipsing that of the United States. No state-sponsored physical piracy campaign in history has had anything like the geopolitical impact of China's virtual piracy campaign. Given the costs of occupying conquered nations, it is unlikely that China could have gained as much wealth from even a Soviet-style conquest of the small countries on its borders.

The second main target for information operations involves civilian and military critical infrastructure. As early as 2010, when Stuxnet malware was found in Iranian nuclear centrifuges at the country's Natanz facility, firms around the world began to realize they were vulnerable to software-based attacks on their hardware. Moreover, on inspection, thousands of critical infrastructure-providing companies discovered that their computers were infected with malware, and many more learned that unknown entities had developed methods of accessing their equipment. In 2015, the commander of U.S. Cyber Command informed the Senate that China and other countries had the means in place to take down U.S. critical infrastructure.[12] On one end of the spectrum, such malware could be used to cause individual civilian or military systems to temporarily stop functioning; on the other, it could be used to create continent-wide, months-long infrastructure failures that could cause millions of deaths.[13] As China works to increase its ability to attack civilian infrastructure, it also has integrated information operations into all aspects of its military capability and posture.[14]

Methods that use information technology to take down an adversary's critical infrastructure and military systems are generally not as dependable as methods that use conventional or nuclear weapons. They are, however, superior to kinetic industrial era techniques in at least two ways. First, they are less expensive. Developing the bases, navies, and air forces necessary to project power globally costs trillions of dollars and is, at least currently, something only the United States can accomplish. Malware is less expensive and allows poor countries to project power cheaply. Second, information-based attacks on critical infrastructure can be calibrated and conducted in low-intensity situations. Thus, a country that might fear attacking the United States with conventional or nuclear weapons might be willing to conduct cyber attacks on critical infrastructure that it believes could work below the threshold that would elicit a violent response from America. Such capabilities could plausibly be used to coerce or deter the United States.[15] The Department of Homeland Security has repeatedly warned that China and Russia have infected U.S. critical infrastructures with malware that could be used in this manner.[16]

The third target for information operations involves populations. In recent decades, firms have acquired access to most individuals in most countries (through social media) and developed AI technologies to manipulate targets' purchasing behaviors. More recently,

nations have begun using similar methods to manipulate targets' political preferences and passions. A growing body of literature suggests that humans are susceptible to these techniques.

At present, China is the leader in the technology associated with state-centric manipulation of political behavior. Using its close relationship with Chinese Internet service providers, the Chinese government has developed methods to manipulate information, thought, and political activity within its borders and, increasingly, in other nations.[17] Like China, Russia has experimented with these methods at home and abroad. Over time, both countries are likely to increase and refine their technologies and techniques. While it is unclear how effective these techniques will be in the long term as a tool of political control used against Western populations, the success of Chinese computer-based political-psychological operations against Chinese citizens and of Russian actions in Europe and North America suggest a clear danger. The 20th-century Soviet information operations that led to the global rise of communism represent a possible low-technology precedent that bears consideration. Just as the Soviet Union once persuaded over half the planet's population to abandon that era's dominant political systems in favor of communism, today's autocratic information operations have the potential to do enormous harm to the current liberal world order.

Race for Three Information Technologies

Given the ways IT can be used in geopolitical competition, if an autocratic Great Power was to gain complete control over cyberspace, eventually it would gain the wealth and military power to set the rules for the international system in much the same way the United States now does. Analogously, a major power gaining unfettered access to the world's computer networks today would be similar to the Soviet Union gaining control of Western Europe's industrial capacity during the Cold War.

To date, despite ongoing efforts, neither China nor Russia has gained unfettered access to Western networks. They have failed to do so largely because of the immense resources that governments and private industry dedicate to computer defenses. The battle for access is a constant struggle to control the domain that is played out every time a new piece of software or hardware is added to a network. It involves attempts to find holes in operating systems, commercial software, phone apps, hardware, and nearly everything associated with the growing Internet of Things. This contest is reminiscent of trench warfare during World War I in that it is a persistent whole-of-nation contest played out daily in millions of individual duels among individuals, firms, and agencies for small advantages, and what is won one day is often lost the next.

While battles in cyberspace are often for small and fleeting advantage, several contests occurring today are likely to have large and enduring results that will determine which Great Power dominates cyberspace for future decades.

The First Contest: 5G

The first major contest for control of cyberspace involves the fifth-generation wireless communications technologies supporting cellular data networks, generally known as 5G.[18] For much of the coming decade at least, this technology will provide the backbone for future cell phone communication and for the Internet of Things.[19] This includes technologies

such as self-driving cars, supervisory control and data acquisition infrastructure, and the networks that military systems depend on. A country able to dominate 5G systems potentially will have access to and a good deal of control over most information flowing through cyberspace.[20]

The nearly unfettered access that 5G dominance provides to user information goes beyond simple data collection. A country with this type of access can use it to map critical systems throughout an adversary's territory. It gains real-time intelligence about the physical and network location of individuals and systems.[21] It could deny or corrupt information received by human or machine users, civilian or military (once such systems are installed nationally, a military would be hard pressed not to use them). These capabilities would vastly increase the ability of the controlling nation to conduct espionage, sabotage machines that are connected to digital networks, and perform a range of operations involved with conducting social-psychological operations against adversaries' populations.

Traditionally, the United States has been able to purchase IT equipment from autocratic adversaries without much fear that they will be able to exploit the hardware; the end users have retained physical control of most of the software and hardware. But 5G is different in that it pushes far more functionality from the user to the supplier. For instance, in a 5G environment, the apps on a phone might reside entirely on servers in Beijing. Moreover, in so far as a 5G provider uses proprietary software to perform a range of controls conducted by hardware in earlier wireless technology, the provider now largely controls access and control of information passing through its system. In certain places in China where 5G is well established, this ability sometimes reaches the point where customers no longer need handsets. Distributed cameras and microphones in places such as hotel lobbies or sidewalks identify users and respond directly to commands, completely removing any possibility of user-supplied defense or control. In general, the more bandwidth becomes available, the more control can be pushed from the user to the company supplying the service.[22]

Over the past two decades, China has enacted a national industrial policy that, among other things, seeks to make China the global leader in communications technology in general and 5G in particular. China's industrial strategy aims to make the nation the world leader in 5G by supporting national champions, Huawei in particular, via direct funding from the state (mainly via subsidized loans) and by a campaign to steal cutting-edge telecommunications technology from Western firms and provide that technology to its champions for free. The overall effect has been to cut Huawei's cost of producing goods far below that of its competition, thereby allowing it to undercut the prices of Western competitors. As a result, Huawei is able to sell 5G technology at rates far below those of other nations—in some cases, as much as 60 percent below market rates.[23] With the exception of countries such as the United States that eschew Huawei's high-quality/low-cost services out of concerns about national security, most nations in the world installing 5G are installing Huawei systems.

Huawei's 5G dominance of global networks will not result in China instantly dominating cyberspace. If Huawei acts too aggressively on China's interests, countries are likely to spend the money necessary to replace Huawei's systems with hardware built in other countries. More than that, although China is currently using 5G within its own borders to control the flow of information, it will take time to develop and adapt software, tactics,

techniques, and procedures that work abroad. Yet, over time, China will be able to become ever more aggressive as countries become increasingly dependent on Huawei's goods and services. At some scale, China will be able to get away with virtually any use of 5G networks because the price of replacing the network will become too high. Two years ago, Congress was barely able to force a handful of small U.S. telecoms to divest themselves of Huawei's hardware. In the future, China will be able to extract significant geopolitical information rents from countries that are dependent on its systems.[24]

The Second Contest: Quantum

The second major contest for control of cyberspace involves the race for quantum technology.[25] Because quantum computers are able to perform a range of operations at rates that greatly exceed older processing technology, they hold out the possibility of being able to break existing encryption.[26] This ability would not only render current encryption obsolete but also most likely allow its holder to decrypt decades of older encoded messages. Because encryption is generally the single point of failure in all computerized defenses, having this capability would vastly increase its holder's power.[27]

For decades, quantum computing has been the Holy Grail of computer technology but has always been out of reach. Over the past 2 years, however, several companies have introduced computers with limited quantum capabilities.[28] While none of these companies so far has advertised the ability to break codes, this technology is within reach. While it might seem that quantum technology would equally aid both encryption and decryption, this is not the case. For practical reasons, the technology will do much more to aid decryption than encryption, and it is likely that the country to win the race to produce and utilize the technology will gain a significant advantage in the contest to control the cyber domain.[29] Beyond this scenario, while both China and the West have many state secrets, the West simply has immensely more secrets than China—both Western industry and militaries depend on encryption in ways China's industry and military do not.

Over the past few years, the United States has invested considerably in quantum technology, but recently China has begun to spend vastly more. While the United States is probably ahead in this race—at least as far as industry is concerned, with IBM and Google fielding computers with limited quantum capability—that lead is unlikely to last.[30] Given forecasted spending trends, China is likely to finish the race to utilize quantum technology in support of national security goals well ahead of the United States.[31] When it does, its ability to steal industrial secrets and infect and sabotage critical civilian and military systems will vastly increase.

The Third Contest: Artificial Intelligence

The third major contest for control of cyberspace involves AI and has two main implications for national security.[32] The first involves the potential for AI use in computer defenses. In recent years, AI has proved capable of vastly increasing both the offensive and defensive cyber capabilities by finding and exploiting or plugging gaps in defenses. The second involves social-psychological applications. Currently, firms are developing AI to create psychological profiles of individuals to market goods and services to them.[33] AI applications are capable of processing vast amounts of information on individuals and conducting psychological

experiments on large populations in order to discover how to predict and manipulate their actions and beliefs. Experiments have demonstrated that this type of AI is often vastly better at predicting individual subjects' decisions than even subjects' friends and spouses.[34]

Over the past half-decade, both Russia and China have taken advantage of AI for political purposes. The full extent of these operations is not public, but China is generally believed to spend vast resources on experimenting with AI to monitor and control its own population, and Russia has made ample use of marketing AI supplied by Facebook and other companies to target and manipulate foreign populations' political beliefs and passions. As AI advances, its potential for this type of social-political manipulation is likely to increase considerably.[35]

At present, both the United States and China are investing heavily in AI research. However, from the perspective of national security, China has two significant advantages. The first is that China's political and economic systems allow it to provide much more data to government and corporate users than is the case in the United States.[36] This data is a critical asset in creating practical applications for AI. Second, for the purposes of national security, the U.S. Government invests far less in this technology than does the Chinese government.[37] Thus, while U.S. and Chinese companies are able to compete on a somewhat even basis, China's government has a nearly unassailable lead over the U.S. Government in terms of how each uses AI in geopolitical information.[38]

The Big Picture and the Red Queen: The Problem with Current U.S. Defense Policy

The outcomes of the three technology contests will be critical to the larger contest for cyberspace. Looked at individually, each does not tell the whole story about China's overall strategy to gain control of information networks or how it will use them in geopolitics. China promulgated a broad manufacturing plan, Made in China 2025, that focuses on specific Chinese government support for these critical technologies for future Chinese dominance, but that aims for much more.[39]

Regarding China's overall plan to gain control of cyberspace and dominate the information contest of the future, the three technologies are best seen as the tip of a much larger iceberg. According to the notion propounded by many Soviet and Chinese geopolitical strategists and also behind the U.S. third offset strategy, the United States defeated the Soviet Union in the Cold War because it was able to make up for its shortcomings in manpower and industrial capacity with advantages in science and technology.[40]

To stay ahead in technologies such as the three described, China has dedicated enormous resources to education in science, technology, engineering, and mathematics (STEM). This policy has both a domestic and foreign component. At home, China produces around eight times as many STEM graduates as does the United States. Abroad, in 2016, 43 percent of students in U.S. science and engineering schools were Chinese. In computer-related U.S. college programs, only 21 percent were American.[41]

The skills these students bring home, combined with the technology Chinese businesses and intelligence agencies steal from U.S. and allied countries, create a Red Queen problem for U.S. technology.[42] The faster the United States runs, the faster it must run to stay ahead. Since new U.S. technology is immediately taught to Chinese citizens by U.S.

professors and stolen by Chinese hackers, U.S. technological ingenuity and investment are not likely to overcome China's lead in manpower and industrial capacity the way it overcame that of the Soviet Union three decades ago. Because China has invested heavily in controlling the global flow of information, China freely garners the benefits of U.S. public and private investment in science and technology. As a result, it is free to focus its own investments into 5G, quantum capabilities, AI, and other technologies that will expand its ability to control the global information flow.[43] As a result, the United States cannot win the geopolitical information age contest simply by spending more on research. The Cold War paradigm will not work in the current era.

The Way Ahead: Prioritizing Information Over Physical Conflict

There have been several attempts to address the technology problems described in this chapter. The Department of Defense's third offset strategy attempted to address these issues by investing in new technology faster than China.[44] The National Security Strategy defines specific technologies the United States will pursue to keep its lead, particularly singling out those related to information technology.[45] The National Cyber Strategy further focuses on key information technologies the United States will pursue in its competition with Russia and China.

The problem with these approaches is not their specific proposals; it is more that they are written from an industrial era perspective. They tend to portray the contest for control of information and information technology as one more aspect of *national security policy* rather than the emerging foundation of future *geopolitical power*. While it is true that traditional industrial power projection capability will play a central role in small state competition for the foreseeable future, where China and Russia are concerned, information power is more likely than industrial power to determine the outcomes of long-term geopolitical contests.[46]

A basic idea expressed—and then for the most part ignored—in each of the U.S. security policy documents referenced above is that the United States could do more to reduce threats to its interests and increase its geopolitical influence by solving information-based problems than by increasing its kinetic military power. Stopping Chinese intellectual property theft must be first on the agenda because little else will work until this problem is solved. This problem has been with us for a long time.[47] Securing U.S. networks against industrial espionage would considerably bolster the U.S. economy and decrease Chinese piracy-based economic growth. Further increasing the U.S. military lead over Russia or China does neither. Securing U.S. critical infrastructure against cyber attacks from Russia, China, Iran, and North Korea would significantly increase U.S. defenses and decrease each state's ability to deter or compel the United States in a crisis. More kinetic power would increase defenses and crisis bargaining power only marginally, if at all. Perhaps most important, no amount of investment in industrial era technology would do much to defend against the damage being done by autocratic states' political-psychological operations or help the United States respond with information operations with American characteristics.

America's long-time policy of paying lip service to the transition from the industrial to the information era—while mainly resourcing industrial era technologies and methods—was merely a curiosity when the United States was at its unipolar apex and did not face Great Power

competitors. That period is over. Today, the United States faces two autocratic rivals that are actively pioneering ways of using information age technologies and strategies to undermine the U.S.-led liberal international order. If the United States hopes to win this competition, it will need to change its approach. It will need to rethink the importance of defending its citizens, its firms, and its military from being quietly exploited by foreign militaries using steadily advancing cyber methods. It will need to resource its pursuit of key technologies that it has long prioritized on paper while paying whatever it takes to prevent adversaries from stealing that technology. It will have to decide how it will prevent adversaries from building and dominating the world's information networks and supply chains. Most important, it will have to change its mindset in such a way as to understand that it must defend virtual property and territory as it currently does to protect physical space. The industrial age is over, and it is time U.S. defense policy comes to terms with the emerging reality.

Notes

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[17] Chris Buckley and Paul Mozur, "How China Uses High-Tech Surveillance to Subdue Minorities," *New York Times*, May 22, 2019, available at <www.nytimes.com/2019/05/22/world/asia/china-surveillance-xinjiang.html>.

[18] *National Strategy to Secure 5G of the United States of America* (Washington, DC: The White House, March 2020), available at <www.whitehouse.gov/wp-content/uploads/2020/03/National-Strategy-5G-Final.pdf>.

[19] Of note—and an example of Moore's law of technological progress—while most consumers still have yet to upgrade to 5G wireless service around the world and its deployment is

still only in roll-out stages, Beijing is already signaling plans to develop 6G technology. See Peter Suciu, "5G Is Old News: China Wants 6G for Its Military," *The National Interest*, April 28, 2020, available at <https://nationalinterest.org/blog/buzz/5g-old-news-china-wants-6g-its-military-148806>.

[20] Tom Wheeler, "5G in Five Not So Easy Pieces," Brookings, July 9, 2019, available at <https://www.brookings.edu/research/5g-in-five-not-so-easy-pieces/>.

[21] Huawei argues that it would not share information with the Chinese Communist Party; however, China's Counter-Espionage Law of 2014 and National Intelligence Law in 2017 require companies to comply with requests from intelligence services. See Daniel Harsha, "Huawei, a Self-Made World-Class Company or Agent of China's Global Strategy?" Ash Center for Democratic Governance and Innovation at Harvard University, available at <https://ash.harvard.edu/huawei-self-made-world-class-company-or-agent-chinas-global-strategy>.

[22] For a discussion of how China uses these capabilities domestically, see Kai-Fu Lee, *AI Superpowers: China, Silicon Valley, and the New World Order* (Boston: Houghton Mifflin Harcourt, 2018).

[23] On state funding, see Henry Tugendhat, "Banning Huawei's 5G Won't Halt China's Tech Revolution," *The Guardian*, January 30, 2020, available at <www.theguardian.com/commentisfree/2020/jan/30/banning-huawei-5g-china-tech-revolution-free-market>. On Huawei undercutting competitors, see Alex Capri, "Beijing's Global 5G Ambitions Threaten to Disrupt Telecoms," *Nikkei Asian Review*, August 31, 2018, available at <https://asia.nikkei.com/Opinion/Beijing-s-global-5G-ambitions-threaten-to-disrupt-telecoms>.

[24] The Chinese Communist Party has a history of using economic threats to censor U.S. companies' and individuals' speech. See Jennifer Pan and Margaret Roberts, "These 3 Factors Explain Why the NBA and Other Companies Struggle to Push Back Against Chinese Censorship," *Washington Post*, October 16, 2019, available at <www.washingtonpost.com/politics/2019/10/16/these-factors-explain-why-nba-other-companies-struggle-push-back-against-chinese-censorship/>.

[25] Quantum technology has numerous national security implications beyond those tied to cyberspace and information technology.

[26] See Princeton University's Center for Information Technology Policy, *Implications of Quantum Computing for Encryption Policy*, Encryption Working Group Paper (Washington, DC: Carnegie Endowment for International Peace, April 25, 2019), available at <https://carnegieendowment.org/2019/04/25/implications-of-quantum-computing-for-encryption-policy-pub-78985>. For a more detailed discussion, see Richard A. Clarke and Robert K. Knake, *The Fifth Domain: Defending Our Country, Our Companies, and Ourselves in the Age of Cyber Threats* (New York: Penguin Press, 2019), chapter 16.

[27] E.B. Kania and J.K. Costello, "Quantum Technologies, U.S.-China Strategic Competition, and Future Dynamics of Cyber Stability," *2017 International Conference on Cyber Conflict* (Washington, DC: Institute of Electrical and Electronics Engineers, 2017), 89–96.

[28] David Grossman, "Did Google Just Achieve Quantum Supremacy?" *Popular Mechanics*, September 23, 2019, available at <www.popularmechanics.com/technology/a29190975/google-quantum-supremacy/>.

[29] The usual argument is that encryption is used by billions of users, whereas decryption is used by only a handful of intelligence organizations. As a result, it will be easier for a small number of intelligence agencies working on decryption to obtain expensive new quantum devices than for the general public to obtain use of quantum computers.

[30] Paul Smith-Goodson, "Quantum USA vs. Quantum China: The World's Most Important Technology Race," *Forbes*, October 11, 2019, available at <www.forbes.com/sites/moorinsights/2019/10/10/quantum-usa-vs-quantum-china-the-worlds-most-important-technology-race/>.

[31] Tim Johnson, "China Speeds Ahead of U.S. as Quantum Race Escalates, Worrying Scientists," *McClatchy DC*, October 23, 2017, available at <www.mcclatchydc.com/news/nation-world/national/national-security/article179971861.html>; Smith-Goodson, "Quantum USA vs. Quantum China."

[32] For a general discussion of these security and related threats posed by artificial intelligence (AI), see U.S. National Security Commission on Artificial Intelligence (NSCAI), *Interim Report* (Washington, DC: NSCAI, November 2019), 11–13.

[33] For an overview of the national security implications of AI, see Clarke and Knake, *The Fifth Domain*.

[34] Frank Luerweg, "The Internet Knows You Better than Your Spouse Does," *Scientific American*, March 14, 2019, available at <www.scientificamerican.com/article/the-internet-knows-you-better-than-your-spouse-does/>.

[35] Regarding China's resourcing, see Tiffany Lo, "Big Brother Is Watching You! China Installs 'The Worlds Most Advanced Video Surveillance System' with over 20 Million AI-Equipped Street Cameras," *Daily Mail*, September 25, 2017, available at <www.dailymail.co.uk/news/article-4918342/China-installs-20-million-AI-equipped-street-cameras.html>. On the Russian use of Facebook and other commercial AI, see Alina Polyakova, "Weapons of the Weak: Russia and AI-Driven Asymmetric Warfare," Brookings, November 15, 2018, available at <https://www.brookings.edu/research/weapons-of-the-weak-russia-and-ai-driven-asymmetric-warfare/>.

[36] See NSCAI, *Interim Report*, 17–20.

[37] See Martijn Rasser et al., *The American AI Century: A Blueprint for Action* (Washington, DC: Center for New American Security, December 2019), 9, available at <https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Tech-American-AI-Century_updated.pdf?mtime=20200103081822>; NSCAI, *Interim Report*, 19.

[38] NSCAI, *Interim Report*, 1, 17–20.

[39] Released in 2015, but subsequently deemphasized in 2018 and 2019 by the Chinese government when "Made in China 2025" sparked international controversy, the document's goal was to comprehensively upgrade Chinese industry, making it more efficient and integrated so that it can occupy the highest parts of global production chains. The plan identified the goal of raising domestic content of core components and materials to 40 percent by 2020 and 70 percent by 2025. The focus for attaining dominance is aimed at 10 priority sectors: new advanced information technology, automated machine tools and robotics, aerospace and aeronautical equipment, maritime equipment and high-tech shipping, modern rail transport equipment, new energy vehicles and equipment, power equipment, agricultural equipment, new materials, and biopharma and advanced medical products. Quite clearly, dominance in new information technology was "aim #1," but within a wider construct of aims for modern technology dominance. See Scott Kennedy, "Made in China 2025," Center for Strategic and International Studies, June 1, 2015, available at <https://www.csis.org/analysis/made-china-2025>; Melissa Cyrill, "What Is Made in China 2025 and Why Has It Made the World So Nervous?" *China Briefing*, December 28, 2018, available at <www.china-briefing.com/news/made-in-china-2025-explained/>.

[40] Paul McLeary, "The Pentagon's Third Offset May Be Dead, But No One Knows What Comes Next," *Foreign Policy*, December 18, 2017, available at <foreignpolicy.com/2017/12/18/the-pentagons-third-offset-may-be-dead-but-no-one-knows-what-comes-next/>.

[41] Arthur Herman, "America's High-Tech STEM Crisis," *Forbes*, September 10, 2018, available at <www.forbes.com/sites/arthurherman/2018/09/10/americas-high-tech-stem-crisis/#f6730d8f0a25>.

[42] The hypothesis is mainly used in evolutionary biology and is based on Lewis Carroll's *Through the Looking-Glass*. It is termed *Red Queen* because populations have to "run" or evolve to stay in the same place, or else go extinct. See Leigh Van Valen, "A New Evolutionary Law," University of Chicago, 1973, available at <https://www.mn.uio.no/cees/english/services/van-valen/evolutionary-theory/volume-1/vol-1-no-1-pages-1-30-l-van-valen-a-new-evolutionary-law.pdf>.

[43] China outlines this strategy in its Medium- and Long-Term Plan for Science and Technology Development, 2006–2020. The plan calls for copying foreign innovation and focusing resources to achieve breakthroughs in targeted strategic areas of technological development and basic research. For an assessment of the plan and its outcome, see Hannas, Mulvenon, and Puglisi, *Chinese Industrial Espionage*. Private sources estimate the annual value of intellectual property stolen by China from the United States at $225 billion to $600 billion. See IP Commission, *The IP Commission Report*.

[44] McLeary, "The Pentagon's Third Offset May Be Dead, But No One Knows What Comes Next."

[45] *National Security Strategy of the United States of America* (Washington, DC: The White House, December 2017).

[46] For a similar perspective, see Michael C. Horowitz, "Artificial Intelligence, International Competition, and the Balance of Power," *Texas National Security Review* 1, no. 3 (May 2018).

[47] For example, see James Andrew Lewis, *Intellectual Property Protection* (Washington, DC: Center for Strategic and International Studies, January 2008), available at <https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/080802_LewisIntellectualProperty_Web.pdf>.

Chapter 7

Social Media and Influence Operations Technologies

Implications for Great Power Competition

By Todd C. Helmus

Nation-states have increasingly been waging foreign propaganda campaigns on social media platforms such as Facebook and Twitter. Such campaigns are enticing because they are cheap and easy to execute; they allow planners to identify, target, and reach specific audiences; and the campaign's anonymity limits the associated political and foreign policy risks. Russia, China, and the so-called Islamic State are three key U.S. adversaries that have exploited online technologies for propaganda. This chapter reviews the aims, capabilities, and limitations of online propaganda for each of these entities. The chapter also highlights key recommendations that the United States should adopt in order to counter adversary use of online propaganda.

As the world has entered a new era of Great Power competition over the past decade, nation-states have been increasingly waging foreign propaganda campaigns on social media platforms such as Facebook and Twitter, effectively turning such platforms into influence operations technologies.[1] A study from the University of Oxford documented that some 70 countries around the world are engaged in manipulating social media to serve domestic and foreign policy ends. This is up from 48 countries in 2018 and 28 countries in 2017. In particular, the study documented foreign propaganda campaigns conducted by Russia, China, India, Iran, Pakistan, Saudi Arabia, and Venezuela.[2]

Why are states increasingly relying on social media as a tool of foreign propaganda? It is cheap and easy to operate and allows campaign planners to identify, target, and reach specific overseas audiences, such as individuals, voter demographics, and ethnic groups. Governments also seek to engage in such campaigns anonymously, thereby limiting the associated political and foreign policy risks. The campaigns can also be conducted at scale, and they can be informed by a wealth of easy-to-access big data on target audiences.

States conduct online propaganda campaigns in a number of ways, including using "bot" and "troll" accounts. Bots are automated social media accounts, often on Twitter, that employ code to replicate human activity to promote a particular message. To enable more

sophisticated interactions with other users, bot campaigns employ real people or trolls to monitor and control fake social media accounts. Campaigns employ these types of accounts in numerous ways. They can spread progovernment content, attack adversary positions, distract or divert conversations or criticism away from an issue, promote divisions and polarization, and suppress participation through attacks or harassment.[3]

This chapter offers a look at how three contemporary U.S. adversaries have used and are using online content and platforms to engage in foreign influence campaigns. It focuses on Russia, China, and the so-called Islamic State (IS). The first two are, as defined earlier in this volume, America's modern Great Power rivals. As noted in the 2018 U.S. National Defense Strategy, and discussed in detail in chapter 11, IS remains, despite major recent setbacks, a modern violent extremist organization with global reach and sustained influence that will challenge America into this Great Power era. For each case study, the chapter identifies the adversary's aims and objectives in using online technologies for influence operations and propaganda. It also identifies the capabilities and limitations for using online propaganda. In addition, because online platforms are not the only means of disseminating propaganda, the chapter briefly describes relevant offline mechanisms for influence. The chapter does not explicitly list U.S. Government aims, objectives, capabilities, or limitations for using social media and online technologies for external propaganda, instead offering an implicit assessment of these technologies in the final section on recommendations. This approach for the chapter has been selected in part because of the limited information available in open-source reporting.

Russia

Aims and Objectives

In a recent report on hostile social manipulation, RAND political scientist Mike Mazarr and his colleagues identified several key strategic aims for Russian online operations. First, they noted that Russia has long believed it is a target of adverse information operations, and Moscow may use its social manipulation efforts to counter these "disinformation" programs. Second, they noted that Russia uses social manipulation to pursue what it calls "discrete policy objectives" to influence a particular policy debate or foreign policy in order to suit its interests.[4] In addition, they noted that some analysts see an animus to push foreign societies to a "'posttruth' environment—one in which the distinction between fact and falsehood is immaterial, objectivity is unattainable, and reality is malleable."[5]

Diego Martin and Jacob Shapiro offered a glimpse of Russian influence objectives by analyzing a specially created database of influence campaigns waged between 2013 and 2018. The campaigns were waged by Russia, China, Saudi Arabia, and Iran and targeted 14 countries, including the United States, the United Kingdom, Australia, Germany, the Netherlands, and Ukraine.[6] Russia accounted for some 38 of 53 identified influence efforts, highlighting the obvious importance Russia places on this aspect of its foreign policy.

Capabilities

First, we should note that Russia benefits from a broad set of capabilities for influencing overseas governments and publics. Elizabeth Bodine-Baron and colleagues specifically identified four key categories of capabilities.[7] The first category includes actors that are part of the Russian state, such as the Main Intelligence Unit (*Glavnoye razvedyvatel'noye upravleniye*) or Sputnik online media. Second is the RT international news network, which is a nonprofit news organization that is visibly supported by the Russian state. Third are those actors who knowingly work on behalf of the Russian government but whose connections to the state are concealed. This includes the Internet Research Agency (IRA; also known as the St. Petersburg troll factory) and patriotic Russian hackers and networks run by criminal oligarchs. Last, in the fourth category, are the various proxies and potential proxies. These include those actors who may or may not hold pro-Russian views but are nonetheless motivated to spread messages in line with Russian campaign objectives.

The media and messages produced by these different arms often work together in a seemingly systematic manner. Following the poisoning of former Russian spy Sergei Skripal, various channels, combined with official press statements and Russian bots and trolls, produced "a blizzard of falsehoods" designed to muddy the waters of international investigations and opinion on Russian blame for the assassination.[8]

The most famous example of Russian propaganda stems from its systematic campaign to target the U.S. 2016 election. Russia employed a high-volume array of social media content to include 10.4 million tweets, 1,000 YouTube videos posted on 17 accounts, 116,000 Instagram posts from 133 accounts, and 61,500 unique Facebook posts across 81 pages. These postings yielded 77 million engagements on Facebook, 187 million engagements on Instagram, and 73 million engagements on original Twitter content.

The content sought to promote wide-ranging themes specially targeted at different U.S. demographic groups. Targets included African-American communities to promote black separatism, inflame opinions toward police, and undermine confidence in the electoral system. Content engaged in voter suppression tactics included promoting third-party candidates, encouraging voters to stay home on election day, and creating confusion about voting rules. Beginning in the primaries and continuing through the election, the content promoted pro-Trump operations and countered Hillary Clinton.[9]

Many of these competing themes appeared to promote disunity among the American electorate. Campaigns sought to promote both Black Lives Matter and Blue Lives Matter themes to inflame opinions. Skillful manipulation of social media even proved successful at promoting dual street protests.[10] Other campaigns sought to promote secession by the state of Texas, anti-immigrant causes, gun rights, patriotism, Tea Party culture, and so forth.[11]

Russia has since engaged in a number of other online influence campaigns. For example, Russia supported the Brexit referendum in 2016, heavily promoted Catalonia's independence referendum in 2017, and sought to undermine the presidential election of Emmanuel Macron in France. Statistics tabulated by Martin and Shapiro suggest that Russia engaged in at least 28 campaigns in 2017 and 21 in 2018.[12]

Overall, Russia appears to demonstrate a relatively skilled approach to these information operations. First, we should note that Russia was one of the first countries to recognize the potential value of using social media for Great Power competition, and Russia's efforts to

implement social media–based information operations have unfortunately paved the way for other nations, such as Iran and China, to follow suit. Second, by some accounts, Russia implemented the campaign with skill. IRA staffers visited the United States in order to conduct "market research." IRA social media accounts clustered around identity- or issue-based online communities and built sizable audiences—all without tipping off audiences (at least so far) to the Russian origin of the campaigns. Russian accounts were retweeted by political figures and news media. As Tom Uren and colleagues noted, the "IRA campaign displayed a clear understanding of audience segmentation, colloquial language, and the ways in which online communities framed their identities and political stances."[13]

Why is Russia so adept at using social media and other online channels of influence? Some analysts point to a 2013 article published on "ambiguous warfare" by the chief of the Russian general staff and general of the army, Valery Gerasimov, which led to some scholars believing that the Russian information campaigns are the result of an "elaborate strategy" developed and executed by Russian planners.[14] Sergey Sanovich, a researcher at Princeton's Center for Information Technology Policy, alternatively suggests that Russia's online propaganda tools were "conceived and perfected" in the liberal Russian economy and politics of the 1990s. After the 1990s, Russia proved unsuccessful at using its network of bots and trolls to curb domestic online discussions, and the government was unwilling to "ban the platforms outright." Consequently, it then adapted and stepped up its online international influence game.[15]

Limitations

The Russian campaign may have been skilled, but was it effective? Clearly, audiences have seen and interacted with Russian content. However, clear scientific evidence is lacking on whether such social media campaigns helped Russia meet any particular campaign goals or change audience attitudes, behaviors, or beliefs in the ways that the Russian planners intended.[16]

Interestingly, one study assessed the IRA's impact on political attitudes and behaviors of American Twitter users in late 2017. The study identified users who interacted with IRA content on Twitter and analyzed whether outcomes of six distinctive measures of political attitudes and behavior changed over a 1-month period. The study found no such evidence of change and suggested that the Russian trolls might have failed because they directly targeted those who were already highly polarized in their attitudes and beliefs.[17]

Still, the campaign's ingenuity and scope have garnered it significant attention from politicians, journalists, researchers, and the American public. The social media campaign, combined with other elements of a broader Russian interference campaign—including hacking the Democratic National Committee (DNC) server and the release of DNC emails—has led at least some audiences to question the legitimacy of the 2016 election.[18] Such an outcome may well lead Russian planners and politicians to conclude that the campaign was a success.

One key limitation or challenge for Russia and other disinformation actors is that Facebook, Twitter, and other such platforms are now on the lookout for Russian content. Bots will need to be more sophisticated to overcome the various bot detectors that exist in the

market. Russia will no longer be able to pay for advertisements with rubles or post content directly from IRA-affiliated computers.

An arms race will certainly ensue. Russians will likely adapt to any countermeasures Western governments or online platforms put in place. Evidence suggests this is already taking place. Russia has sought to test new disinformation tactics on the African continent. Instead of creating fake Facebook groups from the IRA offices in St. Petersburg, it has rented or purchased accounts already created and cultivated by locals. Russia also has created local media organizations in select African countries that post the content on behalf of Russia. The seemingly authentic nature of the content will make detection more difficult.[19]

China

Aims and Objectives

By documenting the expansion of the Communist Party media influence since 2017, analyst Sarah Cook identified several broad and overarching aims of the Chinese Communist Party (CCP) communication and influence strategy. First, she noted the government seeks to "promote a positive view of China and the CCP's authoritarian regime." By the same token, it also seeks to "marginalize, demonize, or entirely suppress anti-CCP voices" and other information that might cast a negative light on its government or leaders. China also seeks to promote nationalistic sentiment at home and abroad, promote the reunification of Taiwan with the mainland, and quell the protests in Hong Kong.[20]

Capabilities

China has gained a strong reputation for effectively stifling and influencing online debate within its borders, and it has fostered a number of seemingly effective offline tools for international influence. However, China's ability to use online tools to influence international policy and opinion remains in a relatively nascent state.

Censorship and Influence at Home

China uses both the "Great Firewall" and its "Golden Shield" to stifle dissent at home. The Great Firewall blocks access to restricted foreign Web sites. If a China-based user tries to access a restricted site, it will not load and the user will receive a time-out message.[21] Additionally, China uses its Golden Shield to regulate information on domestic sites. According to Gillian Bolsover at the University of Oxford, social media sites in China actively monitor user-generated content to ensure that posted information is not deemed illegal by the state. Examples of content often censored include information related to political scandals, political leaders, and efforts to organize protests.[22]

China also actively seeks to shape the social media–based conversations and discussions of its citizens. Starting in 2011, the Chinese government saw a need to do more than just censor online content; it engaged in political communication. The Central Party, state institutions, state-run media, and individual party cadres soon began setting up government social media accounts. By 2014, the government had created more than 100,000 official social media accounts on WeChat and 180,000 profiles on Sina Weibo.[23]

One potential tool for this internal information control is the use of 50-cent accounts. Academics and policy experts have written about an army of volunteers who are paid 50

cents per post to "attack critics and support the state" online and to do so in a way that appears these attacks come from ordinary people.[24] A 2017 Harvard paper studied a data leak associated with the 50-cent accounts. The authors estimate that the government fabricates and posts about 448 million social media comments a year. Instead of engaging in direct arguments with potential skeptics of the government, these bogus users often try to change the subject and engage in cheerleading for China and the CCP.[25] Much of this work is done by government employees who post part time outside their regular day jobs.

Influence Abroad: "Offline" Capabilities

Although the focus of this chapter is online influence operations and propaganda technologies, China has built a robust and multimodel offline approach to influence overseas populations and governments. This approach was addressed earlier in chapter 3b but merits brief repetition here. First, China has built an expanding capacity for global media reach. China's most prominent state-owned media outlets offer an international presence.[26] The China Global Television Network (CGTN), for example, broadcasts in English, Spanish, French, Arabic, and Russian to every region in the world via satellite and cable. In addition, Chinese state media have distributed content associated with the *China Daily* and the *Washington Post* in newsstands in New York City and congressional offices in Washington. Diplomats and other key influencers draft various op-ed articles and assiduously work to build relationships with foreign journalists. China also often threatens to withhold access to its markets if representatives of various business interests do not toe the party line.[27]

In addition, China's state media organs have broadened their reach with the use of social media. The English-language Facebook pages for *China Daily*, the official Xinhua News Agency, and CGTN, according to disinformation researcher Renee DiResta, have amassed more than 75 million followers each, a sum two to three times greater than CNN or Fox News. DiResta argues that China's heavy use of paid social media advertisements played a key role in cultivating this large following.[28]

Influence Abroad: Chinese Online Capabilities

China has attempted to use online tools, including fake social media accounts, to advance its Taiwan unification campaign and its efforts to counter the Hong Kong protests. China has engaged in several small-scale efforts at using social media to promote Taiwanese unification. In one interesting case, following a typhoon that disabled a bridge to Osaka's Kansai International Airport, a post on the Professional Technology Temple (PTT), a Taiwanese-focused bulletin board, falsely suggested that the Chinese consulate could evacuate Taiwan citizens from Osaka only if they identified themselves as Chinese citizens. Researchers traced the story on PTT to an account on the Chinese microblogging site Weibo and a "content farm" that posted on mainland media sites, where it was then picked up by PTT messaging.[29] The consequences were harmful: Taiwan's foreign ministry representative in Osaka committed suicide due to pressure stemming from his inability to aid Taiwanese citizens.

In another case, it was discovered that a large number of PTT accounts, some of which were deemed "influential," were purchased on an online auction site active in Taiwan and Southeast Asia. Many of these accounts switched their content from being pro-democratic

to leaning pro-Chinese. The accounts posted at a time to allow the Taiwanese public to see the posts first thing in the morning.[30]

China has most recently been caught using sham Facebook and Twitter accounts in an attempt to counter the Hong Kong protests. On August 19, 2019, both Twitter and Facebook announced the discovery of the Chinese campaign. Twitter identified 936 accounts that originated within the People's Republic of China that were "deliberately and specifically attempting to sow political discord in Hong Kong, including undermining the legitimacy and political positions of the protest movement on the ground."[31] Fake accounts were also detected on Facebook and YouTube.[32]

Subsequently, the Australian Strategic Policy Institute (ASPI) released a detailed analysis of the archive of terminated Twitter accounts. The researchers discovered that the 940 false accounts had disseminated 3.6 million tweets and identified three key narrative themes of the accounts: condemnation of the protesters, support for the Hong Kong police and the "rule of law," and conspiracy theories about Western involvement in the protests.[33] The authors described the campaign as relatively small and "hastily assembled" and lacking in sophisticated advance planning. They observed that the accounts were cheaply acquired repurposed spam or marketing accounts. Prior account owners, for example, tweeted in Arabic, English, Korean, Japanese, and Russian on topics that ranged from British football to pornography.[34]

The researchers also observed that there was "little attempt to target online communities with any degree of psychological sophistication."[35] In contrast, they noted that carefully crafted and long-running influence operations on social media, such as those conducted by the Russian state, are often characterized by tight network clusters associated with key target audiences. Analysis of the Chinese database revealed no such network characteristics. They finally observed that the Chinese dialect in some of the tweets was a dead giveaway for Chinese mainland authors.[36]

Beyond the anti–Hong Kong protest campaign, the researchers at ASPI found evidence of relatively small campaigns targeting China's political opponents. The largest campaign targeted Guo Wengui, a Chinese businessman and bookseller now residing in the United States who has publicly levied allegations of corruption against senior members of the Chinese government. Over 38,000 tweets from 618 accounts targeted Wengui with vitriolic attacks on his character.[37] Two other smaller campaigns targeted two dissidents who had already been arrested in China.[38]

With the 2019–2020 outbreak of the novel coronavirus (COVID-19), China launched a new propaganda campaign partially aimed at avoiding blame for the virus and promoting its own relief efforts. First, China has pushed social media content arguing that the virus may not have originated from China. On March 7, for example, the Chinese embassy in South Africa tweeted, "Although the epidemic first broke out in China, it did not necessarily mean that the virus is originated from China, let alone 'made in China.'"[39] The tweet further speculated that the virus originated in the United States. Chinese media promoted a conspiracy theory that a U.S. military cyclist may have brought the disease to Wuhan from Fort Detrick, the location of the U.S. Army's premier biological laboratory. The spokesman and deputy director general of the Information Department of China's Foreign Ministry

also speculated on Twitter that the United States secretly concealed COVID-19 deaths in its count of flu fatalities.[40]

Second, China has promoted its domestic and international response to COVID-19. In February, Chinese state-run media began running social media advertisements that praised Secretary General Xi Jinping for his leadership in containing the virus.[41] On March 9, the official account of China's Ministry of Foreign Affairs tweeted, "China's endeavor to combating the epidemic has bought time for [international] preparedness."[42] China also promoted its international relief efforts. State-run media pushed advertisements that promoted stories of countries such as Italy and Serbia expressing gratitude to China for supporting them with medical supplies.[43] Pro-China bots pushed out tweets promoting Chinese medical relief efforts in Italy with two hashtags: #forzaCinaeItalia, which means "Come on China and Italy," and #grazieCina, which means "Thank you, China." Chinese diplomatic Twitter accounts also used these hashtags.[44]

Limitations

The discovered Chinese online propaganda campaigns targeting Taiwan and protesters in Hong Kong suggest that China has struggled to weaponize social media to influence audiences abroad. China clearly has had success at home in terms of effectively censoring illicit content on the Web and shaping online conversations. The control it enjoys domestically over the Internet is not so easily replicated abroad, where it must contend with competing narratives that cannot be suppressed.[45]

China will likely learn its lesson. On the same August 2019 day that Twitter announced China's suspensions, China's Internet regulator put out notice for a contract to help it "operate and grow" overseas social media accounts on platforms such as Facebook. The project sought a team of experts who could "tell China's stories with multiple angles, express China's voice, and get overseas audience recognition and support for Jinping Thought." The state news agency, China News Services, also announced that it has started a new project to build its social media presence overseas. It specifically seeks to increase Twitter followers on its 2 accounts by 580,000 within 6 months. It wants at least 8 percent of the accounts to come from North America, Australia, and New Zealand. Overall, China is spending more than $1 million on both accounts.[46]

Further aiding China will be its investment in artificial intelligence, which, if effectively integrated in highly scaled social media campaigns, could prove a serious social media threat.[47] China's stake in the rapidly growing TikTok social media application could also help further the country's message. Suspicions have already arisen about China using the application to promote censorship and manipulation. Growing access to a widening public could be an information advantage for the Chinese and give them a new platform for influence.

The So-Called Islamic State and Social Media

Aims and Objectives

According to a leaked strategy document, IS had three main aims for its information operations campaign: recruitment, governance, and media.[48] First, IS sought to increase the

recruitment of local and foreign fighters into the organization. Second, IS developed a plan that included a sophisticated information and intelligence apparatus designed to help IS expand and maintain control over its territory. Finally, IS's well-crafted media system sought to empower its recruitment and governance efforts while strengthening its embrace of atrocities intended to deter opponents and energize supporters with maximum psychological impact.

Other studies have sought to understand IS information objectives and aims by examining the content of its propaganda campaigns. Researchers in a RAND study isolated a community of ardent IS members and supporters on Twitter and lexically analyzed the content. They found that IS appeared to demonstrate "a more self-aware social media strategy" than any of the other groups, with disproportionately high usage of social media terms such as *spread*, *link*, *breaking news*, and *now released*.[49] In addition, themes of religion and belonging resonated strongly. In reference to violent IS activities, users employed noble phrases such as *lions of the Islamic State* and *mujahideen* and coopted the trappings of real states by using terms such as *army* and *soldiers of the Caliphate*.[50]

Capabilities

To understand IS capabilities for using online tools in radicalization and recruitment, it is important to first understand the evolution of extremist radicalization and recruitment. Al Qaeda and other militants in places such as Bosnia, Chechnya, and the Palestinian territories used to disseminate propaganda content via DVD and cassette videos. Many of these videos featured depictions of atrocities that were meant to inflame opinions and sermons of religious leaders who sought to lay the intellectual and spiritual groundwork for terrorist actions. Recruitment into militant groups was often done through small social groups. For example, gatherings at private homes or mosques targeted Saudi recruits for Iraq and served as a venue where a "harmless discussion about Islam" turned to the U.S. war in Iraq and U.S.-committed atrocities.[51]

This approach to extremist propaganda and recruitment began to evolve slowly as al Qaeda turned to the Internet to aid in recruitment efforts. After initially disseminating speeches on al Jazeera, Osama bin Laden and his deputy, Ayman al-Zawahiri, began posting long and dry speeches. Anwar al-Awlaki, a key al Qaeda ideologue, gained particular fame through sermons posted to YouTube. His success as a propagandist led to him being targeted by U.S. forces in Yemen.[52] During the Iraq War, al Qaeda gained notoriety by posting videos of improvised explosive device attacks on American troops.[53] Throughout this process, al Qaeda and other groups used the Internet primarily as a broadcast tool, but limited effort was placed into harnessing social media platforms or the social aspects of online life.

IS helped revolutionize how extremist groups used the Internet and its social media platforms. IS decentralized its propaganda production and dissemination, used a multilayered set of media centers to produce its official media publications, and then leveraged a network of supporters in order to distribute its message. It also learned how to use direct messaging capabilities to reach out and connect to prospective recruits. A range of outlets helped IS produce its official propaganda. Official outlets Al-Furqan Media and Al-Hayat Media produced and released top-level messaging, such as the sermons of Abu Bakr al-Baghdadi and issues of the

sleek English-language magazine *Dabiq*. Various "provincial" media outlets also produced an assortment of content and propaganda videos.

IS sought to disseminate this content not only on various Internet sites but also through a variety of social networking applications, including Facebook, Instagram, Tumblr, Ask.fm, and, most famously, Twitter. These channels allowed IS to enlist a worldwide army of supporters in both propaganda creation and dissemination. In addition to disseminating its own content on the Internet, IS welcomed supporters and members taking the initiative to create their own unofficial propaganda. In her 2014 study of tweets posted by 29,000 accounts belonging to Western IS foreign fighters, Jytte Klausen found that disseminators outside the conflict zone, including a handful of particularly influential women, played a key role in this effort to "build redundancy by spreading the material, often posting and reposting material provided by the feeder accounts belonging to organizations and fighters based in Syria."[54]

IS also worked with individual fighters who had their own Twitter, Instagram, or Tumblr accounts. IS worked to coordinate and synchronize the postings of fighters. These tales describing life and success on the battlefield gained a wide following.[55] In addition, a report by the International Centre for the Study of Radicalisation and Political Violence emphasized the role of disseminators based primarily in the West, arguing that many foreign fighters informed themselves about the conflict by following unofficial disseminators rather than official IS channels.[56]

IS also used social media to support its recruitment efforts. IS enlisted "units of specialized recruiters operating around the clock from Internet cafes in Iraq and Syria, interacting on an individual level with prospective recruits."[57] Individuals who liked, retweeted, or positively commented on IS social media accounts self-identified themselves as potentially suitable targets for recruitment. Recruiters could then make contact using private communications such as direct messaging on Twitter or Facebook. The two-way dialogue allowed the recruiter to groom the target and promote action (be it conducting attacks in the West or emigrating to IS territory). As J.M. Berger notes, such recruitment efforts became increasingly important as IS sought to recruit from lands farther than Iraq and Syria.[58]

Overall, these efforts appeared successful. IS gained significant media exposure and notoriety for the conduct of its social media campaign. Ultimately, it recruited over 40,000 people (32,809 men, 4,761 women, and 4,640 children) to join its ranks. Over 5,900 foreign fighters joined from Western Europe and 753 joined from the Americas.[59] IS operatives also launched various deadly attacks, most notably the Brussels airport and subway bombings of March 22, 2016, which killed 32 individuals, and the Paris attacks of November 13, 2015, which resulted in 130 fatalities. IS-inspired attacks also took place in the United States, Canada, Australia, Tunisia, Turkey, and Egypt.[60]

Limitations

IS success with social media did not last. In 2015, Twitter and other social media firms initiated an effort to suspend IS social media accounts based on terms of service violations. IS in turn worked diligently to overcome these suspensions. As soon as Twitter suspended one IS supporter's account, the supporter was supposed to move to a backup account.[61] However,

even under the best of circumstances, such remediation efforts could not maintain the previous breakneck pace of propaganda dissemination.[62] Soon the platforms created new artificial intelligence tools that could detect and terminate accounts in near real time. In the first 6 months of 2017, Twitter took down nearly 300,000 terrorist accounts.[63] As a result, Maura Conway and colleagues wrote in their research on Twitter takedowns that "the costs for most pro-IS users of engaging on Twitter (in terms of deflated morale, diffused messages, and persistent effort needed to maintain a public presence) now largely outweigh the benefits. This means that the IS Twitter community is now almost nonexistent."[64]

IS has since sought new online territory from which to recruit and radicalize. For some time, IS turned to Telegram, an application that, while lacking the unique broadcast capability of Twitter, allowed IS a secure way to "communicate with likeminded supporters across the world, disseminate official and unofficial [IS] media, and provide instructional material for operations."[65] However, a series of account suspension efforts by Telegram, mostly recently conducted in collaboration with Interpol in late 2019, has left IS once again looking for more friendly territory.

Recommendations

The growing use of social media as a technology tool for strategic influence operations and nation-state propaganda represents a significant threat to U.S. interests as America moves into a new era of Great Power competition. While Russian social media may not have decisively impacted the U.S. election of 2016, it is clear the campaign likely negatively impacted American trust in that election. Additionally, it seems clear that such attacks will continue against the United States, its allies, and other nations' democratic elections. As demonstrated by its assertive social media activities during 2020 to shape a factually suspect COVID-19 narrative, Beijing has targeted the United States and its allies with online propaganda. Clearly, the United States needs to safeguard the authority, legitimacy, and respect of American norms, values, and institutions from such adversaries.

Numerous documents and reports lay out an array of recommendations for how the United States can best counter this threat.[66] Reviewing the long lists of recommendations is beyond the scope of this chapter; however, it is useful to briefly consider some broad approaches that the United States could undertake to limit the threat.

Track, Highlight, and Block Adversarial Content

The U.S.-led and Western campaign against IS propaganda proved successful largely because social media platforms were able and willing to identify IS content and terminate IS social media accounts. Overall, the platforms seem uniquely able to identify and target such content in part because extremists clearly branded their campaigns for driving terrorist recruitment. The U.S. Government should continue to work with Twitter, Facebook, and other platforms to ensure suspensions of extremist accounts. The challenge is much greater for nation-state campaigns, which wage stealth propaganda using fake accounts and targeting a litany of causes. An arms race is already taking place between those charged with planning and executing online propaganda and those seeking to detect and remove such campaigns. The U.S. Government will need to work closely with technology firms and the

academic community to support this arms race and enable new approaches for detecting campaigns.

Build Resilience of At-Risk Populations

It will be crucial to help audiences be more critical consumers of social media. Doing so means giving audiences the skills and capabilities to identify fake news, consider the credibility of sources on social media, and recognize their role in countering such content or limiting its propagation. Media literacy campaigns represent one potential avenue for this resilience-building, and efforts are under way to develop and implement relevant educational curriculums in the United States and elsewhere. Governments should also warn citizens when they detect or other otherwise suspect that adversaries are targeting such citizens with online influence campaigns.

Support Allies Targeted by U.S. Adversaries

The United States should help its allies stand up against online propaganda. For example, Russia has been engaged in a near-persistent propaganda campaign against the government of Ukraine as well as other Eastern European countries. The United States should work with the targeted countries to give them the necessary capabilities to withstand and counter these campaigns. The specific policy prescriptions will vary, but efforts may include training local governments in better communication strategies, improving training for journalists, providing funds to support outing adversary propaganda, and establishing media literacy campaigns.

Better Organize to Counter Adversary Propaganda

The U.S. Government must ensure it is properly organized to fight online disinformation. The Intelligence Community will need the necessary capabilities and funding to help detect foreign influence campaigns before or as they occur. Interagency coordination will be critical as the Department of Homeland Security, Department of State, and Department of Defense will each be responsible for countering a particular component of adversary campaigns.[67] Coordination should continue down to the state level to help states prepare for elections and address locally targeted campaigns. It is critical that the United States and social media firms work closely together in an information-sharing capacity to ensure communication of threats and adversary campaigns and to coordinate on counterpropaganda activities.

Notes

[1] This chapter uses the terms *propaganda* and *disinformation*. Merriam-Webster defines *propaganda* as "Ideas, facts, or allegations spread deliberately to further one's cause or to damage an opposing cause." *Disinformation* is considered a type of propaganda. Christina Nemr and William Gangware describe disinformation as including authentic material used in a deliberately wrong context to make a false connection as well as fake news sites, manipulated sites, or outright false information shared through graphics, images, and videos. See Christina Nemr and William Gangware, *Weapons of Mass Distraction: Foreign State-Sponsored Disinformation in the Digital Age* (Washington, DC: Park Advisors, 2019).

[2] Samantha Bradshaw and Philip N. Howard, *The Global Disinformation Order: 2019 Global Inventory of Organized Social Media Manipulation*, Working Paper No. 2019.3 (Oxford, UK: Project on Computational Propaganda, 2019).

[3] Ibid., 1, 13.

[4] Michael J. Mazarr et al., *Hostile Social Manipulation: Present Realities and Emerging Trends* (Santa Monica, CA: RAND, 2019).

[5] Ibid., 61.

[6] Diego A. Martin and Jacob N. Shapiro, *Trends in Online Foreign Influence Efforts*, Working Paper Version 1.2 (Princeton: ESOC Publications, 2019).

[7] Elizabeth Bodine-Baron et al., *Countering Russian Social Media Influence* (Santa Monica, CA: RAND, 2018).

[8] Joby Warrick and Anton Troianovski, "Agents of Doubt: How a Powerful Russian Propaganda Machine Chips Away at Western Notions of Truth," *Washington Post*, December 10, 2019, available at <www.washingtonpost.com/graphics/2018/world/national-security/russian-propaganda-skripal-salisbury/>.

[9] Robert S. Mueller III, *Report on the Investigation into Russian Interference in the 2016 Presidential Election*, vols. 1 and 2 (Washington, DC: Department of Justice, 2019).

[10] Claire Allbright, "A Russian Facebook Page Organized a Protest in Texas. A Different Russian Page Launched the Counterprotest," *Texas Tribute* (Austin), November 1, 2017, available at <www.texastribune.org/2017/11/01/russian-facebook-page-organized-protest-texas-different-russian-page-l/>.

[11] Renee DiResta et al., *The Tactics and Tropes of the Internet Research Agency* (New York: New Knowledge, 2018), available at <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1003&context=senatedocs>.

[12] Martin and Shapiro, *Trends in Online Foreign Influence Efforts*.

[13] Tom Uren, Elise Thomas, and Jacob Wallis, *Tweeting Through the Great Firewall: Preliminary Analysis of PRC-Linked Information Operations Against the Hong Kong Protests*, Issues Paper Report No. 25/2019 (Canberra: Australian Strategic Policy Institute, 2019), 5, available at <https://www.aspi.org.au/report/tweeting-through-great-firewall>.

[14] Sergey Sanovich, *Computational Propaganda in Russia: The Origins of Digital Misinformation*, Working Paper No. 2017.3 (Oxford, UK: Computational Propaganda Research Project, 2017), available at <http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/06/Comprop-Russia.pdf>.

[15] Ibid., 15.

[16] Looking at the Russian campaign targeted at the U.S. 2016 elections, it appears that Russia's ad-targeting efforts were not focused on the battleground states critical to Presidential victory. Russia spent less than $2,000 on advertisements in Wisconsin, Pennsylvania, and Michigan, suggesting the campaign was not decisive in changing votes associated with the Electoral College. See Nemr and Gangware, *Weapons of Mass Distraction*.

[17] Christopher A. Bail et al., "Assessing the Russian Internet Research Agency's Impact on the Political Attitudes and Behaviors of American Twitter Users in Late 2017," *Proceedings of the National Academy of Sciences* 117, no. 1 (January 2020), 243–250.

[18] Matthew Nussbaum, "Worries About Trump's Legitimacy Resurface with Russia Indictment," *Politico*, February 16, 2018, available at <www.politico.com/story/2018/02/16/muller-indictment-trump-election-legitimacy-416163>.

[19] Davey Alba and Sheera Frenkel, "Russia Tests New Disinformation Tactics in Africa to Expand Influence," *New York Times*, October 30, 2019, available at <www.nytimes.com/2019/10/30/technology/russia-facebook-disinformation-africa.html>.

[20] Sarah Cook, *Beijing's Global Megaphone: The Expansion of Chinese Communist Party Media Influence Since 2017*, Special Report (Washington, DC: Freedom House, 2020), available at <https://freedomhouse.org/sites/default/files/2020-02/01152020_SR_China_Global_Megaphone_with_Recommendations_PDF.pdf>.

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[22] Ibid.

[23] Hauke Gierow, Karsten Luc, and Kristin Shi-Kupfer, "Governance Through Information Control: China's Leadership Struggles with Credibility in Social Media Staged Propaganda, Everyday Tips, Lack of Interactivity," *China Monitor* 26 (January 19, 2016), available at <https://www.merics.org/sites/default/files/2019-08/China_Monitor_No_26_Social_Media_EN.pdf>.

[24] Bolsover, *Computational Propaganda in China*.

[25] Gary King, Jennifer Pan, and Margaret E. Roberts, "How the Chinese Government Fabricates Social Media Posts for Strategic Distraction, not Engaged Argument," *American Political Science Review* 111, no. 3 (2017), 484–501.

[26] Cook, *Beijing's Global Megaphone*. China has also exerted significant influence on Hollywood by granting select films access to Chinese markets. The films *Martian* and *Gravity* received significant praise in the Chinese market for giving Chinese astronauts key roles in saving beleaguered American astronauts. See Gus Lubin, "18 Hollywood Films That Pandered to China's Giant Box Office," *Business Insider*, October 14, 2016, available at <www.businessinsider.com/hollywood-movies-in-china-2016-10#cloud-atlas-removed-nearly-30-minutes-from-its-chinese-cut-largely-plotlines-and-scenes-with-controversial-sexual-relations-3>.

[27] Such was learned when Daryl Morey, the general manager of the Houston Rockets, published his now-deleted tweet: "Fight for freedom, Stand with Hong Kong." He quickly deleted the tweet, apologized, and the National Basketball Association worked overtime to avoid alienating itself from the lucrative Chinese basketball market. See Theodore Yu, "One Tweet, a Week of Turmoil: NBA Steps Out of Bounds with China and Pays the Price," *Sacramento Bee*, October 13, 2019, available at <www.sacbee.com/sports/nba/sacramento-kings/article235933242.html>.

[28] Renee DiResta, "For China, the 'USA Virus' Is a Geopolitical Ploy," *The Atlantic*, April 11, 2020, available at <www.theatlantic.com/ideas/archive/2020/04/chinas-covid-19-conspiracy-theories/609772/>.

[29] Gary Schmitt and Michael Mazza, *Blinding the Enemy: CCP Interference in Taiwan's Democracy* (Washington, DC: Global Taiwan Institute, October 2019).

[30] Ibid., 8–9.

[31] Twitter Safety, "Information Operations Directed at Hong Kong," *Twitter*, August 19, 2019, available at <https://blog.twitter.com/en_us/topics/company/2019/information_operations_directed_at_Hong_Kong.html>.

[32] Nathaniel Gleicher, "Removing Coordinated Inauthentic Behavior from China," *Facebook*, August 19, 2019, available at <https://about.fb.com/news/2019/08/removing-cib-china/>; Chris Welch, "YouTube Disabled 210 Accounts for Spreading Disinformation About Hong Kong Protests," *The Verge*, August 22, 2019, available at <www.theverge.com/2019/8/22/20828808/youtube-hong-kong-protests-china-disabled-accounts-suspension-disinformation>.

[33] Uren, Thomas, and Wallis, *Tweeting Through the Great Firewall*.

[34] Ibid., 4.

[35] Ibid.

[36] Ibid., 11.

[37] Ibid., 14.

[38] Ibid., 22.

[39] Bethany Allen-Ebrahimian, "Beijing's Coronavirus Propaganda Blitz Goes Global," *Axios*, March 11, 2020, available at <www.axios.com/beijings-coronavirus-propaganda-blitz-goes-global-f2bc610c-e83f-4890-9ff8-f49521ad6a14.html>.

[40] DiResta, "For China, the 'USA Virus' Is a Geopolitical Ploy."

[41] Ibid.

[42] Allen-Ebrahimian, "Beijing's Coronavirus Propaganda Blitz Goes Global."

[43] DiResta, "For China, the 'USA Virus' Is a Geopolitical Ploy."

[44] Bethany Allen-Ebrahimian, "Bots Boost Chinese Propaganda Hashtags in Italy," *Axios*, April 1, 2020, available at <www.axios.com/bots-chinese-propaganda-hashtags-italy-cf92c5a3-cdcb-4a08-b8c1-2061ca4254e2.html>.

[45] Echo Huang, "No Little Red Guidebook: Why China Isn't as Skillful at Disinformation as Russia," *Quartz*, September 19, 2019, available at <https://qz.com/1699144/why-chinas-social-media-propaganda-isnt-as-good-as-russias/>.

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[47] Christopher Paul and Marek Posard, "Artificial Intelligence and the Manufacturing of Reality," *RAND Blog*, January 20, 2020, available at <www.rand.org/blog/2020/01/artificial-intelligence-and-the-manufacturing-of-reality.html>.

[48] See Linda Robinson et al., *Modern Political Warfare: Current Practices and Possible Responses* (Santa Monica, CA: RAND, 2018); Shiv Malik, "IS Papers: Leaked Documents Show How IS Is Building Its State," *Guardian*, December 7, 2015, available at <www.theguardian.com/world/2015/dec/07/leaked-isis-document-reveals-plan-building-state-syria>.

[49] Elizabeth Bodine-Baron et al., *Examining IS Support and Opposition Networks on Twitter* (Santa Monica, CA: RAND, 2016), available at <https://www.rand.org/content/dam/rand/pubs/research_reports/RR1300/RR1328/RAND_RR1328.pdf>.

[50] Another study analyzed the content of IS propaganda magazines *Dabiq* and *Rumiyah*. Common themes associated with the articles in the magazines included IS theological justification and inspiration for violence; descriptions of community, belonging, and meaning; stories of progress or heroism; establishment of a common enemy, that is, the West and Muslim "apostates"; and instructional and inspirational articles empowering individual violent action. See Tyler Welch, "Theology, Heroism, Justice, and Fear: An Analysis of IS Propaganda Magazines *Dabiq* and *Rumiyah*," *Dynamics of Asymmetric Conflict* 11, no. 3 (2018), 186–198.

[51] Thomas Hegghammer, *Saudi Militants in Iraq: Backgrounds and Recruitment Patterns* (Kjeller: Norwegian Defence Research Establishment, February 5, 2007), available at <https://www.ffi.no/en/publications-archive/saudi-militants-in-iraq-backgrounds-and-recruitment-patterns>; Alexandria Zavis, "Foreign Fighters in Iraq Seek Recognition, U.S. Says," *Los Angeles Times*, March 17, 2008, available at <www.latimes.com/world/la-fg-iraq17mar17-story.html>.

[52] "The Propaganda Wars Since 9/11," *Washington Post*, May 8, 2015, available at <www.washingtonpost.com/graphics/national/propaganda/>; Scott Shane, "The Lessons of Anwar al-Awlaki," *New York Times*, August 27, 2015, available at <www.nytimes.com/2015/08/30/magazine/the-lessons-of-anwar-al-awlaki.html>.

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[55] Ibid.

[56] Joseph Carter, Shiraz Maher, and Peter Neumann, *#Greenbirds: Measuring Importance and Influence in Syrian Foreign Fighter Networks* (London: International Centre for the Study of Radicalisation and Political Violence, 2014), 5.

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[58] J.M. Berger, "Tailored Online Interventions: The Islamic State's Recruitment Strategy," *Combating Terrorism Center Sentinel* 8, no. 10 (October 2015), available at <https://www.ctc.usma.edu/posts/tailored-online-interventions-the-islamic-states-recruitment-strategy>.

[59] Joana Cook and Gina Vale, *From Daesh to Diaspora: Tracing the Women and Minors of the Islamic State* (London: International Centre for the Study of Radicalisation, 2018).

[60] Karen Yourish, Derek Watkins, and Tom Giratikanon, "Where IS Has Directed and Inspired Attacks Around the World," *New York Times*, March 22, 2016, available at <www.nytimes.com/interactive/2015/06/17/world/middleeast/map-isis-attacks-around-the-world.html>.

[61] As one IS supporter urged in a blog, "To counter suspensions, you must support each other. Don't make the brothers and sisters ask for a shout out. If someone you recognize has followed you after a suspension, tell your followers to follow them." See "Blog Post Suggests Ways for IS Supporters to Boost Social Media Effectiveness," SITE Intelligence Group, July 17, 2015.

[62] J.M. Berger and Heather Perez, *The Islamic State's Diminishing Returns on Twitter: How Suspensions Are Limiting the Social Networks of English-Speaking IS Supporters*, Occasional Paper (Washington, DC: Program on Extremism at George Washington University, 2016).

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[64] Maura Conway et al., "Disrupting Daesh: Measuring Takedown of Online Terrorist Material and Its Impacts," *Studies in Conflict & Terrorism* 42, nos. 1–2 (2019), 141–160.

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[66] See, for example, Todd C. Helmus et al., *Russian Social Media Influence: Understanding Russian Propaganda in Eastern Europe* (Santa Monica, CA: RAND, 2018), available at <https://www.rand.org/pubs/research_reports/RR2237.html>; Bodine-Baron et al., *Countering Russian Social Media Influence*; Alina Polyakova and Daniel Fried, *Democratic Defense Against Disinformation 2.0* (Washington, DC: Atlantic Council, 2019), available at <https://www.atlanticcouncil.org/wp-content/uploads/2019/06/Democratic_Defense_Against_Disinformation_2.0.pdf>; Paul Barret, Tara Wadhwa, and Dorothée Baumann-Pauly, *Combating Russian Disinformation: The Case for Stepping Up the Fight Online* (New York: NYU Stern Center for Human Rights, 2018), available at <https://issuu.com/nyusterncenterforbusinessandhumanri/docs/nyu_stern_cbhr_combating_russian_di?e=31640827/63115656>.

[67] There is no single U.S. agency or government entity leading the work to counter foreign propaganda and influence. See *Homeland Security Advisory Council Interim Report of the Countering Foreign Influence Subcommittee* (Washington, DC: Department of Homeland Security, June 2019), 10, available at <https://www.dhs.gov/sites/default/files/publications/ope/hsac/19_0521_final-interim-report-of-countering-foreign-influence-subcommittee.pdf>; Melissa Dalton et al., *By Other Means—Part II: U.S. Priorities in the Gray Zone* (Lanham, MD: Rowman & Littlefield, 2019), 6–11, available at <https://csis-prod.s3.amazonaws.com/s3fs-public/publication/Hicks_GrayZone_II_full_WEB_0.pdf>.

Chapter 8

Weapons of Mass Destruction, Strategic Deterrence, and Great Power Competition

By Paul Bernstein, Justin Anderson, Diane DiEuliis, Gerald Epstein, and Amanda Moodie

Weapons of mass destruction (WMD)—nuclear, biological, and chemical weapons and the means to deliver them—are an important feature of the global security environment and a key element of Great Power competition. For Russia and China, WMD contribute to multiple goals: conflict deterrence at the strategic and regional levels; regime survival; coercion of rival states; and, potentially, as an adjunct to conventional forces to support operations. U.S.-Russia competition in nuclear weapons has been constrained in recent decades by various arms control agreements, but the erosion of this regulatory regime in the context of deteriorating bilateral relations could create new competitive pressures. China has elevated the importance of its nuclear forces, modernized and expanded its strategic nuclear capabilities, and fielded a growing number of dual-capable theater-range missile systems whose role (whether conventional or nuclear) in a future crisis or conflict could complicate deterrence and heighten escalation risks. China and Russia may perceive chemical and biological warfare agents, including agents developed through new scientific and manufacturing techniques, as important capabilities for a range of operations against the United States and its allies. Chemical or biological attacks could be difficult to attribute and may be well suited to support Russian and Chinese objectives in operations below the threshold of open armed conflict.

Weapons of mass destruction (WMD) remain a significant concern for U.S. defense planning. Core strategy and policy documents such as the National Security Strategy, National Defense Strategy (NDS), Nuclear Posture Review, and Department of Defense Strategy for Countering Weapons of Mass Destruction highlight these weapons as an enduring feature of the security environment.[1] They are also a potentially dynamic factor in Great Power relations. Understanding the role of nuclear, biological, and chemical weapons in competition—from strategic nuclear deterrence to regional conflict (traditional, hybrid, irregular) to operations below the level of armed conflict—is essential to manage geopolitical risk, limit the possibility of surprise, prepare the joint force for future operations, and

inform the American people about the dangers associated with potential crises and conflicts. Advances in the technologies that shape WMD could make these tasks more difficult.

Nuclear Weapons in Great Power Competition

New pressures for competition in nuclear capabilities among the Great Powers are likely to emerge in the next few years. In the U.S.-Russia relationship, a weakened arms control regime and the introduction of new technologies could catalyze a period of competition and arms-racing in both offensive and defensive systems, which could affect the nuclear balance in uncertain ways. China's continued expansion and improvement of its nuclear forces may create the basis for a more competitive stance vis-à-vis the United States, should Beijing decide this is necessary to advance its global and regional aspirations. Emerging technologies enabling improved prompt strike (for example, hypersonic vehicles) and active defense against missile attacks could be a factor, as various nuclear competitions unfold at both strategic and nonstrategic levels. Additionally, Great Power nuclear competition could have important effects on U.S. extended deterrence relationships, prospects for further nuclear proliferation, and the future of the global nonproliferation regime.

The United States and Russia

Deterrence and arms control have been central to managing nuclear competition between Washington and Moscow for decades. Both sides have adhered to a concept of mutual deterrence that has ensured neither government saw advantage in mounting a surprise nuclear attack or using nuclear weapons in a crisis. A series of arms control agreements dating back to the 1970s has sought to reinforce deterrence by first capping and then reducing or eliminating nuclear delivery systems, including those considered to have destabilizing effects. This framework of deterrence and force reduction has been successful in limiting pressures for nuclear arms-racing and in mitigating (though not fully eliminating) other dangers of the nuclear age, including crisis instability and accidental launch.

Today, stress on this framework is growing, as bilateral relations have deteriorated and the network of treaties designed to ensure nuclear stability continues to erode. To be sure, neither country has been standing still regarding strategic nuclear forces. Russia has nearly completed modernizing its entire strategic nuclear arsenal and has also introduced or stated its intent to develop several nontraditional nuclear systems (so-called exotic weapons) that are important, from Moscow's vantage, to pose a credible retaliatory threat to the United States.[2] The United States is in the early stages of executing a program to replace all three legs of its strategic nuclear triad by the 2030s.[3] These respective strategic force upgrades have long been planned; their origins predate the downturn in bilateral relations and adoption of a Great Power competition framework by the 2018 National Defense Strategy. For both Washington and Moscow, the fundamental purpose of these programs is to ensure parity in strategic forces going forward—and thereby sustain a status quo that has long delivered mutual and global security benefits.

The question today is whether either side might see the need or the opportunity in the near term to move toward a more open and unconstrained rivalry in strategic nuclear forces, in order to achieve strategic competitive advantage. A new nuclear arms race is hardly inevitable—neither is it clear that this would be in America's interest. Some have

> "I would like to tell those who have been trying to escalate the arms race for the past 15 years, to gain unilateral advantages over Russia . . . the attempt at curbing Russia has failed."
>
> —*Russian President Vladimir Putin, March 1, 2018*

argued that robust and evidently superior nuclear forces would yield meaningful geopolitical advantage for the United States and a clear edge in competitions with other nuclear-armed states.[4] Others suggest that the costs and risks of such a posture are likely to outweigh any benefits. Nothing in current U.S. strategy and policy documents states or suggests a need to pursue nuclear superiority over Russia, or that achieving the goals of the NDS requires nuclear capabilities and policies markedly different from those that define U.S. planning.

The United States is not well postured for more open nuclear competition with Russia, as compared with earlier historical periods. Although today there is in Congress a bipartisan political consensus favoring the triad replacement program, it is unlikely this consensus would survive an effort to pursue a more expansive—and expensive—nuclear development program in the name of outcompeting Russia. Many of those who support modernization also question the cost of the triad replacement program in relation to that of the other capabilities required to fulfill the main objectives of the NDS. Accordingly, as a practical matter, it makes sense for the United States to avoid inviting an unconstrained competition in nuclear capabilities with an adversary that seems willing (to a point) to bear high costs in prioritizing nuclear forces.

This possibility points to the need to maintain a focus on stability characterized by parity in strategic nuclear forces, regulated through an arms control regime.[5] The U.S. goal should be to extend and adapt the New Strategic Arms Reduction Treaty (New START) and thereby create for strategic nuclear weapons a type of "competition sanctuary" that will limit strategic risk generally and avoid diverting resources from areas of competition that are arguably more important to fully implement the NDS.[6]

If the New START, currently set to expire in February 2021, is not extended or updated, some degree of heightened nuclear competition seems likely, as either side could then act without legally binding constraints.[7] How significant a competition this would be is not entirely clear. Russia might see an advantage to rapidly building up the number of warheads it can deliver on its strategic systems or expanding its strategic nuclear capabilities in other ways. Moscow could conclude that this was a relatively easy and cost-effective way to establish a degree of benefit and impose additional risk on the United States. Russia might feel a stronger incentive to move in this direction if it was experiencing the weight of other competitive pressures in nonnuclear domains, such as global nonnuclear strike, outer space, or cyber. After all, nuclear weaponry is one of the few strategic technology areas in which Russia is capable of competing effectively with the United States. But Moscow likely will not want to trigger a strong U.S. counter-response that creates new risk and prospective high additional costs for Russia, so it can be expected to exercise caution in moving too quickly or too aggressively toward a larger deployed force.[8]

The United States might or might not respond with similar steps. The political and psychological importance of maintaining the perception and reality of numerical parity would be an important consideration that could lead Washington to reverse the reductions

taken under the New START. But as recent studies have demonstrated, the United States could remain within the treaty limits even if Russia did not—and it could do so without undermining its nuclear deterrent, as long as the resilience inherent in the U.S. nuclear triad is sustained.[9] Furthermore, neither side has the capacity to upend the strategic nuclear balance by exceeding the treaty limits if the other chooses to do so too.[10] In other words, one highly plausible outcome of renewed nuclear competition is a modified form of parity at higher levels of strategic forces.[11]

Competitive pressures in strategic nuclear weapons could also be shaped by Russia's assessment of U.S. missile defense capabilities. Moscow has demonstrated that it will go to great lengths and bear considerable costs to ensure that its strategic nuclear forces can reliably overcome U.S. missile defenses if it needs to deliver a retaliatory strike in the event of a nuclear exchange. Russia fears that the United States will significantly expand its missile defense capabilities, and new nuclear systems being introduced by Russia, such as the Avangard nuclear-armed hypersonic glide vehicle (HGV), are intended mainly as a hedge against a U.S. breakout in missile defenses. While some analysts see the introduction of this and similar capabilities as signaling a new arms race or posing a qualitatively novel strategic threat, the number of such systems that Russia fields is likely for reasons of strategy and cost to be calibrated against U.S. missile defense deployments and the requirements for a secure second strike. That said, significant departures from current U.S. missile defense policy (for example, development of space-based interceptors) or an open effort to develop defenses tailored to HGVs could lead Russia to take more dramatic steps to ensure the survivability of its strategic nuclear forces.[12] This effort, in turn, could unleash new competitive pressures.

At the regional level, a somewhat different competitive landscape has taken shape in recent years. Russia continues to field modern land-, sea-, and air-based nonstrategic nuclear weapons (NSNW)—a category of weaponry in which it has long enjoyed uncontested advantage in relation to the United States and its Allies in the North Atlantic Treaty Organization (NATO). In the post–Cold War period, this imbalance in NSNW has been a source of concern precisely because of the fear that it could contribute to deterrence instability in Europe. Rather than compete with Russia in theater nuclear systems, the United States and NATO have sought repeatedly to extend the bilateral arms control framework to capture these capabilities. Moscow consistently has refused.

Still, during a period in which a nuclear crisis seemed a remote possibility, the United States judged the risk posed by this persistent asymmetry in NSNW to be manageable. Today, in light of Russia's conduct and its continued investment in these capabilities, this possibility is less remote and the risk therefore higher. Of particular concern is the threat that, in a regional conflict, Russia might see an advantage in escalating to the limited use of NSNW in the belief that the United States or NATO lacks the means to respond proportionately. Accordingly, mitigating this danger is now a priority for the United States. This strategy does not require matching Russia's large, diverse NSNW capabilities or its doctrine, but it does require a more tailored form of competition to narrow the imbalance in forces and convey resolve to strengthen the U.S. regional deterrence posture. To accomplish this, the United States will develop and field two nonstrategic nuclear capabilities: a low-yield option for existing submarine-launched ballistic missile warheads and a nuclear-armed sea-launched cruise missile.[13] Additionally, combatant commands and the Services have been

directed to strengthen the ability of the joint force to operate effectively in a nuclear environment following an adversary's limited use of nuclear weapons. More openly competitive measures designed to achieve parity or advantage in this category of nuclear weapons are not necessary for the United States to meet the requirements of regional deterrence.

A second issue in considering regional nuclear competition with Russia is the demise in 2019 of the Intermediate-Range Nuclear Forces (INF) Treaty. It remains to be seen what enduring effect this loss will have.[14] To date, it does not appear that Russia's deployment of previously prohibited INF systems alters the balance of power in Europe. The United States currently has no plans to develop a nuclear-capable INF system for deployment in Europe or elsewhere. The United States could choose to develop a land-based nonnuclear INF missile in support of NATO, which could help narrow the gap with Russia in such systems. In fact, Washington is much more focused on developing capabilities to close the conventional missile imbalance in East Asia that threatens to disadvantage the joint force in a future conflict with China. In the immediate period ahead, the most salient post-INF competitions will likely feature conventionally armed theater missiles.

The United States and China

Compared with the near-term dynamics that could shape U.S.-Russia nuclear competition, the prospects for U.S.-China nuclear competition need to be viewed over a longer time horizon. It is difficult to anticipate dramatic changes in the next 5 years, though trends in Chinese and U.S. capabilities should be monitored carefully; they could contribute to conditions that lead to a more competitive bilateral nuclear relationship in the future.

China has moved definitively away from its small, static strategic nuclear force of the past. As part of its broad-based modernization of its armed forces, China now fields a modern strategic dyad composed of intercontinental ballistic missiles (ICBMs) based on land and on submarines.[15] Structural reform of the People's Liberation Army has elevated the Rocket Force to coequal status with land, sea, and air forces, making more resources available for nuclear force development. Modern ICBMs (a growing number of them mobile) and submarine-launched ballistic missiles constitute an increasingly dynamic force designed to give Beijing high confidence that it possesses a survivable deterrent against U.S. nuclear forces and missile defenses—one that would allow it to resist nuclear coercion in a crisis and press its advantage in a local or regional military conflict with the United States. Clearly, China's leadership sees such a capability as a critical component of long-term competitive strategy toward the United States.

But China historically has not sought to engage in nuclear competition with the United States, choosing instead to maintain only those capabilities needed to deter and respond to nuclear threats. China's political leadership continues to have a generally conservative view of the role of nuclear weapons and has long accepted a large disparity in capabilities—a posture embodied in slogans such as "nuclear strategy of self-defense" and "lean and effective nuclear force."[16] While Beijing views a credible strategic nuclear deterrent as indispensable to a stable relationship with Washington, achieving equal status in numbers and types of nuclear weapons has not been its goal. China does not wish to be seen as an arms-racing global power.

> "While China's declaratory policy and doctrine have not changed, its lack of transparency regarding the scope and scale of its modernization program raises questions regarding its future intent."
>
> — Nuclear Posture Review, *DOD (2018)*

As the strategic environment changes and as the technological impediments to fielding larger and more advanced forces continue to fall, it is reasonable to ask whether and under what conditions China could adopt a more competitive approach to its nuclear forces. One possibility is that leadership will decide that parity (or something close to it) in strategic nuclear weapons is necessary to enhance China's status as a coequal global power and a dominant force in East Asia. Especially if U.S. force levels remain relatively static, this goal may become increasingly attractive; it likely would be even more attractive should the United States decide in 2020 or beyond to reduce current levels of operationally deployed forces, either unilaterally or through a renewed commitment to arms control with Russia. Should U.S. (and Russian) forces fall to, say, two-thirds of New START limits, Beijing's task in moving toward parity would be much more manageable—assuming it continues to rebuff U.S. entreaties to join the process of making negotiated reductions. If China were to achieve parity or equivalence in deployed or deliverable warheads, it might then be expected to explore ways to translate this status into political and military advantage.

Another possibility is that, as with Russia, competitive pressures for China could be driven by changes to U.S. missile defense and defeat capabilities. Should the United States expand its regional missile defense network, move toward a larger or more sophisticated homeland defense capability (for example, boost-phase kill, space-based interceptors), and field advanced theater-range missiles capable of precision strike against Chinese nuclear sites (fixed and mobile), concerns about the survivability of its nuclear forces could lead China to consider any number of steps to ensure the credibility of its deterrent. These types of offense-defense dynamics might have little to do with a decision by China to pursue nuclear parity as an explicit policy goal, but they nonetheless point to the possibility that, under certain circumstances, Beijing could feel compelled to undertake a significant expansion of its strategic nuclear forces.

The United States must also consider the possibility of nuclear competition with China at the regional level. Beijing historically has eschewed theater or tactical nuclear weapons that would support more expansive deterrence concepts and more operational scenarios that envision the limited use of nuclear weapons. But there are indications that this stance is changing as China considers how to strengthen its options for coercing and deterring the United States (and its allies) at different stages of conflict in an increasingly complex operating environment. Should China move decisively in the direction of limited nuclear options, it will need to consider how the United States might respond.[17] The United States does not station land-based or air-delivered nuclear weapons in the Far East and has no current plans to do so. If China's theater nuclear footprint expands, then U.S. allies in the region could press Washington to take countervailing steps. This potential competitive dynamic bears watching.

The converse could happen as well. The United States currently extends nuclear deterrence to regional allies through over-the-horizon nuclear capabilities; however, if the

nuclear crisis with North Korea is not resolved and indeed worsens, Washington could face pressures from the Republic of Korea and Japan to provide a more visible nuclear presence in the theater. This could lead the United States to deploy nuclear weapons to the region as a means to deepen extended deterrence relationships with these allies and perhaps other regional security partners. Should the U.S. nuclear presence in the region grow significantly and in a visible way—even for the purpose of countering a North Korean threat—Beijing might see the need to respond in kind by building up its own theater nuclear presence.

Finally, other regional developments could shape Chinese thinking about nuclear forces. Notably, China is closely watching India's efforts to develop a nuclear triad. While China was an important factor in India's decision to acquire nuclear weapons, India's nuclear force is not optimized for use against China or any other state; rather, India's nuclear deterrent historically has been more existential in nature, with the goal of maintaining India's strategic independence and keeping it free from intimidation or coercion by other nuclear powers. For its part, Beijing is reticent to acknowledge that India's nuclear arsenal could impact China's security. Still, the two nations have divergent and potentially competing interests and ambitions in South Asia and the Indian Ocean. As Beijing assesses future nuclear risks in the region, it cannot ignore India's progress in developing new and improved nuclear-capable delivery systems or India's efforts to build missile defense capabilities.

The Impact of Competition in Hypersonic Systems

The introduction of hypersonic vehicles by the Great Powers is not likely to have a major impact on the global balance of nuclear power in the next few years. To date, only Russia, as noted, is fielding a nuclear-armed hypersonic missile as part of its strategic forces. This capability will not in itself alter the U.S.-Russia nuclear balance in a significant way. Over time, if the Great Powers deploy intercontinental-range hypersonic missiles in growing numbers, it will be necessary to consider the strategic implications regardless of whether these systems are nuclear or conventionally armed. Could the conventional hypersonic systems of one Great Power pose a credible threat to the strategic nuclear deterrent of another? How would strategic stability be affected if the United States fielded a new generation of missile defenses capable of defeating Russian and Chinese hypersonic platforms?

Such questions will become more important in the period ahead, but strategists and defense planners must also closely examine the potential impact of hypersonic weapons on nuclear stability at the theater level. One concern is whether the widespread use of hypersonic missiles in a regional conflict would undermine stability by creating pressures for early nuclear use. If, as might be anticipated, theater-range hypersonic weapons give both sides to a conflict the capability to inflict more decisive nonnuclear damage (for example, against power projection forces, air defenses, or missile arsenals) at an earlier stage, then these reciprocal vulnerabilities could not only reinforce deterrence and restraint but also generate pressures to consider limited use of nuclear weapons to avoid or redress major operational setbacks.[18] How much more dangerous would such a scenario be if each side faced uncertainty about the payload of hypersonic missiles that were, in fact, dual capable?

Extended Deterrence and Proliferation Implications of Great Power Nuclear Competition

More open nuclear competition among the Great Powers likely would reverberate in the security environment in several ways. The impact on U.S. allies and security partners is one area of concern. The prospect of nuclear arms racing and heightened nuclear tension would make many partners anxious. This anxiety could lead some to demand a return to arms control and risk-reduction measures, while others are likely to demand stronger nuclear security guarantees from the United States. Either way, Washington would face new challenges in alliance management.

Indeed, the United States cannot dismiss the possibility that one or more of its allies, in the face of Great Power nuclear competition and a weakened arms control regime, could decide to pursue an independent nuclear weapons capability; other, less friendly states could make the same calculation as nuclear dangers rise. This is one way that Great Power nuclear competition could fuel proliferation. Additionally, sharper nuclear competition among the Great Powers is certain to be viewed by many nonnuclear states party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as additional evidence that the "nuclear haves" remain unprepared to make progress toward nuclear disarmament. This would add to growing questions about the utility of the NPT in the 21st century and to pressures facing allies under the U.S. nuclear umbrella and others to embrace the Treaty on the Prohibition of Nuclear Weapons (Nuclear Weapon Ban Treaty) as an alternative to the NPT—a development that could undermine the legitimacy of nuclear deterrence as a security strategy.

Biological Weapons in Great Power Competition

There has been a broad consensus for decades that biological weapons are not useful as instruments of warfare because their effects are too difficult to control and too dependent on conditions such as weather, which cannot be predicted long in advance. Even in a strategic role beyond the battlefield, use of a contagious biological agent on a large scale could threaten to spread back to the attacker. Although the Soviet Union was not deterred by such considerations, or by the Biological Weapons Convention (BWC), from pursuing an extensive offensive biological weapons program, that threat receded with the end of the Cold War and the exposure and dismantling of many Soviet biological weapons facilities. Thereafter the biological weapons threat came to be seen by the United States as tied principally to terrorists rather than to nation-states, especially after 9/11 and the anthrax attacks that followed.

The BWC, which entered into force in 1975, embodies this global consensus on the lack of military utility of biological weapons and the importance of establishing a norm prohibiting their use.[19] The question today is whether, 45 years later, advances in technology and the revival of Great Power competition could challenge these assumptions. For example, progress in the life sciences could lead to the emergence of disease agents that are more easily controlled than their natural counterparts. Certain manipulations, such as conferring antibiotic resistance or hardening agents to environmental conditions, are likely to be within the capacity of scientists working for national defense establishments. Should U.S. competitors become interested in a new generation of biological weapons, defense planners would have to anticipate a threat of greater sophistication than in the past—one that could be employed in a set of contingencies that extends well beyond those associated with terrorists or violent extremist groups.[20]

Table 8.1. Biological Weapons and Gray Zone Operations	
Ambiguity	Pathogens naturally present in the affected area could be selected to disguise the deliberate origins of an attack.
Nonlethality	Pathogens could be disseminated to cause nonlethal rather than fatal diseases.
Delay	Effects from the release of a biological weapon would be delayed from the time of release, with the length of the delay depending on the dose received and the health of the victim.
Psychological Amplification	The invisible, time-delayed, and potentially lethal consequences of exposure to disease agents—whether deliberate or natural—could cause great anxiety among civilian or military personnel in the vicinity of any disease outbreak, greatly amplifying the disruptive effects.
Behavioral Consequences	Advanced biological agents might be developed that could influence the mood and behavior of those infected, rather than causing illness or death, with uncertain consequences.

Thus, an important task is to understand how the "new biology" could help determined competitors such as Russia and China overcome the traditional obstacles to effective battlefield or even strategic employment of disease agents—and to what potential effect. Should Russia or China be willing to violate its BWC commitments, either country could seek to develop more effective capabilities designed to target specific U.S. military activities and facilities important to the prosecution of a regional conflict. Examples could include attacks on U.S. power projection or logistical supply activities critical to flowing U.S. forces and equipment, such as operations at ports of embarkation or debarkation. Such attacks, if successful, would interrupt key supply chains by disabling or killing unprotected civilian port workers. Military personnel could also be affected by a no-notice attack that infects them before physical or medical protections could be put into place. Panic in the general populace could further complicate military activities.

Aside from the question of effects on military activities is the challenge of attribution. It is already difficult to determine whether a disease outbreak is natural or deliberate and to identify with high confidence the source of an intentional attack. A new generation of biological agents could make it even more challenging and thus encourage other powers to consider militarizing such agents as a tool of asymmetric warfare for various nontraditional battlefields. Here, the Department of Defense needs to look beyond the possibility of major war. In the types of irregular or hybrid operations exemplified by recent Russian activities, or even in so-called gray zone operations, innovations in the life sciences could allow peer competitors to exploit the ambiguity associated with biological agents; these actors could pursue important goals while avoiding accountability. Table 8.1 notes the attributes of biological weapons that could make them attractive in such an effort.

Emerging biological applications have the potential to shape Great Power competition more broadly. Bioinspired innovations—such as advanced materials, "living" sensors, engineered medicines, and new forms of energy production—could confer advantage on those militaries best able to develop, field, and exploit them. State competitors could also invest in biotechnology to directly enhance warfighter capabilities—for example, through machine interfaces or more direct physical enhancements or protections. These kinds of military applications may be legitimate in the sense that they do not violate international

legal prohibitions against the use of biological weapons, but they could also mask illicit programs to develop such weapons.

Additionally, technological advances in the life sciences could lead to the exploitation of genetic vulnerabilities and the genetic targeting of populations. Knowledge of the genetic makeup of key individuals might indicate health conditions to which they are especially vulnerable; more speculatively, in the event that relationships may be gleaned between genetic traits and behavior, this knowledge could indicate propensities to act in certain ways. Advances in genetics and biotechnology raise related questions about the possibility that genetic weapons might be developed that selectively target individuals or groups based on specific genetic signatures. A 2018 report from the National Academies of Sciences, Engineering, and Medicine finds that developing such a weapon confronts a number of technical challenges; however, the rate of technical progress in relevant fields suggests that this issue should continue to be monitored.[21] To the extent that these possibilities exist, genetic databases containing information on a nation's population or leaders assume national security sensitivity.

Looking ahead, the United States will need to develop intelligence capabilities that can anticipate, monitor, and assess the range of advanced agents that modern biotechnologies may make possible and adversary efforts to militarize these agents. This is a formidable challenge, not least because of the dual-use nature of work in the life sciences. The potential for adversary use of biological weapons with deliberate ambiguity requires the United States to develop techniques and practices that can reliably identify disease outbreaks and differentiate natural from deliberate attacks, attribute the source of a possible attack, and accelerate the execution of medical management strategies. Given the importance of allies and coalitions to U.S. defense strategy and the prosecution of any regional conflict, the United States must work with partners to ensure an adequate level of preparedness for plausible biological weapons attacks. The United States cannot anticipate all possible weapons applications of the life sciences and biotechnology, but it must be postured to respond effectively to biological warfare threats so as to deny any meaningful advantage to adversaries seeking to exploit these technologies for military gain.[22]

The coronavirus pandemic underscores this point. Although the novel coronavirus is clearly not a biological weapon (despite persistent efforts by those hostile to U.S. interests to assert otherwise), the pandemic nonetheless could hold lessons for adversaries inclined to see utility in asymmetric or unconventional means of conflict—and who have invested in modern biology. Future threat assessments will need to consider how potential adversaries view the economic and social disruption caused by the virus in the United States and for some of its partners, the challenges in mounting an effective response, and possible effects on the readiness of the joint force.

Chemical Weapons in Great Power Competition

As with biology, advances in chemical science and technology could result in novel military threats, new proliferation risks, and further challenges to the Chemical Weapons Convention (CWC). For example, the convergence of chemistry and biology—an important aspect of what has been called the fourth industrial revolution (as described in chapter 4)—has led some analysts to ask whether bad actors could use processes such as peptide

synthesis or metabolic engineering to create toxins or other chemical agents in order to exploit loopholes in the CWC or avoid detection through its routine verification measures.[23] Likewise, the convergence of chemistry and information technology means that many chemical production processes could become automated or capable of being performed remotely, which would make it more difficult to detect the existence of a covert or illicit chemical weapons program.[24]

Another potential challenge is the interest of several countries, including Russia and China, in developing incapacitating chemical agents or central nervous system (CNS)–acting chemicals for domestic law enforcement purposes.[25] The CWC permits member states to use chemical agents for this purpose and does not rule out the use of incapacitants or CNS-acting chemicals under this exemption. Although the treaty prohibits the use of such agents as weapons, it is possible that Russia or China would consider this prohibition a useful tactic in military operations below the level of open armed conflict, while claiming that the use was both legal and acceptable under a broad interpretation of the law enforcement provision of the CWC.

Russia has already demonstrated its willingness to use chemical agents in operations other than war. In 2002, Russian security forces employed a fentanyl derivative to incapacitate Chechen separatists in a Moscow theater, leading to the death of 117 hostages. In 2018, a failed assassination attempt against a former Russian intelligence agent using a new variant of nerve agent developed by the Soviet Union in the 1970s resulted in the accidental death of a British citizen.[26] Similar incidents, such as the 2017 assassination of the half-brother of North Korean leader Kim Jong-un using the nerve agent VX, suggest that chemical agents may be an attractive option for governments seeking plausibly deniable means to conduct tailored operations short of war.[27]

Far more troubling is the use of chemical agents to support major military operations. The government of Bashar al-Asad has repeatedly employed chemical weapons in the Syrian civil war, ranging from a massive attack using sarin gas in August 2013[28] to numerous smaller scale chlorine attacks in the following years,[29] even after Syria acceded to the CWC in September 2013. The apparent effectiveness of these attacks and the lack of a forceful, sustained international response in their aftermath could lead other autocratic governments to conclude that chemical weapons have utility in ensuring internal security and regime survival. Russia's shielding of the Syrian government's attacks further suggests that Moscow itself does not view the longstanding taboo against chemical weapons—or the international censure that might result from their use—as a constraint on its behavior, especially in the gray zone and when not confronting the United States directly.

The United States has been investing for decades in protection for deployed forces that might be exposed to chemical weapons. Whether the Department of Defense in a new era of Great Power competition now needs to consider additional threat possibilities is a reasonable question. Russia might not contemplate the use of chemical weapons in a major conflict with NATO, but such employment cannot be ruled out. Facing significant operational challenges or setbacks from a NATO counterattack, Moscow might well consider asymmetric responses to regain the initiative, including chemical attacks against NATO ground formations, air bases, and forward logistics sites. It is possible that such operations' effectiveness would be limited if Russia were to choose to constrain its

preparations (material and nonmaterial) for fear of signaling its intent to violate the CWC. Nonetheless, the possibility of such attacks and their impact on Alliance operations should be incorporated into future plans and exercises, in order to strengthen deterrence and battlefield preparations.

While China also engages in a wide range of gray zone activities in an attempt to assert and defend controversial maritime and land border claims and shape the political environment, it has not yet violated the norm against the use of chemical weapons and does not appear prepared to do so.[30] In the past 3 years, the Department of State's annual arms control report addressing CWC compliance has made no mention of China.[31] Chinese military leaders may not perceive a need for chemical weapons on current or future battlefields; this may dovetail with a broader political strategy under which China seeks to counter the negative effects of its regional policies by maintaining a cooperative posture with the United States on other issues, including WMD proliferation.

The world may have entered an era in which the norm against chemical warfare continues to weaken while the incentives to resort to unconventional weapons could grow. Ongoing technology developments could further undermine traditional constraints against the use of chemical weapons—while enhancing their appeal as a tool to achieve specific political or operational goals.[32] Varied uses of chemical agents could become a more common occurrence across the spectrum of competition and conflict. This possibility is an important feature of the new era of Great Power competition and should inform U.S. strategic thinking and defense planning.

Notes

[1] *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: Department of Defense [DOD], January 2018), 2–3; *2018 Nuclear Posture Review* (Washington, DC: DOD, February 2018), V–VI, available at <https://media.defense.gov/2018/feb/02/2001872886/-1/-1/1/2018-nuclear-posture-review-final-report.pdf>; *Department of Defense Strategy for Countering Weapons of Mass Destruction* (Washington, DC: DOD, June 2014), 3.

[2] See Matthew Kroenig, Mark Massa, and Christian Trotti, *Russia's Exotic Nuclear Weapons and Implications for the United States and NATO* (Washington, DC: Atlantic Council, March 2020), available at <www.atlanticcouncil.org/in-depth-research-reports/issue-brief/russias-exotic-nuclear-weapons-and-implications-for-the-united-states-and-nato/>.

[3] Land-based intercontinental ballistic missiles (ICBM), *Columbia* class nuclear submarines carrying submarine-launched ballistic missiles (SLBM), and long-range bombers carrying air-launched cruise missiles and gravity bombs.

[4] See, for instance, Matthew Kroenig, *The Logic of American Nuclear Strategy: Why Strategic Superiority Matters* (New York: Oxford University Press, 2018).

[5] See Rose Gottemoeller, "Don't Let the New START Treaty Lapse," *New York Times*, November 8, 2019.

[6] The New Strategic Arms Reduction Treaty (New START) aggregate limits are 700 deployed ICBM, SLBM, and nuclear-equipped heavy bombers equipped for nuclear armament, and 1,550 operationally deployed strategic nuclear warheads associated with these systems. See Department of State, "New START Treaty," available at <www.state.gov/new-start/>.

[7] With the U.S. withdrawal from the Intermediate-Range Nuclear Forces (INF) Treaty in August 2019, following years of Russia violating the accord, New START is the only nuclear arms control treaty currently in force between the two countries. New START can be extended for up to 5 years, if both the United States and Russia agree to an extension.

[8] Vince Manzo, *Nuclear Arms Control Without a Treaty? Risks and Options After New START* (Arlington, VA: CNA, March 2019), 59. The author notes, "Russia has prioritized funding for nuclear forces, but it probably does not have the economic wherewithal for a massive arms buildup."

[9] Ibid., 59–60.

[10] Ibid., 2.

[11] An additional consideration is the ability of the Department of Energy to produce warheads in numbers beyond those required for the triad replacement program of record. Constraints on the department's production capacity could be a limiting factor.

[12] The *2019 Missile Defense Review* discusses the potential benefits of space-based interceptors and states that DOD will examine concepts and technologies to support such a capability. See *2019 Missile Defense Review* (Washington, DC: DOD, 2019), 36–37, available at <https://media.defense.gov/2019/Jan/17/2002080666/-1/-1/1/2019-MISSILE-DEFENSE-REVIEW.PDF>.

[13] The *2018 Nuclear Posture Review* fully explains the strategic logic behind the decision to field limited new nonstrategic nuclear capabilities. See *2018 Nuclear Posture Review*, 52–55.

[14] For an overview of the INF Treaty, see Bureau of Arms Control, Verification and Compliance, Department of State,

"The Intermediate-Range Nuclear Forces Treaty," available at <www.state.gov/inf>. For the U.S. statement withdrawing from the treaty, see Michael R. Pompeo, "U.S. Withdrawal from the INF Treaty on August 2, 2019," Press Statement, Department of State, available at <www.state.gov/u-s-withdrawal-from-the-inf-treaty-on-august-2-2019/>. For a discussion of implications of the treaty's demise, see Amy Woolf, *U.S. Withdrawal from the INF Treaty: What's Next*, IF11051 (Washington, DC: Congressional Research Service, updated January 2, 2020), available at <https://crsreports.congress.gov/product/pdf/IF/IF11051>.

[15] China may be moving toward a nuclear triad through the fielding of upgraded aircraft that can carry a nuclear-armed air-launched ballistic missile. See *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019* (Washington, DC: Office of the Secretary of Defense, May 2019), 67, available at <https://media.defense.gov/2019/May/02/2002127082/-1/-1/1/2019%20CHINA%20MILITARY%20POWER%20REPORT%20(1).PDF>.

[16] *China's National Defense in the New Era,* 2019 Defense White Paper (Beijing: State Council Information Office of the People's Republic of China, July 2019); *China's National Defense in 2006,* 2006 Defense White Paper (Beijing: State Council Information Office of the People's Republic of China, December 2006).

[17] *2018 Nuclear Posture Review*, 32.

[18] See Paul Bernstein and Harrison Menke, "Russia's Hypersonic Weapons," *Georgetown Journal of International Affairs*, December 12, 2019, available at <https://gjia.georgetown.edu/2019/12/12/russias-hypersonic-weapons/>.

[19] The Biological Weapons Convention prohibits signing parties from developing, producing, stockpiling, or otherwise acquiring or retaining biological agents or toxins "of types and in quantities that have no justification for prophylactic, protective, or other peaceful purpose." These prohibitions also include "weapons, equipment, or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict." See "Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction," Article I, available at <http://disarmament.un.org/treaties/t/bwc/text>.

[20] See Gerald L. Epstein, "Biodefense and Great Power Competition," *Nonproliferation Review*, Spring/Summer 2020 (forthcoming).

[21] See *Biodefense in the Age of Synthetic Biology* (Washington, DC: National Academies Press, 2018), 71–84, available at <http://nap.edu/24890>.

[22] Kim Riley, "Blue Ribbon Study Panel on Biodefense Focuses on DOD Role in Protecting U.S. Against Bio Attacks," *Homeland Preparedness News*, February 6, 2019, available at <https://homelandprepnews.com/countermeasures/32417-blue-ribbon-study-panel-on-biodefense-focuses-on-dod-role-in-protecting-u-s-against-bio-attacks/>.

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Part III
Geostrategic Interactions in a New Era of Great Power Competition

Chapter 9

The Indo-Pacific Competitive Space

China's Vision and the Post–World War II American Order

By Thomas F. Lynch III, James Przystup, and Phillip C. Saunders

This chapter examines the major strategic goals, interests, and policies being pursued by Washington and Beijing—the two major Great Power rivals in the Indo-Pacific region. It highlights the divergence of strategic interests between America's "Free and Open Indo-Pacific" vision and China's "community of common interest" framework. This divergence and the strategic importance of each country's regional interests make the Indo-Pacific region the most hotly contested geopolitical space at the dawn of the 2020s. An analysis of U.S. and Chinese critical power tools for attaining strategic outcomes finds a mix of relative advantages. China has clear advantage in economic leverage across the region and has developed some meaningful advantage in military tools necessary for success in conflict within the First Island Chain. On the other hand, the United States continues to possess demonstrable advantages in alliance diplomacy, ideological resonance, informational appeal, and broad military capabilities. Despite great and growing regional tensions, there are opportunities for collaboration between the Great Power competitors so long as both accept relative power limitations and rejuvenated American regional leadership provides a clear signal to Beijing that accommodating a continuing U.S. presence is a better choice than stoking conflict.

This chapter, like the volume itself, continues to analyze the emerging era of Great Power competition (GPC) with a framework focused on the three contemporary Great Powers: the United States, China, and Russia. In the Indo-Pacific region, however, Russian strategic interests and power capabilities pale in comparison with those of China and the United States. Thus, while in 2020 Moscow signals that it is interested in a greater role in the Indo-Pacific, significant doubts about its abilities to influence that region remain.[1] This chapter thus discusses Russia only to consider its role as an object rather than a subject in the dominant regional Great Power competition.

This chapter focuses on the Sino-American Great Power competitive dyad in the Indo-Pacific. It first summarizes the decade and a half of relations in Asia and the Pacific

that immediately followed the Cold War, examining how these relations set the conditions for significant strategic changes that began after 2008. The chapter then evaluates Chinese strategy and interests in the Indo-Pacific region since 2009, followed by the evolution of American strategic aims over the 2010s. The Sino-American competition for relative power across the Indo-Pacific region is then evaluated in the five categories of interstate competition established in table 2.2: political and diplomatic, ideological, informational, military, and economic. The differential power resources held by Washington and Beijing in these respective categories are assessed for 2020 and projected for at least the next half-decade. The unique case of Taiwan is considered in light of its special resonance to the regional rivalry.

The chapter establishes that each side pursues strategic goals that display historic continuity: The United States pursues unfettered economic and diplomatic access to the region with a preference toward open communications and human liberties, while China seeks domestic stability and to assert its sovereignty over long-contested geographic spaces with state-led management. While major aims have remained consistent, the power differential between Washington and Beijing has changed over the past 20 years. It has moved in Beijing's favor in terms of economic influence and selected measures of conventional military power, most notably in areas near China. At the same time, American relative power advantages remain strong in the diplomatic, ideological, and informational categories and the political-military aspects of defense competition. For America to compete effectively in the Indo-Pacific region now and into the near-term future, it must better leverage its advantages by strengthening existing alliances and security partnerships while actively promoting an attractive alternative vision for regional development. At the same time, it must parry Chinese efforts at economic diplomacy and military coercion to undercut the political foundations of U.S. alliances and American regional presence.

U.S. Regional Vision, Alliances, and Activities: 1992–2008

America's engagement with Asia began before the United States existed. In February 1784, the ship *Empress of China* departed New York harbor, arriving in Macau in August of that year. During the 20th century, Washington pursued Open Door trading rights in China, fought a war with Japan to sustain maritime access and commercial rights, and then developed a robust economic and security framework toward the region consistent with an array of American national interests. The common principle underlying various American policy approaches to the Western Pacific and Asia has been the concept of "access"—that is, economic access to the markets of the region to pursue U.S. commercial interests, strategic and physical access to allies to ensure confidence in U.S. security commitments, and political access to allow for the promotion of democracy and human rights.

Since the end of World War II, the United States has not only championed the evolution of a postwar liberal, open, rules-based international economic order allowing for the free flow of commerce and capital but also promoted efforts to support international stability and the peaceful resolution of disputes.[2] These global commitments applied firmly in America's post–Cold War approach to the Indo-Pacific and contributed significantly to the stability and prosperity of the region. To do so, the United States relied on military primacy expressed through an informal "hub and spoke" alliance structure. With Washington as the hub, American security treaties with Japan, the Republic of Korea (ROK), Australia,

the Philippines, and Thailand connected as spokes and served as the arrangement that Washington used to protect and advance its Asian and Pacific security interests.[3]

> "I would argue that both the domestic dynamics and each country's increasingly gloomy assessment of the other's true intentions against the backdrop of China's rise help explain the current state of affairs."
>
> —*James B. Steinberg, "What Went Wrong,"* Texas National Security Review *3, no. 1 (Winter 2019/2020)*

At the end of the Cold War in 1992, the United States was poised to enter what many pundits had dubbed the "Asian century." Although post–Cold War America had urgent imperatives to consolidate the gains from newly liberated former Soviet bloc states and assist with the safe denuclearization of thousands of Soviet strategic weapons, Washington took strong steps to expand its economic competitiveness and influence in the dynamic Far East. Globally, and especially in Asia and the Pacific, the United States pursued a strategy of engagement (remaining active and connected globally) and enlargement (expanding the reach and strength of liberal political and economic rules and norms).[4] In a September 1993 address, President Bill Clinton explained that the "successor to a doctrine of containment must be a strategy of . . . enlargement of the world's free community of market democracies."[5] China was a key part of America's approach there.

As detailed in chapter 3a, Beijing started its own economic metamorphosis from a command economy into a market-based one in 1978. A reforming China was a key beneficiary of American policies. Despite a lingering wariness after the 1989 Tiananmen Square crackdown by Chinese Communist Party (CCP) leadership security forces against human rights and democracy protestors, American leadership across the political spectrum converged during the mid-1990s around the view that including China in global institutions and supporting Chinese market reforms offered the best chance that China would rise peacefully and become a responsible global economic power and stakeholder within the existing order. Many Americans were optimistic that a rising Chinese middle class would demand a direct political voice and challenge CCP authoritarian rule.[6] Washington opened American markets to Chinese goods, encouraged China's introduction into regional supply chains, allowed the transfer of advanced civilian technologies, paved Beijing's way into the World Trade Organization in 2001, and encouraged Beijing to become more engaged and influential in both regional and global diplomacy.[7] Washington believed its support helped produce explosive growth of Chinese foreign trade from about $20 billion in the late 1970s to $475 billion in 2000.[8]

Between 1992 and 2008, American companies turned toward China to access its rapidly growing market and to use cheap Chinese labor to lower production costs.[9] In 1993, the World Bank and International Monetary Fund published projections that China was on the verge of replacing Japan as the world's second largest economy.[10]

At the same time, Washington's alliance with Japan evolved into a genuine strategic partnership. Tensions over the trade imbalances that bedeviled Tokyo and Washington during the 1980s subsided as Japan entered a lengthy economic stagnation, bilateral voluntary trade restraints took hold, and Japanese production shifted to the Asian mainland. Despite a period of worry in Tokyo, numerous shared interests and similar democratic values enhanced the political and military cohesion of the alliance. Japan provided the military

bases and other logistical support that undergirded America's regional military dominance and helped maintain regional stability conducive to U.S. strategic interests. Common democratic values reinforced U.S.-Japan relations, making the bilateral commitment more than a mere strategic expediency. Public opinion polls throughout the 1990s and 2000s demonstrated an American-Japanese popular consensus that the alliance and common values mattered a great deal to their bilateral relationship and were elements missing in the two countries' relations with China.[11]

During the early post–Cold War period, the United States tried to manage a sullen, stagnant North Korea (simultaneously pursuing deterrence and diplomacy to try to eliminate the North's nuclear program); maintain stability in the tense relations between China and Taiwan; foster greater Asia-Pacific multilateral economic, political, and security cooperation; and integrate China into regional and global economic and security regimes. These ambitions progressed in fits and starts. While regional economic integration got a boost from China's rapid growth and openness to foreign investment, Beijing's assimilation into the World Trade Organization fell short of obligations and Western expectations. The Clinton administration responded to the 1995–1996 Taiwan Strait security crisis with an effort to build a partnership with China, including limited military-to-military cooperation. The incoming Bush administration took a more skeptical view of China's military potential, and the accidental collision of a Chinese navy fighter and a U.S. reconnaissance plane on April 1, 2001, produced a tense diplomatic standoff and a freeze in Sino-American military contacts.

The terrorist attacks on the United States in September 2001 detoured U.S. attention from the "Asian century" to the Middle East for the better part of a decade. After 9/11, the U.S. Government engaged Asian states for support in the war on terror and instability in the Middle East and South Asia.[12] It also leveraged its strategic relationships with Japan and South Korea to move equipment and materiel into American-led counterterrorism activities in Afghanistan and Iraq. Both contributed money and personnel to the counterterrorism missions. When America did engage with China in the aftermath of 9/11, it was to appeal for China to help deal with North Korea's nuclear weapons program and to serve as a "responsible stakeholder" in the U.S.-led international system. Chinese responsiveness remained tepid. While China was restrained in employing force, its military modernization accelerated, supported by large increases in defense budgets that raised concerns across the region. The 2007 announcement of an 18 percent increase in military spending led Vice President Dick Cheney to state, "A China military buildup is not consistent with the country's stated goal of a 'peaceful rise.'"[13]

Months earlier, America's main regional ally, Japan, publicly announced its worries over China's growing strategic challenge. In a major speech, "The Arc of Freedom and Prosperity," Japanese Foreign Minister Taro Aso established a framework of policies to structure East Asia marked by "value oriented diplomacy," based on "universal values" such as democracy, freedom, human rights, the rule of law, and a true market economy.[14] Then Japanese Prime Minister Shinzo Abe in August 2007 addressed the Indian parliament and called for a "Confluence of the Two Seas" running from Japan to India where shared fundamental values such as freedom, democracy, and respect for basic human rights were honored.[15] These Japanese statements—and the effort to engage India—were seen as efforts to alert a

distracted America and the rest of the world that China's rise had the potential to undercut liberal values at the regional and international levels.

China's Regional Vision and Activities: 1992–2008

For China, the Indo-Pacific is the most important region of the world in economic, security, and political terms. This was true during the Cold War and especially after, when China became more actively and deeply engaged with neighboring countries.

In the economic realm, the region serves as a source of raw materials; as a supplier of components, technology, and management expertise for production networks operating in China; and as a market for finished Chinese products. During the 1990s, China's increasing role in world trade and expectations of future growth made it an attractive market and gave Beijing leverage in dealing with nearby Asian and Pacific trading partners and enabled negotiation of regional and bilateral free trade agreements (FTAs). China worked to persuade Asian countries that they would share in the benefits of its rapid growth, while simultaneously advancing its own interests through commercial diplomacy. *Win-win* and *mutual benefit* became the watchwords of China's economic diplomacy.

Geography makes the Indo-Pacific region critically important to China from a security perspective. China shares land borders with 14 East Asian, South Asian, and Central Asian countries. Chinese leaders worry that neighboring countries could serve as bases for subversion or for military efforts to contain China. This is of particular concern because much of China's ethnic minority population, which Chinese leaders view as a potential separatist threat, lives in sparsely populated border regions such as Xinjiang and Tibet. Chinese concerns about threats posed by "terrorism, separatism, and religious extremism" have prompted increased efforts at security cooperation with its Central and South Asian neighbors.

China's unresolved territorial claims all are in Asia, including claims to the Spratly and Paracel islands in the South China Sea, the Diaoyu/Senkaku Islands, a disputed maritime boundary with Japan in the East China Sea, a 1,600-mile-long disputed land border with India, and China's self-described "core interest" in unification with Taiwan. China also worries about the possibility of encirclement and threats from conventional military forces based on its periphery. Chinese strategists have been highly sensitive to U.S. regional alliances and partnerships that might someday be turned against China.

Beijing also views Asia as politically critical. Its preference is for a stable environment that permits rapid Chinese economic growth to continue and supports increased Chinese regional influence. Chinese officials and analysts acknowledge that the U.S. role in supporting regional stability and protecting sea lines of communication has made a significant contribution to regional stability and supported Chinese interests. Beijing opposes alliances in principle but has tolerated them so long as they are not aimed toward China and help constrain Japanese militarization. The potential for U.S. power and alliances to be turned against China makes Chinese analysts uneasy, especially as changes in the U.S.-Japan alliance now appear to be empowering Japan rather than restraining it. China disclaims any desire to dominate Asia, declaring that it will never seek hegemony and talking about cooperation on the basis of equality, mutual respect, and noninterference in the internal affairs of other nations. But Chinese elites also appear to expect that

Figure 9.1. China's Nine-Dash Line (in green) in the South China Sea

Source: South China Sea (Islands), Perry-Castañeda Map Collection (Central Intelligence Agency, 1988)

weaker countries will defer to Chinese wishes as the country grows more powerful.[16]

Aggressive Chinese behavior toward Taiwan and in the South China Sea from 1994 to 1996 created regional alarm about a "China threat." In late 1994, Beijing seized and then fortified a small shoal, Mischief Reef, claimed by the Philippines. This event highlighted China's controversial "nine dash line" claims to sovereignty over the land features and most of the waters in the South China Sea, including a number of features claimed and occupied by other countries (see figure 9.1).

In late 1995 and in March 1996, China used military exercises (including firing ballistic missiles into waters near Taiwan) to express its concerns about the Taiwan independence movement and its displeasure at a U.S. decision to permit Taiwan president Lee Teng-hui to visit the United States. Washington responded to Chinese attempts to intimidate Taiwan before its elections by deploying two carrier strike groups to nearby waters. These actions prompted numerous articles and books highlighting China's military modernization and growing nationalism and asking whether China posed a threat to the Asia-Pacific region.[17] More restrained Chinese behavior and assurance measures adopted from 1997 to 2008 helped ease some regional concerns.[18] During this period, many Asian views shifted from regarding China as a potential threat to regarding China as an opportunity.[19] However, as noted earlier, Japan did not join in this view and instead introduced a policy vision between 2006 and 2007 for a future in Asia that challenged preferred Chinese outcomes.

The growth of Chinese military power in the mid-2000s was driven partly by the military's desire to convert China's economic strength into military power and partly by CCP leadership concerns about vulnerability to unconstrained U.S. power. China observed and then participated in bilateral and multilateral military exercises with neighboring countries as a confidence-building measure and an opportunity for Asian militaries to interact with the People's Liberation Army (PLA). As observed in chapter 3a, the 2008 global financial crisis—which produced a prolonged U.S. recession even as China's economy returned to its rapid growth trajectory—led many Chinese analysts to see an acceleration of U.S. rel-

ative economic decline as a sign of growing multipolarity that created new opportunities for China. Although Chinese leaders sought to avoid a direct clash with Washington, they accelerated efforts to expand China's regional presence and influence. China also began to adopt a more assertive approach to its maritime territorial claims in the South China and East China seas. These developments set the stage for increased regional tensions and a negative turn in U.S.-China regional relations.

China and America in the Indo-Pacific Region: 2009 and Beyond

America's counterterrorism entanglements in the Middle East and South Asia did not change the underlying view in Washington that the center of gravity for American interests was in Asia. As the world crawled out from under the Great Recession of 2008–2009, the Obama administration began with a series of Indo-Pacific speeches and policy initiatives to extend cooperation with China, India, and longtime U.S. regional allies and partners in a manner that would "uphold international norms and [respect] universal human rights."[20] As noted in chapter 3a, Beijing's increased influence and military power reinforced a belief that the United States had entered an accelerated period of decline that presented China with an opportunity to set the agenda in U.S.-China relations and regional affairs. At the same time, Chinese leaders continued to worry about domestic vulnerabilities (as evidenced by ethnic unrest and violence in Tibet and Xinjiang in 2008) and concerns about possible U.S.-led subversion à la the colored revolutions that had overthrown Middle Eastern dictators and pro-Russian authoritarian leaders in the Ukraine and Kyrgyzstan. Xi Jinping was part of the CCP collective leadership that charted a more assertive regional policy, a trend that would intensify once he became the CCP general secretary in November 2012. The conditions for a dramatic change in the tone of U.S.-Chinese relations had been set.

China's Geostrategic Aims and Trajectory

Beginning in 2009, a more assertive Chinese posture emerged on a wide range of bilateral, regional, and global issues.[21] Within the space of 18 months, Chinese diplomatic bullying, assertive military and paramilitary actions, and disregard for foreign reactions undid many of the gains from Beijing's decade-long charm offensive in the Indo-Pacific region. In particular, the means used to advance Chinese maritime sovereignty claims in the South China Sea and East China Sea—including harassment of U.S. military ships and aircraft operating legally in international waters or within China's exclusive economic zone—did considerable damage to Beijing's efforts to persuade others that China's rise would be peaceful.[22]

The shift in tone and substance of Chinese policy had both international and domestic causes. As noted in chapter 3a, when Chinese growth resumed, and the United States and Europe remained mired in the 2008–2009 recession, Chinese officials and analysts appear to have exaggerated the negative impact of financial problems on U.S. global leadership and mistakenly concluded that a fundamental shift in the global balance of power was under way. Chinese officials also appear to have misinterpreted Obama administration efforts to increase bilateral cooperation and expand China's role in global institutions as a sign of U.S. weakness and an opportunity to press Washington for concessions.[23] This assessment played into a nationalist mood in China, where many commentators argued that a more

powerful China should take a hard line on challenges to Chinese territorial claims and use its economic leverage to punish the United States for arms sales to Taiwan.[24]

Chinese officials and scholars denied that Beijing changed its foreign policy goals, expanded its territorial claims, or adopted a more assertive attitude toward maritime disputes. They argued that other countries, emboldened by U.S. support, had stepped up their challenges to China's long-established territorial claims. The May 2009 deadline for submissions to the United Nations Convention on the Law of the Sea (UNCLOS) did spur many Asian countries (including China) to reinforce their claims to disputed islands and waters. Chinese officials and military officers argued that restraint in response to provocations was misinterpreted as weakness.[25] Beijing employed economic coercion in some of the sovereignty disputes, including a temporary ban on exports of rare earth elements to Japan following the 2010 arrest of a Chinese fishing boat captain and import restrictions on Philippine bananas in 2012. China also took a tough line on military activities in its exclusive economic zone, acting to interfere with U.S. ships (including a March 2009 incident off Hainan Island when Chinese paramilitary vessels attempted to snag the towed sonar array of the USNS *Impeccable*).[26]

During this period, Chinese policymakers talked about the need to maintain the proper balance between the competing goals of defending Chinese sovereignty [*weiquan*] and maintaining regional stability [*weiwen*]. But under President Xi, China began placing more emphasis on pursuing territorial claims and exhibiting less concern about the negative impact on relations with its neighbors and with the United States. Tactics to assert sovereignty include patrols by Chinese coast guard and naval forces, occupying land features, enforcement of fishing regulations in disputed waters, oil and natural gas exploration, harassment of military ships and aircraft operating in disputed areas, and use of legal means to press tendentious Chinese interpretations of international law.

In 2013, the year after Xi's political ascension, China began land reclamation projects in the South China Sea on several low-tide elevations, geologic features that do not extend above water at high tide. China's efforts at land reclamation were not unprecedented: Malaysia, the Philippines, Taiwan, and Vietnam have also engaged in such projects since the 1980s. In May 2014, China deployed an oil rig into waters near the Paracel Islands claimed by Hanoi, raising tensions and setting off collisions between Chinese and Vietnamese coast guard ships and virulent anti-Chinese demonstrations in Vietnam. By June 2015, China's land reclamation projects totaled "more than 2,900 acres, or 17 times more land in 20 months than the other claimants combined over the past 40 years, accounting for approximately 95 percent of all reclaimed land in the Spratly Islands" (see figure 9.1).[27]

In September 2015, President Xi pledged that China would not "militarize" the artificial islands that it had constructed, but the commitment was vague.[28] Soon China began to use the airfields and port facilities for both military and civilian purposes. China has never precisely specified the exact nature or the legal basis for its South China Sea maritime claims under international law. Beijing's position is that "China has indisputable sovereignty over the Nansha islands and their adjacent waters," with "sovereignty and relevant rights . . . formed over the long course of history and upheld by successive Chinese governments."[29] However, on July 12, 2016, the Permanent Court of Arbitration, in a case brought by the Philippines contesting Chinese claims in the South China Sea, ruled in favor of Manila

and found that most of Beijing's claims—including to historic waters inside "the nine dash line"—had no basis under UNCLOS. China denied that the court had jurisdiction, did not participate in the hearings, and refused to accept the court's judgment.

While benefiting from a stable regional order underpinned by U.S. power and alliances, China gradually moved to form new regional institutions to advance its interests that mostly excluded the United States. Initial steps involved the Shanghai Cooperation Organization in 2005 and Chinese efforts to exclude the United States from the nascent plans for an East Asian Summit. Since 2013, new initiatives include the Asian Infrastructure Investment Bank, Belt and Road Initiative (BRI), Regional Comprehensive Economic Partnership, and reinvigoration of the Conference on Interaction and Confidence-Building Measures in Asia (CICA) as vehicles for Xi's "Asia for Asians" security concept. In announcing the "Asia for Asians" concept at a 2014 CICA summit, Xi argued,

> *Asia has come to a crucial stage in security cooperation where we need to . . . strive for new progress . . . to move from the 20th century with the outdated thinking from the age of the cold war and zero-sum game . . . to innovate our security concept to establish a new regional security cooperation architecture . . . that is shared by and win-win to all.*[30]

An accompanying Xinhua article characterized U.S. alliances as the "'Achilles' heel' of and a major impediment to 'a peaceful Asia.'"[31] Themes blaming "outside powers" for stirring up trouble in the region have become a staple of Chinese propaganda and diplomatic messaging.

America's Geostrategic Aims and Trajectory

As observed in chapter 3a, the American narrative on Sino-U.S. interactions is that the era of cooperative relations with China stumbled beginning in 2008, with efforts at cooperation gradually faltering and competitive aspects of relations coming to the fore with a de facto shift toward strategic competition in 2014/2015—one formalized by the United States in 2017/2018.

After taking office in January 2009 and despite an enormous American military footprint straddling South Asia and the Middle East, Obama administration officials proclaimed a U.S. "return to Asia." In formally announcing the rebalance in a November 17, 2011, address to the Australian parliament, President Barack Obama argued that "Our new focus on this region reflects a fundamental truth—the United States has been, and always will be a Pacific nation. . . . Here we see the future." The President noted that Asia is "the world's fastest growing region," "home to more than half of the global economy," and critical to "creating jobs and opportunity for the American people." He described the rebalance as "a deliberate and strategic decision" to increase the priority placed on Asia in U.S. policy.[32] Secretary of State Hillary Clinton elaborated on the rationale for the rebalance, arguing that "harnessing Asia's growth and dynamism is central to American economic and strategic interests" and that the United States had an opportunity to help build "a more mature security and economic architecture to promote stability and prosperity."[33]

While the main objective of the rebalance was to bring American foreign policy commitments in line with the global distribution of U.S. strategic interests, it also responded to China's increasingly assertive regional policies, especially in maritime territorial disputes. Countries across the Asia-Pacific region urged Washington to play a more active role in regional economic, diplomatic, and security affairs in order to demonstrate U.S. commitment and help maintain regional stability in the face of a more powerful and active China. One early U.S. response was at the May 2010 meeting of the Association of Southeast Asian Nations (ASEAN) Regional Forum, where the United States offered to assist countries in the peaceful resolution of concerns with China's assertive maritime policies, noting that these posed a threat to freedom of navigation. China urged regional states to keep silent, and, when they spoke up, Chinese Foreign Minister Yang Jiechi walked out in protest, only to return the following day to remind ASEAN states that "China is a big country and other countries are small countries and that is just a fact."[34]

Obama administration officials stressed that the rebalance included diplomatic, economic, and military elements, coupled with efforts to build a more cooperative and stable Sino-U.S. relationship. The broad U.S. strategy of seeking to integrate China more fully within the existing global order, while discouraging any efforts to reshape that order by force or intimidation, remained in place. Washington sought to make the rebalance robust enough to reassure U.S. allies and partners of its capability and will to maintain a presence in Asia over the long term while not alarming Chinese leaders to the point where they abandoned bilateral cooperation.[35] Nevertheless, the rebalance was widely viewed as evidence of increasing U.S.-China competition for regional influence.

From 2013 through 2015, Chinese assertiveness in maritime territorial disputes, increasing state intervention to support Chinese businesses at the expense of foreign competitors, and Xi's centralization of power and tightening of political and information controls catalyzed American responses. In 2014 and into 2015, the Obama administration publicly stated that Article V of the Japan Security Treaty extended to the Senkaku Islands in the East China Sea, asserted freedom of navigation rights in the South China Sea, and conducted more frequent freedom of navigation operations to challenge illegitimate Chinese maritime claims. It openly condemned Chinese industrial espionage and intellectual property practices, and it reimagined a broad new Trans-Pacific Partnership (TPP) as a lever to reshape Chinese economic policies. U.S. policy toward both China and Russia chilled gradually during the second term of the Obama administration, with a public hardening increasingly evident during 2014 and 2015.[36] This gradual hardening did not precipitate a formal rupture in U.S.-Sino relations, but it set the conditions for a new U.S. administration. The administration of President Donald Trump, elected in 2016 and inaugurated in January 2017, took the bilateral hardening to a new and official level.

The December 2017 U.S. National Security Strategy argued that a "geopolitical competition between free and repressive visions of world order is taking place in the Indo-Pacific region," labeling China a "revisionist power."[37] That report was especially critical of China's use of "economic inducements and penalties, influence operations, and military threats" to alter the regional order.[38] A principal architect of the 2017 strategy, H.R. McMaster, later wrote that a careful study of history and experience teaches that the CCP will not liberalize internally and will not act abroad according to U.S.-led international rules. Instead, McMaster wrote,

China's goal is to replace the current international order with one led by the CCP. China will continue to engage in "economic aggression" and seek to exert control of "strategic geographic locations and establish exclusionary areas of primacy." In other words, China's goal is to reduce, then eliminate, U.S. influence in the Indo-Pacific region.[39] This assertion of hostile Chinese aims contrasted with the more equivocal tone on China's rise in Bush 43– and Obama administration–era strategic documents.[40] In May 2018, the U.S. military renamed its U.S. Pacific Command to U.S. Indo-Pacific Command (USINDOPACOM), symbolizing the growing importance of India in intensifying U.S. competition with China.[41] The Defense Department's June 2019 Indo-Pacific report likewise noted China's "campaign of low-level coercion to assert control of disputed spaces in the region, particularly in the maritime domain."[42] In testimony before the Senate Armed Services Committee in February 2019, USINDOPACOM's inaugural commander was even more direct in his dire assessment of the future threats posed by China to the United States and its partners in the Indo-Pacific region. He testified:

> *China represents our greatest long-term strategic threat to a Free and Open Indo-Pacific and to the United States. . . . Those who believe this is reflective of an intensifying competition between an established power in the United States, and a rising power in China, are not seeing the whole picture. . . . Rather, I believe we are facing something even more serious—a fundamental divergence in values that leads to two incompatible visions of the future. . . . Through fear and coercion, Beijing is working to expand its form of ideology in order to bend, break, and replace the existing rules-based international order. . . . In its place, Beijing seeks to create a new international order, one with "Chinese characteristics" and led by China—an outcome that displaces the stability and peace of the Indo-Pacific that has endured for over 70 years.*[43]

In November 2017, shortly before his administration released the 2017 National Security Strategy, President Trump announced a "free and open" Indo-Pacific (FOIP) vision at a summit of Asia-Pacific Economic Cooperation business leaders in Da Nang, Vietnam.[44] In July 2018, U.S. Secretary of State Mike Pompeo explained that the core principles of U.S. FOIP are freedom from coercion, good governance, open access to seas and airways, and free and fair trade.[45] The State Department's November 2019 report on the U.S. Indo-Pacific FOIP vision stated that the Trump administration was implementing a "whole of government strategy" to defend these principles. The document noted that U.S. trade in the region topped $1.9 trillion in 2019, supporting more than 3 million American jobs.[46]

Trump's emerging Indo-Pacific economic policies placed firm emphasis on bilateral FTAs, in contrast to the Obama administration's pursuit of the multilateral TPP, which was an immediate casualty of domestic politics and the new administration. In April 2018, a State Department official explained that this shift reflected the view that a multilateral deal would provide fewer benefits to "U.S. workers and U.S. businesses" than bilateral agreements.[47] Another change has been greater emphasis on infrastructure development, as exemplified by the October 2018 Better Utilization of Investments Leading to Development (BUILD) Act, which raised U.S. financing from $29 billion to $60 billion.[48] Of note, these funds, while funneled through a U.S. Government entity, were to combine some government dollars with a lot of

Figure 9.2. The First and Second Island Chains

Source: Annual Report to Congress: Military Power of the People's Republic of China 2009 (Washington, DC: Department of Defense, 2009), 18.

loan guarantees for anticipated private equity, unlike the fully state-backed loans that support the Chinese BRI and state-owned enterprises that are China's biggest overseas investors.

From 2017 to 2019, the Trump administration successfully strengthened key alliances in the Indo-Pacific region, namely with Japan and Australia. It expanded military cooperation with traditional allies such as Australia, Japan, and South Korea, while using exercises and dialogues to reach out to nontraditional partners such as India, Malaysia, and Vietnam.[49] The Defense Department's *Indo-Pacific Strategy Report*, released in June 2019, illuminated how the acquisition and deployment of advanced capabilities, new operational concepts, and initiatives to strengthen security partnerships (highlighting Taiwan, New Zealand, and Mongolia) would contribute to the preservation of a "free and open" region and dissuade Chinese adventurism.[50] That report featured plans for the strengthening of America's five treaty alliances; expanded partnerships with Taiwan, New Zealand, and Mongolia; and emerging partnerships with other nations from South Asia to the Pacific islands.

The American strategy also prioritized greater development of a security partnership framework known as the "Quad," featuring the United States, Japan, Australia, and India. It encouraged greater trilateral regional security partnerships, greater American engagement with the ASEAN Regional Forum (ARF), and support for intra-Asian partnerships (most notably between Australia and Japan and Japan and the Philippines; trilateral cooperation among Australia, Japan, and the United States; and among Japan, the ROK, and the United

States). The document also prioritized the American purchase of fifth-generation aircraft, long-range antiship missiles, offensive cyber capabilities, and the development of new operating concepts. It highlighted American arms sales to Taiwan ($10 billion) and India ($16 billion), funding for a Southeast Asia Maritime Security Initiative ($356 million), the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, greater U.S. Coast Guard engagement, and an explosives removal package for Vietnam ($340 million).

Thus, the American strategic design—its policy interplay—across the Indo-Pacific is to seek partners that support and extend FOIP. This is a contrast to what the United States views as China's coercive efforts to advance its sovereignty claims inside the First Island Chain and increasingly to assert military dominance through the Second Island Chain (see figure 9.2). Washington sees China's desire to build a "community of common destiny" as part of efforts to exclude the United States from the Indo-Pacific and build a new regional order emphasizing values of state sovereignty, collective order, and limited human rights and freedoms.

American and Chinese Competitive Power Tools and Prospects for Indo-Pacific Success

As described in chapter 3a, several factors are driving the U.S.-China relationship into Great Power competition. Although this competition has global and extra-regional dimensions, the Indo-Pacific region is the most important venue, especially for diplomatic and military aspects of the competition. This leaves countries in the region in an uncomfortable position. Most share U.S. concerns about the risks of Chinese hegemony and have no desire to be left alone in a Chinese sphere of influence, forced to subordinate their interests to those of Beijing.

At the same time, countries across the Indo-Pacific region do not want Washington to drag them into a confrontation with China that could damage their economies (all of which depend heavily on trade with China), destabilize the region, and potentially lead to a devastating war. They seek to maintain a balance that allows them to cooperate economically with both the United States and China and limits Beijing's opportunities for coercion for fear of driving them into Washington's arms. Maintaining this balance is the difficult challenge for regional leaders as U.S.-China Great Power competition broadens and intensifies.

> "What has changed in recent years are not the CCP's goals, but rather the means available to achieve them, as well as Beijing's willingness to exercise its growing power in order to do so. Since the mid-1990s, China's rapid economic growth has enabled it to fund a wide-ranging and sustained modernization of its armed forces."
>
> —*Aaron L. Freidberg, "Getting the China Challenge Right,"* The American Interest *14, no. 4 (January 2019)*

This chapter analyzes the Indo-Pacific competitive arena in terms of the five major categories first described in table 2.2: political and diplomatic, ideological, informational, military, and economic. Below, U.S. and Chinese competitive advantages in these categories are briefly compared and assessed. This evaluation establishes that, while China's power tools have grown over the past several years, the United States retains formidable assets and capabilities if properly marshaled in cooperation with regional allies and partners.

Political and Diplomatic Tools and Prospects

The United States. America's longstanding network of alliances and friendships across the Indo-Pacific region has traditionally been a huge advantage over China. Habits of cooperation have been institutionalized between Washington and a number of regional allies: Japan, South Korea, Australia, the Philippines, and Thailand. The United States also has strategic partnerships with other important Indo-Pacific nations—India, Singapore, Vietnam, Indonesia, and Malaysia—that view Washington as a preferable partner to Beijing so long as not forced to make an either-or choice.

America's diplomatic approach to the region was undergoing change before the Presidential election of 2016. It has undergone even more since. Since 2017, Washington has placed less emphasis on some multilateral regional forums that it encouraged and later joined during the post–Cold War years.[51] President Trump appears more interested in bilateral engagements with major countries than in multilateral forums, although his Cabinet officials have continued to participate regularly in multilateral meetings such as the ARF and ARF Defense Ministers meetings.[52] The Trump administration has pursued a series of bilateral initiatives—economic, security, and diplomatic—that have tested allies and partners in ways that many analysts have found worrisome. Interestingly, the diplomatic balance sheet of 2020 finds that longstanding American allies have weathered rather well the Trump administration's frequent questioning and testing, coming through as strong and resilient. Among these, America's alliances with Japan and Australia have been updated and enhanced.[53] Even longstanding partnerships with challenging allies—South Korea and the Philippines—have endured despite public spats over American military bases and cost-sharing.

The November 2019 State Department document titled *A Free and Open Indo-Pacific: Advancing a Shared Vision* pledged a wide range of American diplomatic, economic, and security programs to engage and sustain American interests and partnerships across the Indo-Pacific region.[54] The document emphasized continuing American diplomatic engagement with regional partners and institutions via programs including the Pacific Pledge ($100 million) and the Lower Mekong Initiative ($3.8 billion). It also championed continuing good governance with a Transparency Initiative ($600 million) and a Myanmar Humanitarian Assistance Program ($669 million), among others. The United States also invested in regional human capital development with a number of programs, including enhanced Fulbright Fellowships, a Young Southeast Asian Leaders Initiative, and a Food for Peace Program. These and other American diplomatic programs are carried out under many different labels, banners, and names, which may undermine their collective impact. American leaders might consider a common branding for these and related economic and security assistance initiatives.

At the same time, American diplomatic efforts remain under-resourced for their critical Indo-Pacific role. As of 2019, China surpassed the United States with the largest number of diplomatic posts in the world and also outmanned Washington in number and staffing of embassies and consulates across the Indo-Pacific region.[55] This relative decline in U.S. diplomatic presence risks undoing the programs Washington has crafted for political outreach and could turn a longstanding American regional diplomatic advantage into weakness.[56]

China. China's political and diplomatic framework for activity in the Indo-Pacific region is based on looser and more complicated relationships with major regional neighbors and regular participation in multilateral regional forums such as Asia-Pacific Economic Cooperation, the East Asian Summit, ASEAN + 3 (China, Japan, and South Korea), and the China-ASEAN Forum. Its regional policy often seeks to serve multiple objectives and avoid embarrassing setbacks to its domestic interests and public image.[57] The priority Beijing gives to domestic concerns and its territorial disputes with countries such as India, Japan, Indonesia, Vietnam, and Malaysia can leave China isolated and awkwardly positioned, giving the United States a potential advantage in coalition-building based on longstanding strategic relationships.[58] China's preference for nonbinding strategic partnerships allows it to cooperate on a selective basis with most countries in the region but does not translate readily into coalitions for deeper strategic goals. China's longstanding "all-weather friendship" with Pakistan is a conspicuous exception to the paucity of alliances, partnership, and friends for Beijing in the Indo-Pacific region.

China's competitive approach to regional diplomacy is oriented on a three-pronged framework. First, China contrasts its five principles of peaceful coexistence, a new model of international relations centered on mutually beneficial cooperation, and the vague notion of collective security embodied in the notion of community of common destiny against Washington's supposed "Cold War mentality" and alliance-based approach to regional security.[59] Beijing increasingly portrays U.S. alliances and the U.S. military presence as stirring up trouble for the region and unfairly aiming to choke off China's legitimate rise. Second, China seeks to use access to its market and preferential benefits from its BRI infrastructure projects and other investment programs to increase its influence in the region and to dissuade countries from taking actions against its interests. This is a potential source of diplomatic leverage, although China's record of using economic sanctions and pressure to alter partner behaviors has been mixed at best, often producing blowback from states it is seeking to influence. Third, China has sought to undercut U.S. diplomatic initiatives through strategically targeted high-level visits and improved relations with traditional U.S. allies and would-be American partners. Xi Jinping's October 2019 visit to New Delhi and his planned visit to Tokyo in 2020 stand as cases in point.[60] China's public response to the Trump administration FOIP vision criticizes U.S. partnership activities as out of touch with regional needs, complains that American initiatives are intended to encircle China, and critiques the initiative as insultingly under-resourced for success. Chinese analysts and strategists are particularly focused on limiting the salience and effectiveness of the Quad security arrangement involving the United States, Japan, Australia, and India—with special attention to India as both the most worrisome strategic partner and the weakest link in the structure.[61]

During 2019 and into early 2020, a much more assertive Chinese diplomatic approach became evident globally, especially in the Indo-Pacific region. Critics complain that Chinese diplomats have become more strident and combative, including in aggressive efforts to deflect Chinese responsibility for mistakes in managing the novel coronavirus (COVID-19) outbreak, to threaten economic retaliation against states calling for an investigation of the origins of the virus, and to cite China's eventual success in taming the virus as evidence of the superiority of the Chinese political system.[62] For example, Australia explicitly rejected what it called economic coercion by China in April 2020 when China's Australian

ambassador stated that the Chinese public could avoid Australian products and universities should Australia continue to press for an independent investigation into the origins and early actions in China surrounding COVID-19.[63] Chinese officials argue that more active diplomacy simply reflects Beijing's more prominent role on the world center stage and the West's relative decline.[64]

Although China's diplomatic presence and activity continues to grow, its overall political influence across the region remains low compared with that of the United States, especially in terms of its ability to mobilize countries for costly actions. But America's advantages are tenuous. Should it abandon efforts to exert leadership in regional organizations, understaff and under-resource its diplomatic presence, or take its regional allies and partners for granted, America's palpable advantage in Indo-Pacific diplomatic competition could suffer a noteworthy downturn.

Ideological Tools and Prospects

The United States. The FOIP vision captures critical elements of historic American aims and interests in the Indo-Pacific region. It rests on the bedrock of American ideals of liberal democracy and a free trade system: respect for the rule of law; individual rights; freedom of navigation and overflight, including open shipping lanes; peaceful resolution of disputes; and transparency in the free flow of information. Some contend that these aims and values are "Western" and not inherently "Asian," claiming Asian culture and history prioritize strong central governments, collective responsibilities, and social harmony over economic liberty and political rights. But Asia's history since the late 1980s has challenged the notion of any sort of "Asian exceptionalism." Progress has been mixed, but countries such as Japan and South Korea remain impressive democracies even as states such as Thailand and the Philippines have wobbled in recent years. Taiwan also stands as a success story.[65] At the same time, the United States has been pragmatically applying its preferred values of liberal democracy and individual rights in the Indo-Pacific region. Singapore's authoritarian governance with a democratic veneer has been acceptable to Washington, and Thailand's rough-hewn, frequently illiberal democracy has not resulted in its termination as an American treaty ally.

FOIP vision themes have wide regional appeal, showing up in bilateral accords and in prominent regional bilateral and multilateral documents. Even before the Trump administration, these ideas appeared as cornerstones of two major regional vision documents: the U.S.-India Strategic Vision of January 2015 and the India-Japan Vision 2025 signed in December 2015.[66] Since 2017, FOIP's ideological foundations have been included in other major regional declarations, including American Two-Plus-Two Joint Statements with Japan and Australia and in other key partnership diplomatic documents.

American culture and social engagement remain robust in the Indo-Pacific region. Despite some downturn since 2017, the United States is an enormously attractive location for regional pursuit of graduate and tertiary education. In 2018, more than one-third of Chinese students who studied overseas did so in the United States (321,625), as well as half of Japan's overseas tertiary students (14,787), almost one-third of those from Australia (4,286), and almost half of those from India (142,618).[67] In 2019, some 730,000 students from the Indo-Pacific region were at graduate or fellowship programs in American colleges

and universities, representing more than two-thirds of all foreign students in American higher education programs.[68]

Americans remain the predominant and highest spending tourists across the region and were—before COVID-19 complications—anticipated to spend $257 billion in the region (28 percent of the market) by 2020, compared with a projected $60 billion by China (8 percent).[69] English is the language of business in the Indo-Pacific region, and Australia, New Zealand, Singapore, the Philippines, India, Pakistan, and Nepal are either English-speaking or recognize English as an official language.[70] The proliferation of Americans and Americanisms across the region gives the United States a decided advantage in promulgating its ideological viewpoint and ideas.

This plays out in Indo-Pacific popular culture, including within China itself. There, American-imported entertainment offers an attractive alternative to state television's tightly controlled lineup dominated by historical costume dramas and anti-Japanese war films. As an example, when Hollywood actor Alan Thicke died in December 2016, there was an outpouring of sympathy on Chinese social media by a generation of Chinese that had come of age watching Thicke's character on *Growing Pains* during the 1980s and 1990s, one of the first American shows to air there. In late 2013, China established a national security committee to focus on "unconventional security threats" to thinking in Chinese youth, including Hollywood movies. By 2015, China's then–Minister of Education Yuan Guiren reportedly ordered university officials to disallow teaching materials that "disseminate Western values."[71]

China. Xi Jinping's work report at the CCP's 19th Party Congress in October 2017 introduced some new themes with specific resonance in the Indo-Pacific region.[72] Xi called for CCP members to focus on governance, politics, and ideology with an emphasis that "Ideology determines the direction a culture should take and the path it should follow as it develops." He called on China's writers and artists to produce work that not only is thought-provoking but also extols "our party, our country, our people and our heroes." Chinese state media openly declared China's socialist system to be an alternative ideological model for the developing world and a clear competitor with Western liberal democracy.[73] Ideological competition now stands as a significant feature in China's efforts to build support across the Indo-Pacific region, especially with illiberal regimes.[74]

As noted in chapter 3b, Beijing's ability to craft and disseminate its preferred ideology in a resonant and positive message has improved, but still exhibits significant liabilities and shortcomings. China's ideological framework of a community of common destiny is a vague slogan that glosses over conflicts of interest between nations, including China's territorial disputes with many of its neighbors.[75] China's emphasis on state sovereignty at the expense of human rights and freedoms is inherently limited in appeal, resonating with autocratic elites but not so much with ordinary citizens, even in the Indo-Pacific region.[76] Moreover, leaders and people in the region judge China's lofty principles against the reality of an increasingly authoritarian China whose growth is slowing and as a big country that increasingly uses coercive means to get its way with smaller countries.

China continues to expand efforts to generate soft power to persuade others in the region to pursue its goals and values or to emulate its behavior. Flows of tourists and students between China and other Asian countries continue at record highs, with about 47.8

million Chinese citizens visiting other East Asian countries in 2018.[77] China hosted more than 295,000 students from the region in 2018, with South Korea, Thailand, Pakistan, and India sending the most.[78] The Chinese government has supplemented student exchanges by establishing Confucius Institutes in foreign countries to teach Chinese language and promote Chinese culture. As of 2020, 19 Indo-Pacific countries hosted some 97 Confucius Institutes, with South Korea, Japan, and Thailand hosting at least 10 apiece.[79]

Appeals to cultural and linguistic affinities have been important in dealing with countries that have significant ethnic Chinese minorities. Malaysia and Indonesia, which have historically viewed their ethnic Chinese populations with considerable suspicion, came to regard them as an asset in building economic relations with China. However, Beijing's recent efforts to strengthen outreach to the ethnic Chinese diaspora in Asia are renewing these concerns. Beijing found some sympathy in Southeast Asia for appeals to "Asian values" in the 1990s, but this has been tempered by the deepening of democracy in Japan, South Korea, Taiwan, and some Southeast Asian countries. Cultural and linguistic diversity in Asia is likely to limit China's ability to harness purported common "Confucian values" as a diplomatic tool.[80]

In the cultural sphere, some Chinese products reflect traditional Chinese culture in ways that resonate within Asia, but most have limited appeal due to their focus on Chinese domestic concerns, derivative nature, political constraints on content, and language barriers. Films have arguably been China's most successful cultural exports. Some of these constraints may ease as China becomes richer, but for now other Asian countries are producing work with more regional impact and influence. It is worth noting that many of the most successful Chinese artists achieved their fame with work done outside China, including Nobel Prize–winning novelist Gao Xingjian.[81]

The American FOIP vision and China's community of common destiny are competing regional visions for a diverse Indo-Pacific region. As of 2019, regional views suggest that America and its global vision remains most appealing, although with some recent relative decline. A December 2019 Pew Survey reported China receiving unfavorable reviews from all but Pakistan in the region. In Japan, 85 percent have an unfavorable opinion of China, with 63 percent of South Koreans, 57 percent of Australians, and 54 percent of Filipinos sharing this view. Indonesian opinion of China plunged 17 percent between 2018 and 2019, the most negative drop in regional countries over the past decade.[82] For now, American ideas and ideology, and its projection of them, continue to resonate in the Indo-Pacific region. It is unclear how China will close this gap, but American complacency might still give Beijing a chance.

Informational Tools and Prospects

The United States. As noted in the section on ideology, American public diplomacy and information dissemination in the Indo-Pacific region remains reliant on its post–Cold War medium of private sector journalism and entertainment. It also relies heavily on the penetration of social media images and interpersonal interactions where those are not blocked outright by the host nation government, as in China. The Indo-Pacific region accounts for more than half of all social media users worldwide, with 426 million active Facebook users and one-third of all global Twitter users. Taiwan, Hong Kong, Singapore, Australia, New

Zealand, and Malaysia all rate above 50 percent in national social media penetration—and have access to universal content. China ranks at only 46 percent penetration—but without global access.[83] These numbers give American cultural, social, and ideological themes high resonance—for better or for worse—in a broad and deep messaging arena.

U.S. public information activities prominent during the Cold War are largely gone, but the State Department does maintain a Bureau of Educational and Cultural Affairs and a Bureau of Global Public Affairs that engage in some Internet and social media outreach. In 2016, the State Department stood up an interagency Global Engagement Center to coordinate U.S. Government efforts to expose and counter foreign state and nonstate propaganda and disinformation.[84] Radio Free Asia is a U.S.-based, private, nonprofit corporation funded by the U.S. Agency for Global Media that broadcasts news and information to Asian countries whose governments prohibit access to a free press.[85]

China. One of China's strengths in the information domain is a well-developed propaganda and influence apparatus that delivers consistent and coordinated messaging through a range of official and semiofficial channels. In 2018, China conducted a major reorganization of CCP and state bureaucracies that consolidated organs engaged in international propaganda and influence projection under Party control.[86] As noted in chapter 3b, China oversees Xinhua, a state-run global media service that produces CCP-friendly stories for worldwide dissemination in multiple languages and boasts an 11.5-million-user Twitter account (despite the fact that Twitter access is banned in China). It endorsed the acquisition of Hong Kong's *South China Morning Post* in 2015 by the chief executive officer of the Alibaba e-commerce group, which inserted a management team that promised to provide a positive view of China. It generates content from its state-run China Radio International for use by broadcast networks from Norway to Turkey to Australia. It has lavishly funded the China Global Television Network—rebranded in 2016 as the international arm of China Central Television—recruiting local journalists across the world with excellent pay and airtime to contribute stories acceptable to the Chinese propaganda apparatus. The content seeks to fulfill Xi Jinping's charge to "tell China's story well," emphasizing the generosity of the Chinese people and the benign nature of the Chinese government while amplifying the chaotic and unpredictable nature of Western politics and liberal democracy. However, the consistency and coordinated nature of the CCP messaging apparatus may actually work against the effectiveness of the message as received by foreign audiences. Public opinion of China is very low across the Indo-Pacific region, and China is deemed to be relatively untrustworthy.[87] Moreover, the extensive media and Internet censorship and message control that China practices at home undercuts Beijing's credibility in projecting a positive image overseas.

The COVID-19 pandemic provides a good illustration of China's ability to promulgate its narrative domestically and internationally. Confronted with a negative image as the source of the coronavirus outbreak, the CCP began a concerted effort to reshape the adverse narrative of China as an authoritarian power slow to sound the alarm and reluctant to share information to one of China as a global leader that stepped up when others did not. Interestingly, it sometimes did so in coordination with Iran and Russia. The Chinese government went from letting Russian disinformation claiming the United States was the source of the virus proliferate in Chinese social media, to raising questions on state media

about the virus's origin, to promoting disinformation that the United States was the source of the virus.[88] Simultaneously, it orchestrated heavy media coverage of Chinese provision of tests kits and face masks around the globe, with Chinese diplomats browbeating host governments for positive statements praising Chinese generosity. The full fruits of these efforts remain to be seen, but initial returns have not been favorable. Reports of faulty test kits, defective masks, and Chinese imperiousness combined to sour popular opinion of Beijing across the wider Indo-Pacific region, especially in countries such as Australia, India, and the Philippines.[89] China expert Bates Gill notes that, although the Chinese propaganda apparatus seeks to promote a positive image of China internationally, the most important audience for that message is domestic.[90]

Despite noteworthy disorganization and atrophy of official information channels, American informational tools in the Indo-Pacific region remain substantial and gain credibility from the diversity of viewpoints expressed. China's external messaging is hindered by its unified propaganda message and hypersensitivity to criticism, which leads Chinese diplomats to complain about any foreign government statements or media coverage that paint China in an unattractive light. The quality of a government's information apparatus is important, and the U.S. Government needs to devote more resources and attention to its public diplomacy and informational tools. But ultimately it is the content of the message—both in terms of the performance of competing governance models and an attractive regional vision that others want to follow—that makes informational tools effective.

Military Tools and Prospects and the "Hard Case" of Taiwan

Since the end of World War II, the United States has been the dominant maritime and airpower in Asia. As noted, America has relied on a network of alliances and arrangements with allies and friendly partners in the Indo-Pacific region to support naval and air access and freedom of maneuver. The regional military balance in terms of relative U.S. and Chinese capabilities is important, but the real U.S. strategic center of gravity is the political-military relationships that underpin its alliances and the forward-deployed military presence that they support. Some American military advantages have eroded over the past 2 decades as PLA capabilities have grown, but the U.S. military is welcome in the region in a way that the Chinese military is not.

In 2020, the U.S. military enjoys significant quantitative and qualitative advantages over the PLA, especially in a long conflict that would allow it to bring all its assets to bear. USINDOPACOM oversees a Pacific Fleet with a complement of about 50 capital ships, 2 or 3 aircraft carriers, and approximately 30 advanced U.S. submarines operating in the region. USINDOPACOM manages 3 numbered U.S. Air Forces with an unrivaled mixture of some 2,000 fighter, bomber, and mobility aircraft. It also oversees 80,000 U.S. Army and Marine Forces stationed throughout the region and has access to another 100,000 deployable troops on command from the continental United States, if required. The United States also has advantages in its proven ability to employ space-based intelligence, surveillance, and reconnaissance and cyber capabilities to support its ground, naval, and air assets.[91]

Conversely, the PLA Navy (PLAN) has 3 fleets with about 140 capital ships, but lacks long-range, blue water warfare capabilities. Its two aircraft carriers use a ski-ramp design that limits the payload of their aircraft; the PLAN will not field a modern carrier until 2023. Its air

forces are large and composed primarily of multirole fighters, with a limited number of stealth fighters coming into the force. Its current bombers are based on a late 1950s Soviet design, although they are equipped with modern engines and capable land-attack and antiship cruise missiles. PLA Army and marine forces have been reorganized in a corps-brigade-battalion structure to improve their abilities to conduct combined arms and joint operations with other services. The PLA has a limited number of army and marine amphibious units but lacks the sea lift capability to deploy and sustain them too far from the Chinese mainland. The PLA is optimized for fighting conventional land conflicts along its borders, but for the last 15 years, its modernization efforts have emphasized the need to develop its naval, air, and missile forces and to develop the ability to conduct joint operations employing the full range of PLA capabilities.[92] These efforts have significantly improved the PLA's ability to project power within and beyond the First Island Chain (see figure 9.2).[93]

One aspect of the U.S.-China military competition in the Indo-Pacific region involves Chinese efforts to use increasing military and paramilitary presence and coercion to enhance its effective control of the maritime territories it claims in the South China and East China seas and U.S. military efforts to operate in these disputed waters to maintain the principles of freedom of navigation and international law. The United States does not take a position on the merits of the competing claims to sovereignty over land features, but insists on the principles of peaceful resolution of disputes and compliance with international law.[94] Chinese aggressive tactics to enforce its claims—which the United States regards as incompatible with UNCLOS—have involved the creative use of civilian fishing vessels and coast guard ships on the front line, backed by naval capabilities.[95] China has practiced gray zone tactics that seek to avoid the use of lethal force while employing a range of military, paramilitary, economic, diplomatic, legal, and informational tactics to reinforce its maritime claims.

These actions have increased the willingness of countries in the region to spend more on their militaries and their interest in enhanced security cooperation with the United States and other major powers. Absent U.S. intervention, China now has the military capability to seize and hold the disputed land features in the South China Sea, but this would be a bloody affair that would severely damage China's relations with claimant and nonclaimant states alike and stimulate military balancing against China. To date, Beijing has judged the costs of a military solution to be too high. This low-level war of nerves on the high seas is likely to continue without a definitive resolution for some time to come.

In addition to continuing military presence missions such as freedom of navigation operations, the United States remains well postured to help regional militaries—prioritizing Taiwan, Japan, Vietnam, and the Philippines—develop the ability to challenge China's power-projection capabilities.[96] Formal American alliances and partnerships, while under some recent duress, remain robust and growing. From 2017 to 2019, the Trump administration successfully strengthened key alliances and expanded military cooperation with traditional allies such as Australia, Japan, and South Korea, while using exercises and dialogues to reach out to nontraditional partners such as India, Malaysia, and Vietnam.[97] The Defense Department's *Indo-Pacific Strategy Report*, released in June 2019, illuminated the contributions made by the U.S. acquisition and deployment of advanced capabilities, new operational concepts, and initiatives to strengthen security partnerships.[98] The United

States also could support India's efforts to pose military dilemmas for China, a relatively low-cost means of complicating the PLA's ability to concentrate attention and resources on U.S. forward locations across East Asia and the Western Pacific.[99]

U.S.-China strategic competition in the Indo-Pacific region will also have a high-end conventional military aspect where U.S. qualitative advantages in military hardware, ability to project power globally, and proven ability to conduct effective joint combat operations are partially offset by China's geographic advantages when operating from its own home territory. Since the mid-1990s, the paradigmatic PLA planning and modernization scenario has been an invasion of Taiwan in response to a de jure declaration of independence, with the United States intervening on Taipei's behalf. This scenario would require air and sea lift capabilities to get a PLA invasion force onto the island, but the ranges required would be relatively limited since the island is less than 100 miles away.

The PLA has invested in an array of antiaccess/area-denial (A2/AD) capabilities intended to raise the costs and risks for U.S. forces operating near China, with the goal of deterring or delaying U.S. intervention. These include advanced diesel submarines, which could attack U.S. naval forces deploying into the Western Pacific; surface-to-air missiles such as the Russian S-300, which could target U.S. fighters and bombers; and antiship cruise missiles and antiship ballistic missiles optimized to attack U.S. aircraft carrier battle groups. China has invested in a range of accurate conventional missiles that can target the bases and ports the U.S. military would use in a conflict. China has also sought to exploit U.S. military dependence on space systems by developing a range of antisatellite capabilities that could degrade, interfere with, or directly attack U.S. satellites and their associated ground stations. It has invested in cyber capabilities to collect intelligence and degrade the U.S. military's ability to employ computer networks in a crisis or conflict. In a conflict, the PLA would attempt to use multidomain attacks to paralyze U.S. intelligence, communications, and command and control systems and force individual units to fight in isolation, at a huge disadvantage.[100] This would make American defense of allies and national interests inside the First Island Chain difficult.

A potential U.S.-China conflict over Taiwan represents a "hard case" where China might hope to mount a successful surprise attack and force Taiwan's capitulation before the U.S. military could bring its forces to bear. This could present the United States with a hard-to-reverse fait accompli. China considers Taiwan part of its historic territory and is committed to eventually achieving unification as part of the "great rejuvenation of the Chinese nation." The United States abrogated its security treaty with the Republic of China (Taiwan's formal name) in 1979 and agreed to have only unofficial relations with it as part of the process of normalizing relations with the People's Republic of China. The United States does not have a formal security commitment to Taiwan, but the 1979 Taiwan Relations Act requires providing Taiwan with defensive arms and states that U.S. policy is to retain the capability to resist the use of force or coercion to undermine Taiwan's security.[101]

This task has become more difficult given the tyranny of distance and successful PLA modernization. RAND's 2015 evaluation of U.S.-China military force capability trends found that the United States had "major advantages" in 7 of 10 critical capability areas in a Taiwan scenario in 1996, but that by 2017, the United States would have clear "advantages" in only 3 categories, and the PLA would enjoy advantages in 2: its ability to attack

U.S. airbases and its ability to attack U.S. carriers. China's advances in ballistic missiles, cruise missiles, and modern diesel attack submarines now give it advantages it did not have during the 1990s Taiwan standoff.[102] The U.S. Air Force ended its 16-year bomber forward presence on Guam in late April 2020 in recognition of China's enhanced missile capabilities, especially its DF-26 "Guam killer."[103] In a South China Sea scenario, where PLA weaknesses in power projection would matter more, RAND assessed that the U.S. military would retain an edge in 2017, but even there the PLA would have made up considerable ground.[104]

> "The United States' ambiguous commitment to Taiwan's defense is making the actual defense of Taiwan less tenable. Two decades ago, when the threat of a Chinese invasion could be deterred by sending a U.S. aircraft carrier through the Taiwan Strait, a mostly symbolic military relationship between the two countries was a sufficient way to keep the peace. This is no longer true. The PLA has grown strong enough that neither Taiwan nor the United States can afford to have the Taiwanese military devote another decade to suboptimal arm purchases. If the United States wants to increase the defensive power of Taiwan's armed forces, then Washington must find other ways to give the Taiwanese leaders the symbolic victories they seek from arms packages."
>
> *—Tanner Greer, "Taiwan's Defense Strategy Doesn't Make Military Sense,"* Foreign Affairs, *September 17, 2019*

The implications for the U.S. ability to defend Taiwan are significant in the context of U.S.-China Great Power rivalry in the Indo-Pacific region. As noted in chapter 3b and above, while China is not close to catching up to the U.S. military in terms of aggregate military capabilities (quality and quantity), it does not need parity to frustrate U.S. intervention in a short conflict on its immediate periphery. Despite ongoing U.S. military efforts to develop new military capabilities and operational concepts to operate in an A2/AD environment, China has made significant improvements in its ability to attain a decisive military advantage in confrontation scenarios near China's coast—such as with Taiwan. These emerging realities suggest that American and Taiwanese militaries should consider an active denial strategy that reduces the risk from preemptive attack and makes Taiwan a more resilient target. Chapter 5 discusses some of the small, smart, and cheap alternatives that Taiwan and the United States might consider in this vein. Washington and other Western governments should continue to make it clear to China that aggression against Taiwan would carry immense costs and risks, but they must be more circumspect in predicting any absolute ability to prevail in armed conflict. Taiwan's allies and friends should simultaneously engage China on issues of strategic stability and escalation to reduce the prospects for miscalculation.[105]

Economic Power and Influence Prospects

The United States. Almost every government in the Indo-Pacific region is focused on increasing economic growth and raising living standards for its people, which gives economic instruments of power great salience. U.S. leadership and support for the open global economic order has underpinned the Asian economic miracle that saw first Japan, then the four tigers (South Korea, Singapore, Taiwan, and Hong Kong), and finally China enjoy

rapid economic development. Access to the U.S. market and U.S. technology continues to play a major role in sustaining regional growth, and reciprocal access to growing Indo-Pacific markets and technology is important for U.S. growth and prosperity. While free trade produces mutual benefits, every government seeks to maximize the benefits for its country and companies by capturing an increased share of high-value-added products and rapidly growing markets.

UN trade data shows that China was the number one export market for other Indo-Pacific countries in 2017, taking $413 billion in their exports (plus an additional $82 billion routed through Hong Kong), compared with $343 billion for the United States.[106] China is the number one export market for most countries in the Indo-Pacific region, including most U.S. allies. Yet these figures greatly understate the U.S. role in the regional economy because many exports to China are raw materials or components that are processed or assembled into final products and subsequently exported to the United States or other developed country markets. Such goods show up in the data as part of Chinese exports to the United States, which totaled $526 billion in 2017.[107] U.S. companies play an important role in these regional production networks (including by owning and operating factories in China) and the U.S. market is the final destination for many of these products. There is extensive trade integration within and across the Indo-Pacific region, and countries want to be included in regional production networks and to access both U.S. and Chinese markets.

The centerpiece of the Obama administration's Indo-Pacific economic policy was the Trans-Pacific Partnership, an "ambitious, next-generation Asia-Pacific trade agreement" including 12 regional countries and extensive environmental, labor, and intellectual property standards.[108] The TPP did not include China, but advocates hoped that the prospect of eventual membership would provide incentives for China to modify its economic practices to comply with TPP rules. The TPP agreement was signed on February 4, 2016, but the Obama administration did not submit the agreement to Congress for approval in the face of bipartisan opposition. One of the Trump administration's first acts was to withdraw from participation in the TPP.

Since 2017, the Trump administration has focused on trying to change the terms of U.S. trade with foreign partners, including U.S. allies in the Indo-Pacific region. This has included tariffs on steel and threatened tariffs on automobiles and auto parts based on "national security grounds," renegotiating the Korea-U.S. FTA, and a bilateral agreement to increase access to the Japanese market for U.S. agricultural goods. These bilateral deals continued a long-term U.S. approach to trade. But abandoning the TPP was a major deviation in U.S. regional economic strategy, which places the United States outside the rules-setting role of the successor Comprehensive Progressive Agreement for Trans-Pacific Partnership (CPTPP) established in 2018 by the 11 other signatories of the TPP.[109] Preferring to resolve trade disputes through bilateral negotiations, the Trump administration also has blocked the appointment of judges to the World Trade Organization's appellate body, rendering this multilateral institution unable to rule on trade disputes.[110]

In the absence of a multilateral trade agenda, the U.S. FOIP vision has focused on developing alternative forms of regional infrastructure assistance to compete with China's BRI regional investment infrastructure initiatives. In July 2018, Secretary of State Mike Pompeo announced a $113 million "down payment" on U.S. investments in the digital economy,

energy, and infrastructure sectors.[111] In October 2018, Trump signed the BUILD Act, which raised the ceiling on U.S. global development financing to $60 billion. In November 2018, the U.S. Government signed a memorandum with its Japanese and Australian counterparts to create a new partnership designed to provide financing for projects that "adhere to international standards and principles for development," an implicit critique of Chinese projects viewed as falling short of those standards.[112] Other elements included funding for the Millennium Challenge Corporation ($2.3 billion) and establishment of a Blue Dot Network to set financially sustainable standards for infrastructure development.

In mid-2018, the United States began a trade war with China by imposing a series of tariffs covering most Chinese exports to the United States. China responded with tariffs targeting U.S. exports, including agricultural exports from farm states crucial to American electoral politics. The trade war was the most serious disruption in global commerce in the post–World War II era.[113] Analysis through September 2019 revealed the effort to be a double-edged sword. China's lost export revenue was triple that of the United States ($53 billion to $14.5 billion, respectively), but the United States had not achieved any substantive movement in the Chinese economic behaviors it was seeking to change. Key sectors of the U.S. economy—exporters of minerals and ores, forestry products, agribusiness, and transportation systems—lost substantial revenue and were disturbed that China has found alternative suppliers, meaning potential lasting damage to export revenues.[114] The "phase one" U.S. trade deal with China announced in January 2020 involved Chinese agreement to lift some retaliatory tariffs and to substantially increase imports from the United States, but making no major concessions on the issue of government industrial policies.[115] Many economists were skeptical that the targets were realistic, and trade disruptions due to the COVID-19 pandemic make it unlikely that China will fulfill those commitments.[116]

The uncertainties arising from the U.S.-China trade relationship, and particularly U.S. policy discussions about trying to "decouple" the U.S. economy from China, are moving alliance partners to consider alternative trade structures.[117] These include the Japan-European Union FTA; ongoing negotiations for a Regional Comprehensive Economic Partnership that will include China (but not the United States); and continuing negotiations between Japan, China, and South Korea for a trilateral FTA. This region-wide hedging may have long-term negative political and strategic consequences. A serious U.S. effort to use tariffs to dismantle regional production networks and force countries to move production out of China is likely to meet with significant resistance given the importance of trade and investment ties with China to virtually every country in the Indo-Pacific region.

China. The growing economic dependence of other Indo-Pacific countries on the China market is a potential source of influence for Chinese leaders, but a tricky one to use. The desire to maintain market access makes Indo-Pacific countries reluctant to take actions that might offend China, but Chinese efforts to use restrictions on trade and tourism as an active coercive tool have had mixed results.[118] In many cases, such as China's efforts to punish South Korea for agreeing to host U.S. Terminal High Altitude Area Defense antiballistic missile systems, these measures have signaled Beijing's unhappiness and imposed costs on the target country but have not succeeded in forcing it to make the policy changes China wanted.

China has had more success using economic incentives such as FTAs, outbound investment, foreign aid, and infrastructure loans as carrots that provide concrete benefits to

recipient countries and give substance to China's vision of a stable, prosperous region with extensive economic integration. China is building on its existing FTAs with ASEAN, New Zealand, and Singapore via ongoing negotiations for a Regional Comprehensive Economic Partnership and a trilateral Japan, China, and South Korea FTA, both of which would exclude the United States and expand China's preferential access to regional markets. China has emerged as a huge overseas investor over the past two decades. Although Indo-Pacific countries account for only about 20 percent of Chinese overall outbound investment, as of 2019, this totaled almost $250 billion, along with an additional $242 billion in construction projects by Chinese companies.[119]

China does not publish a detailed breakout of its foreign aid programs, but poorer countries in Southeast Asia and Oceania have been significant recipients of Chinese development assistance, receiving at least $38 billion from 2000 to 2016.[120] Much of this assistance goes to improve transportation infrastructure connecting South and Southeast Asia with China; many of these projects are now included as part of the BRI. These infrastructure investments, some of which are funded by the Asian Infrastructure Investment Bank established by China in 2016, not only contribute to economic development but also link these countries more closely to the Chinese economy and will produce greater trade dependence in the future. Expanding BRI financing is an important tool for advancing China's regional influence, but there is growing skepticism in some Chinese quarters about spending massive sums on foreign development.[121]

In summary, the United States and China bring different strengths to Great Power competition in the Indo-Pacific region. In terms of political and diplomatic tools, China has raised its diplomatic game but is unlikely to find much support for efforts to limit U.S. presence in the region because most countries in the Indo-Pacific want the United States involved to help balance against Chinese power. In terms of ideological tools, the U.S. regional vision resonates with a number of countries and is likely to have more appeal than China's vague call for a community of common destiny. The soft power of both countries is likely to be damaged by poor performance in governance and the disjuncture between their stated regional visions and actual policies. China has a clear informational advantage in its ability to articulate and reinforce a consistent message, but the fact that this message is usually parroting CCP talking points that are inconsistent with Chinese behavior undercuts the effectiveness of its informational efforts. The United States has a more appealing message, but American government tools to express that message to Indo-Pacific countries have atrophied and need more resources.

U.S. military dominance has eroded as Chinese military capabilities have improved, but the fact that the Chinese military is viewed as a threat and the U.S. military is viewed as a partner is a huge political-military advantage. The United States needs to improve its ability to operate in an A2/AD environment, including its willingness to accept operational risk in peacetime settings. Neither side is likely to attain decisive military advantage in the region. The question is whether the high costs and escalation risks of a major war could continue to maintain a cold peace. In terms of economic tools, China has significant advantages in its ability to mobilize and direct resources and to provide countries with valued opportunities to increase their economic growth. The U.S. Government must rely primarily on creating incentives and opportunities for private-sector actors. The lack of a multidi-

mensional regional trade strategy and recent efforts to strong-arm U.S. allies and partners have reduced American economic influence in the region. If the United States tries to force countries to participate in an aggressive effort to decouple their economies from China's, Washington seems likely to meet significant regional resistance.

Conclusions

U.S. and Chinese strategic interests are less aligned and more important to both countries in the Indo-Pacific region than in any other area of the world, making it a central venue for Great Power competition. Over the past decade, Beijing has become more critical of the U.S. military presence and U.S. alliance system, arguing that it reflects Cold War thinking and emboldens U.S. allies to challenge Chinese interests. The U.S. Free and Open Indo-Pacific vision and increased U.S. regional security cooperation in activities such as the Quad have stoked Chinese fears of U.S. encirclement or containment. Beijing has resisted making any binding commitments that might restrict its military capabilities or ability to employ military power to defend its core interests. Its increasing military capabilities and more assertive approach to maritime territorial disputes have heightened regional concerns about how a strong China could behave, leading most countries to improve their security ties with the United States.

To protect and advance its interests, the United States will need to acknowledge that the appeal of access to China's superior market and the weight of Beijing's other economic tools make Indo-Pacific countries unlikely to give up economic ties with Beijing, even if Washington attempts to decouple from the Chinese economy. Washington's relative disadvantage in economic power limits its ability to persuade countries to fully align with it economically against China now, and for some time. Thus, it must develop flexible policies that allow China's neighbors to avoid an explicit choice of aligning completely with Washington or Beijing in the regional Great Power competition, unless they are compelled by Chinese behavior to do so. But Washington still has a full agenda to pursue, both to advance specific U.S. economic interests and to shape rules and norms in the most dynamic region in the world. A U.S. Indo-Pacific strategy that combines some degree of engagement with China and attention to nurturing a balance of economic and military power around Beijing as a hedge would best serve U.S. interests. In that spirit, the United States needs to find a pragmatic basis for bilateral economic relations with China that protects what is working and helps adjust what is not. A trade war or full economic decoupling is unlikely to achieve that end.

At present, the Trump administration is attempting to address trade and market access issues unilaterally through tariffs and other administrative measures. The United States should reconsider participation in the TPP in order to promote the integration with the Indo-Pacific economies that would be needed to form a truly viable counterweight to China. Admittedly, many U.S. interest groups and citizens have grown skeptical of FTAs, but the shortcomings of the past should not be allowed to hamper what is needed economically and strategically for the country's future. The successful negotiation and implementation of a new TPP-like agreement—including accession into the CPTPP—could be a powerful collective lever to reshape objectionable Chinese economic practices so that Beijing can eventually participate.

In the security domain, the United States is at a relative military power disadvantage if a clash over Taiwan or another sovereignty issue breaks out within the First Island Chain, where China could use its A2/AD capabilities to full effect. Thus, Washington should review military dispositions in these areas and adjust strategies, capabilities, and operational concepts with an eye toward making better use of emerging technologies and increasing the resilience of its military forces in theater. Chinese A2/AD capabilities will necessitate some tough military planning choices in these special cases. U.S.-China military-to-military relations are unlikely to overcome these competitive dynamics in areas where China's core interests lie, but they could have value enhancing deterrence, increasing transparency, and dispelling unfounded worst-case suspicions. They also can help improve communication mechanisms and understandings about how military ships and aircraft would behave when they encounter each other, which would help avoid incidents and provide more effective crisis management tools.[122]

At the same time, the United States should build on its relative political-military advantages to sustain and strengthen its regional security position. Reinforcing present alliances, building military partnerships, extending cooperative training, and expanding interoperability are techniques that regional states will embrace and will work against unilateral Chinese efforts to intimidate. If the United States emphasizes its alliances, expands security cooperation with other partners, and actively engages in regional multilateral institutions, it can deal with Chinese regional security initiatives and actions from a position of strength and resist Chinese efforts to erode the U.S. alliance system. Conversely, if Washington appears disengaged, it will become less relevant and less able to shape the evolving regional security environment.

America's advantages in alliance diplomacy, relative trustworthiness, resonance of ideological vision, and (for the time being) approach toward open information and communications should be highly valued and enhanced. At present under Xi Jinping, the CCP is moving China in the direction of increased authoritarian control and a greater state role in the economy, policies that prioritize stability over growth. These are likely to have adverse side effects within China that undercut the appeal of China's model.[123] If Washington can prioritize its many concerns with China and partner with like-minded allies and partners to develop a practical agenda, there eventually may be renewed support within China for past reform proposals that are currently on hold due to resistance from Chinese special interests. Washington should work with regional and extra-regional partners to provide outside pressure that might help reenergize these reforms.[124]

At the same time, American interests will be strongly advanced by working with Indo-Pacific partners to articulate and build regional support for the vision and values that underpin the FOIP. If China violates international law and regional norms, the United States should say so consistently. As long as American society models and promotes open, transparent, and democratic institutions, the United States likely will appear as an ideological and even existential threat to CCP leaders.[125] But strong and consistent messaging with allies and partners could send a positive signal to the Chinese people about the value of good, representational governance and provide other states around the region a positive alternative framework that contrasts with China's authoritarian model.

Put a different way, support for human rights and democracy in the Indo-Pacific region today makes sense given Washington's relative power advantage in the competitive categories of ideology, informational openness, and diplomacy. Standing publicly with supporters of human rights and political reform in China could be a key part of any U.S. strategy for a Great Power competition that is about values as much as it is about relative economic or military power.[126] Rallying support of this type today requires that U.S. officials act realistically about the nature of the challenge and spell out clearly what meeting it requires. It also requires articulating how addressing the Chinese challenge would be central to preserving the relatively stable, open, and democratic Indo-Pacific region that has taken hold over the past seven decades. In turn, this demands a level of sober but resolved political leadership in Washington. The size and scope of China's economic presence across the Indo-Pacific region means that the United States will need a strategy that is as broad and enduring as the threat it is meant to counter.[127] Chapter 14 considers several American strategies and evaluates which might best rise to this test.

> "China surely has an extended time horizon, [but] its theory of influence actually betrays a short-term approach, favoring immediate, coercive results over shared values and extended cooperation. Power is likely to be more sustainable when exercised within and reinforced by a shared system of mutual benefit. . . . The U.S. helped to build precisely such a system in the form of a post-war, rules-based order, one that *endures* as a profound U.S. competitive advantage."
>
> *—Michael J. Mazarr and Ali Wyne, "The Real U.S.-China Competition,"* The Interpreter, *January 29, 2020*

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Notes

[1] Russia rates this lesser status for three major reasons. First, Vladimir Putin's Russia has an unrelenting strategic focus on its troubled relations with the West. Second, Russia lacks capacity in its Far East and will take a long time to generate capabilities even if it determined to generate them. Third, the Sino-Russian relationship is highly uneven despite the tactical value each sees in specific cooperation against the United States. Beijing possesses a vision, resources, and a game plan for the Pacific region, while Russia has no fully articulated or resourced Asia policy. Thus, despite some noteworthy short-term common interests and concerns, Moscow and Beijing priorities diverge significantly. While Moscow wishes to derail the present U.S./Western-dominated international system, China sees much residual value in the current international framework, so long as Beijing can expand its influence and work to address its perception of major flaws. Russia and China can today agree to constrain American hegemonic power and liberal interventionism, but they do not have a convergent strategic vision and are unlikely to cooperate on grand strategy or the framework for post-Western international rules, norms, and institutions globally or in the Indo-Pacific region. For more detail, see the review of Russian strategy in chapter 3a. Also see Bobo Lo, *Once More with Feeling: Russia and the Asia-Pacific* (Sydney, Australia: Lowy Institute, 2019), available at <https://www.lowyinstitute.org/publications/once-more-feeling-russia-and-asia-pacific>; Malin Ostevik and Natasha Kuhrt, "The Russian Far East and Russian Security Policy in the Asia-Pacific Region," in *Russia's Turn to the East*, ed. Helge Blakkisrud and Elana Wilson Rowe (London: Springer, 2017), 75–94; Nivedita Kapoor, "The Long Road Ahead: Russia and Its Ambitions in the Far East," Observer Research Foundation, September 11, 2019, available at <https://www.orfonline.org/expert-speak/the-long-road-ahead-russia-and-its-ambitions-in-the-far-east-55378/>; Liz Bagot and Josh Wilson, "The Russian Far East, Gateway to Asia," *GeoHistory Today*, October 1, 2011, available at <https://geohistory.today/russian-far-east/>; James Brown, "Japanese Investment in Russia Floundering Despite Arctic Energy Deal," *The Moscow Times*, October 16, 2019, available at <www.themoscowtimes.com/2019/10/16/japanese-investment-floundering-despite-arctic-energy-deal-a67754>.

[2] These economic norms and principles were underwritten by international organizations established and supported by the United States, including the Bretton Woods institutions of the World Bank, International Monetary Fund, General Agreement on Tariffs and Trade, and its successor, the World Trade Organization.

[3] The Southeast Asia Treaty Organization (SEATO), a multilateral treaty established in 1954 to resist the expansion of communism in Southeast Asia, is a partial exception. SEATO was dissolved in 1977.

[4] For a review of successive American national security strategies from 1993 through 1998 that articulated the objectives of

"engagement and enlargement," see "National Security Strategy Archive," available at <http://nssarchive.us/>.

[5] William J. Clinton, "Address by President Bill Clinton to the UN General Assembly," September 27, 1993, available at <https://2009-2017.state.gov/p/io/potusunga/207375.htm>; Anthony Lake, "From Containment to Enlargement," speech at The Johns Hopkins University School of Advanced International Studies, Washington, DC, September 21, 1993, available at <https://www.mtholyoke.edu/acad/intrel/lakedoc.html>. Also see Richard N. Haass, "Fatal Distraction: Bill Clinton's Foreign Policy," *Foreign Affairs* No. 108 (Autumn 1997), 113.

[6] As noted in chapter 3b of this volume, this assertion is contested. For the contrasting arguments, see Kurt M. Campbell and Ely Ratner, "The China Reckoning: How Beijing Defied American Expectations," *Foreign Affairs*, March/April 2018, available at <www.foreignaffairs.com/articles/china/2018-02-13/china-reckoning>; Aaron Friedberg, "Getting the China Challenge Right," *The American Interest*, January 10, 2019, available at <www.the-american-interest.com/2019/01/10/getting-the-china-challenge-right/>; Alastair Iain Johnston, "The Failures of the 'Failure of Engagement' with China," *Washington Quarterly* 42, no. 2 (Summer 2019), 99–114, available at <https://doi.org/10.1080/0163660X.2019.1626688>.

[7] Jim Mann, "Clinton's Asia Policy Puts China First," *The Los Angeles Times*, March 18, 1998, available at <www.latimes.com/archives/la-xpm-1998-mar-18-mn-30092-story.html>.

[8] Nicholas R. Lardy, "Issues in China's WTO Accession," Brookings Institution, May 9, 2001, available at <https://www.brookings.edu/testimonies/issues-in-chinas-wto-accession/>.

[9] Since the late 1970s, U.S. multinational corporations were key proponents of normalizing the relationship with China, and their operations in China have been central to ties between the two countries. Over the past quarter century, these firms have transferred technology, created jobs, and helped reshape the Chinese economy. See *Two-Way Street: 25 Years of U.S-China Direct Investment* (New York: National Committee on U.S.-China Relations, 2016), 1, available at <https://www.ncuscr.org/sites/default/files/page_attachments/Two-Way-Street-2016_Exec-Summary.pdf>.

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[12] Kurt M. Campbell, *The Pivot: The Future of American Statecraft* (New York: Hatchett Book Group, 2016), 3.

[13] "Cheney Concerned About China and North Korea," *New York Times*, February 23, 2007, available at <www.nytimes.com/2007/02/23/world/asia/23iht-cheney.4698458.html>.

[14] Taro Aso, "Arc of Freedom and Prosperity: Japan's Expanding Diplomatic Horizons," November 30, 2006, available at <https://www.mofa.go.jp/announce/fm/aso/speech0611.html>.

[15] Shinzo Abe, "Confluence of the Two Seas," Ministry of Foreign Affairs–Japan, August 22, 2007, available at <http://www.mofa.go.jp/region/asia-paci/pmv0708/speech-2.html>.

[16] Denny Roy, *More Security for Rising China, Less for Others?* AsiaPacific Analysis No. 106 (Honolulu: East-West Center, January 2013); Odd Arne Westad, "Legacies of the Past," in *China and the World*, ed. David Shambaugh (New York: Oxford University Press, 2020), 25–36.

[17] Denny Roy, "Hegemon on the Horizon? China's Threat to East Asian Security," *International Security* 19, no. 1 (Summer 1994), 149–168; Richard Bernstein and Ross H. Munro, *The Coming Conflict with China* (New York: Knopf, 1997). For a survey of regional views and strategies, see Alastair Iain Johnston and Robert S. Ross, eds., *Engaging China: The Management of an Emerging Power* (New York: Routledge, 1999).

[18] David M. Finkelstein, "China's New Security Concept: Reading Between the Lines," *Washington Journal of Modern China* 5, no. 1 (1999), 37–50.

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[20] Barack Obama, "Remarks by President Obama to the Australian Parliament," Canberra, November 17, 2011, available at <https://obamawhitehouse.archives.gov/the-press-office/2011/11/17/remarks-president-obama-australian-parliament>.

[21] See Jeffrey A. Bader, *Obama and China's Rise: An Insider's Account of America's Asia Strategy* (Washington, DC: Brookings Institution Press, 2012), chapter 7. Also see the discussion in Michael D. Swaine, "Perceptions of an Assertive China," *China Leadership Monitor* 32 (2010).

[22] Michael D. Swaine and M. Taylor Fravel, "China's Assertive Behavior—Part Two: The Maritime Periphery," *China Leadership Monitor* 35 (2011).

[23] For an insider's perspective on Obama administration thinking about building a partnership with China, see Bader, *Obama and China's Rise*, chapter 1. Chinese overconfidence in Western decline and the increasing power of the developing world is evident in the shifting language used to describe the trend toward a multipolar world in the 2008, 2011, and 2013 Chinese defense white papers. Also see Andrew Scobell and Scott W. Harold, "An 'Assertive' China? Insights from Interviews," *Asian Security* 9, no. 2 (2013), 111–131.

[24] Suisheng Zhao, "Foreign Policy Implications of Chinese Nationalism Revisited: The Strident Turn," *Journal of Contemporary China* 22, no. 82 (2013), 535–553.

[25] Authors' interactions with Chinese officials, military officers, and scholars, 2009–2013.

[26] Mark E. Redden and Phillip C. Saunders, *Managing Sino-U.S. Air and Naval Interactions: Cold War Lessons and New Avenues of Approach*, China Strategic Perspectives 5 (Washington, DC: NDU Press, 2012).

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[28] Jeremy Page, Carol E. Lee, and Gordon Lubold, "China's President Pledges No Militarization in Disputed Islands," *Wall Street Journal*, September 25, 2015, available at <www.wsj.com/articles/china-completes-runway-on-artificial-island-in-south-china-sea-1443184818>.

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[32] Obama, "Remarks by President Obama to the Australian Parliament."

[33] Hillary Clinton, "America's Pacific Century," *Foreign Policy* No. 189 (November–December 2011), 56–63.

[34] Ian Storey, "China's Missteps in Southeast Asia: Less Charm, More Offensive," *Jamestown China Brief* 10, no. 25 (December 17, 2010), available at <https://jamestown.org/program/chinas-missteps-in-southeast-asia-less-charm-more-offensive/>.

[35] China also made efforts to stabilize bilateral relations, proposing that the United States and China build a "new type of major country relations." The Obama administration was prepared to consider the framework but did not want to accept obligations to respect China's self-defined "core interests" (including claims to Taiwan) or suggest that Washington would cut deals with Beijing at the expense of its regional allies. See Jane Perlez, "China's 'New Type' of Ties Fails to Sway Obama," *New York Times*, November 9, 2014, available at <www.nytimes.com/2014/11/10/world/asia/chinas-new-type-of-ties-fails-to-sway-obama.html>.

[36] Among the tell-tale U.S.-China events signaling the arrival of their de facto Great Power rivalry in 2014 and 2015, a few stood out. First, the U.S. Justice Department made a first-ever public indictment of Chinese military hackers for cyber espionage against U.S. corporations in May 2014. See Department of Justice, Office of Public Affairs, "U.S. Charges Five Chinese Military Hackers for Cyber Espionage Against U.S. Corporations and a Labor Organization for Commercial Advantage," May 19, 2014, available at <https://www.justice.gov/opa/pr/us-charges-five-chinese-military-hackers-cyber-espionage-against-us-corporations-and-labor>. Second, the U.S. State Department published a paper formally challenging China's assertion of sovereignty over maritime claims related to its "dashed-line" encircling islands and waters in the South China Sea. This paper set the legal predicate for freedom of navigation operations conducted in the South China Sea by U.S. warships that began in 2015. See Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State, "Maritime Claims in the South China Sea," *Limits in the Seas* No. 143 (December 5, 2014), available at <http://www.documentcloud.org/documents/1376464-us-limits-in-the-seas-dos-no143-china-in-scs-12.html>. Finally, President Obama's November 2014 summit in China did realize agreement by both states to sign the Paris Climate Accord, but the administration did not find formal compromise for simmering grievances on the two critical issues of Chinese cyber espionage or maritime disputes. See Perlez, "China's 'New Type' of Ties Fails to Sway Obama."

[37] *The National Security Strategy of the United States of America* (Washington, DC: The White House, December 2017), 45.

[38] Ibid., 46.

[39] H.R. McMaster, "How China Sees the World: And How We Should See China," *The Atlantic*, May 2020, available at <www.theatlantic.com/magazine/archive/2020/05/mcmaster-china-strategy/609088/>.

[40] For comments on U.S.-China cooperation, see *The National Security Strategy of the United States of America*, 27; *National Security Strategy* (Washington, DC: The White House, February 2015), 24.

[41] Idress Ali, "In Symbolic Nod to India, U.S. Pacific Command Changes Name," Reuters, May 30, 2018, available at <www.reuters.com/article/us-usa-defense-india/in-symbolic-nod-to-india-us-pacific-command-changes-name-idUSKCN1IV2Q2>.

[42] *Indo-Pacific Strategy Report: Preparedness, Partnerships, and Promoting a Networked Region* (Washington, DC: Department of Defense, June 1, 2019), 8.

[43] Admiral Phil Davidson, Testimony Before the Senate Armed Services Committee: Opening Remarks, February 12, 2019, available at <https://www.pacom.mil/Media/Speeches-Testimony/Article/1755445/senate-armed-services-committee-sasc-opening-statement/>.

[44] "Remarks by President Trump at APEC CEO Summit," Da Nang, Vietnam, November 10, 2017, available at <https://vn.usembassy.gov/20171110-remarks-president-trump-apec-ceo-summit/>. Henceforth, this chapter uses "FOIP vision" to describe the Free and Open Indo-Pacific framework first articulated by President Donald Trump at the 2017 APEC CEO Summit. While FOIP is more of a *concept* than a *vision*, it is certainly not a *strategy*, for it lacks a clear linkage of ends, ways, and means. It is, as described in the June 2019 Department of Defense *Indo-Pacific Strategy Report*, "our nation's vision . . . a commitment to a safe, secure, prosperous, and free region that benefits all nations . . . [and] flows from common principles that underpin the current international order . . . principles we have a shared responsibility to uphold." See *Indo-Pacific Strategy Report*, 3. Also see reference to FOIP vision in Ely Ratner et al., *Rising to the China Challenge: Renewing American Competitiveness in the Indo-Pacific* (Washington, DC: Center for New American Security, December 2019), available at <https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Report-NDAA-final-6.pdf?mtime=20200116130752>; *Assessing the Global Environment: Asia* (Washington, DC: Heritage Foundation, October 30, 2019). The authors acknowledge that the November 2019 State Department document talks about a "FOIP strategy" in its cover letter and main text but does so interchangeably with *FOIP vision* and its actual subtitle uses the term *vision*. See *A Free and Open Indo-Pacific: Advancing a Shared Vision* (Washington, DC: Department of State, November 4, 2019), available at <https://www.state.gov/wp-content/uploads/2019/11/Free-and-Open-Indo-Pacific-4Nov2019.pdf>.

[45] See "Sec. Pompeo Remarks on 'America's Indo-Pacific Economic Vision,'" Inaugural Indo-Pacific Business Forum, U.S. Chamber of Commerce, Washington, DC, July 30, 2018, available at <https://asean.usmission.gov/sec-pompeo-remarks-on-americas-indo-pacific-economic-vision/>.

[46] *A Free and Open Indo-Pacific*, 6.

[47] "Briefing on the Indo-Pacific Strategy," Department of State, April 2, 2018, available at <https://www.state.gov/briefing-on-the-indo-pacific-strategy/>.

[48] For details, see Shayerah Ilias Akhtar and Marian L. Lawson, *BUILD Act: Frequently Asked Questions About the New U.S. International Development Finance Corporation*, R45461 (Washington, DC: Congressional Research Service, January 15, 2019).

[49] For a recent overview of these activities, see Admiral Harry B. Harris, Jr., *Statement Before the Senate Armed Services Committee Hearing on U.S. Pacific Command Posture*, February 23, 2016, available at <www.armed-services.senate.gov/imo/media/doc/Harris_02-23-16.pdf>.

[50] *Indo-Pacific Strategy Report*.

[51] For a review of U.S. engagement with these multilateral Indo-Pacific organizations including Asia-Pacific Economic Cooperation, the East Asia Summit, the U.S.-ASEAN Summit, the ASEAN Regional Forum, and others, see *U.S.-East Asia Relations: A Strategy for Multilateral Engagement* (New York: Asia Society Task Force Report, November 2011), 9–20. Also see James Steinberg, "By Abandoning Asia's Multilateral Organizations, U.S. Empowers China," *Nikkei Asian Review*, November 21, 2019, available at <https://asia.nikkei.com/Opinion/By-abandoning-Asia-s-multilateral-organizations-US-empowers-China>.

[52] Trump has held bilateral summits in India, China, and Japan, but has attended only two of the six East Asian, Asia-Pacific Economic Cooperation, and U.S.-ASEAN summit meetings while in office. See Jonah Langan-Marmur and Phillip C. Saunders, "Absent Without Leave? Gauging U.S. Commitment to the Indo-Pacific," *The Diplomat*, May 6, 2020, available at <https://thediplomat.com/2020/05/absent-without-leave-gauging-us-commitment-to-the-indo-pacific/>.

[53] *2017 Foreign Policy White Paper* (Canberra: Government of Australia, November 2017); "Trump Marks U.S.-Japan Security Pact with Call for Stranger, Deeper Alliance," Reuters, January 19, 2020, available at <www.reuters.com/article/us-usa-japan-security/trump-marks-u-s-japan-security-pact-with-call-for-stronger-deeper-alliance-idUSKBN1ZI050>.

[54] *A Free and Open Indo-Pacific*.

[55] Bonnie Bley, "The New Geography of Global Diplomacy: China Advances as the United States Retreats," *Foreign Affairs*, November 27, 2019, available at <www.foreignaffairs.com/articles/china/2019-11-27/new-geography-global-diplomacy>.

[56] Ivo H. Daalder and James M. Lindsay, *The Empty Throne: America's Abdication of Global Leadership* (New York: PublicAffairs, 2018), 164–170.

[57] Douglas H. Paal, *America's Future in a Dynamic Asia* (Washington, DC: Carnegie Endowment for International Peace, January 31, 2019), available at <https://carnegieendowment.org/2019/01/31/america-s-future-in-dynamic-asia-pub-78222>.

[58] Ibid.

[59] China's five principles of peaceful coexistence are mutual respect for sovereignty and territorial integrity, mutual nonaggression, noninterference in the internal affairs of others, equality and mutual benefit, and peaceful coexistence. These have been essential to Chinese foreign policy for more than 60 years and were amplified in "China's Policies on Asia-Pacific Security Cooperation," State Council Information Office of the People's Republic of China, January 2017, available at <http://english.www.gov.cn/archive/white_paper/2017/01/11/content_281475539078636.htm>. Also see Ankit Panda, "Reflecting on China's Five Principles, 60 Years Later," *The Diplomat*, June 2014, available at <https://thediplomat.com/2014/06/reflecting-on-chinas-five-principles-60-years-later/>.

[60] Feng Liu, "The Recalibration of Chinese Assertiveness: China's Responses to the Indo-Pacific Challenge," *International Affairs* 96, no. 1 (January 2020), 23–24.

[61] Joel Wuthnow, *Just Another Paper Tiger? Chinese Perspectives on the U.S. Indo-Pacific Strategy*, INSS Strategic Forum 305 (Washington, DC: NDU Press, June 2020), 13–14.

[62] See Lily Kuo, "Australia Called 'Gum Stuck to China's Shoe' by State Media in Coronavirus Investigation Stoush," *The Guardian*, April 28, 2020, available at <www.theguardian.com/world/2020/apr/28/australia-called-gum-stuck-to-chinas-shoe-by-state-media-in-coronavirus-investigation-stoush>.

[63] Kristy Needham, "Australia Rejects Chinese 'Economic Coercion' Thread amid Planned Coronavirus Probe," Reuters, April 27, 2020, available at <www.reuters.com/article/us-health-coronavirus-australia-china-idUSKCN2290Z6>.

[64] See "West Feels Challenged by China's New 'Wolf Warrior' Diplomacy," *Global Times* (Beijing), April 15, 2020, available at <https://www.globaltimes.cn/content/1185776.shtml>.

[65] Ambassador Derek Mitchell, *American Leadership in the Asia Pacific, Part 3: Promoting Democracy, Human Rights, and the Rule of Law*, Testimony Before the Senate Foreign Relations Subcommittee on East Asia, the Pacific and International Cybersecurity Policy, July 12, 2017, available at <https://www.usip.org/publications/2017/07/american-leadership-asia-pacific-part-3-promoting-democracy-human-rights-and>.

[66] Thomas F. Lynch III and James J. Przystup, *India-Japan Strategic Cooperation and Implications for U.S. Strategy in the Indo-Pacific Region*, INSS Strategic Perspectives 24 (Washington, DC: NDU Press, 2017).

[67] "Global Flow of Tertiary-Level Students," United Nations Educational, Scientific and Cultural Organization, available at <http://uis.unesco.org/en/uis-student-flow>. At the same time, growing American fear of systematic, state-led spying by Chinese students at American higher learning institutions is poised to reduce Chinese exchange student numbers. In July 2019, U.S. Federal Bureau of Investigation Director Christopher Wray testified to a Senate Judiciary Committee that China poses the greatest threat of intellectual and economic property theft in the United States and that much of this theft flows through Chinese students at American universities. See Ken Dilanian, "U.S. Universities Are a Soft Target for China's Spies, Say Officials," NBC News, February 2, 2020, available at <www.nbcnews.com/news/china/american-universities-are-soft-target-china-s-spies-say-u-n1104291>.

[68] *A Free and Open Indo-Pacific*.

[69] "U.S. Travelers Will Dominate Tourism Spending in Asia-Pacific Through 2020," *Skift*, May 18, 2016, available at <https://skift.com/2016/05/18/u-s-visitor-spending-in-asia-pacific/>.

[70] Victor Kiprop, "English Speaking Countries in Asia," *World Atlas*, December 12, 2018, available at <www.worldatlas.com/articles/english-speaking-countries-in-asia.html>.

[71] Eric Fish, "China's Youth Admire America Far More than We Knew," *Foreign Policy*, February 9, 2017, available at <https://foreignpolicy.com/2017/02/09/chinas-youth-admire-america-far-more-than-we-knew-surprising-survey-results-ideological-university-crackdown/>. As observed in this article, it is important to note that Western researchers do not believe that Chinese youth—or Chinese in general—affinities for America and the West are about wholesale adoption of Western liberal democracy. Instead, decades of research consistently suggests that many Chinese yearn to adopt certain elements of Western governance, such as freedom of the press, personal liberties, and official transparency and accountability.

[72] Abraham Denmark, "Ideological Competition in the Indo-Pacific," Woodrow Wilson Center for Scholars, March 27, 2018, available at <https://www.wilsoncenter.org/blog-post/ideological-competition-the-indo-pacific>.

[73] "Milestone Congress Points to a New Era for China, the World," Xinhua, October 24, 2017, available at <http://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-10/24/content_33648051.htm>.

[74] Denmark, "Ideological Competition in the Indo-Pacific."

[75] Denghua Zheng, "The Concept of 'Community of Common Destiny' in China's Diplomacy: Meaning, Motives and Implications," *Asia and the Pacific Policy Studies* 5, no. 2 (March 2018), 196–207.

[76] As Aaron Friedberg observed, China's ideological appeal is constrained by the Chinese Communist Party's actions at home. The expanded resources available to the CCP regime have given it a widening array of options for crushing domestic dissent. It has strengthened the "Great Firewall" to block unwanted internet content. It also is moving toward a nationwide "social credit" system that will use facial recognition software and big data analytics to monitor the activities, track the movements, and assess the political reliability of virtually every person in China. This is a capability of which the 20th-century's totalitarian dictators could only dream. See Friedberg, "Getting the China Challenge Right."

[77] Authors' calculations from United Nations World Tourism Organization (UNWTO) 2018 data. See "Country Profile-Outbound Tourism," UNWTO, available at <https://www.unwto.org/country-profile-outbound-tourism>. An additional 45 million visited Hong Kong and Macao.

[78] Figures for 2010 outbound Chinese students are from the UNESCO Institute for Statistics. See "Data for the Sustainable Development Goals," UNESCO, available at <http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx>. Figures for Indo-Pacific students in China are from

"Statistical Report on International Students in China for 2018," Ministry of Education, April 17, 2019, available at <http://en.moe.gov.cn/documents/reports/201904/t20190418_378692.html>.

[79] "Confucius Institutes: Asia," Office of Chinese Language Council International, available at <http://english.hanban.org/node_10971.htm>.

[80] Jonathan Stromseth, *The Testing Ground: China's Rising Influence in Southeast Asia and Regional Responses* (Washington, DC: Brookings Institution, November 2019), available at <https://www.brookings.edu/research/the-testing-ground-chinas-rising-influence-in-southeast-asia-and-regional-responses/>.

[81] See Shaun Breslin, "China's Global Cultural Interactions," in *China and the World*, 137–155.

[82] Laura Silver, Kat Devlin, and Christine Huang, "People Around the Globe Are Divided in Their Opinions of China," Pew Research Center, December 5, 2019, available at <https://www.pewresearch.org/fact-tank/2019/12/05/people-around-the-globe-are-divided-in-their-opinions-of-china/>.

[83] "Social Media Usage in the Asia Pacific," *Pixium Digital*, available at <https://pixiumdigital.com/social-media-usage-asia-pacific/>.

[84] "Global Engagement Center," Department of State, available at <https://www.state.gov/bureaus-offices/under-secretary-for-public-diplomacy-and-public-affairs/global-engagement-center/>.

[85] "About Radio Free Asia," RFA, available at <https://www.rfa.org/about>; "U.S. Agency for Global Media," U.S. Broadcasting Board of Governors, available at <https://www.usagm.gov/>.

[86] See Larry Diamond and Orville Schell, eds., *China's Influence and American Interests: Promoting Constructive Vigilance* (Stanford: Hoover Institution Press, 2019), appendix 1.

[87] Silver, Devlin, and Huang, "People Around the Globe Are Divided in Their Opinions of China."

[88] This claim attributed to U.S. Department of State Global Engagement Center Director Lea Gabrielle, reported in Betsy Woodruff Swan, "State Report: Russia, Chinese, and Iranian Disinformation Narratives Echoing Each Other," *Politico*, April 21, 2010, available at <www.politico.com/news/2020/04/21/russia-china-iran-disinformation-coronavirus-state-department-193107>.

[89] Needham, "Australia Rejects Chinese 'Economic Coercion' Threat amid Planned Coronavirus Probe"; Yasmeen Serhan, "Indians Aren't Buying China's Narrative," *The Atlantic*, April 21, 2020, available at <www.theatlantic.com/international/archive/2020/04/india-china-pandemic-coronavirus-distrust/610273>; Philip Citowicki, "COVID-19 Escalates the China-Australia Contest in the Pacific," *The Diplomat*, April 10, 2020, available at <https://thediplomat.com/2020/04/covid-19-escalates-the-china-australia-contest-in-the-pacific/>.

[90] Bates Gill, "China's Global Influence: Post-COVID Prospects for Soft Power," *The Washington Quarterly* 43, no. 2 (Summer 2020), 97–115, available at <https://twq.elliott.gwu.edu/files/2020/06/Gill_TWQ_43-2.pdf>.

[91] These numbers are extracted from "Asian-Pacific Military Strength (2020)," *Global Firepower*, available at <www.globalfirepower.com/countries-listing-asia-pacific.asp>; "Asia," Heritage Foundation, October 30, 2019, available at <https://www.heritage.org/military-strength/assessing-the-global-operating-environment/asia>. U.S. Indo-Pacific Command claims far more robust numbers for its regional forces on its public-facing information sites, contending that it has 5 carrier groups, 200 ships, and more than 300,000 military personnel. These numbers have understandable deterrent value, but overcount actual in-theater assets by claiming credit for all U.S. military assets that could be deployed in the event of a major surge requirement. See "About USINDOPACOM," available at <https://www.pacom.mil/About-USINDOPACOM/>.

[92] See Joel Wuthnow and Phillip C. Saunders, *Chinese Military Reforms in the Age of Xi Jinping: Drivers, Challenges, and Implications*, China Strategic Perspectives 10 (Washington, DC: NDU Press, March 2017); *China Military Power: Modernizing a Force to Fight and Win* (Washington, DC: Defense Intelligence Agency, 2019).

[93] While the notion of "island chains" is a construct that the Chinese military borrowed from American World War II military and diplomatic talk, and there is no authoritative Chinese military definition of each of the chains, most Chinese sources include Taiwan, Japan/the Ryukyu Islands, and the Philippines as being in the First Island Chain, and all include the Northern Mariana Islands in the Second Island Chain. See Andrew S. Erikson and Joel Wuthnow, "Barriers, Springboards, and Benchmarks: China Conceptualizes the Pacific 'Island Chains,'" *The China Quarterly* No. 225 (January 2016), 6–9.

[94] The United States recognizes Japanese administrative control over the Diaoyu/Senakaku Islands and therefore regards them as covered under the U.S.-Japan security treaty but does not take a position on the underlying sovereignty dispute.

[95] See Lyle J. Goldstein, *Five Dragons Stirring Up the Sea: Challenge and Opportunity in China's Improving Maritime Enforcement Capabilities* No. 5 (Newport, RI: U.S. Naval War College China Maritime Studies Institute, April 2010).

[96] Ratner et al., *Rising to the China Challenge.*

[97] For a recent overview of these activities, see Harris, *Statement Before the Senate Armed Services Committee Hearing on U.S. Pacific Command Posture*.

[98] *Indo-Pacific Strategy Report*.

[99] Ratner et al., *Rising to the China Challenge*.

[100] The People's Liberation Army calls this "systems attack" or "systems confrontation." See Jeff Engstrom, *Systems Confrontation and System Destruction Warfare: How the Chinese People's Liberation Army Seeks to Wage Modern Warfare* (Arlington, VA: RAND, 2018).

[101] For a concise overview of U.S. policy, see Richard C. Bush, *A One-China Policy Primer*, East Asia Policy Paper, No. 10 (Washington, DC: Brookings Institution, March 2017), available at <https://www.brookings.edu/research/a-one-china-policy-primer/>.

[102] "An Interactive Look at the U.S.-China Military Scorecard," RAND–Project Air Force, available at <https://www.rand.org/paf/projects/us-china-scorecard.html>. RAND defined *advantage* to mean that one side is able to achieve its primary objectives in an operationally relevant time period, while the other side would have trouble doing so.

[103] Stephen Bryen, "Why the U.S. Withdrew Its Bombers from Guam," *Asia Times* (Hong Kong), April 28, 2020, available at <https://asiatimes.com/2020/04/why-the-us-withdrew-its-bombers-from-guam/>; Lee Jeong-ho, "China Releases Footage of 'Guam Killer' DF-26 Ballistic Missile in 'Clear Message to the U.S.,'" *South China Morning Post* (Hong Kong), January 28, 2019, available at <www.scmp.com/news/china/military/article/2183972/china-releases-footage-guam-killer-df-26-ballistic-missile-clear>.

[104] "An Interactive Look at the U.S.-China Military Scorecard."

[105] Similar conclusions are found in Eric Heginbotham et al., *The U.S.-China Military Scorecard Forces, Geography, and the Evolving Balance of Power, 1996–2017* (Santa Monica, CA: RAND, 2015), available at <https://www.rand.org/pubs/research_reports/RR392.html>.

[106] Figures are 2017 data from the United Nations Comtrade Database, using the trade dashboard to count exports by Japan, North Korea, South Korea, Australia, New Zealand, India,

Bangladesh, Sri Lanka, Bhutan, and Nepal. Hong Kong re-exports to China are calculated at the 2018 rate of 55 percent.

[107] This figure is U.S. imports from China, which captures Chinese exports routed to the United States through Hong Kong.

[108] Members of the Trans-Pacific Partnership included Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam.

[109] The Comprehensive Progressive Agreement for Trans-Pacific Partnership established an 11-country trading bloc representing 495 million people and a combined gross domestic product of $13.5 trillion. It was written with an eye to future expansion. If the United States chooses to join, it would add nearly 330 million people and make the bloc the largest free-trading single market in the world, at 40 percent of world trade. See Keith Johnson, "The U.S. Wants Back in the TPP? Good Luck with That," *Foreign Policy*, March 29, 2018, available at <https://foreignpolicy.com/2018/03/29/united-states-wants-back-in-tpp-good-luck-with-that-trans-pacific-partnership-asia/>; "Overview and Benefits of the CPTPP," Government of Canada, available at <https://www.international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/cptpp-ptpgp/overview-apercu.aspx?lang=eng>.

[110] Keith Johnson, "How Trump May Finally Kill the WTO," *Foreign Policy*, December 9, 2019, available at <https://foreignpolicy.com/2019/12/09/trump-may-kill-wto-finally-appellate-body-world-trade-organization/>.

[111] "Sec. Pompeo Remarks on America's Indo-Pacific Economic Vision."

[112] "Joint Statement of the Governments of the United States of America, Australia, and Japan," The White House, November 17, 2018, available at <https://www.whitehouse.gov/briefings-statements/joint-statement-governments-united-states-america-australia-japan/>.

[113] Subsequently, this distinction was superseded by the economic impact of the COVID-19 pandemic. See Ken Roberts, "China Trade War Losses at $84 Billion and Counting—Does New Data Suggest Tide Turning Toward U.S.?" *Forbes*, December 16, 2019, available at <www.forbes.com/sites/kenroberts/2019/12/16/china-trade-war-losses-at-84-billion-and-counting—does-new-data-suggest-tide-turning-toward-us/#35c3b543bd40>. Clearly, the global economic disruption from COVID-19 will eclipse this trade war by quite some margin.

[114] Steve Liesman, "Trade War Losses for the U.S. and China Grow into the Tens of Billions of Dollars," CNBC, November 5, 2019, available at <www.cnbc.com/2019/11/05/trade-losses-for-the-us-china-mount-into-tens-of-billions-of-dollars.html>.

[115] See *Economic and Trade Agreement Between the Government of the United States of America and the Government of the People's Republic of China* (Washington, DC: Office of the U.S. Trade Representative, 2020), available at <https://ustr.gov/sites/default/files/files/agreements/phase%20one%20agreement/Economic_And_Trade_Agreement_Between_The_United_States_And_China_Text.pdf>.

[116] See Scott Kennedy, "China's Poor Purchasing Performance: How Should the United States Respond?" Center for Strategic and International Studies, May 8, 2020, available at <https://www.csis.org/analysis/chinas-poor-purchasing-performance-how-should-united-states-respond>.

[117] See Sam Kim, "Korea Warns of Trade Pain That Will Shift Supply Chains," *Bloomberg*, May 10, 2020, available at <www.bloomberg.com/news/articles/2020-05-10/korea-warns-of-sharper-trade-pain-that-will-shift-supply-chains>; Carmen Reinicke, "These 8 Asian Countries Will Get the Biggest Boost If the Trade War Forces U.S. Companies to Leave China," *Markets Insider*, August 28, 2019, available at <https://markets.businessinsider.com/news/stocks/8-asian-countries-that-could-benefit-us-china-trade-war-2019-8-1028481289>.

[118] Peter Harrell, Elizabeth Rosenberg, and Edoardo Saravalle, *China's Use of Coercive Economic Measures* (Washington, DC: Center for a New American Security, June 11, 2018), available at <https://www.cnas.org/publications/reports/chinas-use-of-coercive-economic-measures>.

[119] "China Global Investment Tracker," American Enterprise Institute, April 30, 2020, available at <https://www.aei.org/china-global-investment-tracker/>. Figures do not include Chinese investment or construction projects in Hong Kong or Macao.

[120] Figures are calculated from "China's Public Diplomacy Dashboard Dataset (Version 1.0)," *AidData*, December 9, 2019, available at <https://www.aiddata.org/china-public-diplomacy>; also see Cheng Cheng, *The Logic Behind China's Foreign Aid Agency* (Washington, DC: Carnegie Endowment for International Peace, May 2019), available at <https://carnegieendowment.org/2019/05/21/logic-behind-china-s-foreign-aid-agency-pub-79154>.

[121] Wuthnow, *Just Another Paper Tiger?* 15.

[122] See Joel Wuthnow, "Managing U.S.-China Military Relations in an Era of Strategic Competition," paper presented at a University of Pennsylvania colloquium on U.S.-China relations, June 4, 2020.

[123] For a discussion of these challenges, see Thomas Fingar and Jean C. Oi, "China's Challenges: Now It Gets Harder," *Washington Quarterly* 43, no. 1 (Spring 2020), 65–82.

[124] Paal, *America's Future in a Dynamic Asia*.

[125] Charles Edel and Hal Brands, "The Real Origins of the U.S.-China Cold War," *Foreign Policy*, June 2, 2019, available at <https://foreignpolicy.com/2019/06/02/the-real-origins-of-the-u-s-china-cold-war-big-think-communism/>.

[126] Ibid.

[127] Ibid.

Chapter 10

Rogues, Disrupters, and Spoilers in an Era of Great Power Competition

By Bryce Loidolt, Mariya Omelicheva, and James Przystup

This chapter reviews the interests and behavior of Russia, Iran, and North Korea, so-called rogue, disrupter, and spoiler states. Motivated by goals ranging from a desire for regime survival to aspirations for regional dominance and even global relevance, these countries threaten to divert U.S. attention and resources away from the imperatives of Great Power competition and draw the United States into escalating and destructive crises. At first glance, then, there might appear to be strong incentives for China to form enduring, fully cooperative relationships with each of these countries. Yet this chapter also finds that Russian, Iranian, and North Korean provocative behavior is not uniformly beneficial for China, and the prospect of a robust and fully cooperative anti-U.S. axis in 2020 remains remote. U.S. policymakers should anticipate the threat from each of these states to persist, but not necessarily to become more pronounced, as U.S.-Chinese competition intensifies.

As the United States continues to move into an era of Great Power competition featuring long-term rivalry and the prospect of Great Power transition with China, it will continue to encounter destabilizing activities from so-called rogue, disrupter, and spoiler states and regimes. We define this group of countries as those that lack the military and long-term economic power and/or transnational cultural appeal to match U.S. power globally or stabilize an alternative international political order. These states also tend to confront the United States below the threshold of active armed conflict and across multiple domains.[1] In defining this category of states based both on material and nonmaterial attributes as well as on conduct, this chapter reaches across what are often subjective, analytically blurry, and historically contingent concepts and definitions.[2] Although many countries meet the criteria identified above, this chapter focuses specifically on the challenges posed by the Russian Federation, the Islamic Republic of Iran, and the Democratic People's Republic of Korea (DPRK).

Notably, the grouping of these three countries within the same analytic category is a departure from the National Defense Strategy and the National Security Strategy, both of which describe the DPRK and Iran as rogue regimes and Russia as a near-peer competitor

on a par with China.[3] This categorizing also deviates from the other chapters in this volume that treat Russia as a near-peer Great Power competitor. This change is intentional. The inclusion of Russia and exclusion of China—whose behavior is sometimes consistent with the definitional criteria offered above—is not intended to argue that Russian foreign policy lacks a desire for global relevance or that Russia is currently unable to compete with the United States. It is also not intended to sidestep the dimensions of Chinese behavior consistent with rogue, disrupter, or spoiler states. Instead, we posit that Russia and China's divergent economic trajectories imply a divergence in their future military strength. If Russian material power continues to decline and China's increases in the years to come, then Moscow's somewhat debatable status as a contemporary Great Power will recede even further.[4] Thus, the alternative view of Moscow offered in this chapter may be an increasingly useful lens through which to analyze and understand Russian behavior and its implications for an era that becomes increasingly dominated by a U.S.-China Great Power dyad.[5]

The DPRK, Iran, and Russia are motivated by a combination of regime survival, aspirations for regional dominance and sometimes global relevance, as well as an inclination to confront the United States, which they all see as the main obstacle to their own aspirations. And lacking a proactive vision for or means to stabilize an alternative international order, these countries employ a variety of coercive instruments—ranging from proxy warfare to direct military threats—to pursue their interests.[6] Moreover, their development of nuclear weapons and, in some cases, proliferation of ballistic missiles poses a serious threat to regional stability.

Through these activities, each of these countries threatens to undermine the security of U.S. allies and partners, erode U.S. credibility and influence abroad, and mire the United States and its allies in a labyrinth of internal challenges by impairing the legitimacy of their democratic political processes. Although such coercive activities tend to fall below a threshold that would prompt a conventional military response from the United States, they also risk escalating into potentially lethal crises. These states could not only divert U.S. attention and resources away from longer term objectives but also draw the United States into more distracting and costly confrontations.

Costs for the United States imply benefits for China, naturally raising the troubling specter of a more robust strategic alignment among these states against the United States. Indeed, China's security and economic relationships with Russia, Iran, and the DPRK often serve to constrain U.S. power. Welcoming the diversionary and constraining benefits of these countries' activities, Beijing could seek to strategically instigate these states' destabilizing behavior to the detriment of the United States.

This chapter finds, however, that Russian, Iranian, and North Korean provocative behavior is not uniformly beneficial for China, and the prospect of a robust and fully cooperative anti-U.S. axis in 2020 remains remote. U.S.-Chinese competition will yield limited prospects for burden-sharing between Beijing and Washington in comprehensively addressing Russian, Iranian, or DPRK conduct that is harmful to the United States. Given the negative externalities, the behavior of each country likely limits the depth of its relationship with Beijing.

China will need to balance the costs that these states can inflict on the United States and its allies with the potential spillover effects rogue and spoiler activities can have on

Beijing's economic interests and strategic partnerships. Ultimately, U.S. policymakers can anticipate neither fully cooperative nor obstructive responses from China to address the challenges each of these countries poses to regional stability.

The remainder of this chapter begins with an overview of the interests and behavior of the Russian Federation, the Islamic Republic of Iran, and the DPRK—paying specific attention to how these states' activities affect U.S. security interests. The second section turns to a discussion of China's relationship with these countries as well as the positive and negative consequences that their behaviors have for Chinese interests. It concludes with a projection for how these security challenges might evolve over the next 5 years and the implications for U.S.-China strategic competition.

Russian Federation

As detailed in chapter 3a of this volume, Russia's foreign policy is motivated by Great Power aspirations, a desire to reconstitute a sphere of influence in a multipolar world, and the desire for a buffer zone along its western, southern, and eastern borders to protect the country from potential security threats.[7] Russian leadership views the unipolar world dominated by the United States as the gravest threat to its national interests. Russia perceives the United States as a dangerous meddler in the domestic affairs of sovereign states and as a rogue disrupter of stability in the Middle East and other parts of the world. This shift in Russian foreign policy from cooperation to competition with the United States did not occur all at once in 2014 but, rather, in the mid-1990s, when Russia's foreign policy establishment, disillusioned with the lack of reciprocity to its accommodation and integration with the West, began conceiving of a unipolar world as inimical to its own national interests.

As delineated in chapter 3b of this book, while Russia tends to pursue its interests through unconventional means of coercive influence, its conventional military capabilities loom large.[8] Beginning in Ukraine in 2014, Russia's disinformation campaign and use of "little green men" were deemed effective substitutes for the direct application of military power, and in Syria, Russia's military proxies have allowed the Kremlin to plan and direct military actions under the cover of plausible deniability. Yet it is improved conventional military capabilities—rapidly deployable force; air defense; command, control, intelligence, surveillance, and reconnaissance; long-range strikes—that have been equally, if not more, decisive for Moscow in both theaters.[9] Conventional military power has helped Moscow sustain pressure on Kyiv; in Syria, Russia's expeditionary capabilities have forged it into a key powerbroker in the conflict. Russia's gray zone tactics, which encompass psychological, cyber, computer network, proxy warfare, and electronic operations, are thus complementary to its conventional military capabilities.

Together with its information warfare in Ukraine, Moscow's interference in U.S. domestic politics represents a blueprint for a so-called strategy of active defense. Discussed by a chief architect of Russia's military doctrine, General Valery Gerasimov, this preemptive strategy encompasses a range of information tactics applied to destabilize potential threats to Russia's interests.[10] These approaches include the use of Internet trolls (government-funded individuals who exploit social cleavages through fake blogs, offensive and inflammatory comments, and false information for sowing discord or swaying public opinion); leaking adverse, sensitive, or misleading information on foreign government officials

and institutions; and using government-funded mass media to disseminate propaganda favoring Russia. Releasing a significant amount of sensitive information or disinformation ahead of foreign elections or at the height of an international crisis involving Russia, using trolls and bots to amplify it, and publicizing these findings on Russia-sponsored outlets are used synergistically to orchestrate Russia's information strategy.[11]

The spread of Russia's cyber intrusions and operations—ranging from the distributed denial-of-service (DDoS) and Structured Query Language injection attacks to phishing and eavesdropping—speaks to the sophistication of the country's cyber tools and institutional architecture for implementing them. The latter combines multiple security agencies with vast expertise in foreign and domestic intelligence-gathering with proxy-cyber activists, the so-called patriotic hackers, cyber criminals, and even legitimate cyber tech firms. Outsourcing cyber attacks allows Russia to create plausible deniability and lower the risks and costs associated with controversial foreign information campaigns. These attacks can also be used to sabotage critical physical infrastructure—banks, state institutions, and power plants—on a massive scale (as they did in Estonia, Georgia, Ukraine, and Montenegro). Multiple international organizations, including the World Anti-Doping Agency and the Organisation for the Prohibition of Chemical Weapons (OPCW), have also been targets of Russia's cyber attacks.[12] Russia's hacking attempt at the chemical weapons watchdog took place against the backdrop of the OPCW's ongoing investigation into the 2018 use of a military-grade nerve agent attack against Sergei Skripal in the United Kingdom.[13]

Proxies and mercenaries are other assets that allow Russia to accomplish its objectives without resorting to conventional military means. Russian mercenaries have fought alongside regular forces in complex battlespaces in Syria and eastern Ukraine and have operated in various capacities in the Central African Republic (CAR), Libya, Sudan, and even Venezuela. In all these contexts, the presence of Russian private military companies (PMCs) on the ground has allowed the Kremlin to play a critical role in security policies of these states. Because Russia's PMCs, in particular the Wagner Group, rely on the profits from natural resources seized on behalf of regimes in Syria, Sudan, or CAR for reimburse for their military service, their involvement in conflicts redirect the supported governments' operational priorities. Furthermore, in Sudan and CAR, Wagner has not only operated in a combat role but also provided these regimes with training, site defense, and security provision for top-level officials.[14]

Of course, Russia also employs more traditional means, using diplomacy, foreign aid, and arms transfers to pursue its strategic objectives. For example, in the United Nations Security Council, Russia has continued to veto resolutions aimed at investigating or sanctioning Bashar al-Asad's use of chemical weapons and wider brutality during the Syrian civil war.[15] In Latin America, Russia has extended critical economic support to the embattled regime of Nicolás Maduro in Venezuela, stymying hopes for a democratic transition and undermining regional stability.[16] Additionally, through its arms transfers, Russia has sought to exploit or otherwise create strategic daylight between the United States and its allies.[17] Moscow has upped the ante through coercive messaging to Western audiences, stressing Russian resolve for nuclear retaliation and touting its purported superiority in hypersonic and other weapons systems.[18] Russia often accompanies these announcements

with displays of force in massive wargames and provocative air force maneuvers near North Atlantic Treaty Organization (NATO) territory.[19]

These activities from Russia have far-reaching consequences for political stability, societal harmony, and continuous functioning of democratic institutions in its immediate neighborhood and around the world. Cyber attacks on physical infrastructure, particularly when they are combined with political trolling, not only have immediate grim consequences but also stimulate public fear, disengagement, and mistrust in the ability of the government to protect citizens. Information operations and the use of proxies have allowed Russia to maintain or expand its political and military influence (and supplant that of the United States) in many theaters around the world at relatively low cost. Turkey's status and NATO's continued viability and integrity are also in question, as Ankara is being pulled away from the West by the conflict. The unresolved war in Ukraine threatens to transform into a frozen conflict that would preclude Kyiv's integration into an array of liberal, democratic, and open European states. By offering security to embattled autocratic leaders in Africa, Russia also threatens to undermine U.S. interests by weakening local governance; this elevates Moscow's geopolitical posture and its material gains derived from weapons sales and access to natural resources.

The Islamic Republic of Iran

A mix of ideational and material factors motivates Iranian foreign policy behavior and underpins Iran's pursuit of regional interests. Iranian foreign policy revolves around the survival of the Islamic Republic in the face of perceived internal and external threats. Although the revolutionary zeal that characterized Iranian foreign policy throughout the 1980s has withered, Iran seeks to displace U.S. and Israeli regional dominance. Iran has often framed its policies in defensive terms. The Chief of Staff of the Iranian Armed Forces, Major General Mohammad Baqeri, declared in early 2019, "Regional enemies should know that in addition to [a] doctrine of peace, Iran has a strong military presence."[20] Nevertheless, Iran has been able to exploit the instability generated by the Arab Spring to counter what it views as U.S. and Israeli imperialist hegemony in the region, while also shoring up traditional allies and creating new ones in the Levant.[21]

Hampered by economic sanctions, particularly after the U.S. May 2018 withdrawal from the Joint Comprehensive Plan of Action (JCPOA), and facing a hostile geopolitical environment, Iran has been unable to address the threats to its national security through conventional military power. Since the Iran-Iraq War, the Islamic Republic has not had access to the foreign inputs required to rebuild and modernize its conventional military forces; it also lacks the requisite indigenous defense industrial base to do so unilaterally.[22] Moreover, the devastating Iran-Iraq War has been seminal in shaping Iran's force structure decisions, creating a strong inclination among Iranian decisionmakers to avoid conventional warfare altogether.[23] As a result, Iran pursues its goals through a more asymmetric approach that aims to coerce and deter the United States and Israel, as well as rival Arab Gulf states, without prompting a conventional military response from its better equipped and more militarily proficient adversaries.

Iran's regional defense strategy relies on several instruments of coercion, deterrence, and defense, each of which can be calibrated to meet an array of threats. First, Iran has

developed a standoff strike capability that allows it to credibly threaten military, economic, and civilian targets within its rival's borders.[24] These weapons, which include ballistic and cruise missiles and unmanned aerial vehicles (UAVs), afford Iran not only a lower cost but also a plausibly deniable alternative to manned aircraft. In many ways, this obviates Iran's need for an air force capable of long-range precision strikes.[25] For example, on September 14, 2019, an attack using a combined 25 missiles and drones allowed Iran to jeopardize roughly half of Saudi Arabia's oil output. Moreover, in response to the U.S. killing of Islamic Revolutionary Guard Corps (IRGC) Qods Force commander Qassem Suleimani and Kata'ib Hizballah commander Abu Mahdi al-Mohandis, Iran fired more than a dozen ballistic missiles at two Iraqi bases hosting U.S. and coalition personnel in January 2020.[26]

Iran maintains several capabilities that have allowed it to disrupt global shipping in the Strait of Hormuz, a key maritime chokepoint. Although Iran has continued to threaten to close down the strait, the technical requirements and subsequent countermeasures that such an attempt would instigate make this prospect unlikely.[27] Nevertheless, Iran has several options that it could employ in various combinations to affect the calculus of the shipping industry, raising the costs of transiting the Strait of Hormuz and threatening to constrain the global energy supply; they include shore-based antiship cruise missiles, naval mines, armed IRGC navy speed boats, and UAVs.[28] The continued, albeit recently less prevalent, incidence of provocative behavior by the Iranian navy demonstrated a willingness to obstruct maritime traffic by attacking civilian tankers in the gulf with limpet mines in June 2019.[29]

Next, Iran maintains an array of militant clients that, although varying in the degree of their responsiveness to Tehran, allows Iran to extend its influence to neighboring countries, forming what Iranian officials commonly refer to as the "Axis of Resistance."[30] This includes longstanding clients such as Lebanese Hizballah and Hamas, as well as the Ansar Allah or Houthi rebels in Yemen, al-Ashtar Brigades in Bahrain, and the Afghan Fatimiyun and Pakistani Zaynabiyun Brigades that fight in Syria.[31] Iran's diverse network of militant partners also contains several Shia groups in Iraq, encompassing long-term Iranian partners such as Asaib Ahl al-Haq, Kataib Hizballah, and the Badr Organization, as well as recent iterations of smaller so-called special groups, that, although lesser in terms of pure numbers, are suspected to have closer ties to Tehran.[32] These clients allow Iran to extend its political influence while offering it additional platforms from which it can attack U.S. and allied interests.

Iran has also sponsored terrorist attacks farther abroad, beyond areas where Iran lends support to militant proxies in the Middle East. For example, throughout the 1990s, Iranian operatives supported or directly executed a series of assassinations of Iranian dissidents in Europe.[33] In 2018, law enforcement authorities in Belgium, France, and Germany arrested Iranian operatives—including a government official—who had planned to bomb a political rally in France.[34] IRGC-led plots to attack Western and Israeli targets have also been disrupted in Nigeria, Kenya, Uruguay, and the United States.[35]

Iran has recently expanded its cyber activities to offensive intrusions and attacks on foreign companies.[36] From September 2012 through January 2013, a hacker group known as the Izz al-Din al-Qassam Cyber Fighters carried out several DDoS attacks against U.S. financial institutions. Moreover, Iran is suspected to be behind the August 2012 cyber attack on Saudi Aramco as well as a 2016 attack that affected the Saudi General Authority for Civil Aviation and the Central Bank.[37]

Finally, since the U.S. withdrawal from the JCPOA, Iran has gradually resumed its nuclear enrichment activities. In 2018, Iran prepared to expand its manufacturing and enrichment capacity, remaining within the JCPOA-prescribed limits.[38] In the wake of the U.S. killing of Qassem Suleimani, Iran also announced that it would be abandoning operational limits imposed by the nuclear deal.[39]

Though not by any means an existential threat to the United States, Iran's set of coercive options and activities presents hazards to the stability of U.S. partners, allies, and regional interests. Beyond the recent U.S. strikes against Suleimani and Katib Hizballah facilities, U.S. allies and partners in the Middle East have come into conflict with Iranian-backed clients. This includes the Saudi-led coalition in Yemen as well as Israel, which has taken a more forward-leaning role in striking Iranian-backed proxies in Iraq and Syria.[40] Iran's activities in the Strait of Hormuz, including the June 2019 downing of a U.S. UAV and the seizing of civilian tankers, further risk instigating tit-for-tat escalations that could significantly disrupt maritime traffic through a key strategic chokepoint—just as a resumption in Iran's nuclear activities could spark a dangerous regional conflict.[41]

Democratic People's Republic of Korea

The DPRK operates more as a quasi-criminal enterprise than a legitimate nation-state.[42] At its core, the Kim Jong-un government is most concerned with sustaining its family enterprise and ensuring the survival of the regime at all costs. It also prioritizes the reunification of the Korean Peninsula as a means to the end of regime survival and an endstate of itself.[43] This apparent lack of international ambition on the part of the Kim regime might suggest an attenuated threat to global stability, but its activities have far-reaching consequences for U.S. security interests in the new era of Great Power competition.

Through the development of weapons of mass destruction, use of chemical weapons, and aggressive posturing of its conventional forces, the DPRK threatens regional stability and global norms. North Korea is estimated to have somewhere between 15 and 60 nuclear warheads, as well as approximately 650 ballistic missiles that could threaten cities in South Korea, Japan, and eastern China.[44] It has also tested intercontinental ballistic missiles that could be capable of striking the United States.[45] At the same time, North Korea continues to pose a conventional threat to South Korea and Japan. The People's Army, an estimated 1.2 million in strength, is overwhelmingly forward-deployed toward the Demilitarized Zone in an offensive posture.[46] Kim has also pursued more advanced conventional capabilities, including more precise artillery and ballistic missile capabilities as well as UAVs.[47] In this environment, North Korea's nuclear arsenal provides Pyongyang with the potential for nuclear blackmail, allowing it to engage in lower level conventional provocations and, at the same time, affect South Korean and U.S. decisions on kinetic responses or induce economic concessions.

Underscoring the criminal nature of the regime, in February 2017, the DPRK carried out the assassination of Kim's half-brother using the nerve agent VX in Malaysia.[48] North Korea's malign behavior has historically extended beyond Asia and included weapons transfers to hostile states and armed groups in the Middle East. Iran has been accused of being "one of the two most lucrative markets for DPRK military-related cooperation."[49] Pyongyang has indeed engaged in an ongoing relationship with Iran featuring sales and

the transfer of military technology that has served to advance the development of Tehran's ballistic missile programs.[50] The DPRK has also pursued military cooperation and technology transfers in the Sudan and offered small arms and ballistic missiles to the Houthi rebels in Yemen through a Syrian intermediary.[51] North Korea has also exported the SCUD-D, a newly tested advanced short-range ballistic missile, to Syria.[52]

To sustain the regime in the face of international sanctions and condemnation, North Korea has resorted to a wide range of illegal activities that violate global norms. Pyongyang has employed its cyber capabilities to hack banks across the globe, reportedly carrying out successful cyber heists against banks in Bangladesh, Chile, Guatemala, India, Kuwait, Mexico, Pakistan, the Philippines, South Korea, Taiwan, Turkey, and Vietnam.[53] These attacks can be quite lucrative; it has been reported that in one such attack against the Central Bank of Bangladesh in 2016, North Korea netted $81 million.[54] A United Nations Security Council report estimates that in total the DPRK may have acquired as much as $2 billion through its cyber operations.[55] North Korean cyber operations have also targeted media outlets that it deems critical of its policies or of Kim in particular.[56]

Currency counterfeiting and narcotics trafficking have helped the regime generate funds and offset the effects of sanctions. In the late 1970s, Pyongyang began to put counterfeit U.S. currency into circulation, featuring "supernotes"—phony bills of remarkably high quality—of $50 and $100 denominations. There is a high degree of uncertainty regarding the value of this activity; estimates range from $1.25 million to $250 million per annum.[57] Since the 1970s, when Pyongyang began to sponsor opium cultivation and the production of opiates, North Korean diplomats have been arrested in antinarcotics operations across the globe. As of 2007, North Korea has been linked to drug seizures in at least 20 countries.[58] In the 1990s, North Korea reportedly began manufacturing crystal methamphetamine for exports using Chinese triads, the Japanese Yakuza, and the Russian mafia as distribution channels.[59] To weaken the effect of sanctions on North Korea's exports, Pyongyang has moved to step up production of illicit drugs to earn the hard currency needed to fund its nuclear and missile development programs.[60]

North Korea thus represents a multidimensional threat to the prosperity and security of the United States and its allies in the Indo-Pacific region, as its nuclear weapons, ballistic missiles, and conventional posture place several U.S. allies at risk. The DPRK's willingness to use chemical weapons and its involvement in transnational criminal activity similarly violate international norms, and the aforementioned cyber operations have important consequences for the security of the global financial sector.

Rogue, Disrupter, and Spoiler State Behavior and U.S.-China Competition

Beijing currently maintains collaborative, if sometimes distant, relations with Russia, Iran, and the DPRK. China shares with all of these countries a general displeasure with U.S. hegemony and dominance of international institutions. Iran is considered a "comprehensive strategic partner" by Beijing, and Chinese-Iranian cooperation spans the economic and security spheres.[61] With respect to the former, since 2005, Chinese investments in and contracts with Iran have topped $27 billion.[62] And China has reportedly assisted in developing Iran's ballistic missiles, antiship mines, fast-attack boats, and other weapons technology.[63] In

2018, China also imported $15 billion worth of oil from Iran.[64] China and Russia maintain a "comprehensive cooperative" strategic partnership, which may be emblematic of deepening Sino-Russian cooperation.[65] In addition to regular diplomatic and military exchanges under the auspices of regional and international organizations, Russia agreed to assist China in building a strategic missile early-warning system and may view a relationship with China as a valuable avenue through which it can challenge the United States.[66] China's share of Russia's trade and investments has also grown.[67] While Beijing officially continues to support United Nations sanctions on North Korea, cross-border trade with North Korea has bolstered regime stability. In July 2019, the *South China Morning Post* reported a 14.3 percent increase in China's trade with North Korea in the first half of 2019, amounting to $1.25 billion.[68] President Xi Jinping's visit to Pyongyang in June 2019 stands as a clear indication of China's political and economic support for the DPRK.

Although Chinese interests in maintaining relationships with each state are distinct, ranging from shared hostility toward the United States to China's energy needs and desire to maintain a peaceful neighborhood, China's behavior has the consequence of insulating Russia, Iran, and the DPRK from the costs of their provocative behavior. In the case of Iran and the DPRK, economic relations with Beijing offer relief from international sanctions. Additionally, Iran has relied on China for advanced conventional capabilities. Chinese trade and largesse similarly offer Russia an economic lifeline. China has also been willing to purchase Russian combat aircraft and surface-to-air missile systems despite U.S. sanctions.[69]

In turn, each state's provocative activities offer some important perks for Beijing. First, China benefits from having additional voices questioning the value and wisdom of U.S. hegemony and international norms. This benefit is perhaps most apparent in the cyber domain, where both Russia and China have advocated for a different set of norms on cyber and information security that emphasizes state sovereignty and prioritizes constraints on the free flow of information over the safeguarding of critical cyber infrastructure and networks.[70]

The diversionary benefits of each country's behavior are also considerable. Iranian provocations tie U.S. resources down in a volatile and often hostile region rather than the Indo-Pacific.[71] Indeed, since May 2019, the United States has deployed 14,000 additional troops to the Middle East, coinciding with a rise in tensions between Iran and the United States.[72] China similarly benefits from Russia's propensity for distracting the United States from China's potentially destabilizing and convention-breaking activities around the world.[73]

These countries' behavior also poses important risks for Beijing, however: for one, the prospect of crisis escalation between the United States and any of these countries would be enormously costly for China. China's objectives toward the Korean Peninsula and North Korea in particular have remained consistent since the beginning of the nuclear crisis in the early 1990s. China seeks to avoid war on the peninsula and inhibit the collapse of the North Korean regime, while also pursuing the peaceful denuclearization of the DPRK. As a result, China likely views U.S.-DPRK sabre rattling with a degree of alarm. Thus, while seeking the survival of the Kim regime as a major priority, Beijing has continued to encourage diplomatic engagement between Washington and Pyongyang even as it offsets the effects of U.S. sanctions.[74] An active conflict in the Persian Gulf that could come about as a result

of U.S.-Iranian tensions would similarly be devastating to China, which relies on the Gulf states for roughly 45 percent of its energy imports.[75]

Next, Iranian and Russian behavior could frustrate China's other strategic partnerships. China maintains a diverse and somewhat contradictory alliance portfolio in the Middle East, including not only Iran but of some its regional adversaries as well. China relies heavily on Saudi Arabia for its energy needs and has pursued a relationship with Israel in part to acquire advanced technologies. Any increase in destabilizing Russian behavior in Africa could similarly complicate Beijing's relationships with states in that region.[76]

This balance of risks and benefits has likely motivated China's policies of cautious enablement—rather than complete endorsement—of North Korean, Russian, and Iranian activities. Even as it maintains rather friendly relations with Moscow, Beijing has refused to recognize the independence of Abkhazia and South Ossetia after the Russo-Georgian war of 2008, and abstained from, rather than vetoing, the 2014 United Nations resolution condemning Moscow's seizure of Crimea.[77] The pursuit of a diplomatic path toward the denuclearization of the Korean Peninsula remains a priority for China, even as it alleviates the effects of economic pressure. Beijing has likewise continued to engage with Tehran, while also responding to Iran's calls for more confrontational policies toward Washington and proposed accession into the Shanghai Cooperation Organization with little enthusiasm.[78]

Conclusion

Russia, Iran, and the DPRK pose a threat within and beyond their respective regions. Russia is the most materially capable of these states and has deftly employed a mix of information, cyber, and proxy warfare to foment instability and erode the legitimacy of democratic political processes across the globe. The threats of Iran and the DPRK are more pronounced in their immediate regions but still undertake activities and behaviors that are global in scope. Iran has demonstrated a willingness to employ its precision-strike capabilities against civilian targets within Saudi borders and is located in a geopolitically sensitive region. Additionally, DPRK missile tests pose a danger to proximate states. Through their cyber intrusions, chemical weapons use, and other coercive and convention-breaking behavior, all of these states threaten to erode international norms.

Each country's provocative behavior can tie down U.S. resources while undermining Washington's global standing. This naturally produces a strong set of incentives for Beijing to build and maintain partnerships with all three of these states, and by establishing bilateral relationships that often span the economic and security domains, China can shield these states from some of the costs of what the United States perceives to be malign behaviors.

Nevertheless, the negative repercussions—real and potential—that each state's behavior poses for China inhibit the extent of these relationships. Iranian escalatory actions threaten China's energy supplies and regional partners, just as destabilizing behavior from Russia might complicate its relations with African states. DPRK recalcitrance and coercive threats also have the potential to yield a miscalculation and a devastating confrontation on the Korean Peninsula. Somewhat paradoxically, the more China insulates these countries from the costs of their activities through more in-depth cooperation, the more Beijing risks increasing the audacious behaviors that can threaten China's key interests.

China is likely well aware of these risks. Beijing will thus be unlikely to deepen its cooperation with these countries solely as a means of confronting and frustrating the United States; instead, U.S. policymakers can expect Beijing to adopt a more delicate approach that seeks to limit, but not completely eliminate, malign behavior. In turn, this means that U.S. policymakers should be cautiously optimistic that the prospects of an in-depth, fully cooperative bi- or multilateral anti-U.S. strategic alliance taking hold across these states will remain remote.

U.S. policymakers may even be able to identify cooperative space with Beijing in addressing some of the more detrimental dimensions of Iranian, Russian, and DPRK actions. With respect to Iran, the United States could find common ground with China in limiting Tehran's destabilizing activities in the Persian Gulf and its anti-Israel proxies, many of which threaten not only global energy supplies but also important Chinese partners.[79] The United States might similarly be able to leverage Chinese support for containing the destabilizing effects of Russian activities in Africa, just as it can rely to some degree on Chinese diplomatic support in reigning in Kim Jong-un.

Even so, U.S. policymakers should harbor no illusions regarding the potential for more robust cooperation from Beijing in implementing comprehensive punitive measures against any one of these countries. China will instead seek to keep Russian, Iran, and DPRK behaviors below a tolerable threshold. The United States can thus anticipate the threat of these states to persist, but not necessarily to become more pronounced, as it moves forward into a new era of Great Power competition marked by increasing rivalry with China.

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Notes

[1] On measures short of armed conflict, commonly referred to as gray zone tactics or political warfare, see, for example, Michael Mazarr, *Mastering the Gray Zone: Understanding a Changing Era of Conflict* (Carlisle Barracks, PA: Army War College Press, December 2015); Van Jackson, "Tactics of Strategic Competition: Gray Zones, Redlines, and Conflicts Before War," *Naval War College Review* 70, no. 3 (Summer 2017), 39–62; Linda Robinson et al., *Modern Political Warfare: Current Practices and Possible Responses* (Santa Monica, CA: RAND, 2018).

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Chapter 11

Counterterrorism and the United States in a New Era of Great Power Competition

By R. Kim Cragin, Hassan Abbas, Zachary M. Abuza, and Mariya Omelicheva

This chapter addresses the likely impact of Great Power competition on future counterterrorism missions by the U.S. military; it argues that the military should prioritize preventing external operations, directed or virtually planned by foreign violent extremist organizations (VEOs), against the U.S. homeland and minimizing the ability of foreign VEOs to inspire attacks by sympathizers in the West, commonly referred to as homegrown violent extremists. Yet the chapter also observes that, over the next 3 to 5 years, Great Power competition will likely constrain the ability of U.S. military forces to achieve even these more limited counterterrorism objectives. The U.S. Government, therefore, will need to cooperate closely with allies and partners to manage global terrorist threats. The military also will need to preserve its ability to conduct unilateral operations to protect the U.S. homeland. Given these requirements, this chapter recommends that the U.S. military revisit its risk threshold for small-footprint deployments, especially force protection requirements. It also should reconsider counterterrorism authorities, technologies, and other tools in light of the new realities created by Great Power competition. And, in this context, the U.S. Government should explore more ways to deter actions by surrogates and proxies against U.S. forces engaged in counterterrorism and to hold sponsors accountable.

The September 11, 2001, attacks by al Qaeda focused the attention of the U.S. national security community on the threat posed by nonstate adversaries. Since then, the United States and its allies have conducted multiple military operations to mitigate this threat: Operation *Enduring Freedom*, Operation *Iraqi Freedom*, Operation *Resolute Support*, and Operation *Inherent Resolve*, to name a few. Yet the emphasis on countering violent extremist organizations (VEOs) could not last indefinitely. Nation-state adversaries, such as China, Russia, Iran, and North Korea, also present immediate and future, and arguably greater, challenges to U.S. national security interests. A reprioritization was inevitable and, as chronicled in chapter 3a, took place with the publication of two new U.S. security documents in

2017 and 2018: the 2017 National Security Strategy (NSS) and the 2018 National Defense Strategy (NDS).[1] The 2017 NSS retained counterterrorism as an important component of protecting the U.S. homeland, rebranding this effort as "pursuing threats at their source."[2] The NDS acknowledged the need to counter VEOs, such as al Qaeda's network and the so-called Islamic State (IS), but it prioritized threats from near-peer competitors and other nation-state adversaries above counter-VEO operations.[3] Together, these new strategic documents indicated that the United States would assume some increased risk from terrorism in the emerging era of Great Power competition.

These documents adjusted the U.S. strategic framework for countering VEOs. The 2018 National Strategy for Counterterrorism captured these adjustments while emphasizing the importance of future counter-VEO activities in a context of prioritization and partnerships. Two passages in this document stand out:

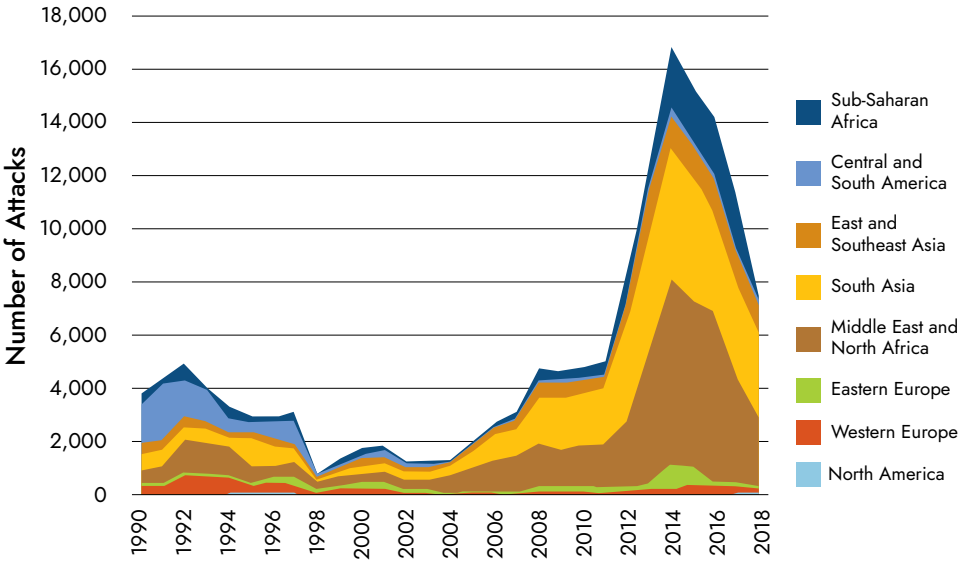
> *Experience has . . . highlighted the importance of strong partnerships in sustaining our counterterrorism efforts. Whenever possible, the United States must develop more efficient approaches to achieve our security objectives, relying on our allies to degrade and maintain persistent pressure against terrorists. This means collaborating so that foreign governments take the lead wherever possible and working with others so that they can assume responsibility in the fight against terrorists.*[4]

> *We will not dilute our counterterrorism efforts by attempting to be everywhere all the time, trying to eradicate all threats. We can and will, however, optimize and focus our resources to effectively prevent and counter those terrorists who pose a direct threat to the United States homeland and vital national interests.*[5]

Since 2018, the NDS has become the baseline document for the U.S. military as it plans, trains, and organizes the joint force. Thus, this chapter proceeds from the perspective of the NDS that the U.S. military will prioritize its near-peer competitors as well as rogue states in defense planning. This chapter also aligns with the definition of *Great Power competition* found in chapter 1, which validates three contemporary near-peer rivals: Russia, China, and the United States. The chapter affirms that VEOs will continue to be a major security issue for the U.S. military and its allies; it focuses on the fact that over the next 3 to 5 years, al Qaeda, the IS, and their associates will continue to pursue local insurgencies and external operations against the West. The U.S. military will be presented with the choice of engaging these VEOs unilaterally, as part of a coalition, indirectly through local partners, or not at all. Whatever the U.S. counterterrorist approach, Russia and China also will weigh the threats by VEOs to their own national security and make their own choices among a range of similar options. Other countries will do the same. The United States may benefit directly from the actions taken by Russia, China, or other nation-states against VEOs. Alternatively, these interventions may exacerbate the VEO threat to the U.S. homeland. In any case, these risks will need to be managed, and counterterrorism in a new era of Great Power competition just got a lot more complicated.

Subsequent paragraphs address this complication. The chapter provides an overview of the evolving terrorist threat, not only emphasizing the United States and its allies but

Figure 11.1. Number of Successful Attacks and Failed Plots Conducted by VEOs by Region, 1990–2018



Source: National Consortium for the Study of Terrorism and Responses to Terrorism, Global Terrorism Database, 2018, available at <https://start.umd.edu/data-tools/global-terrorism-database-gtd>.

also touching on threats to Russia and China. It then delves more deeply into the U.S. military's Operation *Inherent Resolve* in Syria. Syria represents the most concrete example of how U.S. counterterrorism objectives can be undermined by the presence of other Great Powers (in this instance, Russian military forces and their proxies). Next, the chapter explores the long-lasting regional rivalry between Iran and Saudi Arabia. Iran has been defined as a "disruptor" state in this book (see chapter 10); nevertheless, it remains a U.S. adversary, and its competition with Saudi Arabia for regional hegemony exacerbates the threat posed by VEOs. Finally, this chapter provides a discussion of Australia's role in Southeast Asia. Australia represents an important contrast to Russia and Iran: It illustrates how allies can assist the United States in its fight against VEOs, allowing the U.S. military to shift resources away from counterterrorism missions with reduced risk. The chapter concludes with thoughts on the implications of Great Power competition for U.S. counterterrorism in this new era.

Understanding the Threat Posed by Violent Extremists

The United States faces threats from a wide range of extremist groups, including domestic right-wing terrorists, left-wing terrorists, and foreign operatives linked to al Qaeda or IS. The U.S. military retains responsibility for countering VEOs that originate abroad but not for domestic terrorist groups. Among the foreign VEOs, the greatest priorities for the United States fall under the subcategory of Salafi-jihadists.[6] This section, therefore, provides a broad overview of global trends in terrorism over the next 3 to 5 years, but it focuses more on the evolving threat from Salafi-jihadists to the United States and its allies.

Finally, to provide greater context to the threat from Salafi-jihadists, the section concludes with a short discussion of domestic left-wing and right-wing terrorism.

Global Trends in Terrorism

Any chart depicting overarching trends in terrorist attacks worldwide tends to be alarming; figure 11.1 is no different. It displays the total number of successful attacks and failed plots by VEOs globally since 1990. The trend line reveals several fluctuations in global terrorism: a steady decline in attacks between 1992 and 2000; a gradual increase in the number of attacks, starting in 2001, until the numbers flatline between 2007 and 2011; and a dramatic spike in the number of attacks between 2012 and 2014, followed by a decline again, beginning in mid-2015 until the present. While the overarching trend since 2015 is encouraging—for example, the numbers are decreasing—it still has not reached the relatively low levels of the late 1990s and early 2000s.

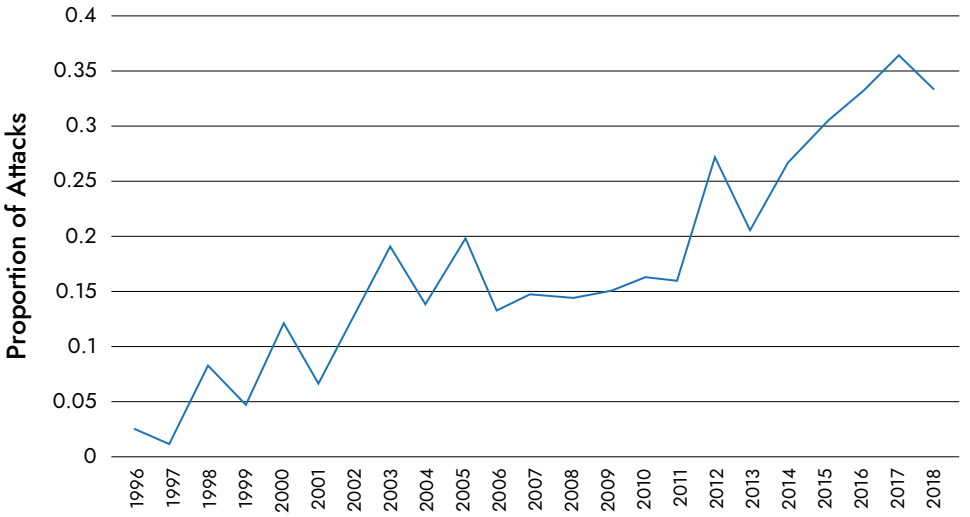
A closer examination of figure 11.1 offers a slightly more nuanced assessment. Although it is easy to assume, for example, that most attacks have taken place in the Middle East and North Africa over the past three decades, the data does not support this conclusion. Instead, the relative number of attacks by VEOs in the Middle East and North Africa, as compared with those in other regions, ranges from a low of 13 percent in 1991 to a high of 45 percent in 2016. Other regions, such as Central and South America in the early 1990s or sub-Saharan Africa at present, also experience relatively high numbers of attacks on their populations.

Interestingly, none of the regions with Great Powers—North America, Eastern Europe, East and Southeast Asia—have experienced high levels of terrorism since 1990. Beyond these overarching numbers, it is noteworthy that foreign VEOs have not systematically targeted Russia or China in recent years.[7] A few exceptions exist. In Egypt, IS fighters placed an improvised explosive device on a Russian airline flying from Sinai to Saint Petersburg in October 2015.[8] The Baluchistan Liberation Army attacked the Chinese consulate in Karachi, Pakistan, in November 2018.[9] Nevertheless, the limited number of attacks by foreign VEOs on Russian and Chinese interests explains, in part, why Moscow and Beijing tend to emphasize domestic terrorist threats over those posed by foreign VEOs.[10] These realities also limit the potential areas of cooperation between the Great Powers on countering foreign VEOs.[11] Now and into the future, the U.S. Government is more likely to find itself hampered in its counterterrorism operations due to the expanding military, political, and economic influence of these other two Great Powers than it is to find substantial areas for cooperation.[12]

The Salafi-Jihadist Threat

Salafism offers literalist, rigid, and puritanical approaches to Islam. It emerged from political developments in the second half of the 19th century, when Muslim-majority regions were confronted with the spread of European ideas. Salafists often extol the first three generations of Muslims as well as the most geographically expansive caliphate of the 1200s.[13] Most Salafists pursue their fundamentalist beliefs peacefully. Others advocate for a violent political revolution in the Muslim world; these individuals are referred to interchangeably as either Salafi-jihadists or *takfiris*, which is a derogatory term that means Muslims who declare others apostates and kill them. Between 1996 and 2014, al Qaeda was at the vanguard

Figure 11.2. Proportion of Attacks Conducted by VEOs in Salafi Jihadist Movement, 1996–2018



Source: National Consortium for the Study of Terrorism and Responses to Terrorism, Global Terrorism Database, 2018, available at <https://start.umd.edu/data-tools/global-terrorism-database-gtd>.

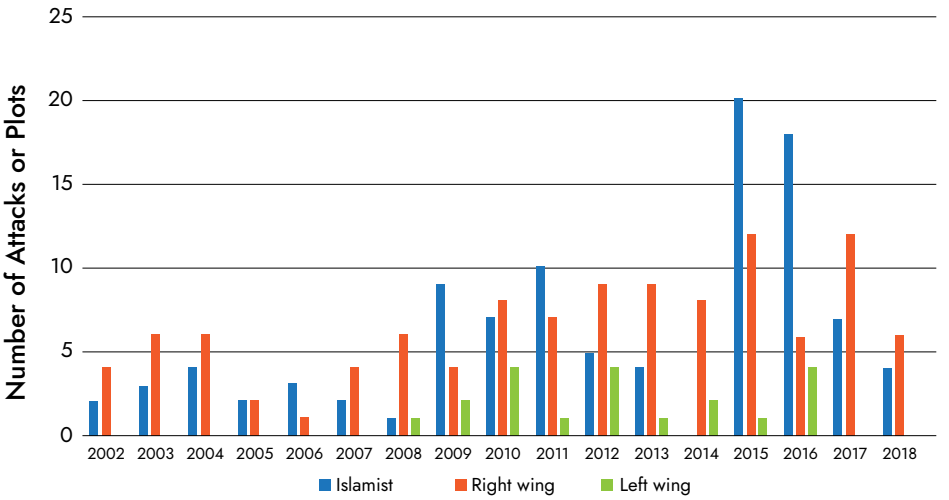
of the Salafi-jihadi movement. Al Qaeda leaders argued that their political revolution was failing because the United States propped up corrupt Arab regimes.[14]

The so-called Islamic State emerged in 2014—in many ways as an alternative to al Qaeda. Led by Abu Bakr al-Baghdadi until his death in November 2019, IS rejected al Qaeda's emphasis on jihad against the West and instead aimed to establish an Islamic caliphate within the territories under its control.[15] That said, IS also pursued external operations, or terrorist attacks, that took place outside its territorial control, in Syria, Iraq, and other countries. In fact, IS leaders met in Tabqah, Syria, in November 2015 to plan a way forward for the IS external operations campaign.[16] Since then, al Qaeda and IS leaders have fought for preeminence among Salafi-jihadists, with most VEOs taking sides.[17]

Figure 11.2 depicts the overall trajectory of attacks by Salafi-jihadists, beginning after al Qaeda leaders announced their war against "Americans Occupying the Lands of the Two Holy Mosques" in 1996.[18] It was derived from the Global Terrorism Database maintained by the START Consortium at the University of Maryland. The numbers report attacks by Salafi-jihadists as a proportion or ratio of all attacks by VEOs worldwide.[19] Figure 11.2 also shows that the overarching trajectory of attacks by Salafi-jihadists remains upward, despite the recent territorial defeat of IS.[20]

Significantly, most of the attacks shown in figure 11.2 were conducted against local targets or targets within easy reach—within the same countries—of IS territorial control. They were not external operations. Only 2 percent of all attacks by Salafi-jihadists since 1996 can be considered "external operations," and the IS has been the most aggressive VEO in this regard. Indeed, while the IS recently lost both its caliphate and its caliph (al-Baghdadi), its decisive defeat remains a remote prospect. The new IS leader, Abdullah Qardash, has vowed

Figure 11.3. Number of Successful Attacks and Failed Plots by U.S. Homegrown Extremists, 2002–2018



Source: Anti-Defamation League, H.E.A.T. Map, 2018, available at <https://www.adl.org/education-and-resources/resource-knowledge-base/adl-heat-map>.

to avenge al-Baghdadi's death and has embarked on rebuilding the group's strengths and re-energizing IS supporters and sympathizers.[21] Most experts agree that IS retains the capacity to direct an external attack against the U.S. and allies' homelands; it also continues to target U.S. forces and citizens abroad.[22]

That said, among Salafi-jihadists, homegrown violent extremists—individuals inspired by foreign VEOs, such as the IS, to conduct attacks locally—represent the most persistent threat to the U.S. homeland over the next 3 to 5 years. IS has sustained a sophisticated media campaign propagating a "long war" against its enemies.[23] This campaign includes outreach to local sympathizers in the West, urging them to execute attacks. According to the Federal Bureau of Investigation, the number of active investigations related to international terrorism in the United States has stayed about the same since 2014, hovering around 4,000. The percentage of IS-related arrests for domestic attacks, however, has continued to increase over the past 2 years, even after the IS's territorial defeat.[24] As of August 2019, 194 individuals in the United States had been charged with offenses related to IS. Forty percent of these cases involved traveling or attempts to travel abroad; 32 percent of the cases were plots of terrorist attacks within the U.S. homeland.[25] These data suggest that the IS's message continues to reach and resonate with U.S. audiences.

Other Terrorist Threats to the United States

There are terrorist risks to the United States beyond Salafi-jihadists.[26] Over the past decade, domestic terrorism motivated by a range of far-right and white supremacist ideologies also has increased (see figure 11.3). According to a report by the New America Foundation, between 2002 and 2018, American Salafi-jihadists killed an estimated 104 people in the U.S. homeland, while the death toll from far-right, white supremacist, and other nonreli-

gious extremist ideologies stood at 125 people.[27] Left-wing terrorists also have historical roots inside the United States. According to the Global Terrorism Database, the number of attacks by left-wing extremists inside the United States has dropped from more than 20 per year in 2003 to less than 5 per year in 2018.[28] And, for the past several years, attacks by left-wing and anarchist groups have held steady at about 3 percent of all domestic terrorism inside the United States, according to both the Global Terrorism Database and the Anti-Defamation League (figure 11.3).[29] Much like their jihadist counterparts, domestic terrorists are empowered by the Internet and social media platforms, where they share their ideas and resources.[30] Although these individuals are largely decentralized and operate in small independent cells, many take ideological cues and inspiration from broader, more global movements.[31] Importantly, at least for the purposes of this chapter, investigative journalism and academic research indicates that Russia's disinformation campaign, directed against the West, has amplified right-wing extremist movements.[32]

In summary, this threat assessment suggests that the U.S. military should prioritize preventing external operations, directed or virtually planned by foreign VEOs, against the U.S. homeland, and minimize the ability of foreign VEOs, or even foreign nation-state adversaries, to inspire attacks by sympathizers in the West, commonly referred to as *homegrown violent extremists*. This way forward accepts risk, including the possibility of terrorist attacks on our allies' and partners' homelands.[33] It also includes risks from greater local or regional instability, which may in turn weaken some of our allies or partners.[34] Still further, some terrorism scholars have argued that too much U.S. counter-VEO retrenchment will allow for a third generation of global jihadists and homegrown violent extremists to emerge, setting us back to where we were before September 2001.[35] As the United States transitions into the 2020s, its defense strategy now accepts these risks when weighed against the threats from near-peer competitors and rogue states. The next sections review how Great Power rivals are likely to constrain U.S. counter-VEO endeavors in the future and how regional state actors and partners might exacerbate or mitigate VEO risks to the U.S. homeland, its vital interests, and its allies.

Counterterrorism and the Impacts from Great Power Competition: Syria

Syria represents the best, most concrete example of counterterrorism in the new era of Great Power competition. Recent experiences in Syria underscore the likelihood that the U.S. military will no longer be able to execute counterterrorism operations with little to no interference in the near future. It will face direct or indirect opposition from other nation-states. To be successful, the U.S. military will need to adjust its authorities, technologies, and other resources accordingly.

Operation *Inherent Resolve* is a counterterrorism mission begun in late 2014 against the Islamic State and led by the United States. Between 2015 and 2018, IS leaders used Syrian cities such as Tabqah, Raqqah, and Ayn al-Arab (Kobani) to orchestrate external terrorist operations against the West. IS media campaigns and other outreach to local sympathizers further exacerbated this threat. The U.S. national security community determined that the only way to halt the IS external operations campaign was for the U.S. military to reduce IS control over territory in Syria. It initially chose to accomplish this mission through a

combination of precision strikes and working by, with, and through local Kurdish militias, renamed the Syrian Democratic Forces (SDF). This approach allowed the United States to pursue its military objectives with a limited footprint, approximately 2,000 U.S. Soldiers, Sailors, and Airmen. Beginning in late 2019, the Trump administration reduced the U.S. force level in Syria even more, although counterterrorism operations continue at present.

But U.S. interests in Syria—narrowly focused on counterterrorism—clash with those of Russia, Iran, and Turkey, all of which view the conflict more broadly through the lens of their own geopolitical influence. Since 2011, Syrian president Bashar al-Asad and his security forces have struggled greatly against a wide range of opposition forces, even going so far as to deploy chemical weapons in this campaign.[36] During both the Obama and Trump administrations, the U.S. Government has articulated its opposition to the Syrian regime often and repeatedly, thereby assuring that Asad has no interest in U.S. military forces on the ground in Syria. Asad did, however, welcome—and count on—the presence of Iranian, and later Russian, military and paramilitary assistance in the fight. Turkey also was a critical party to the Syrian civil war, with its own unique mix of strategic interests and objectives. Initially an opponent of Asad and a supporter of anti-Asad insurgents, Turkey's involvement has proved fluid and its motives far from fully aligned with those of the United States. Ankara's longstanding battle against domestic Kurdish antigovernment militias made Turkey incredibly wary of Kurdish ethnic forces operating in Syria. Turkey's direct proximity to Syria meant that Turkish forces and their proxies had a serious impact on the U.S. counterterrorism mission against IS. The presence of Russian, Iranian, and Turkish forces and their proxies has complicated the U.S. counterterrorism mission. Indeed, the intermixing of cross-cutting Russian, Iranian, Turkish, and U.S. strategic aims during a time of reemerging Great Power competition has made *Inherent Resolve* a poster child for the complexities that U.S. counterterrorism missions will likely face in the future. The following paragraphs explore these experiences in greater detail.

President Vladimir Putin's Russia has three primary interests in the Syrian conflict: It prefers to see President Asad retain power in the country; it wants to reduce the threat posed by returning foreign fighters, primarily from Chechnya and the Caucasus; and it wishes to establish Putin as an alternative "broker" to the United States in the Middle East and North Africa.[37] Putin's Russia has sent as many as 4,000 soldiers and military advisors to Syria—along with rotary-wing aircraft, heavy weapons, and artillery—to bolster the Asad regime.[38] The Russian air force (RuAF) also has conducted airstrikes in support of regime forces and sent airborne intelligence, surveillance, and reconnaissance platforms to Syria: unmanned aerial vehicles, Il-20 Coots, and Tu-214R.[39] As noted in chapter 3b, Syria became a testing ground for some of the new Russian military capabilities heavily invested in by Putin since the mid-2000s. The RuAF has used the conflict in Syria to tests its stealth bombers (T-50s) and fighters (Su-57s) against U.S. forces.[40] In a pattern begun with Russian operations in Chechnya in 2014, at least 2,500 Russian mercenaries have fought on behalf of the Syrian regime, demonstrating an often-overlooked capability critical to the strategic reach of Russia in its rivalry with the United States.[41]

Likewise, Iran—a regional hegemon with both animus toward the United States and hatred of IS—has played a key role in the Syrian conflict. Syria and Iran have a longstanding alliance. Iran has provided financial and military aid to Asad. It also has sent military advi-

sors from the Islamic Revolutionary Guards Corps–Qods Forces (IRGC-QF) to work with regime security forces. Specifically, IRGC-QF advisors oversee approximately 25,000 fighters from Lebanon (primarily Hizballah), Iraq, and Afghanistan, who have reinforced Asad's forces in his fight against opposition troops.[42] To make the situation even more complicated, Russian military advisors reportedly have trained Hizballah and IRGC-QF personnel to call in RuAF airstrikes, in an effort to reduce fratricide for its close air support.[43]

Unlike Russia and Iran, Turkey opposes Asad and his regime. President Recep Tayyip Erdogan has provided approximately 15,000 opposition forces within Syria with weapons and other forms of support.[44] Turkey also has deployed its own security forces into Syria as part of two military operations: Euphrates Shield (August 2016) and Olive Branch (March 2018). Turkish leaders did this to eliminate Syrian Kurds' control over territory close to the Turkish border. Turkey views Syrian Kurds as closely tied to a Turkish VEO, referred to as the Kurdistan Workers Party. In addition, Erdogan has accused Syrian Kurds of small-scale cross-border attacks with mortars.[45] Unfortunately, these Syrian Kurds are the same militias that form the backbone of the SDF and have partnered with the U.S. military to fight against IS. U.S. counterterrorist operations against IS had to factor in not only Russian and Iranian motivations and presence but also complex Turkish grievances against a major U.S.-allied, anti-IS militia.

In the midst of these crosswinds, U.S. forces have had to execute missions against IS in the thick of a highly complex operational environment, one not seen in the post–Cold War world prior to the return of Great Power rivalry. Despite efforts to deconflict ongoing operations, the presence of Russian, Iranian, and Turkish security forces, along with their proxies, has reduced U.S. military effectiveness. The following are some concrete examples of what happens to U.S. forces when they attempt to execute counterterrorism missions in the midst of Great Power competition:

- In October 2015, reports emerged of Russia jamming U.S. military communications equipment, navigation systems, and aircraft in Syria. The former commander of U.S. Special Operations Command subsequently described Syria as the "most aggressive [electronic warfare] environment on the planet."[46]
- In May 2017, Iranian-backed Shia militias stationed near the outskirts of At-Tanf garrison, Syria, entered the deconfliction zone, threatening U.S. forces and their partners (an Arab militia called Maghaweir al-Thowra). Russian jets provided the Shia militias with close air support.[47]
- In November 2017, a Russian jet flew an unsafe flight profile—dangerously low—over U.S. forces in the Euphrates Valley. Two U.S. Air Force F-22s reportedly warned off the Russian jets by releasing infrared flares.[48]
- In February 2018, approximately 300 Russian mercenaries attacked U.S. forces and their SDF partners near Dar el-Zour.[49] U.S. forces called for close air support, and F-15E Strike Eagles responded, killing approximately 200 of the mercenaries.[50]
- In October 2019, Turkish-based opposition forces threatened U.S. Soldiers as they withdrew from Ain Issa, Syria. F-15E Strike Eagles responded with a show of force.[51]

In summary, American experiences in Syria illustrate how Great Power competition could complicate a narrowly defined U.S. counterterrorism mission. Over the next 3 to 5 years, the U.S. military should expect Russia and China to continue to position themselves as alternatives to the United States—not only in the Middle East and North Africa but also in other regions.[52] Thus far, China appears less likely to use military forces outside East and Southeast Asia. But the presence of Russian ground forces and their proxies, combined with close air support provided by RuAF to these forces, will indelibly complicate the U.S. military's ability to conduct counterterrorism operations. Great Power rival use of electronic or cyber warfare also will likely constrain U.S. military options.

Regional States and VEO Risk Exacerbation or Mitigation

Salafi-jihadists have directed most of their violence against local and regional targets, not the United States or the West. Thus, it makes sense that other Great Powers and regional states will have their own calculations about the threat posed by local, regional, and global VEOs; they also will decide whether to intervene directly against VEOs or counter them with proxy forces. This dynamic exists in many areas, including the Middle East, North Africa, Central Asia, and South and Southeast Asia. In some places, the interventions by regional powers will likely reduce the threat of VEOs to the U.S. homeland, but in other areas, regional states will likely intervene in such a way that they exacerbate the threat of foreign VEOs to the United States and its interests abroad. These risks will need to be managed, even as the U.S. military prioritizes Great Power competition. The following are two distinct and contrasting examples of this dynamic, underscoring the complex requirements of countering VEOs in this new era of Great Power competition.

Saudi Arabia vs. Iran in the Middle East as VEO Risk Exacerbators

The escalating proxy war between Saudi Arabia and Iran represents the best example of how regional powers can strengthen VEOs—either directly or indirectly—in their pursuit of dominance. The competition between Saudi Arabia and Iran has played out in various theaters across the Middle East, North Africa, and into South Asia. For the United States, Saudi Arabia is a valued ally and Iran is an adversary. But their proxy war elevates the risks of unleashing empowered VEOs with international reach as well as adding to the volatility of many nation-states around them, many of which host either IS or al Qaeda fighters. This Saudi-Iranian confrontation has been stoking conflicts in Iraq and Yemen; they offer two instructive examples of how regional power competition can create environments hospitable to VEOs.

The rivalry between Saudi Arabia and Iran is not new. It started off as a cold war between regional competitors, both surviving on petrodollars while adhering to two different shades of Islam that have historically been at odds. Both of these world views—Shiism in Iran and Sunni-Wahhabism in Saudi Arabia—have been revolutionary in essence, highly political in orientation, and particularly zealous in proselytization. Over time, the competition between Saudi Arabia and Iran has turned into a balance-of-power game.[53] As of 2020, this competition has not yet led to a direct military confrontation.[54] However, Saudi Arabia and Iran have targeted each other's core national security interests, and these efforts have included the use of proxies and all actions short of war.[55]

Within the past decade, Iraq has been at the center of this rivalry. In Iraq, the Saudi footprint has been less visible than Iran's. Since the United States toppled Saddam Hussein from power in Iraq in 2003, Iran has used its relationship with Iraq's Shia population to garner influence within its neighbor. To do this, Iran has focused attention on solidifying its influence in the Iraqi south, where pilgrimage routes in and around Shia-dominated Najaf and Karbala have religious significance. Iran also was able to take advantage of IS expansion and control over territory within Iraq between 2014 and 2019. Iran overtly sponsored several of the Hashd Al-Shaabi, or Popular Mobilization Forces (PMF) in Iraq, which emerged after Iraqi Shia Ayatollah Ali al-Seestani's 2014 fatwa encouraging Iraqis to assist government forces as they attempted to push back the Salafi-jihadist IS. The PMF played an important role in confronting IS fighters in Iraq between 2014 and 2016, in a parallel effort to *Inherent Resolve* in Iraq, led by U.S. forces. PMF success, in turn, reinforced Iranian influence in Iraq.

For Saudi Arabia, Iran's expanding influence in Iraq has been a grave concern. More sympathetic to Iraq's minority Sunni population, Riyadh has been trapped between IS expansion into Sunni-dominated areas of Iraq on one side and Iranian influence on the other. While Riyadh has been somewhat concerned about the regional threat posed by IS fighters and operatives, it has been equally worried about its waning influence in Iraq. Iraq's political leadership routinely has sympathized with Iranian interests against Saudi Arabia over the past decade. For Saudi Arabia and Iran, everything in the region is a zero-sum game, and so their competition for influence in Iraq only feeds into brewing instability in the wider Middle East.[56]

Yemen offers an even more severe example of the consequences of this poisonous rivalry. Yemen has been in the midst of a civil war since early 2015. Its main factions are those loyal to the more formalized government of exiled President Abd-Rabbu Mansour Hadi, supported by Saudi Arabia, and the minority Shia-affiliated Huthi rebel movement, supported by Iran. Beyond these factions, al Qaeda in the Arabian Peninsula (AQAP) has retained control over some territory in Yemen, as has its competitor Salafi-jihadist outfit, IS in Yemen. AQAP remains the most threatening terrorist outfit to the United States and its allies, plotting multiple attacks over the years, including a foiled attack against Northwest Airlines 253 in Detroit (December 2009), a series of plots that prompted the U.S. Government to close 22 Embassies worldwide (August 2013), and a successful attack against the *Charlie Hebdo* newspaper in Paris (January 2015). AQAP also claimed responsibility for a December 2019 attack by a Saudi military officer at a U.S. base in Pensacola, Florida.[57]

For Iran, Yemen represents a launching pad to target the Saudi military through proxies. The IRGC-QF has provided weapons, ammunition, communications equipment, and other support to Huthi rebels in Yemen's ongoing civil war. In December 2019, for example, the U.S. Government sanctioned the ESAIL Shipping Company and Mahar Air for smuggling weapons to Yemen on behalf of the IRGC-QF.[58] Many other materials have made their way from Iran to Yemen via well-established criminal smuggling networks.[59] Saudi Arabia and its close ally, the United Arab Emirates, have responded with airstrikes against Huthi targets. The resulting war has displaced more than 3.3 million people and has exacted an estimated death toll ranging from approximately 7,000 to more than 65,000 people.[60] Yemen stands destroyed, and it will take decades to rebuild its infrastructure.

The Yemen conflict also has posed direct challenges for the U.S. military. Huthi rebels have used weapons provided by IRGC-QF to attack U.S. military targets and personnel in the region, some of which are there for the explicit purpose of countering the threat posed by AQAP to the United States and its allies.[61] For example, in June 2019, Huthi fighters shot down a U.S. MQ-9 Reaper drone as it flew over western Yemen, an area with local popular support and freedom of movement for AQAP fighters. U.S. Central Command subsequently stated the MQ-9 was shot down by a SA-6 and accused Iran of enabling the attack.[62] The Huthis responded by threatening to attack any future drones that fly outside of AQAP territory, viewing them as a direct threat.[63]

The Saudi-Iranian struggle will likely continue to motivate both sides to invest in destabilizing each other—and search for new proxies to serve their interests.[64] These proxies, as we have seen in Yemen, are inextricably linked to weapons-smuggling networks in the region. Furthermore, Salafi-jihadists have taken advantage of this instability to threaten the United States and its allies.[65] Granted, from a contemporary U.S. policy perspective, Iranian-backed proxies may be worse than those spawned by Sunni-led governments, but the net result of their mutual hostility continues to make space for VEOs that threaten the U.S. homeland, U.S. and allied military units, and vital U.S. interests. Washington must continue to manage the Saudi-Iranian rivalry in a manner that offsets that contest's ongoing potential to exacerbate the risks from truly dangerous VEOs in the era of Great Power competition.

Australia in Southeast Asia as a VEO Risk Mitigator

Australia represents an important contrast to the proxy warfare risks generated by the struggle between Saudi Arabia and Iran. Counterterrorism in Southeast Asia is a distant priority for the United States in an era of Great Power rivalry, well behind coping with a rising and more assertive China, freedom of navigation operations, alliance management, and the denuclearization of North Korea. Given these U.S. priorities, it is reasonable to expect that within the Indo-Pacific region, U.S. counterterrorism efforts will remain focused on the Philippines, where a number of pro-IS, al Qaeda, and other Salafi-jihadist groups continue to spread the poorly resourced Philippine military thin. For the rest of the region, including Indonesia, Malaysia, and Singapore, the United States will likely maintain a smaller intelligence and law enforcement engagement.

Australia, therefore, represents a critical partner in combating terrorism in the Indo-Pacific region during the dawning era of Great Power competition. Australia has paid far closer attention to Indonesia than the United States and has legitimate concerns about what it considers the "arc of instability" to its immediate north. Australian Federal Police have worked actively with their Indonesian counterparts, and they have been at the forefront of the Jakarta Centre for Law Enforcement Cooperation. The United States should be confident in both Australia's leadership and approach. For no other reason than proximity, Australia has taken the threat of terrorism in Southeast Asia more seriously than the United States.

Australia also has increased its bi- and multilateral engagement with the Armed Forces of the Philippines (AFP). During the 5-month-long siege of the Philippine city of Marawi by pro-IS militants in mid-2017, Australia deployed two AP-3C Orion aircraft to provide intelligence, surveillance, and reconnaissance support to the Philippine

military.[66] The Australian Defence Forces have conducted urban warfare training with the AFP. Australia also has assisted the Philippine police with forensic instruction, an improvised explosive device database, and other training. In 2019, Australian aid to the conflict-plagued Philippines was $85 million, with a large portion of that money going to support the peace process between the government and the largest Islamist secessionist movement, the Moro Islamic Liberation Front.[67]

Moreover, Australia has been an important backer of the trilateral maritime patrols established in 2017 among the Philippines, Indonesia, and Malaysia. In some ways, Australia is better poised to assist in the maritime component of counterterrorism, as Malaysia and Indonesia have largely resisted the involvement of the U.S. Navy. Australia is seen as a more acceptable partner, as U.S. Naval presence—and in particular its freedom of navigation operations—is often viewed as provocative. While the trilateral patrols have been going on for more than 2 years already, there is still no fusion center, and intelligence is shared on an ad hoc basis. Australia has been reluctant to join any freedom of navigation operations in the South China Sea, yet the United States wants Canberra to play a greater maritime role in the region. Australia also has been able to leverage its multilateral task force experience from the Persian Gulf and the Gulf of Aden.

Finally, while Australia has every reason to take a leadership role in countering VEOs in Southeast Asia, it has its own domestic IS challenge. On a per capita basis, Australia had one of the highest rates of foreign fighters in Iraq and Syria.[68] Additionally, there have been a number of IS-inspired attacks in Australia, including the 2014 cafe siege and a 2017 shootout in Melbourne. A plot to import weapons and explosives for a campaign against churches and embassies was thwarted in July 2019; it was the 16th alleged mass casualty attack to have been foiled in Australia since 2014.[69] So Canberra feels the need to play defense overseas as well. These actions reinforce Australia as a willing and able partner for countering VEOs, with longstanding commitment and credibility in Southeast Asia. In this sense, Australia exemplifies the opportunities presented by partner regional states becoming more engaged in countering VEOs, even as the United States devotes more of its resources to Great Power competition.

Implications

The cases reviewed in this chapter imply several realities for U.S. counterterrorism in the new era of Great Power competition. First, U.S. national security officials should assume that Putin's Russia will continue to undermine U.S. counterterrorism objectives, either directly or indirectly. Moscow will likely do this by fomenting right-wing and other homegrown violent extremists indirectly through a media campaign. Russia also will confront U.S. forces, especially in the Middle East and North Africa, as they attempt to mitigate VEO threats to the U.S. homeland. For the former, Syria will likely be the model, with Russia combining diplomatic initiatives, proxy warfare, and electronic warfare to foil U.S. military dominance.[70]

The U.S. Government, therefore, should reconsider its counterterrorism authorities, technologies, and other tools in light of the evolving realities created by Great Power competition. The U.S. military also should revisit its risk threshold for small-footprint deployments, especially force protection requirements in areas with active proxies. In this

context, the U.S. Government should explore more ways to deter actions by proxies against U.S. forces and hold all sponsors accountable.

Finally, U.S. national security officials should assume that regional states will continue to pursue their own counterterrorism objectives. Sometimes they will deploy their forces in a manner that the U.S. Government will find unacceptable. Sometimes they will utilize proxy forces in a destabilizing manner. In other instances, important regional states will have objectives, ways, and means that align with U.S. aims for countering VEOs. The best way to mitigate the risk of regional states acting in an unruly manner is to be involved—even to a minimal degree if necessary—and then truly leverage U.S. influence with them. That said, U.S. military defense priorities outlined in the 2018 NDS make regional power struggles, including their potential to exacerbate some VEO threats, an area where the U.S. Government will accept some additional risk.

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Chapter 12

Whither Europe in a New Era of Great Power Competition? Resilient but Troubled

By Steven Philip Kramer and Irene Kyriakopoulos

This chapter examines Europe's role and prospects as an important player in the emerging era of Great Power competition. Although the European Union's (EU's) share of global economic output is comparable to that of the United States, it is not a Great Power, never realizing some forecasts that it would become a superpower in the post–Cold War world. Instead, the European integration experience has been fraught with challenges. Europe has shown considerable resilience while overcoming the 2008 Great Recession and saving the euro in the face of a serious sovereign debt crisis. However, the EU's cohesion and solidarity have been severely tested by terrorism, uncontrolled migration, Brexit, and, most recently, the still-evolving complications from the 2019–2020 coronavirus pandemic. Across the continent, these problems have generated extremist populist movements that challenge liberal democracy and inhibit cohesive EU policy positions or security activities. Europe faces a more aggressive Russia, growing Chinese economic and political power, and a lack of trust in the U.S. commitment to the transatlantic union and European common defense. Despite its enormous latent power potential, Europe has become an object of Great Power rivalry on the continent rather than a subject competitor itself. Europe's responses to its ongoing and potential future challenges will shape its role in the new era of Great Power competition.

Early 20th-century French poet and political philosopher Charles Péguy's comment that "everything begins with mystique and ends in politics" could be aptly applied to European integration.[1] Embarked on just a few years after World War II, with origins in the 1949 Schuman Plan—then the 1951 European Coal and Steel Community, and later the European Economic Community of 1957—European integration was based on the romantic vision of a continent transcending conflict and forming an ever-closer union. Over the years, European integration evolved into a complex and opaque mix of federalism and intergovernmentalism. The crowning organizational jewel of the European

integration experiment—the European Union (EU), established by the 1992 Treaty of Maastricht and entered into force in 1993—has struggled yet endured.

The EU never has been greatly beloved by its citizens, who felt they had too little direct say in its governance. Even though it gradually expanded to include parts of the former Soviet bloc in a deepening economic and political union with security and defense cooperation, the EU has rarely preempted crises, has often been slow in reacting to crises, and has struggled to sustain the consent of those it governs. In addition, the EU has never realized the aspirations held out for it by integration optimists: It has not risen—as a whole or in any subgroup—to the status of a Great Power. The EU has never cleaved to the degree necessary to meet the three-feature definition of a Great Power in the post–Cold War world, and thus finds itself an important but lower tier player in the emerging new era of Great Power competition being shaped by the United States, China, and Russia.[2] There is also the matter of population size. If demography is destiny, then the prognosis for Europe's future as a potential Great Power is not good; beneath the lack of dynamism lurk the problems of low birth rates, an aging society, and internal migration. Europe's population today is about 10 percent of world population; it was about 20 percent in the 18th century. Europe's place in the world is shrinking.[3]

Yet the EU—as the experiment of European integration as a whole—has managed to survive with surprising resilience. Despite its shortcomings and problems, the EU has transformed Europe from a region prone to and deeply damaged by war to an area of peaceful cooperation.

The EU enters the 2020s grappling with its challenges and seeking a way forward. In the past 10 years, it has been assailed by a series of internal and external problems: a debt crisis, economic stagnation, Islamist terrorism, uncontrolled migration, and the 2019–2020 coronavirus (COVID-19) pandemic. The first four challenges, together with Brexit, the United Kingdom's rocky departure from the union, have destabilized liberal democracy across Europe. Geopolitically, the EU is facing a darkened international situation with an assertive Russia, the cohesion of its longstanding transatlantic alliance in doubt, and the problems posed by China's ascent as a significant economic competitor with growing political and military power.

This chapter examines the challenges facing the EU and traces their implications for the future of Europe. The debt crisis, economic stagnation, terrorism, migration, and the changing security environment are the hallmarks of Europe's status in 2020 and its path forward to 2025. So, too, is the impact of COVID-19, but that is a legacy yet to unfold.

Legacy of the Financial Crisis

The greatest test to EU resilience since its founding was posed by the effects of the financial turmoil that erupted in the United States in 2008 and precipitated the Great Recession. In the United States, the crisis originated mainly in the private financial sector of the economy. Its transmission to Europe led to a sovereign debt crisis. The EU managed to survive the Great Recession, but the crisis threatened the very existence of the common currency, the euro.

Europe's leaders were determined to preserve monetary union, even though they lacked traditional macroeconomic policy instruments.[4] The Eurozone has a monetary

arm—the European Central Bank (ECB)—but lacks a fiscal arm or European treasury; EU treaties do not allow for that. Aware of these limitations, European leaders devised ad hoc solutions to deal with the immediate challenge of the possible default of member states on their sovereign debt. The term *Grexit*, coined by Citigroup economists, signified the serious risks to the Eurozone if Greece, the weakest member of the Eurozone, defaulted and left the common currency. There was grave concern that such an event would trigger fiscal contagion and loss of confidence in the ECB. To save the euro, the EU took drastic measures that tested all of Europe's institutions to the limit. Faced with an existential crisis, the EU devised novel policy measures to avert default by Ireland, Portugal, Greece, and later, Cyprus, and to rescue Spain's banking sector.[5]

The course the EU pursued from 2010 to 2018, in partnership with the International Monetary Fund, generated controversy that continues to this day. The approach consisted of two types of measures: rescue loans and austerity policies requiring cuts in public spending, tax increases, drastic structural reforms to liberalize labor and product markets; and the creation of a rescue fund of €750 billion. Key ingredients of the program were packaged so as to avoid violations of the EU's treaty obligations. Specifically, rescue loans for the states were structured to sidestep the no-bailout clause of the Maastricht Treaty.[6] A special debt-relief measure was applied to the case of Greece, calling for a 50 percent writeoff of Greek sovereign debt held by banks, hedge funds, and private investors. Another debt-relief measure was a "bail-in" used in the case of Cyprus; it involved special levies on bank deposits of over €100,000 as a condition for Cyprus's rescue loan.[7]

The rescue loans imposed high costs on recipient EU states. As a condition for loan disbursement, the affected countries had to legislate and pass a broad set of fiscal and structural austerity measures. These macroeconomic stipulations brought major cuts in public spending and steep tax increases to the people of the recipient states. Recessionary forces exacerbated preexisting economic imbalances, leading to sharp increases in national unemployment and budget deficits. Unemployment rates in the worst affected countries of the EU periphery skyrocketed, reaching over 15 percent in Spain and nearly 25 percent in Greece. The level of indebtedness of Eurozone countries rose from an average of 85 percent of gross domestic product (GDP) in 2010 to nearly 93 percent of GDP by mid-2014. The ECB committed to do "whatever it takes" to save the euro.[8] The ECB has persisted in providing monetary stimulus to the Eurozone economy through 2020. Ten years into the crisis, the euro remains intact.

But Europe's economy never fully recovered. In 2020, the EU is still dealing with anemic economic growth, and popular dissatisfaction with economic conditions is high. Structural economic reforms in various bailout recipient states, mandated to promote efficiency and competitiveness, brought dramatic transformations to Europe's economic and social landscape. Rescued states had to impose reductions in welfare benefits, expand part-time work, cut the minimum wage, freeze pay, eliminate bonuses, cut pensions, increase the retirement age, reduce severance and holiday pay, and ease restrictions of firings and layoffs, among other measures. Each of these actions contributed to a steep erosion in how Europe's social market economy functioned. In combination with fiscal retrenchment, structural reforms reduced living standards across the board and hit the least well-off across Europe especially hard. Increases in poverty, homelessness, and social

exclusion, affecting as much as a quarter of the population, were recorded throughout Europe in the wake of the wider financial crisis.

Popular resistance to the effects of strict macroeconomic discipline grew across Europe during the 2010s, with widespread political instability testing the EU's resilience. Governments that resorted to fiscal contraction and structural economic reforms were voted out of office amid rising social discontent. But political events that were deemed consequential a decade ago seem less relevant in 2020. Victories such as the 2012 election of François Hollande, France's first socialist president in 17 years, or Greece's Syriza, a radical left-wing party that became the governing party in 2015, were ephemeral. Ten years after the onset of the debt crisis, the anti-austerity rhetoric has subsided. The return to power of mainstream parties seems to affirm the electorate's assessment that saving the euro was of paramount importance. Europe's common currency has maintained its support by a large majority of Eurozone citizens throughout its first two decades, reaching the highest level in 2019, the euro's 20th birthday.[9]

Europe's ability to weather the financial crisis and the Great Recession demonstrated the resilience of its institutions and their adaptability. By 2019, the EU's economy had recovered to its 2010 level. EU member states' budget deficits have been nearly eliminated. Unemployment rates have come down; the EU average, nearly 10 percent in 2011, was about 6 percent in 2019.

Even as wages and real per capita income recovered from the Great Recession, the EU debt crisis exacerbated wealth and income inequalities.[10] The distribution of the burden of austerity was borne disproportionately by those least able to afford it: the unemployed and the poor across the board and the EU's member states with the weakest economies. Greece was the worst hit of all; it suffered a recession greater in length and severity than the United States did after the 1929 stock market crash. Yet sovereign default was averted. Rescue programs for Ireland, Portugal, Spain, and Cyprus ended in 2017. Even Greece's bailout program ended in August 2018, while the economy was transitioning to the recovery phase.[11] In early 2020, the temporary respite from the worst of the debt crisis seemed likely to pass. There will be serious economic consequences from the COVID-19 pandemic playing across Europe, and it remains to be seen if these consequences will pose another episode of serious trauma for Europe's economic union.

At the same time, Europe's recovery from the debt crisis involved a new role for China on the continent—setting the conditions for new triangular relations among Europe, China, and the United States. While most international investors—including those from the United States—fled Europe in the worst days of its debt crisis, China-based companies surged in. Chinese cash flowed directly to some of the hardest hit countries in the EU, including Greece, Spain, Portugal, and Italy. But Chinese investors also moved into reduced-value assets across Europe during the debt challenge, investing heavily in developed European countries such as Germany, France, and especially Great Britain to acquire commercial brands and important technologies. From 2010 to 2012, the stock of Chinese direct investment in the EU quadrupled from a level that was smaller than holdings by Nigeria before 2010 to a main stakeholder by 2013.[12] Research into the implication of this prolific investment demonstrates that China has tried to use its economic strength to gain political concessions in Europe but has had limited success.[13] Many eyes are now on the

issue of 5G Internet in Europe to see if China's ability to parlay economic presence into political influence holds, or if China's post–debt crisis economic prowess will lead Europe to a decision that goes against specific U.S. strategic interests to limit Chinese information technology penetration there.[14]

The Chinese investment surge notwithstanding, the EU's ability to manage the debt crisis was due to its application of a multiplicity of measures requiring more extensive and deeper fiscal and financial integration, or in the words of German Chancellor Angela Merkel, "More Europe."[15] The European monetary union remains incomplete—lacking a common banking system, a common treasury, and a central fiscal policy, among other features. Still, the actions taken by European decisionmakers to sustain the EU's most compelling symbol, the euro as a common currency, held its financial status in the international community. The euro emerged from the debt crisis still the second most important currency in the international financial system. In 2020, the euro remains second only to the dollar in the size of its share in global foreign reserves, at 20 percent. The euro's share of global payments in 2019 was relatively even more impressive, at 33 percent versus the dollar's share at 45 percent.[16] By contrast, the role of China's and Russia's currencies in the international financial system remains minimal. The Chinese renminbi has limited convertibility; its share of global foreign exchange reserves is less than 2 percent.[17] The Russian ruble is not a reserve currency.

Thus, the most optimistic dream of Europe becoming "the first postmodern superpower" built on the prowess of the largest common market and common currency in the world—a dream with traction during the heady days of the early 21st century—was dealt a serious blow by the debt crisis. The EU did weather the storm with an intact common currency and an enviable global economic standing.[18] Europe's profound investments in salvaging its monetary union from collapse have secured the euro's key role and Europe's important position at the international financial "high table."

The Challenge of Migration

Migration was instrumental in rebuilding Europe in the post–World War II era. To meet the demand for workers, governments of richer and growing northwestern European countries (Belgium, France, Germany, Luxembourg, the Netherlands, Sweden, and Switzerland) systematically recruited labor from Europe's periphery, mostly in the south. Inter-European migration was skills based, legal, and highly controlled, and migrant workers were treated as temporary guests.[19]

The ongoing migration challenge to the EU's common market for population flows paralleled the debt crisis but differs from it. In recent years, Europe has become a destination of choice for millions of people trying to escape war, political turmoil, and poverty in the Middle East, Africa, and Asia. From 2015 to 2016, nearly 1 million migrants and refugees passed through Greece's Aegean Islands and mainland toward central and northern Europe. Since 2015, nearly 4 million people have applied for asylum in the EU's 28 member states. After a temporary pause in 2018, the number of asylum seekers and unlawful entrants has continued to increase. Almost a quarter-million illegal crossings, mainly through sea routes, and illegal stays were detected in 2019.[20] The EU has been slow and ineffective

in dealing with a new challenge to its border security: uncontrolled population movements through European territory.

The migration crisis has not yet presented an overt threat to the EU, home to more than 500 million inhabitants, but it has the potential to pose a fundamental challenge by sowing discord and weakening solidarity and cohesion, key pillars of European integration. The influx of uninvited people from distant lands and foreign cultures—which peaked in 2015—has generated social, political, and economic pressures in a continent still recuperating from the financial shocks of the Great Recession.

The composition of population inflows changed significantly between 2015 and 2019. Early on, most arrivals were war refugees; by 2019, the majority of arrivals were economic migrants. Thus, the political economy of EU countries near or at its external borders has been destabilized. Regions and communities in frontline states, such as Greece and Italy, were overwhelmed by the asymmetric burden of the migration crisis. In these areas, it felt then and still feels in 2020 as if Europe is indeed under siege and without effective defenses. The rise of nationalist parties across Europe is a symptom of mounting dissatisfaction with the status quo in the prevention, deterrence, and management of illegal migration.[21]

Politics and geography have contributed to these developments. EU decisionmakers were caught unprepared to deal with chaotic migrant flows in a concerted fashion. Policy paralysis was overtaken by Chancellor Merkel's open-door policy announcement in 2015, which proved to be a major pull factor to migrants and refugees.[22] During the peak of the migration crisis in 2015, hundreds of thousands of migrants and refugees arriving at the Greek islands were transported by boat to the mainland, northern Greece, and beyond. Neighboring states sought protection from sudden and massive migrant flows by temporarily blocking entry or closing their borders altogether. More than 80,000 migrants and refugees thus became stuck in Greece, unable to move to central and northern Europe, their original destinations. The Dublin Regulation, which came into force in 1997 and requires that all asylum seekers register at their first point of entry into the EU, virtually assured that many of those who escaped Greece would be returned there and to other frontline states.[23]

Newly restrictive national migration policies adopted in haste often clashed with aspects of EU law, such as the common visa requirement and free movement of the Schengen area, which consists of 26 European states that officially abolished all passport and other types of control at their mutual borders in 1995. Repeated attempts by the European Commission to establish quotas for asylum seekers and a more equitable distribution of the migration burden among member states ultimately failed. Finally, an EU-Turkey statement issued in April 2016 promised billions of euros as compensation to non-EU member Turkey for stemming the exodus of migrants and refugees crossing over to EU member Greece.[24] This arrangement was deemed vital, aiming to make Turkey the stopping point of migrant flows with a money-for-refugee-camp swap.[25]

The EU-Turkey migration deal has been fraught with significant capacity constraints and delays. Fragile from its inception, this arrangement began unraveling in early 2020. In February, Turkey announced that it would no longer keep refugees on its territory, threatened to let thousands cross into Europe, and accused the EU of falling short on commitments of financial support. Some 35,000 migrants massed on Turkey's border with Greece, and many were thrust back by Greek border forces. In March 2020, EU leaders

made their highest level visit ever to Greece's border with Turkey in an effort to defuse the crisis. There, they pledged solidarity with Greece and promised human and financial resources to enhance border security of the country that is "Europe's shield in the migrant crisis."[26] As of spring 2020, the future of the EU-Turkey deal remains in doubt, further complicated by geopolitical considerations.

The relevance of the North Atlantic Treaty Organization (NATO) in Europe's migration crisis has been mostly symbolic. In November 2016, NATO launched a non–Article 5 maritime security operation called Sea Guardian.[27] Its goals were similar to those of the EU-Turkey agreement and included reduction in the flows of migrants and refugees from the Asia Minor coast to the Greek islands and interdiction of traffickers and smugglers. Sea Guardian involved limited operations (during certain hours and days of the week). Its effectiveness has not been assessed, but it has not been perceived to be much of a success.

A leader in welcoming migrants to Europe during 2015, Angela Merkel paid a political price at home for this stance and announced in 2018 that she is not seeking reelection.[28] Backlash to migrant transit across Europe via the so-called Balkan Corridor, stretching from the northern Greek border to points north, became severe. That migrant pathway was sealed in 2016, as Austria, Hungary, and other European states closed their borders. Buffeted by the anger about migrant encroachment in multiple European states and a growing backlash at home, Germany's policy stance changed. In 2018, Germany announced it would set up border camps for migrants.[29] By 2019, German Interior Minister Horst Seehoffer announced the Geordnete-Rückkehr-Gesetz—or "Orderly Return Law"—which facilitates the deportation of failed asylum seekers.[30]

In response to these developments, EU decisionmakers also have adapted their strategic goals, assigning higher priority to stopping irregular migration flows at their source, before they reach Europe's borders. In 2019, new policy ideas, including French President Emmanuel Macron's idea for a "European Renaissance," emphasized the need for a unified asylum policy and stricter external border controls.[31] The European Commission's "European Agenda on Migration Four Years On," introduced on March 6, 2019, considers it essential to pursue a comprehensive approach to restrict migration flows and strengthen external border protection.[32] But these goals may undermine the essence of the border-free, visa-free Schengen area, the backbone of Europe's single labor market. Nor is it clear that the EU can allocate resources for a reinforced security infrastructure at its external borders. Border protection will remain a divisive issue, due to the social, political, and resource burdens that it would impose on the most vulnerable member states. A related factor is the size and effectiveness of the European Border and Coast Guard Agency (FRONTEX), which coordinates contributions of border guards from EU member states.[33] A 2019 announcement by the EU Commission to increase the size of FRONTEX to 10,000 by 2027 is viewed as highly unrealistic. There is no political consensus on the matter, and no resources have been allocated to such an enterprise.[34]

Then there is the issue of a common asylum policy; the EU has been grappling with it since the beginning of the migration crisis. Absent a common policy, each state has been granting asylum based on its own laws and interpretations of the United Nations charter. According to the EU commissioner for migration, "The current system is broken."[35] To fix it, the commissioner submitted in 2019 seven proposals requiring agreement on

all components of a Common European Asylum System, such as stepping up returns of individuals not qualified to receive asylum, ensuring that return decisions are enforced, making plans to address the root causes of migration, and more tightly enforcing the EU-Turkey deal. Aiming for consensus to stem irregular migration at the source in northern Africa, the commission has set up a European Emergency Trust Fund for Africa, with planned contributions of nearly €3 billion from the EU budget.[36] But that fund is unlikely to be fully funded anytime soon.

The EU's newly developed strategy of containment of the migration crisis through a unified common asylum policy, tighter border controls, and stricter management of migrant flows at their source is an acknowledgment that the status quo is unsustainable and must be reformed. The implementation of policy reforms proposed by the EU Commission requires political consensus from all heads of state. Such a consensus cannot be formed as long as the migration burden is placed unevenly on European border states.

The migration crisis reinforced preexisting centrifugal forces unleashed by serious macroeconomic and resource imbalances across the EU. As noted, several EU member states have renationalization policies dealing with border controls and other measures to protect or project national sovereignty. These unilateral moves strongly indicate that the migration challenge poses a greater danger to European integration than the debt crisis. The EU was determined to devise and impose radical new policies to save the euro. By contrast, neither the EU's institutions nor its member states have invoked a comparable common European symbol to justify imposition of EU-wide policies to resolve the migration crisis. Repeated references to solidarity as the basis for the formulation of new EU-wide migration and people movement measures have not advanced common policies.

In fact, popular sentiment points in the opposite direction. Most Europeans believe that the migration crisis has been mismanaged, and the continued influx of illegal migrants remains their top concern. This is tethered to popular fears that illegal migration increases the incidence of terrorism in their countries.[37] The results of elections for the European parliament in May 2019 have indeed led to changes in the European Commission's policy portfolios. New policy appointments may foretell further changes to the EU's stance on future refugee inflows and unlawful migration. It remains to be seen whether the EU might begin to overcome the divide between border and nonborder states on the migration issue, achieve a more unified common asylum policy, enhance border security, and move toward a more equitable distribution of migration burden. The EU has everything to gain in meeting the challenge of migration—and much to lose if it does not. As it struggles to find a common way forward on migration, an internally divided Europe risks losing agency on the world stage in a new era of Great Power competition.[38]

European Politics in Transition

In 2020, the major challenge of the EU is its own survival. In the past 10 years, the EU has faced daunting problems and disruptive crises. It has surmounted immediate perils but has not eliminated their root causes. Nor has it fundamentally reformed its system of governance. To do so requires unanimity among member states and, in some states, referenda as well—extremely difficult to achieve. The financial crisis was temporarily contained, but the economic fallout from the COVID-19 pandemic could portend another severe round

of recession and severe Euro-trauma. The challenge of migration and migrant crises threatened and can yet endanger EU survival. Brexit has destabilized the United Kingdom and introduced new tensions in Britain's relationship with Europe. In the short term, whoever "wins" the Brexit conflict, Britain is likely to be the loser.[39]

The financial crisis and the demography challenge of migration have had major political consequences. They exacerbated longstanding political tensions within member European states, weakened centrist parties, strengthened right-wing extremism, and contributed to the development of illiberal democracy in Eastern Europe. New and unprecedented forms of social protest such as the *gilets jaunes* in France arose. France and Germany are less able to exercise leadership in Europe, and the Franco-German partnership, the engine of progress in Europe, has been immobilized. Among other Franco-German coordination challenges, Germany is leery about responding to President Macron's ideas for reforming the EU.[40] A vicious circle of weak leadership has ensued, and Russia has tried to take advantage of this EU weakness.

The postwar European model of a mixed economy and extensive social safety net has been eroded. This model was at the heart of European integration; its purpose was to prevent the kind of economic and social insecurity of the 1930s that spawned fascism and Nazism and resulted in World War II. But economic security is hard to guarantee in a postindustrial, fourth industrial revolution society, and the cost of the old European welfare state is becoming prohibitive.[41] The impact of rapid economic and technological change today is only equaled by the disruptions caused by the first industrial revolution. The proposed remedy to Europe's serious economic and political challenges of the 2000s and 2010s was "reform," but reform was tantamount to an exercise in austerity. The remedy was imposed by Germany and execrated by large elements of the European population, who lost benefits and whose standard of living declined. Those affected were unlikely to welcome "More Europe." Blame for economic crises was attributed to the governing parties.

To the fear that tomorrow might be harsher than today was added the fear of uncontrolled migration in Europe. Many Europeans were not especially comfortable with Muslim immigrants; thus, political parties like the French National Front thrived on xenophobia. Muslim immigrants often came to the continent just before the process of deindustrialization set in across Europe during the 1970s and 1980s. As a result, they suffered economic, social, and residential marginalization and racism, which impeded true integration. While many Muslims ascended to the middle class, disaffected Muslims, especially in the underclass, were susceptible to Islamism.[42] The migration crisis catalyzed the immigrant problem, just as the financial crisis catalyzed the erosion of the European welfare state. The problem of Muslim minorities was exacerbated by jihadist terrorism, which reinforced the impression that the state (and the EU) are unable to guarantee basic citizen safety, which in turn threatens the fragile social situation of Muslims. Deadly Islamist terrorist attacks took place in France (*Charlie Hebdo*, *Hyper Cacher*, and Bataclan in 2015; Nice in 2016).[43] In 2019, a police officer in the Paris prefecture killed four of his colleagues, leading to fears that terrorists could act as a fifth column within state institutions. In 2020, there is also concern about the return to Europe of jihadists who fought with the so-called Islamic State.

The apparent haplessness of the EU and its member states regarding uncontrolled migration shook confidence in the EU and in establishment political parties, including

Christian Democrats and Social Democrats, which had been the centrist mainstays of the EU. Socialist parties that had pioneered the concept of the "people's home" now found that the far right was trying to appropriate the concept. The far right's claim was that only by leaving the EU, erecting barriers to globalization, and keeping out immigrants could the people's home be saved for the "real people"—that is, the native European population. The political system in Western Europe has generally managed to absorb, contain, or neuter the nativist extremists, but with difficulty. At the same time, some centrist political parties have taken on the rhetoric of the far right to protect their political bases.

In Europe's East, however, the forces of illiberal democracy have been far more successful, especially in Hungary, under Prime Minister Viktor Orban, and in Poland, where the conservative regime attempted to undo separation of powers and insisted on acceptance of a nationalist version of Polish history.[44] The same crisis of establishment parties occurred in Germany and France. In the early 2000s, before the crisis, the German Social Democratic Party (SPD), under then–Prime Minister Gerhardt Schroeder, had shown its "sense of national economic responsibility" by enacting the Hartz labor and market reforms. This made German labor costs more competitive globally but made German workers less financially secure. The SPD lost much of its working-class base and declined from around 40 percent of the electorate to probably less than 20 percent.[45] Conversely, the left-wing Greens in Europe have experienced significant growth in both Germany and Austria (where they are now part of a coalition government). As noted, the migrant crisis undermined Merkel's standing and that of her long-governing, right-leaning Christian Democratic Union. The very right-wing and hyper-nationalist Alternative fur Deutschland (AFD) became the official opposition in the German parliament (Reichstag) in 2017, providing a party known as a political pariah with a kind of legitimacy.

The old East Germany may be moving toward less, rather than more, integration with the rest of the country. Its major parties are anti-system. The Left Party evolved from the old Communist Socialist Unity Party of Germany. A vote for it is a slap in the face to the West German establishment. The AFD in the East is far to the right of the AFD in the West. In Germany's Thuringia state, where the AFD won 23.5 percent of the vote in the October 2019 lander election, its leader does not hesitate to use rhetoric recalling Nazism.[46] Antisemitism and antisemitic violence reemerged, and for first time since World War II, a significant political figure was assassinated. Beleaguered, Merkel entered 2020 in no position to lead Europe or to be a voice for change in Europe, especially if European reform might require financial sacrifice by German taxpayers.

Britain's longstanding reluctance to commit to membership in an integrated Europe resulted in its joining late, in 1973, and remaining ambivalent. Dissension in the Conservative Party led then–Prime Minister David Cameron to call a referendum in 2016 which, to his surprise, rejected EU membership. The ensuing debate about what kind of British exit from the EU to pursue and whether to hold a second referendum divided Parliament and the country and paralyzed the conservative government of Prime Minister Teresa May from 2017 through 2019. The victory of her ultraconservative Tory Party rival, Boris Johnson, in the elections of December 2019 meant that there would be no second referendum and indicated that the United Kingdom would pursue a "hard" Brexit. Initially, Brexit raised fears about the survival of the EU, but the process so destabilized Britain that it seems likely

to serve as a deterrent (at least in the short term) to other member states considering a similar maneuver. Brexit will complicate British-U.S. relations, adding to preexisting trade tensions.[47]

In France, both establishment parties, Les Républicains and Socialists, collapsed in the 2017 presidential and parliamentary elections. Emmanuel Macron took advantage of the vacuum to become president, and his brand-new political party gained an absolute majority in the National Assembly. As president, Macron is attempting to modernize France through neoliberal reforms, the need for which has long been proclaimed but which previous presidents have failed to accomplish because of popular resistance. The French political class has repeatedly stepped back from labor reform for fear of bringing on another period of popular uprisings like those in May 1968 and because of the ability of special interest groups and unions to bring France to its knees. Ironically, it was not the unions that successfully challenged Macron but rather something new and unexpected: the *gilets jaunes*.[48] The *gilets jaunes* crisis was an unprecedented social revolt different from anything seen before in France, an anti-system action of "the people" with no organization and leadership, based on a rural and small town population. It reflected opposition to the domestic policies of Macron and his elitist style. At the revolt's high point, it was not obvious that the president would survive. There is no guarantee that the effort cannot be renewed.

As of late 2019, Macron had managed to nudge French unemployment down to its lowest figure in years. In 2020, prior to the COVID-19 pandemic, he took on a potentially explosive issue: reform of France's 42 special pension systems, which provide privileged groups benefits far beyond the norm. But the people will not give them up without a fight. Macron's only electoral rival is the Rassemblement National (RN), the new name of the National Front Party, a virulently anti-immigrant, anti-Muslim, racist party. Longtime RN leader Marine Le Pen abjured antisemitism, but few are convinced that the party's base has truly experienced a change of heart. The RN in power would be a game changer for France and for Europe.

Domestic politics have weakened the Franco-German partnership, which has always been the sine qua non of effective EU leadership. There was widespread hope that the 2017 election of Macron in France would mark the beginning of a renewal of the partnership, but that positive scenario has not transpired. Given her position of weakness, Merkel has been especially cautious and tends to hew to the status quo on almost all issues related to Europe. There has been much talk about the emergence of Macron as the potential leader of Europe. He certainly seems eager to assume that role but has generated resentment by not seeking consensus. The European parliament showed this resentment by rejecting France's candidate for the economics portfolio on the European Commission, Sylvie Goulard—a humiliating blow to Macron's European reputation. Macron's status in Europe is more a reflection of Merkel's weakness than his own strength.[49] The weakness of Franco-German leadership has an adverse effect on Europe's ability to assert its interests in an age of Great Power competition.

Europe's political challenges are important internally and in the context of the new era of Great Power competition. While China's role in exploiting Europe's political fracturing remains limited, Russia has been capitalizing on European vulnerability. Russia is the foreign state that tries to influence European politics and decisionmaking most.

Discussed in chapters 3b and 7 of this volume, Moscow's influence activities around the globe and especially in Europe support three main Russian strategic objectives: regime security, predominance in Russia's near abroad, and world-power status for Russia. The long-term objective of Russian influence activities is to weaken NATO and the EU. In the shorter term, it is to lift the sanctions imposed after the Russian intervention in Ukraine in 2014. Russia has exploited Europe's challenges with minorities, refugees, and extremists, using them to weaken EU cohesion. Russia also uses the energy sector, business, and corruption as venues for influence on the European polity. It cultivates and exploits an extensive network of allies and front organizations and reconstructs reality and rewrites history to legitimize itself and undermine European leaders.[50] Among the modern Great Powers, Russia has the most to gain should political cohesion in Europe remain wobbly or further erode.

New Parameters of European Security

The 1991 end of Cold War bipolarity and the reunification of Germany transformed the security landscape of Europe and led the EU and its governance institutions to gradually adapt their own strategic perspectives. The foundations of the EU's Common Foreign and Security Policy, laid out in the 1992 Maastricht Treaty, placed security and defense policy in a common EU-wide context. By 2016, almost a quarter-century later, the EU had formulated a more comprehensive European Agenda for Security (EAS), which prioritized "terrorism, organized crime, and cybercrime as interlinked areas with a strong cross-border dimension."[51] The EU's global strategy, adopted in June 2016, called for greater coherence in EU external action and identified five security and defense priorities: "the security of the Union; state and social resilience to our east and south; an integrated approach to conflicts and crises; cooperative regional orders; and global governance for the 21st century."[52]

In summer 2019, the EU's 3-year review of its global strategy validated it as a vital component of a "path toward a stronger Europe."[53] That 2019 strategy review endorsed continuation of several activities and policies. First, it encouraged the EU's role as a global maritime security provider in activities such as operations *Atalanta* (fighting piracy off the Horn of Africa) and *Sophia* (chasing smugglers and human traffickers in the Mediterranean). It also endorsed an expanded European Border Security Force, FRONTEX, to deter illegal migration, unlawful crossings in the Mediterranean, and illegal stays in the EU.[54] The 2019 review also advocated enhancement of its defense initiative, the Permanent Structured Cooperation, which has for a while aimed to provide a new framework for joint European defense investments and cooperation and operational readiness among 25 member states, covering 34 new defense cooperation projects from cyber security to military mobility. The EU budgeted €590 million from 2017 to 2020 for these programs and entered 2020 planning to expend more funds to incentivize such European defense cooperation.[55] The expanding scope of security and defense initiatives reflects the EU's intensifying quest for greater strategic autonomy. In addition to the European defense initiatives listed above, the EU EAS announced an expansion of its security assistance in the Western Balkans; a desire to preserve the nuclear deal with Iran (Joint Comprehensive Plan of Action) despite the 2018 U.S. withdrawal from it; and partnership with African countries in multiple policy and security fields, including the field of migration.

Whether the EU's global strategy truly represents a break with the past remains to be seen. The EU's budget to address global security challenges remains miniscule. Furthermore, EU's governance rules mean that it cannot usurp the powers of national leaders on matters of security and defense. But a significant impetus for change in Europe's security strategy is the eroding cohesion of the transatlantic alliance between Europe and the United States. Over the past decade, the United States has been pressuring European members of NATO to increase their defense spending to 2 percent of GDP from an average of 1.3 percent in 2017. The response of several European countries, including Germany, France, Italy, and Sweden, has been to increase defense expenditures; total defense spending by the EU is planned to surpass $300 billion a year by 2021.[56] But the U.S. administration also has objected to the EU's global strategy on grounds that it signals a "Europe First" approach to industrial policy, limiting the access of U.S. producers to Europe's domestic manufacturing base.[57] Complicating matters further, the December 2019 NATO summit revealed chasms among Allies' perspectives on their respective roles in countering China and Russia.[58]

As the future of the transatlantic alliance is open to question, the EU's global strategy reflects the shifting balance of challenges in EU-China relations. The EU has become China's biggest trading partner, while China is the EU's second largest, with trade between the two entities worth €1.5 billion per day. But China's expanding foreign direct investments, its "new Silk Road" (also known as the Belt and Road Initiative [BRI]) stretching extensively into multiple European states, and Beijing's competition with the United States and the EU for preeminence in advanced technology have led to a reassessment of EU-China relations. While EU foreign direct investment in China was approximately €6.8 billion in 2014, China's investment in the EU had grown to around €35 billion in 2016.[59]

A key area of concern for the EU is the increasing influence of China's European investments in support of the BRI. China's access to the EU's economy and market—growing during the debt crisis—greatly expanded in 2016 when the China Ocean Shipping Company acquired a majority stake in Greece's port of Piraeus, the main entry point for Chinese exports to Europe. Chinese investments of over $8 billion to upgrade rail transportation between Belgrade and Budapest are part of a larger initiative to improve infrastructure in Central and Eastern European countries. Similar investments are planned in Europe's south. In 2019, Italy became the largest European country to participate in China's BRI, through cooperation in the development of Italy's infrastructure, civil aviation, ports, energy, and telecommunications.[60] These investments are well linked to those in the port of Piraeus, further enhancing the transportation, logistics, and warehousing infrastructure required for BRI.

EU concerns center on China's growing economic presence, potential political influence on EU policymaking, and Chinese funds displacing Russian energy as sources of dependency for Europe. The European Commission has promoted legislation requiring screening of Chinese investments, more controls over potential Chinese product "dumping," and greater scrutiny of China's offers to facilitate finance infrastructure spending.[61] But Europe is not unified in how to approach China, allowing individual European states to pursue their own policies. Across Europe, China's global technological presence has already accentuated competition among Great Powers Russia and especially the United States. In many ways, this competition has developed with Europe as the object of rivalries. For example, the EU

has yet to develop a unified stance on China's role in Europe's technology base, especially its 5G networks, connecting billions of sensitive information and communications technology systems in crucial sectors. At present, France and Germany seem to diverge on what to do about allowing Chinese telecom companies Huawei and ZTE to bid for the next-generation 5G networks. While Paris remains silent on the topic, it appears that Berlin is about to allow Huawei to take part in the 5G competition in Germany.[62] In its new EU-China Strategic Outlook in March 2019, the European Commission described its approach to China as a cooperating partner in some areas and a negotiating partner in others.[63] But it also named China as "an economic competitor in pursuit of technological leadership and a systemic rival promoting alternative models of governance."[64]

Shifts may also be evidenced in the EU's approach to Russia. While Russia remains a security threat as a nuclear superpower, its geopolitical position in Eurasia is altogether different compared with the Cold War era. EU-Russia relations reflect a long history of complex interdependencies based on the Partnership and Cooperation Agreement of 1997.[65] These interconnections involve an array of policy areas, including trade, science and technology, and transport. Russia is now the fourth largest trading partner of the EU and the fourth largest export destination of EU goods (€85.3 billion in 2018). Russia—the largest oil, gas, uranium, and coal exporter to the EU—is the third largest source of goods imports (€168.3 billion in 2018); energy products account for nearly 70 percent of the EU's imports from Russia. For its part, the EU remains a key trading partner for Russia, representing €253.6 billion, or 43 percent of Russia's trade in 2018. And the EU is by far the largest investor in Russia, with a total stock of foreign direct investment there that approached €235.2 billion in 2018.[66]

Financial interdependencies as well as geopolitical considerations will shape the future of EU-Russia relations. The energy sector will continue to dominate the EU-Russia trade and investment relationship, despite the controversies surrounding the Nord Stream, a 1,225-kilometer gas pipeline through Europe. Denmark's recent approval of a permit for Nord Stream 2 virtually guarantees that more Russian gas will be pumped into Europe.[67]

There is widespread concern that Russia interferes in European political life, in elections, and possibly in the Brexit referendums; that Moscow subsidizes extremist parties; and that Moscow seeks to undermine the political cohesion of the EU and member states. But the perception of Russia as a security threat varies greatly among EU member states, depending on geography: hardly at all in the Mediterranean or Iberia, but seriously in the North and especially in the Baltics. While there is no fear that Russia could or would invade Europe as a whole, the possibility of hybrid operations in the Baltics is real.[68] Yet Europe alone cannot defend its member states against Russia, and the EU does not have a legal mandate to do so. European defense remains predicated on NATO, and U.S. guarantees are indispensable for NATO to be meaningful. Thus, Europeans worry that the United States might detach itself from the continent.[69] Some EU leaders (including Germany) try to avoid debate over the future of NATO and hope that future U.S. administrations will return to traditional transatlantic policies. To the extent that they feel less certain about U.S. commitment to NATO Article V (the mutual self-defense clause), Europeans may pursue and intensify mutually advantageous relations with Russia in as many sectors as possible. The EU could seek continued accommodation and deeper cooperation with China and Russia

as the optimal path to survive and adapt to the evolving competition among the world's Great Powers.

Another approach, not necessarily mutually exclusive, advocated by President Macron, is one of European defense autonomy. In the past, French support for European defense autonomy was based on neo-Gaullist opposition to perceived U.S. domination. In late 2019, Macron, who stated that NATO is "brain dead," expressed far more concern that "America is turning its back on us so quickly on strategic issues." He added that if Europe "can't think of itself as a global power [it] will disappear."[70] Macron took note of how the United States broke with its Kurdish allies in Syria with a controversial military departure that left Kurdish adversary Turkey holding the cards on what to do there. Macron's comments were taken by some as recognition that Europe needs to be able to defend itself—a legitimate call to action to create genuine European defense cooperation. If the United States follows its historic policy of close cooperation with Europe on security, with a focus on the primacy of NATO, this is unlikely to happen. If, however, U.S. policy shifts even more deliberately to a more unilateral approach in the period of 2020 to 2025—and if Europe feels that there is an existential threat to its sovereignty and that the United States could not be counted on to come to its aid—the EU has the means to create an autonomous defense. In that case, Europe, very much against its inclinations, could move from a post–World War II experiment relying on U.S. security guarantees to a more ambitious system of integrated European security and defense with a single military structure.

Europe in 2025

When European integration began with the Schuman Plan in 1949, it was a superb strategy for transcending generations of conflict and creating new union. When the Cold War ended, the EU dared to expand toward the very limits of the continent. Operating in a moment of dominant U.S. power and in the absence of Great Power rivalry, Europeans thought large and operated boldly. That dynamism is lacking today.

At a time when other parts of the world, such as China, are exhibiting unprecedented economic growth, Europe is stagnating; its percentage of global GDP is in decline. The international context of 2020 is presenting Europe with a more aggressive Russia, growing Chinese power, and lack of trust in the U.S. commitment to European defense and to transatlanticism as a whole. Concurrently, the EU seems to be facing serious instability as a result of the weakening of its Franco-German core. Germany and France have not found common positions on many significant issues, including European defense.

Europe will remain vulnerable to internal and external events. Among such outside events, the COVID-19 pandemic that is sweeping the world and hitting much of Europe especially hard is precisely the kind of exogenous shock that might thrust the EU into an entirely new paradigm. Europe did not have enough resources or time to provide robust internal assistance to member states, such as Italy, hit hardest by the virus early on. The United States did not have a policy focus or the independent resources to fill that humanitarian assistance role either. Thus, it was China—and, to a lesser extent, Russia—that provided direct assistance with forms of anti-virus expertise to Italy and then to other European states during the crisis.[71] By assuming a traditional U.S.-led role in international humanitarian health assistance for Europe's own states, China in particular demonstrated the interest and

the capability to grow cultural goodwill and greater potential political influence with Europeans in an era of Great Power competition.

As with the pandemic, several trends now visible in 2020 could easily develop into major problems for EU cohesion over the course of the coming few years:

- A significant policy change toward NATO in a second Trump administration that could weaken European faith in the U.S. commitment toward Article V guarantees to member states. This could trigger aggressive Russian behavior toward a NATO state or intensification of the war in Ukraine. It could also begin a decoupling of European and U.S. defense.
- A renewed migration crisis or massive terrorist attacks. Even smaller attacks, like the murder of four policemen in the prefecture of police in Paris by a policeman-turned-jihadist, can have outsized consequences on the state and public opinion. This might further fragment Europe's right and center, exacerbating tensions over common population movement policies.
- A new financial crisis, requiring more radical interventions to save the euro and EU banks. A lengthy coronavirus-generated recession or a similar serious economic shock could lead to increased political friction and might further undermine the solidarity of the EU.
- A social or political explosion that threatens the survival of an elected government or the integrity of a European state. The *gilets jaunes* crisis indicates high levels of social discontent in France and, by extension, possibly elsewhere. The worker strikes of December 2019 through January 2020 emphasized that risk. The Catalan separatist crisis in Spain has not become violent, but nothing prevents it from deepening.
- Although the December 2019 British elections resolved the immediate question of whether Brexit would actually take place, there remains the daunting task of deciding on its terms in negotiations that are supposed to terminate within only 1 year. Brexit could still degenerate. It has bitterly divided the United Kingdom. It could lead to the fragmentation of the two major parties there and a shakeup of the parliamentary system itself. Britain may be threatened with dissolution; the likelihood of Scotland's independence and even Irish unification has increased. British prestige has suffered. The British role in European defense may also decline. Britain's problems are Europe's problems, even if Britain leaves the EU.

At the dawn of a new era of Great Power competition, Europe finds itself at a far different place than it did a mere decade ago. Europe did not become a "superpower" in the post–Cold War and post-Maastricht world, as predicted by some. In the past decade, Europe has weathered a serious array of stress-inducing challenges: a debt crisis, a migration crisis, increasing pressure on its security and political institutions by a resurgent Russia and by the rise an extreme right wing, the encroachment of Chinese economic strength, and a decline in transatlantic solidarity. In spite of it all, European integration remains a reality. Europe has been resilient but troubled. The coming years will continue to test that resilience.

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[67] The name *Nord Stream* refers to a pipeline from Russia to western Europe under the Baltic Sea. It was officially launched in 2010. See "Nord Stream Gas Pipeline Underwater Construction Starts," BBC News, April 9, 2010, available at <http://news.bbc.co.uk/2/hi/business/8607214.stm>. *Nord Stream 2* is the name of the undersea pipeline that will pump Russian gas into Europe. See Jordan Stevens, "Nord Stream 2 Explained: What It Is and Why It's Proving Controversial," CNBC, May 21, 2019, available at <www.cnbc.com/2019/05/21/nord-stream-2-explained-what-it-is-and-why-its-proving-controversial.html>. See also "Nord Stream 2: Go-Ahead for Russian Gas Pipeline Angers Ukraine," BBC, October 31, 2019, available at <https://www.bbc.com/news/world-europe-50247793>.

[68] Cf. Robert M. Klein et al., *Baltics Left of Bang: The Role of NATO with Partners in Denial Based Deterrence*, INSS Strategic Forum No. 304 (Washington, DC: NDU Press, November 2019), available at <https://ndupress.ndu.edu/Portals/68/Documents/stratforum/SF-304.pdf>. For a reappraisal of the Russian threat, see Thomas Graham, "Let Russia Be Russia," *Foreign Affairs* (November/December 2019).

[69] See, for example, Constanze Stelzenmuller, *Hostile Ally: The Trump Administration and Europe's Inadequate Response* (Washington, DC: Brookings, August 2019), available at <https://www.brookings.edu/research/hostile-ally-the-trump-challenge-and-europes-inadequate-response/>.

[70] "Emmanuel Macron on Europe's Fragile Place in a Hostile World," *The Economist*, November 7, 2019, available at <www.economist.com/briefing/2019/11/07/emmanuel-macron-on-europes-fragile-place-in-a-hostile-world>. See also Zaki Laïdi, *Can Europe Learn to Play Power Politics* (London: Centre for European Reform, November 2019).

[71] Alan Crawford, Peter Martin, and Bloomberg, "'Health Silk Road': China Showers Europe with Coronavirus Aid as Both Spar with Trump," *Fortune*, March 19, 2020, available at <https://fortune.com/2020/03/19/china-europe-coronavirus-aid-trump/>; Stuart Lau, "Coronavirus: Xi Jinping Calls Leaders of France, Spain, Germany and Serbia with Offers of Support," *South China Morning Post* (Hong Kong), March 21, 2020, available at <www.scmp.com/news/china/diplomacy/article/3076287/coronavirus-xi-jinping-calls-leaders-italy-spain-germany-and>.

Chapter 13

Competing Visions and Actions by China, Russia, and the United States in Latin America, the Middle East, Africa, and the Arctic

By Bryce Loidolt, David Auerswald, Douglas Farah, Shannon Smith, and Caitlyn Yates

This chapter reviews the contours of Great Power competition across Latin America, the Middle East, Africa, and the Arctic; it traces the motivation and scale as well as receptivity to, and potential repercussions of, Chinese and Russian activities across these regions. It finds the challenge of these two competitors to be distinct, the risks to U.S. interests to be uneven across and within each region, and, ultimately, regional states' cooperation with China and Russia to rarely be grounded in an ideological commitment to Beijing's global vision or Moscow's cynicism. This points to the need for parallel strategies that appreciate the diverse challenges China and Russia pose, a broader recalibration of U.S. regional interests that moves beyond the post-9/11 focus on counterterrorism, and a discerning strategic approach that avoids pulling U.S. regional partners into an unrestricted, zero-sum competition.

The priorities of the 2018 National Defense Strategy imply a greater emphasis on the Indo-Pacific region and Europe, yet the era of Great Power competition currently unfolding among the United States, China, and Russia is not confined to these boundaries. Just as Russia's targeted influence activities in selected geostrategic regions have become more visible in the past decade, so too does China extend its economic and, to a lesser extent, military reach into its far abroad.[1] These activities have now begun generating some alarm—especially in U.S. military circles—that America's Great Power rivals might peel away traditional U.S. strategic partners and allies, embolden or insulate U.S. adversaries, or otherwise provide China and Russia with access and resources that will magnify their power to the strategic disadvantage of the United States.[2]

How should the United States best balance its regional investments in an emerging era of Great Power competition? The answer to this important question requires an appraisal of the nature and stakes of U.S. competition with Russia and China outside of

each competitor's immediate neighborhood. This chapter thus surveys the interests and activities of these competitors across Latin America, the Middle East, Africa, and the Arctic. It further evaluates regional receptivity to these activities, as well as how Chinese and Russian behavior could pose direct and consequential threats to U.S. regional interests.

We find the motivations, scale, and potential repercussions of Chinese and Russian activities across these four geographic regions to be distinct from each other. Russia has expanded its political and diplomatic stature by sponsoring multilateral initiatives and presenting itself as a reliable, unconditional ally to regional friends. China has also come to compete with the United States by establishing a narrative of a politically disinterested, national sovereignty–respecting power, establishing cooperative partnerships with U.S. friends and foes alike. Chinese economic investments have been expansive and could yield economic gains, opportunities for political coercion, and military access.

The emerging era of Great Power competition will confront U.S. policymakers both with the challenge of how to shift greater resources and attention toward Russian and Chinese traditional spheres of influence and with the questions of whether and how to compete with Beijing and Moscow on a global scale. Doing so will require distinct strategies for competing with Russia and China, a recalibration of U.S. interests across the world, and a discerning approach that reduces the prospects of pulling U.S. regional partners into an unrestricted, zero-sum competition.

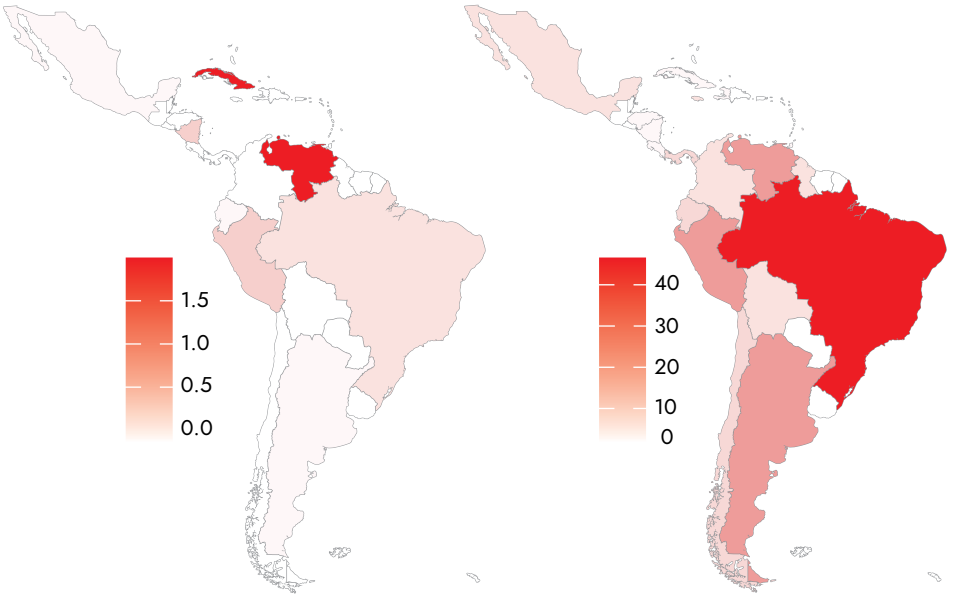
Latin America

Since the end of the Cold War, the United States has generally viewed stability in Latin America as a central goal in the region.[3] The United States seeks a Latin America comprised of "stable, friendly, and prosperous states," in order to contain the spillover effects of transregional violence, criminal enterprises, and illegal immigration, as well as for the benefit of the U.S. economy.[4] To this end, the United States has established a robust network of free trade agreements as well as regional and bilateral security initiatives, and it has leveraged economic assistance—more than $2 billion in 2018—to promote good governance in the region.[5]

At the same time, China and Russia are increasingly engaging in Latin America, hoping to gain access to new markets, acquire strategic ports and electronic hubs, and benefit geopolitically from increased proximity to the American "near abroad." Yet each competitor approaches the region on a different scale—and, at times, through different partners—as reflected in figure 13.1.

In the past decade, China's engagement in the region has not varied according to Latin American nations' political ideologies. Beijing's investments appear to have paid off; a 2018 regional survey found that 55 percent of respondents in Latin America had a "good" or "very good" view of China.[6] Beijing's tool kit is largely based on economic instruments, using large-scale loans, infrastructure investments, and telecommunications projects to engage the region. The China Development Bank and China Export-Import Bank are now the largest lenders in Latin America, with loans totaling $141.3 billion between 2005 and 2018, more than five times the amount of official U.S. economic loans and grants disbursed during the same time period.[7] Currently, 19 countries in Latin America participate in China's Belt and Road Initiative, and China is active in more than 50 port projects across the

Figure 13.1. Russian and Chinese Aid and Investments in Latin America



Sources: Arms transfer data for both Russia and China were retrieved from Stockholm International Peace Research Institute (SIPRI) Arms Transfers Database, available at <https://www.sipri.org/databases/armstransfers>. Chinese investment data are from Derek Scissors, "China Global Investment Tracker," American Enterprise Institute, available at <https://www.aei.org/china-global-investment-tracker/>. Russian Official Development Assistance data are from the Organization for Economic Cooperation and Development Web site, available at <https://stats.oecd.org/>.

region, for both commercial and potential military use.[8] China has also at times provided military assistance to regional powers—second only to Russia in the value of its arms transfers to Venezuela—and has established 40 Confucius Institutes in the region that could serve as important platforms for Chinese soft-power projection.[9]

Russia lacks China's ability to offer significant economic resources, so it instead opts to engage Latin America by focusing its efforts on countries that it had a strong relationship with during the Cold War. This primarily entails members of the Bolivarian Alliance, which is led by Venezuela but includes other ideologically likeminded countries such as Cuba, Nicaragua, and Bolivia, as well as some members of El Salvador's political elite. This alliance shares a strong anti-U.S. ideology and operates as a likeminded network of deeply criminalized states. Russia's engagement offers little more than an opportunity to challenge or frustrate the United States; however, by working predominantly with the Bolivarian Alliance, Russia also avoids navigating as many economic and political hurdles as China as it increases its activities in Latin America.

The Vladimir Putin regime's outreach to Latin America is designed to maximize impact at low cost. To date, this approach consists largely of weapons sales and donations; high-level state-to-state visits; military and police training in areas such as counternarcotics; and

the opportunity for certain partner nations to access Russian financial institutions, to avoid being sanctioned while moving funds through the American banking system.[10] Russia has actively opened financial operations in Latin America—including banks and a cryptocurrency—to help blunt the impact of U.S. and European Union sanctions on allies such as Venezuela and Nicaragua. In addition to financial access nodes, Russia works with regional partners to create joint space projects and to flood the region with Internet propaganda creating a "fog of falsehoods" designed to disorient audiences.[11] All such actions bolster Russia's brand as a reliable and predictable ally for regional states, and more than 50 percent of respondents in a recent regional survey held a "good" or "very good" opinion of Russia.[12]

Russia and China are attractive partners for Latin American countries in the new era of Great Power competition. Both offer their allies—Venezuela, Cuba, and Nicaragua, in particular—protection from condemnation in the United Nations (UN) Security Council and means to avoid U.S. sanctions. Beijing and Moscow also provide an avenue to bypass the rule of law and democratic accountability-based conditions the United States often imposes on its foreign assistance. China has been an attractive partner throughout Latin America since at least 2005 but more particularly in these past 3 years. Since 2016, China has named eight countries—including Venezuela—as hemispheric strategic partners.[13]

For the United States, the most immediate consequence of Russian and Chinese activities in Latin America has emerged from their support of the Nicolás Maduro regime in Venezuela—including purchasing oil, a violation of U.S. sanctions. In 2019, China purchased, on average, 320,000 barrels per day from Venezuela despite U.S. sanctions going into effect in January of the same year.[14] Although China's objectives are primarily economic in nature—such as securing oil and oil drilling rights—Beijing's activities in Venezuela have been crucial to Maduro's survival. China has loaned Venezuela more than $70 billion in recent years, a rather controversial decision given that Venezuela still owes China approximately $20 billion.[15]

Russia's robust engagement in Venezuela has been mainly to disrupt U.S. engagement and help the Maduro regime bypass international sanctions. Actions taken by Russia in Venezuela include sending two long-range nuclear-capable bombers, deploying special forces troops and Wagner Group mercenaries, sending intelligence-collection ships to Venezuelan waters, and deploying underwater research ships capable of mapping undersea cables.[16] In addition to these actions, Russia has provided Venezuela $17 billion in loans and credit lines from 2006 to 2018.[17]

Beyond Venezuela, China and Russia support authoritarian, anti-U.S. regimes across the region both directly and indirectly. Since 2017, China has successfully persuaded three countries—Panama, the Dominican Republic, and El Salvador—to establish diplomatic ties with Beijing, abandoning their decades-old practice of recognizing Taiwan and leaving only nine nations in the hemisphere, primarily small Caribbean islands, that recognize the legitimacy of Taipei.[18] Whereas China has been successful in securing political concessions from its partners, both Russian and Chinese actions threaten to erode democratic governance in Latin America while weakening historic U.S. alliances in countries such as Panama, Argentina, and Ecuador.[19] While distinct in their approaches, the immediate consequences of Russian and Chinese engagement in Latin America may achieve a similar anti-U.S. end.

The Middle East

Since 9/11, U.S. engagement in the Middle East has been buoyed by a desire to contain or degrade terrorist safe havens, maintain a regional balance of power favorable to U.S. interests, and—given that the Middle East is home to three geostrategic maritime chokepoints—ensure the stability of global energy markets.[20] The United States has generally secured these interests through the forward presence of military forces, but it has also employed security cooperation agreements, as well as military and economic aid, to cement key partnerships and secure military access in the region.[21] In terms of economic and military resources, the level of U.S. investment in the region is considerable. In 2018, the United States is estimated to have transferred to the Middle East nearly $6 billion worth of armaments, comprising 55 percent of total U.S. arms transfers for the year.[22] The region also received more than $8 billion in American economic aid in 2018 and hosts the fourth largest overseas presence of U.S. troops.[23]

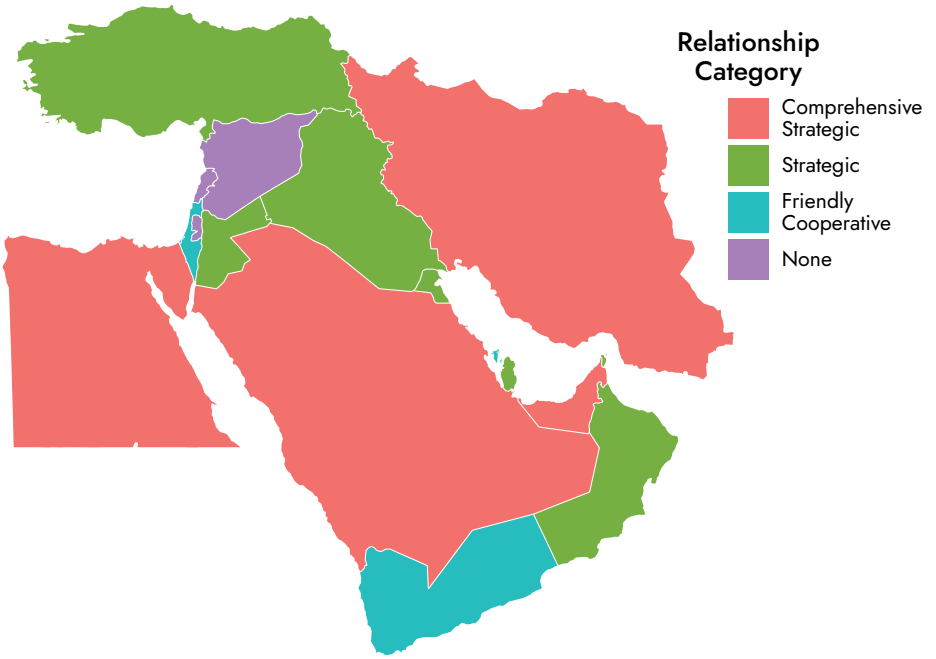
Chinese interests and instruments in the region are predominantly, though not exclusively, economic in nature. China leans heavily on Gulf oil producers and routes, importing approximately 40 percent of its crude oil from the region in 2018.[24] China also relies on Middle East states to absorb its excess industrial capacity, which it in part offloads through infrastructure development projects, having invested nearly $130 billion throughout the Arab Middle East alone in the past 10 years.[25] In 2004, China established the China-Arab States Cooperation Forum as a platform for shared principles and economic exchanges with Arab states.[26] Finally, Beijing has emerged as an important arms supplier to the region, providing military equipment primarily to Saudi Arabia, Iraq, and the United Arab Emirates.[27]

Similar to China's approach in Latin America, President Xi Jinping has framed China's engagement in the region as apolitical. He proclaimed at the League of Arab States in 2016 that "instead of attempting to fill the 'vacuum,' China builds a cooperative partnership network for mutual benefits and win-win results."[28] China indeed maintains a bevy of strategic partnerships that transcend regional rivalries, as depicted in figure 13.2. In an attempt to establish soft influence in the region, China has also scattered 14 of its Confucius Institutes across the Middle East.[29]

Russia's interventions and engagements in the Middle East are motivated by a combination of reputational and material interests.[30] Among the former, Russia seeks to opportunistically undermine and disrupt U.S. influence and reassert its own identity as a global power. To a lesser extent, Russia is likely motivated to engage in the Middle East by a set of economic factors, including maintaining the Organization of the Petroleum Exporting Countries + cap-and-cut oil production agreements as well as expanding its access to nuclear energy markets, trade, and arms sales. Russian activities in the Middle East and North Africa are diverse, ranging from the establishment of an enduring military presence in Syria to attempts at expanding arms sales to regional powers and the sponsorship of parallel conflict resolution initiatives—which have allowed Russia to posture as a neutral mediator. Much like China, Russia has adopted a diverse portfolio of partners in the Middle East rather than binding solely to its historical allies from the Cold War era.

In some instances, Russia and China have been willing to work together toward common objectives in the region. For instance, both Russia and China have signaled their support for Iran. As tensions between Washington and Tehran mounted through the end

Figure 13.2. Chinese Strategic Partnerships in the Middle East



Sources: Kenneth Allen, Phillip C. Saunders, and John Chen, *Chinese Military Diplomacy, 2003–2016: Trends and Implications* (Washington, DC: NDU Press, 2017); Jonathan Fulton, *China's Changing Role in the Middle East* (Washington, DC: Atlantic Council, 2019), 4; "Foreign Minister Yang Jiechi, Lebanese Foreign Minister Mansour Exchange Congratulatory Messages on the 40th Anniversary of Diplomatic Ties Between the Two Countries," Chinese Embassy in Lebanon, November 9, 2011, available at <http://www.china-embassy.org/eng/zgyw/t876100.htm>.

of December 2019, Russia, China, and Iran held a joint naval exercise in the Gulf of Oman, which Beijing's defense spokesman claimed was aimed at "displaying the three sides' strong will and capabilities to jointly maintain world peace and maritime security."[31] Both Russia and China have vetoed UN Security Council resolutions that condemned Bashar al-Asad's conduct in the Syria civil war, and both have provided avenues for humanitarian aid.[32]

The emergence of alternative external patrons is a boon for regional states vulnerable to domestic unrest and seeking to manage local civil conflicts. Through its economic investments, China has proved to be an attractive economic partner for regional states. For example, Egypt and Saudi Arabia have launched ambitious domestic development programs to stabilize and diversify their economies without political liberalization, approaches that mirror in many ways China's model of economic ascent.[33] Israel has also pursued a relationship with Beijing as a way to diversify its economic portfolio.[34] Regional polls suggest positive views of Russia and China in the region; 27 percent of respondents to a regionwide survey viewed Putin favorably, and only 12 percent held the same views of Donald Trump.[35] Nearly 50 percent of survey respondents preferred that their country's economic relations with China become stronger in the future, compared with 38 percent for the United States.[36]

Maintaining a partnership with Russia and China has allowed regional countries to circumvent Western conditions or restrictions on military aid and economic sanctions. The

United Arab Emirates, Egypt, Saudi Arabia, and Iraq have all purchased armed Chinese unmanned aerial vehicles, which the United States is prohibited from selling.[37] To dampen the effect of international sanctions, Iran has relied on China as a continued economic lifeline, though China has demonstrated a degree of reticence to deepen economic relations with Tehran.[38]

The implications and future trajectory of Chinese and Russian engagement in the Middle East are unique. In the most immediate term, Russia's military presence in Syria could constrain U.S. counterterrorism operations.[39] Russia can also continue to exploit the relational seams between the United States and its regional partners and allies—in some instances taking advantage of perceived U.S. failures or missteps, both to undermine U.S. standing in the region and to present itself as an all-weather ally.[40] Nevertheless, Russia lacks the longer term vision, strategic interests, and resources to accomplish much more beyond selectively disrupting U.S. regional initiatives.

The nature of Chinese activities will pose both short-term and longer term challenges for the United States. Any Chinese willingness to purchase Iranian crude oil in defiance of U.S. and international sanctions could continue to insulate Iran from the economic costs of its provocative behavior, just as its weapons sales could fuel risky, destabilizing regional wars. Continued economic investments may also provide China access and leverage to gain competitive advantages over the United States. For instance, Chinese investments in the Suez Canal could allow Beijing to monitor U.S. ships and could also serve as an initial step toward establishing a platform for expeditionary military operations or disrupting U.S. military access. Investments in Israel's technology sector could also allow China to acquire dual-use technologies that it could exploit for military advantage.[41]

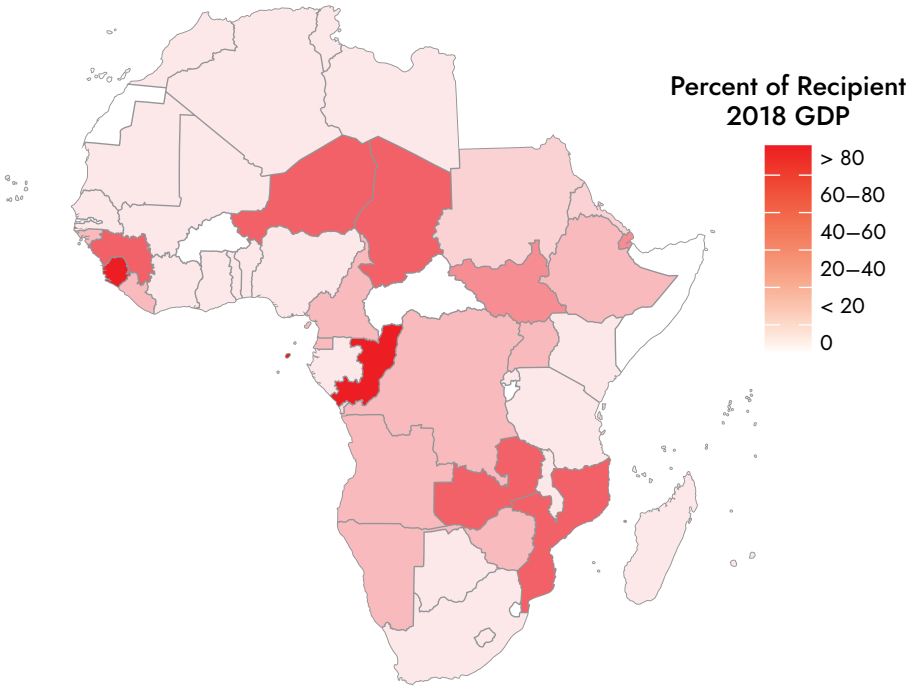
Africa

In Africa, the United States hopes to access the continent's growing economies as markets for American goods and services and to counter violent extremists who could pose a threat to Western interests. Increasingly, U.S. strategic documents highlight competition with China as an interest in and of itself.[42] Africa receives a major share of U.S. development and humanitarian assistance, which in 2018 amounted to more than $10 billion, and the United States has instituted several capacity-building programs to help establish more proficient African security forces.[43] U.S. direct investment in the region is also considerable, amounting to $47 billion in 2018.[44]

Beijing's interests in Africa span the military, geopolitical, and economic sectors: access to markets, investments, and raw materials—particularly oil and strategic minerals—and ports. The long-term vision of China's Belt and Road Initiative includes embracing Africa as part of its expanding web of Silk Roads, for both digital and maritime byways.[45] In 2018 alone, China invested on the African continent $26 billion, a significant portion of recipient states' gross domestic products (GDPs) (see figure 13.3).[46] Yet China likely views Africa as a strategically important locus for military access as well, having established a base in Djibouti in 2017 and expanded its military presence in the Red Sea region.[47]

Chinese investment in Africa is increasingly diverse (beyond natural resources), private sector based (within the blurred Chinese context), and integrated with local labor. China is also the largest creditor in Africa, controlling about one-third of African external debt.

Figure 13.3. Total Chinese Investment and Construction in Africa (2005–2018) as a Percent of Recipient 2018 GDP



Sources: GDP data retrieved from World Bank Databank, available at <https://databank.worldbank.org/home.aspx>. Eritrea GDP is from 2011 and South Sudan GDP is from 2015, the last years data were available. Chinese investment data are from Derek Scissors, "China Global Investment Tracker," American Enterprise Institute, available at <https://www.aei.org/china-global-investment-tracker/>.

Chinese tech giant Huawei provides 4G networks to over half the continent.[48] In 2017, China's trade with Africa was more than four times greater than that of the United States, and commercial relationships have matured beyond extractives.[49] Ongoing since October 2000, the annual Forum on China-Africa Cooperation also draws virtually every African head of state for discussions of loans, grants, and pledges of noninterference. Chinese leaders regularly visit the continent. China has also built some 70 Confucius Institutes in Africa—the most of any region explored in this chapter—all while tens of thousands of Africans study in China.[50] On the security front, the People's Liberation Army participates actively in UN peacekeeping operations, and China has become the largest arms exporter to sub-Saharan Africa, including heavy and advanced weaponry.[51] Finally, China is reportedly providing software and artificial intelligence technologies that buttress repression in certain African countries while affording Beijing important data-collection opportunities.[52]

Although China's involvement tends to align with a desire for stability in Africa, Russia's interests and activities seem to feed on regional insecurity. Africa offers Russia a source of patronage for Kremlin cronies through business deals and private security company contracts. Moreover, Russia likely views the African continent as an attractive source of mineral resources and, ultimately, as a region that has an opportunity to undermine Western and U.S. interests at moderately low cost.[53]

Russia's reentry into African affairs, after a relative post–Cold War hiatus, is smaller than that of China; nonetheless, its maneuvers can have a negative effect on governance and stability. Russia's approach often opportunistically targets fragile or corrupt partners.[54] This pattern stretches from Libya, where Russian mercenaries are fighting with Khalifa Haftar against the UN-backed government; to the Central African Republic, where Russian funding, weapons, and mercenaries have yielded mineral rights and political influence; and to Madagascar, one of many states where Kremlin operatives allegedly deployed cash and fake news in recent elections. Africa also offers geopolitical opportunities, and Russia's engagement employs a range of diplomatic and military tools to exploit them. In addition to an October 2019 summit in Sochi with more than 40 African leaders, Russia also offers educational opportunities, arms sales, and some debt relief.[55]

Notably, African states do not perceive themselves in a three-way zero-sum game of Great Power competitive influence among Russia, China, and the United States. Africa's 54 countries are actively engaging with external actors in terms of their own priorities, with varying levels of success and transparency. African leaders seek infrastructure, economic development, and job creation for the 33,000 young people entering the labor market every day.[56] For those nations seeking surveillance technology or arms, Russia and China have offerings. Countries facing terrorist threats or instability also may view Russian and Chinese training, equipment, and support for peace operations as an alluring alternative to U.S. assistance, which is often viewed as slow and restrictive. Chinese activities appear to have yielded some local goodwill; according to a 2014–2015 public opinion survey, nearly two-thirds of Africans regard China's influence as "somewhat" or "very" positive.[57]

The consequences of Russian and Chinese activities in Africa have thus manifested themselves in distinct ways. Russian interventions in local civil conflicts and political interference serve to prop up corrupt, unstable regimes in the region, and Russia's alleged involvement in more than a dozen elections can undermine more democratic states as well. Africa has provided Russia access to valuable mineral resources. China, too, has been able to secure key minerals through its activities in Africa, including reportedly taking control of more than 52 percent of the cobalt production in the Democratic Republic of the Congo.[58] Although few African countries are currently classified as being under debt stress to China, growing debt burdens will affect national development prospects and international relationships and thus create at least the potential for future pressure or exploitation.[59] China indeed already appears to have been able to leverage its diplomatic and economic investments. In 1971, 20 African countries recognized Taiwan; today, only Eswatini (formerly Swaziland) does.[60] As in Latin America, Chinese economic engagement and political pressure in Africa have generated important diplomatic results. Ultimately, Chinese and Russian activities on the continent, in the emerging era of Great Power competition, enhance access to resources and offer opportunities for political coercion.

The Arctic

The United States relies on access to the Arctic to safeguard its freedom of navigation and overflight, both of which allow it to project power globally.[61] The United States has come to view the Arctic as a region that could afford important strategic advantages from both Russia and China, describing the Arctic as a competitive rather than cooperative space. For

example, Secretary of State Mike Pompeo, in his remarks at the May 2019 Arctic Council ministerial meeting, rejected China's claim to be a near-Arctic state, warning about growing Chinese influence in the region while also pointing to Russian actions in the Northern Sea Route (NSR) as "part of a pattern of aggressive Russian behavior here in the Arctic."[62] The June 2019 Department of Defense Arctic Strategy echoes this sentiment, calling the Arctic "a potential avenue for expanded Great Power competition and aggression," noting that the United States has an interest in "limiting the ability of China and Russia to leverage the region."[63]

The United States has historically pursued its interests in the Arctic through cooperation and consensus-building in the Arctic Council. As the United States has come to view the Arctic region through a competitive lens in the emerging era of Great Power rivalry, Washington has increasingly preferred unilateral or bilateral actions in the region.[64] In August 2019, President Trump offered to buy Greenland from Denmark, rather than working cooperatively with Denmark on joint investment. In short, U.S. leaders no longer see the Arctic as a zone of peace and stability; rather, they see it as another competitive arena that is best addressed through unilateralism.

In January 2018, China introduced its Arctic Policy, declaring itself to be a "near Arctic" state, affording itself weight in regional governance decisions.[65] According to this policy, all Arctic stakeholders should "ensure that the benefits are shared by both Arctic and non-Arctic States as well as by non-state entities, and should accommodate the interests of local residents including the indigenous peoples."[66] For China, the Arctic is attractive, in part, due to the potential viability of maritime shipping routes, which could shorten the shipping time between China and Europe by 2 weeks.[67] Given the region's abundance of natural resources, China also has expressed an interest in "resource exploration and exploitation."[68]

China has relied on investing in research stations and economic instruments of statecraft to pursue these Arctic interests. This approach has included steadily increasing the manpower in the Polar Research Institute of China, headquartered in Shanghai, which oversees China's increasing number of ice-breaking research transits and manages Chinese research stations in the Arctic.[69] Moreover, from 2012 to 2017, China invested $2 billion in Greenland and $1.2 billion in Iceland, constituting 11.6 percent and 5.7 percent of each country's respective GDP.[70]

The official responses to Chinese behavior are mixed and, where positive, are likely driven by demand for Chinese investment rather than genuine political alignment with Beijing. For instance, China's activities in the Arctic found a somewhat sympathetic ear from officials with responsibility for Arctic scientific research, fisheries management, and shipping standards, in addition to some politicians in Greenland and Iceland, all seeking Chinese investment.[71] Arctic nations, however, have rejected China's appeals for inclusive governance, viewing Chinese research behavior as a potential mask for longer term security goals.[72] Most famously, Secretary Pompeo singled out China in May 2019, stating that "China's words and actions raise doubts about its intentions" in the region.[73]

Unlike those of China or the United States, core Russian economic, security, and ideational interests are directly at stake in the Arctic. A significant portion of Russia's gross domestic product—by some estimates more than 30 percent—comes from natural resources in the Arctic.[74] Russia's own longstanding Policy for the Arctic calls for the "transformation

of the Arctic zone . . . into a leading strategic resource base of the Russian Federation."[75] Russia also must maintain a military presence along the NSR to protect its nuclear deterrent, as it is home to Russia's North Sea Fleet, including a large portion of ballistic missile submarines.[76] Finally, Russia's Great Power ambitions and national identity as an Arctic nation are intertwined with its behavior in the region.[77]

Even so, Russia has a history of constructive interactions within the Arctic Council and routinely expresses a desire to maintain peace and stability in the region.[78] To defend its critical security interests in the Arctic, Russia has become more assertive: It has claimed unilateral control of its Arctic waters, and specifically the NSR along its northern coast, fortifying its presence in the area while also building at least seven additional bases since 2013.[79] Russia has demanded that transiting ships pay tolls, take aboard a Russian ice pilot, and allow inspections when required. Noncompliant ships are subject to being stopped, boarded, impounded, and even destroyed. Russia justifies these actions under Article 234 of the UN Convention on the Law of the Sea, which states that countries with ice-covered waters in their exclusive economic zones—but beyond their territorial waters—can regulate those zones if doing so will protect the environment.[80]

Russian and Chinese activities in the Arctic will thus likely produce a different set of challenges for the United States in this emerging era of Great Power competition. China could leverage its sizable investments in Greenland and Iceland to constrain the U.S. military's regional access or monitor its behavior for future strategic advantage. Conversely, Russia already maintains a substantial material advantage in the Arctic vis-à-vis the United States, which could complicate the U.S. ability to challenge Russia's claim to the NSR and obstructions to freedom of navigation.

Conclusion and Implications

Expanding the aperture of Great Power competition beyond Russia and China's "near abroad," this chapter explores the competitive advantages these two countries continue to gain through their engagements in Latin America, the Middle East, Africa, and the Arctic. The analysis reveals considerable diversity in the nature, intensity, and potential stakes in Great Power rivalries across these regions, which, in turn, carries several implications for U.S. policymakers.

First, although these countries will at times coordinate to frustrate U.S. objectives or pursue their own, Russia and China often present distinct competitive threats to the United States. In many regions, Russia poses the more immediate challenge, whereas the repercussions of Chinese economic investments manifest themselves subtly and will likely undermine U.S. strategic interests more gradually. Beyond differences in temporal urgency, there remains daylight between the two competitors' long-term strategic visions and behavior. Both countries are only nominally united in their desire to compete with and displace U.S. influence across Latin America, the Middle East, Africa, and the Arctic. China's behavior is grounded in its global investment strategy and desire to create a Sino-centric international political order, whereas Russia's desire to be a global Great Power is not based in a proactive vision of a new global geopolitical order.[81] China often invests broadly within these regions, whereas Russia's capacity limitations compel Moscow to be more discerning in its partnerships. China's tool kit relies on regional stability; Russia's

often produces instability. Both nations sometimes seek to extract the same resources from the same region, which may bring them into zero-sum competition.

Even though Russia and China are conflated in U.S. strategic documents, the instruments and overall strategic approach required to effectively compete with, manage, and counter Russian influence will not necessarily translate into progress against China's activities, and vice versa. Addressing the Russian rivalry may require military and economic assistance designed to insulate key U.S. partners from the spillover effects of Moscow's behavior, while also conveying U.S. staying power and commitments to allies who may view Russia as more reliable. Competition with China will not only necessitate greater emphasis on economic, diplomatic, and other soft-power instruments of U.S. national influence but also require the United States to recognize select shared interests with China, particularly when it comes to containing regional pandemics, natural disasters, maritime piracy, and terrorist threats. The United States should adopt parallel but coordinated strategies to compete with Beijing and Moscow—approaches that recognize the more immediate threat posed by the latter and the longer time horizon of the former.

Second, the stakes involved in competition across these regions are uneven for the United States. In the Middle East, the United States risks losing access to strategic maritime chokepoints. In Africa, growing Russian and Chinese influence undermines the stability of U.S. partners and allows China to fuel its economic growth by accessing and extracting minerals. In Latin America, the risks to the United States relate more to the externalities of regional instability within the U.S. backyard; in the Arctic, more assertive policies by Russia and China could limit U.S. access to and freedom of navigation.

In terms of intrinsic American interests, deciding which of these consequences deserves higher priority necessitates a reevaluation of U.S. strategic interests across and within each of these regions in light of Great Power competition. Put simply, U.S. policymakers need to refresh how they define these interests both globally and regionally, viewing them through the lens of Great Power competition rather than counterterrorism. The presence of Russian or Chinese activities should alone be insufficient to warrant prioritization or a competitive response from the United States. Instead, U.S. policymakers need to adopt a more discerning approach grounded in each region's geopolitical significance, thinking carefully about ramifications of Russian and Chinese success. This pivot should help the United States avoid unnecessarily wasting finite time and resources competing with Russia and China in areas or countries of limited importance.

Finally, states in Latin America, the Middle East, Africa, and the Arctic are often eager recipients of Russian and Chinese attention and resources due to convenience rather than to ideological commitment. With few exceptions, many countries' willingness to accept these resources is not grounded in a sincere dedication to China's global vision or Russia's cynicism vis-à-vis Western norms and institutions; instead, it is often the scale and unrestricted nature of Russian and Chinese largesse that makes each country an attractive partner. With this convenience sometimes come hidden costs and clear limitations. China, for instance, continues to leverage economic investments to coerce recipient states and, without a military presence, cannot offer its partners credible security guarantees. Russia has less material power to invest globally.

These motivations and limits in Russia's and China's respective approaches—as well as the hedging strategies that smaller states have adopted as they balance relationships with Russia, China, and the United States—warrant a cautious response from Washington. Where necessary, policymakers should emphasize U.S. strengths as an economic partner, juxtaposing the profit-driven motives of American private sector investment with the risks of China's sometimes more coercive state-driven model; they should also highlight the long history of U.S. foreign assistance versus the short track record of China's economic activities. The United States also has an advantage in the quality and transparency of its military assistance, as well as its military superiority and forward presence.

Each of these advantages can convey a strong commitment to U.S. partners that is not evident from Russia or China. The United States should avoid, however, systematically imposing a regional strategy that views Russian or Chinese activities as uniformly harmful to U.S. interests and detrimental to the stability of recipient states across these regions. Doing so might unnecessarily damage U.S. relations with key partners and allies seeking sources of economic investment, military hardware, or alternative political forums. Few, if any, countries wish to be pulled into a zero-sum U.S.-China or U.S.-Russia competition in this dawning era of Great Power competition.

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Notes

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Part IV
Preparing to Compete

Chapter 14

U.S. Strategies for Competing Against China

By Frank G. Hoffman

This chapter lays out a range of potential strategies, drawn largely from academic literature and security studies, to address approaches for a competitive U.S. response to its main Great Power strategic rival: China. Described are the general outlines of five distinct strategies employing the five elements of strategic interaction defined in chapter 2 of this volume. The strategies are then assessed in general terms for their suitability, feasibility, and sustainability. Each example varies in how it leverages the relative strengths and weaknesses of the protagonists, and how international and domestic support might impact implementation. The author contends that a strategy of enhanced balancing is an appropriate approach.

At the turn of the 21st century, Washington's position on the world stage seemed unrivalled, and analysts sought to preserve and extend the unipolar moment.[1] However, the era of American preeminence proved short lived. As discussed in chapter 2 and developed in chapter 3a, the post–Cold War international order has entered a new historical cycle that U.S. policymakers believe will be characterized by Great Power competition (GPC). Far from being an arcane term, *GPC* has a long pedigree in international relations.[2] However, after nearly 30 years of unipolar dominance and counterinsurgency and counterterrorism/counterextremist interventions, the United States needs to refurbish its mindset and strategic machinery to engage smartly in the lost art of strategic competition.[3]

Russia, China, and the United States today jockey globally in the new era of GPC. As noted in chapters 3a and 3b, Russia presents a serious near-term threat to U.S. interests but lacks the capacity to sustain a viable rivalry in the longer term. As elaborated in chapter 9, in the Indo-Pacific region, China's relationship with the United States has most obviously—and somewhat ominously—entered a new phase, one in which competition across the five distinct dimensions of state-to-state interaction is ongoing and one that carries a high risk that competition may turn to confrontation, conflict, or armed clash (see tables 2.2, 3a.1, or 3a.2).[4] In the Indo-Pacific region, some analysts believe that China perceives U.S. power to have ebbed in its reach and influence and concluded that American primacy is over. According to this school of thought, Beijing's ambitions are expanding in line with its

> "The United States was once deeply versed in the challenges of long-term competition due to its 45-year contest with the Soviet Union. And the long history of strategic competition between the great powers offers a wealth of insights that can inform the conduct of modern statecraft. Yet the United States has had the luxury of neglecting its competency in long-term competition for more than a generation in the comparatively benign global environment that emerged after the Cold War ended."
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> *—Hal Brands, "The Lost Art of Long-Term Competition,"* The Washington Quarterly *41, no. 4 (Winter 2018)*

growing power.[5] In this view, China seeks a return to a Great Power status that it enjoyed centuries ago, and its economic clout gives it both a justification and the means to project its power and protect its interests. As detailed in chapter 3a, Beijing's strategic interests will inevitably, in some way, rub up against longstanding U.S. policy preferences and national interests.

This chapter is admittedly and unapologetically Sino-centric. However, this focus is not disproportionate to China's relevance to global stability or future U.S. security strategy. While *Sinolarity*, a world centered on China, is unlikely to emerge, Beijing's rising influence is of concern.[6] The great geopolitical shift of the next few decades, and the greatest challenge to continued global stability, will be defined by the relationship between the United States and the People's Republic of China (PRC). It is not the only challenge that the United States faces, as the previous chapters show, but in the long run, it is the most critical.

U.S. strategy documents in 2017 and 2018 formally (albeit belatedly) recognized this reality. The Trump administration's 2017 National Security Strategy (NSS) concluded that "China and Russia want to shape a world antithetical to U.S. values and interests."[7] China, the NSS notes, wants to displace the United States in the Indo-Pacific region, expand the reach of its state-driven economic system and reorder the region to its advantage, and spread its authoritarian system and corruption. The complementary Pentagon document, the 2018 National Defense Strategy (NDS), focused on adapting the Department of Defense's priorities and reforms to a more contested environment of Great Power rivalry. It too defined China as a strategic competitor and stated the PRC was pursuing military modernization, seeking regional hegemony in the near term, and attempting to displace the United States as a preeminent global power over time.[8] Some scholars reinforce this assessment: "China wants complete dominance; it wants to force the United States out and become the region's unchallenged political, economic and military hegemon."[9]

American strategists and the international relations community are wrestling with the implications of this pending era. Some disagree entirely with the conclusions about GPC and China's ambitions laid out in the NSS and NDS.[10] Yet stressing competition does not automatically lead to greater tension or catastrophe.[11] We should not be afraid of calling China a competitor—which is well short of describing it as a hostile power or a confrontational adversary.[12] Competition vis-à-vis China was predicted a decade ago by some scholars and over 5 years ago by the Council on Foreign Relations.[13] Even formerly devoted advocates of deep engagement with Russia and China now recognize the need to alter course and actively work to defend U.S. interests. Yet, while this may be a clash of systems over political and ideological differences, it should *not* be considered a clash of civilizations.[14]

While China is not dominant today, it is clearly a rising Great Power, signaling a desired power transition. It may never obtain its China Dream, but its exceptional influence on the international system, its aggressive approach to diplomacy, and its military activities all bear watching and appropriate hedging.

Great Power competitions and accompanying power transitions are rarely resolved without a holistic approach that is managed within an appropriate strategic framework. They require leadership involvement, disciplined priorities and sustainable resourcing, and adaptive oversight. As noted in the U.S. NDS, success in Great Power competitions is not about merely fighting. Certainly, deterring a fight matters, but a comprehensive and institutional approach is needed. The United States will need to focus on "out partnering, out informing, out creating and innovating" Great Power competitors as well.[15] Formulating and implementing a coherent strategy for competition requires rethinking the U.S. security architecture and retooling the instruments of national power for agility and responsiveness. As one recent strategic analyst argued, "If the United States wants to compete, it must prepare for a long campaign for influence that will test its own ability for strategic prioritizing and long-term planning."[16]

The strategic options for the United States laid out in this chapter highlight different approaches, with varying degrees of costs and risks, to maximizing American chances to succeed against its main strategic rival, China, in the era of GPC. The first step in rebounding and regenerating is recognizing that America's competitive edge in some but not all dimensions has eroded in relative terms and that a competitive mindset is needed. As observed in chapter 3b, the United States still possesses numerous advantages and a lead in many quantitative metrics of national power over its main rivals. Nonetheless, America has lost some of its *relative position*, including percentage of world economic output and breath of economic competitiveness, to China. America has also lost relative market share in secondary- and university-level education, although qualitative and language factors mitigate this decline.[17] America's aspects of relative decline can be renewed or their impact offset by creative strategies.

The task for an American strategist is to leverage natural enduring advantages and build up positions of strength. To be successful, the United States must become more competitive in general and not just fixate on competition against another actor.[18] To think and act competitively requires looking as much, if not more, into America's own capabilities and performance in all dimensions of strategy as it does in contesting others.

This chapter offers a suite of options for a strategic architecture and defense posture for that competition.[19] As shown in the previous chapters and in numerous international and U.S. Government reports, the U.S.-China dyadic relationship at the heart of emerging GPC is growing into a more competitive and possibly confrontational interaction due to perceptions of interest, honor, and fear. Yet there remains potential for a competitive era defined by shared mutual interests where cooperation is feasible and more competitive tensions can occur in the political and economic categories of interaction within established bounds. The challenge for U.S. policymakers is to expand on the potential for cooperation while carefully managing this competition to keep it short of armed conflict, all the while without compromising vital national interests.

Table 14.1. Alternative Strategies (*X* equals Major Line of Effort)					
	Bilateral Bargain	**Managed Competition**	**Enhanced Balancing**	**Compression**	**Contested Primacy**
Political and Diplomatic	X	X		X	X
Ideological				X	X
Informational				X	X
Military			X	X	X
Economic	X	X	X	X	

Competitive Strategies: Framework and Fundamentals

The chapter is organized around an evaluation of five potential grand strategies for U.S. competition with China that cover the continuum of major state interactions established in chapter 1. Each of the five strategies is predicated on different assessments of risk and costs and employs different dimensions or instruments to obtain the strategy's objectives. The strategies are briefly depicted and then evaluated along the five competitive categories and competitive elements first laid out in table 2.2. Table 14.1 lists the five strategies and defines the most critical categories of competitive interaction of each strategy (denoted by the *X* for major line of effort).

Bilateral Bargain Strategy

This strategy seeks a negotiated bilateral settlement for a stable future. It is the most cooperative of the potential strategies. It focuses on diplomacy to resolve outstanding differences between the core national interests of the world's two most powerful states. It also focuses on economic cooperation and collaboration of mutual benefit. In the words of one advocate, it entails meeting China "halfway" and creating what China has expressly desired: a new form of strategic relationship.[20]

There are several options for such a relationship. Hugh White has made the case for an Asia-Pacific "concert" based on U.S.-China collaboration and "shared primacy." Another version of this "grand bargain" would be to create a neutral zone, with the United States reducing or eliminating its commitments to its Asia alliance partners in return for Beijing's renunciation of military action in the region.[21]

The gist of a *bilateral bargain* strategy as presented in this chapter would establish recognized spheres of influence, which for China would probably include a clear presumption of control over Taiwan.[22] Rather than forging responsible and shared stakeholder status for the entire globe, the United States and China would agree to privileged status as the principal stakeholder in defined areas.[23] This strategy "would recognize that as China becomes a superpower, it will naturally feel entitled to the prerogatives of a superpower—most obviously, disproportionate influence in its home region."[24] To attain a grand bargain, the United States would dissolve its longstanding, limited relationship with Taiwan and terminate its increasingly ambiguous defense obligation there. Simultaneously, the PRC would need to negotiate and settle the plethora of maritime/island claims it has throughout the Indo-Pacific region, including with Vietnam, Malaysia, the Philippines, and Japan. As part of this bargain, the United States should insist on the demilitarization of any disputed

territory in the South China and East China seas that is retained by China. In turn, China would be assured freedom of action through the region.

Advocates see the outlines of such a grand bargain being obtained over time, via a series of negotiations and cooperation spirals to ensure reciprocity and growing confidence.[25] Each side would make significant concessions. In turn, this would create problems with international and domestic audiences. A bilateral bargain strategy seeks an enduring negotiated bargain on geographical spheres of influence.

An economic option would adapt longstanding representation in international forums such as the International Monetary Fund (IMF) and World Trade Organization (WTO) to give China more weight in these institutions and gain their approval. It could also involve U.S. investment in the Chinese-led Asia Infrastructure Investment Bank (AIIB) as a method of operationalizing collaboration. Presently, the United States does not participate in the AIIB. Barriers to investment and trade would be negotiated on the basis of discussions with the goal of achieving reciprocity in investment and trade levels.

There will be diplomatic costs to such a bilateral bargain option. Elimination of formal links such as the Taiwan Foreign Relations Act would be one possible Chinese demand. Cessation of arms sales to Taiwan by the United States would no doubt be another. In turn, China, as its part of the bargain, would agree to move coercive missile batteries directed against Taiwan and would agree never to insert a military presence in Taiwan.[26] Treaty arrangements between the United States and the Republic of South Korea and the Philippines (including U.S. military bases) may also be subject to negotiation to alleviate Chinese fears of encirclement. Acceptance of Chinese posture in the South China Sea would be resisted by U.S. negotiators. However, that may be the price for this grand bargain and freedom of action in other regions.

Managed Competition Strategy

A strategy of *managed competition* combines modes of interaction that are both collaborative and competitive. It seeks to better balance cooperation with hedging U.S. competitive efforts that seek more collaboration with China. There can—and arguably should—be elements of both competition and collaboration in various dimensions of state power.[27] China has collaborated with the United States in the past in real and constructive terms.[28] The goal of a managed competition strategy is to preserve the current power balance and keep the competitive dimensions of U.S.-China relations from spiraling out of control into confrontation and conflict. A stable relationship is important to regional and global stability. It seeks to maximize cooperation wherever possible, negotiate adaptations to economic and trade disputes, and minimize adversarial competition in the security domain.[29]

China and the United States are not destined to be enemies or engage in tragic confrontations.[30] Managing the competitive aspects of the relationship will require wise leadership on both sides of the Pacific. Given these conditions, some experts argue that "mature management of a volatile re-

> "The United States and China are not inevitable enemies, but managing the competitive aspects of the bilateral relationship will require wise leadership on both sides of the Pacific."
>
> —*Phillip C. Saunders,* Managing Strategic Competition with China, *INSS Strategic Forum 242 (July 2009)*

lationship is mandatory—bounding the negative dynamics while working to expand the areas of positive cooperation is the principal challenge for both governments."[31] This places a higher demand on strategic leaders to provide the mature management of both diplomacy and domestic audiences to limit the negative dynamics and exploit the benefits of cooperation. This managed competition option retains some of the prior U.S. strategy of continued deep engagement. As one Obama-era National Security Council official notes, "Continuing intensive engagement in no way would prevent alterations in U.S. policy to respond to challenges from China in the economic, digital, academic, and security fields. Indeed, it would likely make policy changes more effective by giving China a continuing stake in the relationship with the United States."[32]

Strategic competition does not unfold in a geopolitical vacuum; China needs economic access to the outside world in order to maintain rapid economic growth. Its long-term economic vibrancy and political stability depend on its ability to maintain positive relations with its key economic partners. Managed competition leverages that reality. Given this context, the United States will need to improve its ability to pursue a productive relationship with China. This should involve expanded cooperation where U.S. and Chinese interests are compatible, combined with active efforts to broaden areas of potential cooperation to influence how China pursues its interests.

Military. The first line of effort would be to minimize regional security dilemmas. Given U.S. security commitments to its allies and the importance of those alliances for Indo-Pacific stability, the maintenance of robust military capabilities should remain an important part of U.S. strategy. However, at the same time, the United States should not attempt to increase its power position in the region with any new alliance arrangements, basing, or extensive investments in theater-level ballistic missile arsenals now that the United States is no longer constrained by the Intermediate Nuclear Forces Treaty.[33] In short, the United States would forgo efforts laid out in the NDS to enhance its regional security posture in the Indo-Pacific region. Strategic competition is likely to be exacerbated if the United States seeks to dominate the region or if China impinges on the security interests of key U.S. allies, such as Japan.

The second element of this approach is to expand security cooperation, including bilateral and multilateral cooperation between the U.S. and Chinese militaries. Security dynamics and competing interests may limit opportunities for direct military cooperation, but there can be critical tasks for mutually beneficial cooperation. People's Liberation Army Navy missions to the Gulf of Aden for counterpiracy operations demonstrate that China's capabilities can be cooperative, too.[34] Finding appropriate venues to extend the cooperation in governance, energy, and humanitarian tasks is key. There are a number of important missions—including peacekeeping, humanitarian affairs and disaster relief, infectious disease control, counterpiracy, and energy security—in which both sides contribute to global stability and shared interests. An increased effort to identify and build on these issues could help balance the more competitive aspects of strategic relations.

Managed competition would seek to enhance transparency of capabilities and intentions, including myriad military-to-military contacts such as high-level interactions of senior military officials, educational exchanges, and routine observer status at military exercises including Rim of the Pacific.[35]

Another possible means of enhancing cooperation would be to establish new venues to promote dialogue between China and the rest of the world, including major alliances such as the North Atlantic Treaty Organization (NATO). China has become a topic of conversation within NATO as China's economic reach has come to Europe. A report from the Atlantic Council offers a platform to promote dialogue and maximize collaboration. The paper recommends that the Alliance establish a NATO-China Council as a mechanism to increase transparency and mutual understanding; raise concerns; avoid miscalculations; and foster, where possible, cooperation.[36]

Political/Diplomatic. The second line of effort of managed competition is for the United States to encourage and support Chinese efforts to take on more responsibility for sustaining and supporting the international system. The United States must recognize that doing so requires providing China a path to pursue its legitimate aspirations through peaceful means. The current international order is not rigid and has been flexible in the past in matching China's rising power with greater influence and participation. The United States should acknowledge that, if China is to make more contributions to maintaining the international system, it will expect to be accorded greater voice in shaping that system. Chinese interests may require altering the system to reflect Chinese perspectives and legitimate concerns. This would include changes at the IMF or World Bank, and certainly the WTO.[37] But the rest of the members of that international system will expect Beijing to honor the dispute resolution mechanisms built into the system rather than simply point out that it is a big country and the "small must do what they must." Managed competition would place a premium on diplomatic resources at the State Department, outmanned by China at present, especially in the number and staffing of consulates in key markets.[38]

In summing up this option, the United States must be prepared to compete with China in important strategic domains, while simultaneously seeking to limit the impact of this competition on the broader relationship. Some call this *smart competition*,[39] which strives to manage the strategic competition effectively and with restraint. Advocates of this approach hold that assertive strategies would be expensive, if not dangerously counterproductive. Proponents of managed competition believe the United States should accept the reality of a growing competition but manage it at a lower level of intensity and risk.[40]

Enhanced Balancing Strategy

The *enhanced balancing* strategy focuses on a competitive approach in two dimensions of strategic interaction: the military and economic ones. The strategy is predicated on two recognized strengths of the United States: its preeminent military power and its existing military alliance architecture. From an American perspective, this option would be competitive in nature, but China *might* perceive it as more confrontational because, in Beijing's view, "balancing" is the same or an even worse form of "containment" of China and its aspirations.[41] Unlike China, the United States has the proven ability to develop and sustain coalitions of countries designed to share security burdens and maximize deterrence against instability.[42] The strategy would exploit the growing concern that many Asian and European countries have with China's growing economic power and assertive foreign policy.[43] Many countries believe they are dependent on China for their own economic development and

prosperity. But unless they join together, Beijing will dominate the region politically, militarily, and economically and apply its preferences on the sovereign decisionmaking of each and every nation in the region. While China claims that it is not offering an alternative model or imposing its values or governance system, it does impinge on the sovereignty of its neighbors regularly, and it does seek political concessions to benefit its international standing.

Military. To implement this strategy, the United States would have to increase its security investments in defense and buttress its forward-deployed forces.[44] China desires to build a world-class military—and with Russia's help, it will no doubt make some progress. But with proper investments to sustain its competitive edge, the U.S. alliance framework should be able to sustain an adequate balance in the Asia theater. The first priority of this investment would be the deployment of systems able to blunt China's expanding antiaccess/aerial-denial capabilities. The second priority would be hardening U.S. bases throughout the Indo-Pacific region to make them more resilient to attack. A third priority would be key investments in space, undersea warfare, hypervelocity missiles, and theater missile defenses to enhance the current U.S. deterrent posture in the Indo-Pacific region. China cannot match the human capital assets, seasoned operational leadership, intelligence, strategic mobility, and logistics expertise of the U.S. alliance system.

Per the NDS, the United States will also have to buttress the military capability of its allies and some partners. Security assistance support to Vietnam, the Philippines, Australia, and India, as well as other regional players, would be needed to offset a deteriorating balance of power in the Indo-Pacific.[45] As noted by former government officials, "The United States needs to get back to seeing alliances as assets to be invested in rather than costs to be cut." While burden-sharing is necessary, undercutting alliance cohesion works perfectly to China's benefit.[46] This statement tracks with the NDS:

> *Mutually beneficial alliances and partnerships are crucial to our strategy, providing a durable asymmetric strategic advantage that no competitor can rival or match. . . . By working together with allies and partners we amass the greatest possible strength for the long-term advancement of our interests, maintaining favorable balances of power that deter aggression and support that stability that generates economic growth.*[47]

Economic. The second thrust in this strategy would be the rededication by the U.S. Government to alliances and multilateral institutions in order to reinforce the economic component of the international order. The battle for influence in Asia is not about security and will rise and fall on economics. On that score, the United States has lost significant influence since withdrawing from the Trans-Pacific Partnership (TPP) trade agreement.[48] Without a commensurate embrace of multilateralism within a revised TPP, potential partners in the region will remain prone to accept Beijing's influence, direction, loans, and capital investment. An effective U.S. response will require a far deeper investment than the initial 2018 Better Utilization of Investments Leading to Development (BUILD) Act, which made a modest ripple in development financing for the region.[49] Other multilateral institutions would also be adapted and strengthened. The United States would increase its contributions and support to forums such as the World Bank and IMF to sustain a collective

approach to managing the global economy. This strategy and all the defense investment will be worthless unless it is supported by a significant shift in the U.S. approach to international development and geoeconomics. In addition to limited funding for the BUILD Act, cuts to key agencies such as the U.S. Agency for International Development and the Asian Development Bank have further eroded U.S. Government mechanisms to mount a robust alternative.[50] Better incentives to private sector financing or IMF support will be needed to blunt China's extensive investments in infrastructure activities.

A major test in enhanced balancing in the economic domain would be *shared reciprocity*, wherein Chinese companies, products, and services would be limited inside the United States to the same degree that they are afforded access to inside China.

Although not a major line of effort in this option, the United States would need improved information and public diplomacy to be effective. This strategy would publicly identify the negative impacts of debt diplomacy, internal corruption, and environmental damage that China's investments in Africa and Sri Lanka have produced. To the greatest degree possible, this information campaign would be promulgated via multilateral institutions, including the United Nations and the Association of Southeast Asian Nations.

Compression Strategy

A *compression strategy* of comprehensive pressure herein is globally oriented, extends the competitive interactions of the prior strategy, and seeks to alter the arc of China's growing power and its aims of parity in critical dimensions. It includes aspects of interaction that China *will* label as confrontational since it seeks to change Beijing's behaviors in the Indo-Pacific region. Balancing may be effective at securing a delay in China's rise to dominance, but it does not restore international law or enduring stability to rising GPC. While increased security and economic partnering of the enhanced balancing option might give pause to Beijing's leaders, it may not constrain or alter the Chinese Communist Party's (CCP's) clear regional and perceived global ambitions or restore U.S. leadership. A more comprehensive strategy to make China stop its current path and alter its behavior to align itself with existing norms and international law may be required. Such a comprehensive strategy, one of persistent multidimensional pressure, is one of *compression*.

Compression assumes that the long-term trajectory of China as a major global player is vulnerable and predicated on fragile aspects of its power base. Because the PRC has manifest challenges, including governance, corruption, innovation, debt, and demographics, it may be susceptible to the pressure generated by the strategy. This strategy relies on an assessment that China's economy is fragile and that economic growth is susceptible to external pressure.[51] It assumes that China still needs Western markets and technological prowess to sustain any growth; it also assumes that such growth is key to the CCP's hold on power.

Compression combines multidimensional pressure to push back Beijing's geopolitical and economic gains that violate norms and international law in Asia. It intends to deny past gains and preclude growth of China's reach. Such an approach would be far more encompassing than the Cold War–era conceptions of containment that Washington applied against Moscow during the Long Peace. That anti-Soviet strategy did not have a direct economic component because the Soviet Union was not interdependent with international trade or fiscal systems in the way Beijing is. Compression would include intensified

ideological, military, diplomatic, and economic initiatives meant to deflect China's bid for primacy in the Indo-Pacific region and to disrupt its nascent efforts globally.

Political/Diplomatic. This strategy is founded on securing the extant international order, including multilateral venues to maximize U.S. leadership and sustain free and open societies. At the same time, in this dimension it would seek to minimize direct confrontation and conflict. Compression would require a renewed appreciation of two enduring advantages: our alliance architecture and the global institutions that have been created to sustain international stability.[52] Rather than retreat from these institutions, the U.S. diplomatic presence would be reinforced to preclude erosion of American influence. Letting Beijing reshape norms and expand its own influence within those organizations is undesirable.[53] Naturally, reciprocal relationships and fair burden-sharing are required to make this approach sustainable. Our allies should realize that they too have a stake in this competition.[54]

Economic. The Chinese model sees economics as a form of power projection to be deployed for political effect. The United States must respond and master the economic tools of Great Power statecraft to offset China's mercantilism and malign power.[55] The economic aspect of compression directly counters China's trade model and its subsidies to its large number of state-owned enterprises. The United States relies on free markets and the private sector to preserve its economic prosperity and the foundation of its national power.

Some economic disentanglement is an expected price of this strategy, what some would describe as a *partial disengagement*.[56] At a minimum, the United States would decouple itself from China in sectors where the existing level of economic interdependence threatens America's ability to resist Chinese advances—for example, by ending the practice of sourcing critical components of U.S. military capabilities from Chinese companies.[57] Under this strategy, the United States would limit China's access to advanced weaponry and critical military technologies, and with its allies "develop a coordinated approach to constrict China's access to all technologies, including dual use."[58] Key elements of the U.S. economy, especially in dual-use technologies that benefit military capabilities, would be closed to Chinese commercial outlets. The United States would need to reinvigorate its national advantages in science and technology by focusing greater attention on securing global leadership in the technologies that will dominate the fourth industrial revolution.[59] In particular, it would require more focused U.S. Government efforts to sustain an edge in these technologies, including quantum computing and artificial intelligence.[60]

Another part of the compression strategy would include aggressive litigation and sanctions over infringements of intellectual property, with appropriate penalties/sanctions leveled against corporate entities that sell hardware or software developed with U.S. intellectual rights. This would impose costs on those who steal investments in research and development, particularly on those who violate the intellectual property laws agreed to in international law. This approach would apply punitive retaliatory economic measures and targeted tariffs, or exclude China from trade agreements, in response to its violations of trade laws and agreements.[61] Without enforcement of this portion of the international system, we cede future economic prosperity to others.

As noted by the U.S.-China Economic and Security Review Commission, China's state-led, market-distorting economic system presents a challenge to U.S. interests.[62] The United States requires a more comprehensive economic strategy to deal with China because its

trade practices can be leveraged into improper influence.[63] Some are concerned that China's Belt and Road Initiative should be understood as "a grand strategy that advances China's goals of establishing itself as the preponderant power in Eurasia and a global power second to none."[64] As noted in chapter 3a, these goals are overstated, and China is already getting some backlash over its debt-financing and infrastructure-building. But the United States cannot abandon the vast resources and markets of the Indo-Pacific region to its competitors. The first step is to rejoin U.S. allies in the TPP and formulate an acceptable form of national industrial policy to focus Federal funding and incentives toward the disruptive technologies that will drive economic production in the coming decades.[65]

Some recent proposals to improve U.S. economic power relative to China would be incorporated. The establishment of an Office of Critical Technologies and Security to better manage technology transfer, as in the bipartisan proposal put forward by Senator Mark Warner (D-VA) and Senator Marco Rubio (R-FL), is consistent with compression.[66] To improve human capital and sustain progress in cutting-edge technologies, the United States will continue to open its first-rate university system to the world's best talent. A National Security Innovation Base Visa that would facilitate the travel of highly skilled foreign workers to contribute their education and talents to the benefit of the national security innovation base and American security should also be considered.[67]

Ideological. In Aaron Friedberg's observation, "China's rulers clearly believe the ideological realm to be a crucially important domain of competition."[68] The differences between the West and the CCP would be stressed, pitting free and open societies based on liberal values and democratic principles against large authoritarian powers with illiberal values and closed information systems. Given that Beijing readily exploits this aspect of the competition, but is also asymmetrically vulnerable in soft power terms, the ideological element of the competition bears consideration.[69] The activities of Confucius Institutes and PRC surveillance over Chinese students inside the United States would be limited. These institutes were controversial from the start, as inhibiting academic freedom for students and faculty alike, and several university systems have closed their partnership arrangements altogether.[70]

Informational. This strategy has an intensive informational component.[71] U.S. officials have to recognize that strategic competition is not only a fight over market access or trade policy but also an ideational contest over values and norms for the international system.[72] Such a strategy would steadily apply pressure in the ideological and information dimensions by undermining the Great Firewall and abetting more moderate elements in China's closed and repressive system.[73] This line of effort would incorporate activities that would ideologically contest the legitimacy of the CCP and promote Chinese culture. The informational component of this strategy would seek to challenge CCP domestic political control through a broad campaign that ties any declining economic growth and limited personal freedoms to China's single-party rule, its repressive control, and illicit actions. Legal challenges would be made against Chinese policymakers who are linked to human rights violations, corruption, and repression against minorities and nongovernmental organizations.

Contested Primacy Strategy

A strategy of *contested primacy* takes on a more confrontational approach. It seeks dominance over any competitors in an effort to sustain the existing international order and

> "We must calibrate our aims with our resources and focus on the most consequential long-term challenge we face as a nation: the strategic competition with China."
>
> *—Michèle Flournoy, House Armed Services Committee Statement, January 15, 2020*

American hegemony. Contested primacy responds in a robust way to Great Power competitors, employing all instruments of power to reassert and sustain U.S. dominance while focusing on the political/diplomatic and military main lines of effort. It strives to secure defined vital U.S. interests per the NSS.[74] This approach reorders the U.S. economy and investments needed to sustain U.S. superiority and preferred outcomes in all strategic interactions. It significantly increases geopolitical and economic costs against Chinese influence to ensure that the CCP's ability to obtain regional primacy and global reach is thwarted.

Military. This strategy would substantially augment the Pentagon's budget (perhaps as much as $100 billion per year higher than the fiscal year 2020 request) and build up the Defense Department's effort to modernize the U.S. military for joint power projection throughout the Indo-Pacific region at first, but also wherever else U.S. interests might be threatened.[75] This strategy would involve intensive efforts to modernize and increase interoperability among current U.S. allies and partners in the region. This interoperability would include arms sales and security cooperation efforts to ensure that Taiwan was not coerced into submission by the PRC. Implementing this strategy would require the United States to engage extensively with its potential partners in the region, including India, Vietnam, and Singapore; to strengthen maritime security; and to extend alliance interoperability with Australia, Japan, and South Korea.

The higher budget would generate and field a modernized joint force that applies creative operational concepts and develops advanced disruptive technologies critical to reestablishing competitive edge in U.S. military power across the long term. A number of key investments are needed to enhance shortfalls in the forward military posture and capabilities of the joint force if it is to deter and prevail against our major competitors.

In Asia, the United States must hedge against the PRC's increasingly assertive actions and improved military modernization.[76] These actions augur for an agile force that is forward deployed, in part, to assure regional access and assurance. This must be coupled with a layered defense posture. The most important component is a joint force that is interoperable with U.S. regional allies and partners. Power projection capabilities and strategic mobility assets must be increased, but creative concepts are required to offset the carefully designed antiaccess systems fielded by China. These will constrict freedom of maneuver and undercut U.S. ability to flow forces into the region and supply them. Undersea warfare investments in this strategy may afford a very cost-effective and competitive advantage.

Political/Diplomatic. The supporting political/diplomatic line of effort in this strategy would seek to expand on, in degree and intensity, the activities described with the compression strategy, including contesting China's position within global multilateral institutions that it has penetrated and coopted. The principal counter to China's rise would be a reformed and enlarged alliance system. This counter would require a diplomatic emphasis on expanding the present global alliance architecture and enhancing the number of aligned partners to ensure a favorable balance of power. While it is noted that the current

system is "badly bruised," it was invaluable in the past, and there is little merit in a "go it alone" stance.[77]

Additionally, U.S. diplomacy would confront the legitimacy of CCP rule, and an augmented community of free and democratic states would resist Beijing's advances in international forums. The political thrust would be to highlight the inconsistency behind China's repressive domination of its people and its promotion of a benign "community common design for mankind." The idea that China actively seeks an international order based on "fairness, justice and win-win cooperation" would be shown to be a front for its more authoritarian preferences. China's long-term ambitions would be presented as a threat to Western democracies, due to their marked incompatibility with the freedoms and liberal values embedded in their political and economic systems. The United States would posture itself as seeking primacy for the free and open order that better reflects universal freedoms and justice in international affairs and within each state.

Ideological. This strategy would incorporate a strong ideological element against the CCP and its closed and repressive form of government. It would include a sophisticated campaign to delegitimize and weaken the Party's control over information inside China. This line of effort would make strong condemnations of Beijing's violations of international law and norms and values on human rights and individual freedom, and it would distribute stories on China's repression of religion and minorities. It would identify and distribute stories on the unequal justice and economic benefits accrued by CCP leaders and their families. On the flip side, the progress and benefits of open societies such as Singapore, Taiwan, and South Korea (and even the vestiges in Hong Kong) would be distributed throughout the region to underscore the positive and progressive agenda of open and free societies.

Informational. There is a geo-informational aspect to GPC, and China should not be allowed to establish control of any part of the competition.[78] Achieving success would require a renewed institutional response to countering gray zone/political warfare or influence operations by both China and Russia.[79] China is becoming a global cyber power in both military and commercial spheres.[80] A strategy seeking primacy must preserve the critical infrastructure of the U.S. homeland; at the same time, it must circumvent China's heavy-handed surveillance systems in order to breach the Great Firewall and reach the Chinese people and the populations of Hong Kong and Tibet. Furthermore, Chinese efforts to dominate global 5G networks would be curtailed, especially among allies.[81] The United States adopted a cross-functional approach during its protracted contest against global violent extremism. It might also need to establish a National Center for Countering Influence Operations to achieve the same end to confront China's political warfare and United Front efforts.[82]

Analysis and Recommendation for Enhanced Balancing

How should the United States proceed, and which strategy offers the best combination of tools and instruments to achieve its preferred future? This section evaluates the merits of the most viable three strategic options of the five discussed in this chapter. These three reflect suitable options for preserving the existing order and maintaining U.S. national interests within the parameters of U.S. values and feasible resource levels.

Managed competition is a more conservative strategy but assumes that shared interests can be found and built on. It is a complex strategy that would be difficult for both countries

to oversee and implement and to find areas where collaboration is feasible and where a more competitive approach is really needed. Communicating those lines will be important. Domestic audiences may be unable to separate the cooperative from the competitive, and even diplomats may find it difficult to avoid linkages. The U.S. Government, given its more decentralized structure, could adapt over time to manage and sustain such a strategy. China's more centralized control and state capitalism model give it some advantages in building such a relationship. But the real challenge may be isolating the economic and military dimensions. As noted by Phillip Saunders:

> *The implementation challenge is to keep the two elements in proper balance, so that overemphasis on cooperation does not leave the United States in an unfavorable strategic position and overemphasis on the military dimension does not stimulate Chinese threat perceptions and push it toward confrontation.*[83]

Enhanced balancing strives to improve U.S. strategic performance and maintain a favorable balance of power. It builds on current U.S. economic power and its extant alliance system, which China seeks to undercut. Yet in the Indo-Pacific region, the present suite of allies and partners is uncomfortable with being forced to choose sides in a U.S.-China clash. These nations prefer to retain all the economic opportunities China offers, while embracing a separate security system led by Washington. Forced to choose, some may feel that working with the United States is not a sound bet for their future prosperity. But short-term economic benefits for long-term subordination to Beijing is a poor choice, and the United States should continue to make that clear. This strategy has been slowly implemented over the past two administrations and presents less risk and demands fewer resources than the compression option.

Compression strategy is more expensive and directly confronts China's rise and vulnerabilities. It devotes additional resources to the military dimension of the competition. Given that the capacity of the U.S. joint warfighting community is officially recognized as having a declining edge, a stronger military response is needed. If allies perceive that the ability of the United States to "uphold favorable regional balances of power by deterring Great Power challengers is increasingly in doubt," a significant change in the security component has to be realized.[84] Some allies conclude that Chinese and Russian military developments "have irrevocably undermined America's military primacy" in the Indo-Pacific and beyond.[85] That presumption needs to be countered.[86] Compression raises the cost to the Chinese for contesting the existing international order, by decoupling economic interaction with China and by the large-scale U.S. defense modernization that it engenders. Compression seeks to create leverage vis-à-vis Beijing to force it to reconsider its predatory economic activity and its efforts to undercut the U.S. alliance architecture in the Indo-Pacific region. Compression is designed to help the CCP realize that its future is best realized within the order established and adapted over the past 50 years. Ideally, the CCP would accept this order, and an eventual transition to managed competition might then occur.

The compression strategy recognizes the significant advances made by the People's Liberation Army and the need to counter its reforms and modernization strategy.[87] This approach requires defense spending above the administration's fiscal year 2021 budget and

involves disciplined investments focused on increasing the posture of U.S. forces in the Indo-Pacific region.

Regardless of which strategy is selected, it is insufficient to merely contest the rising power of China and the way it seeks to satisfy its ambitions. The most appropriate strategy must include a renewal of American strategic competitiveness. This renewal includes investments in education, infrastructure, and research and development to spur economic prosperity.[88] Any strategy should seek to rejuvenate America's research and development base and master the transfer of commercial technology to the security sector with both speed and effectiveness. "The United States should focus on responsibly accelerating its own technological progress," notes one former Deputy Secretary of Defense, "not simply obstructing potential adversaries."[89] This should play to American strengths, given the fertile U.S. innovation ecosystem buttressed by free market systems for allocation of capital and financial management. As noted by a panel of experts seeking to rectify the eroding competitive edge in the Pentagon, the consequences are substantial:

> *Nevertheless, it is a competition, and the side that innovates more effectively over time is likely to win. The result will determine whether nations relate to each other freely, equally, and peacefully, with a recognition of the human rights of their citizens, or if they devolve into a system that legitimizes authoritarianism and rewards power and coercion.*[90]

There will be a major economic element to this competition, regardless of which strategy is selected. To preserve both its economic and security interests, the United States must safeguard an expanding suite of advanced technologies from China. As observed in chapter 3b, China may not be the most creative generator of innovative capabilities, but it is proving adept at acquiring modern capabilities and building up in the commercial world national champions that can compete on both cost and product effectiveness. China certainly appears bent on achieving leadership, if not parity, in the key technologies that will drive 21st-century economics. Preserving and protecting the technology base, and the resulting intellectual property it generates, will both slow China's acquisition of U.S.-developed advances and drive up Beijing's own costs as PRC struggles to keep up.[91]

Furthermore, the United States can best ensure its economic and technological competitiveness by expanding with additional partners the cooperative aspects of its National Technology and Industrial Base. Leveraging the intellectual and technical talents of our allies in such a manner will accelerate innovation, broaden commercial opportunities, and minimize costly barriers to collaboration.[92]

Rather than a bilateral confrontation, the United States should take a more collective approach to better secure success. This approach would:

> *work with allies to strengthen rules, set standards, punish Chinese industrial policy and technology theft, invest in research, welcome the world's best and brightest, and create alternatives to its geo-economic statecraft. China is playing a good hand well, but the United States and its allies have an even better one—but only if they work together.*[93]

> "[I]t would be unwise to bet against the resilience and adaptability of the American system. But it would also be a mistake to take these qualities for granted, or to assume that they will preserve us indefinitely and without effort from the experience of relative decline."
>
> —*Aaron L. Friedberg,* The Weary Titan *(2010)*

A strategy of enhanced balancing offers the greatest opportunity to do more than merely contain or deflect the trajectory of China's ultimate regional preeminence and global stature. The past decade shows that cooperative approaches or *deep engagement* only strengthened China's power and accelerated its rise without appreciable political or economic reform. A continued reliance on limited approaches that do not counter aggressive behavior or blatant disregard for international law, multilateral norms and rules, and human rights will likely not be productive either. In short, success in an era of GPC will require creating leverage and accepting risk. It also requires that the United States get its own house in order. Competing successfully to sustain America's prosperity, security, and way of life is ultimately about us.[94] The United States is not a "weary titan" as much as simply a complacent leader that needs to respond to a persistent contender.[95] Superpower status or economic prosperity is not a birthright, and assuming that American preeminence will be unrivalled for perpetuity is ahistorical. Instead, preserving U.S. leadership and advancing American interests in a dynamic era can best be secured by rejuvenating core strengths in human capital and education, individual freedom, infrastructure, and economic creativity. American economic competitiveness is the foundation for any future strategy and can be improved.[96]

While not without an element of risk, enhanced balancing offers more options for creating leverage against China's vulnerabilities. It is a strategy that seeks to stem the geopolitical gains that China has seized while the West was distracted, and it offers a measured response to sustain a stable world order designed to promote stability, expand opportunity, adapt within a rules-based system, and preclude hegemony over first the Indo-Pacific region and then Eurasia by any hostile power. The ascent of an autocratic power that represses human rights, undercuts international agreements and norms, exploits its economic power to obtain political dominance, and pressures U.S. allies and partners does the opposite.[97]

Conclusion

In many respects, today's era is more complicated than the bilateral Cold War, but it still holds lessons. That contested age was precarious at times in the military aspects of the competition, but economic interaction was negligible. With the West's patient pressure, the internal contradictions of the Soviet system finally proved inferior to the systemic advantages of democracies and free markets. There are aspects of the current competition that will continue to favor the United States for some time. Thus, there is no need for panic, but neither should complacency be seen as a virtue.

Clearly, a good deal of optimism is warranted given the current edge and enduring advantages the United States holds. Both American leadership and the liberal international system have been capable of regenerating themselves as needed.[98] It is time to do so again.

Notes

[1] On the Unipolar Moment, see Charles Krauthammer, "The Unipolar Moment Revisited," *The National Interest*, December 1, 2002, available at <https://nationalinterest.org/article/the-unipolar-moment-revisited-391>; Matthew Kroenig, *The Return of Great Power Rivalry: Democracy Versus Autocracy from the Ancient World to the U.S. and China* (New York: Oxford University Press, 2020). For an argument that sustained U.S. dominance is assured, see Michael Beckley, *Unrivalled: Why America Will Remain the World's Sole Superpower* (Ithaca, NY: Cornell University Press, 2018).

[2] A detailed discussion is available in chapter 2 of this volume.

[3] Hal Brands, "The Lost Art of Long-Term Competition," *Washington Quarterly* 41, no. 4 (Fall 2019). See also Ronald O'Rourke, *Renewed Great Power Competition: Implications for Defense—Issues for Congress*, R43838 (Washington, DC: Congressional Research Service, December 19, 2019), available at <https://crsreports.congress.gov/product/pdf/R/R43838/50>.

[4] Evan S. Medeiros, "The Changing Fundamentals of U.S.-China Relations," *Washington Quarterly* 42, no. 3 (Fall 2019), 113.

[5] Ashely J. Telis, "Overview," in *China's Expanding Strategic Ambitions: Strategic Asia 2019*, ed. Ashely J. Tellis, Alison Szalwinski, and Michael Wills (Seattle: National Bureau of Asian Research, 2019), 26. For competing viewpoints on China's more ambiguous strategic calculus, see the discussions in chapters 3a and 9 of this volume.

[6] Jonathan Hillman, a scholar at the Center for Strategic and International Studies and winner of the 2019 Bracken Bower Prize, first applied the term *Sinolarity* to China's growing business/economic challenge.

[7] *The National Security Strategy of the United States* (Washington, DC: The White House, December 2017), 25.

[8] *Summary of the National Defense Strategy: Sharpening the U.S. Military's Competitive Edge* (Washington, DC: Department of Defense, December 2018), 1–2, available at <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>. For elaboration, see Elbridge A. Colby and Wess Mitchell, "The Age of Great Power Competition," *Foreign Affairs* (January/February 2020).

[9] Oriana Skylar Mastro, "The Stealth Superpower: How China Hid Its Global Ambitions," *Foreign Affairs* (January/February 2019), 31.

[10] For views that oppose the National Security Strategy and the National Defense Strategy conclusions, see Michael Swaine, "A Counterproductive Cold War with China," *Foreign Affairs*, March 2, 2018, available at <www.foreignaffairs.com/articles/china/2018-03-02/counterproductive-cold-war-china>; Michael J. Mazarr, "This Is Not a Great-Power Competition: Why the Term Doesn't Capture Today's Reality," *Foreign Affairs*, May 29, 2019, available at <www.foreignaffairs.com/articles/2019-05-29/not-great-power-competition>.

[11] Kurt Campbell and Jake Sullivan, "Competition Without Catastrophe: How America Can Both Challenge and Coexist with China," *Foreign Affairs* (September/October 2019), 25.

[12] Derek Scissors and Daniel Blumenthal, "China Is a Dangerous Rival, and America Should Treat It Like One," *New York Times*, January 14, 2019, available at <www.nytimes.com/2019/01/14/opinion/us-china-trade.html>.

[13] Robert D. Blackwill and Ashley J. Tellis, *Revising U.S. Grand Strategy Toward China*, Council Special Report No. 72 (New York: Council on Foreign Relations, March 2015).

[14] Graham Allison, "China vs. America: Managing the Next Clash of Civilizations," *Foreign Affairs* (September/October 2017), 80–89.

[15] *Summary of the National Defense Strategy*, 5.

[16] Odd Arne Westad, "The Sources of Chinese Conduct: Are Washington and Beijing Fighting a New Cold War?" *Foreign Affairs* (September/October 2019).

[17] See discussion in chapter 3b of this volume.

[18] Ely Ratner, *Blunting China's Illiberal Order*, Testimony Before the Senate Armed Services Committee Hearing on China and Russia, Washington, DC, January 29, 2019. Michele Flournoy, former Under Secretary of Defense for Policy, made this same critical point. See Michele Flournoy, *Statement Before the House Armed Services Committee Hearing on the Department of Defense's Role on Competing with China*, January 15, 2020.

[19] Hal Brands, *What Good Is Grand Strategy? Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush* (Ithaca, NY: Cornell University Press, 2012), 1–16.

[20] Lyle J. Goldstein, *Meeting China Halfway: How to Defuse the Emerging U.S.-China Rivalry* (Washington, DC: Georgetown University Press, 2015). See also Charles L. Glaser, "A U.S.-China Grand Bargain: The Hard Choice Between Military Competition and Accommodation," *International Security* 39, no. 4 (Spring 2015), 49–90.

[21] Hugh White, *The China Choice: Why America Should Share Power* (Sydney: Black, 2012).

[22] For a rationale for spheres of influence, but without sufficient consideration of likely political implications, see Graham Allison, "New Spheres of Influence," *Foreign Affairs* (March/April 2020), 30–40.

[23] Responsible stakeholder was a role that past U.S. administrations hoped China would grow into. See Robert B. Zoellick, "Can America and China Be Stakeholders?" speech delivered to the U.S.-China Business Council, Washington, DC, December 4, 2019, available at <https://carnegieendowment.org/2019/12/04/can-america-and-china-be-stakeholders-pub-80510>.

[24] Richard K. Betts, "The Lost Logic of Deterrence," *Council on Foreign Relations* (March/April 2013), available at <https://www.cfr.org/world/lost-logic-deterrence/p30092>.

[25] A *cooperation spiral* is an innovation proposed by Lyle J. Goldstein that applies an extended approach to mutual and reciprocal accommodation over time. See Goldstein, *Meeting China Halfway*, 12–14.

[26] These bargaining outcomes are indeed bitter for Taiwan but are inevitable if pursuit of "Meeting China Halfway" is evaluated in concrete terms and in context of the difficult military odds outlined in chapter 9 of this volume. Proponents of "Meeting China Halfway" appear to defer to the People's Republic of China about Taiwan's future implicitly, although some, like Graham Allison, actually do so explicitly. In this presentation of a bilateral bargain option, a negotiated agreement with terms that would require mutual assent is advanced as a superior alternative to just abandoning the island nation. However, it remains hard to see how China would accept.

[27] David Dollar et al., *Avoiding War: Containment, Competition, and Cooperation in U.S.-China Relations* (Washington, DC: Brookings, 2017); Ryan Hass, *Principles for Managing U.S.-China Competition*, Policy Brief (Washington, DC: Brookings, August 2018).

[28] Zoellick, "Can America and China Be Stakeholders?" 4.

[29] This portion of the chapter is extensively influenced by Phillip Saunders, *Managing Competition with China*, INSS Strategic Forum No. 242 (Washington, DC: NDU Press, July 2009).

[30] As some interpret the arguments of Graham Allison, *Destined for War: Can America and China Escape Thucydides's Trap?* (New York: Houghton Mifflin, 2017).

[31] David Shambaugh, "Dealing with China: Tough Engagement and Managed Competition," *Asia Policy* 23 (January 2017), 5.

[32] Jeffrey A. Bader, *U.S.-China Relations: Is It Time to End the Engagement?* Policy Brief (Washington, DC: Brookings, September 2018), 1.

[33] Scott Cuomo, "It's Time to Make a New Deal, Solving the INF Treaty's Strategic Liabilities to Achieve U.S. Security Goals in Asia," *Texas National Security Review* 2, no. 1 (November 2018), 104–128; David Sanger and Eric Wong, "U.S. Ends Cold War Missile Treaty, with Aim of Countering China," *New York Times*, August 1, 2019, 1, available at <www.nytimes.com/2019/08/01/world/asia/inf-missile-treaty.html>.

[34] On People's Liberation Army (PLA) military diplomacy, including humanitarian/peacekeeping, see Phillip C. Saunders and Jiunwei Shyy, "China's Military Diplomacy," in *China's Global Influence: Perspectives and Recommendations*, ed. Scott D. McDonald and Michael C. Burgoyne (Honolulu: Asia-Pacific Center for Security Studies, 2019).

[35] Helene Cooper, "U.S. Disinvites China from Military Exercise Amid Rising Tensions," *New York Times*, May 23, 2018, available at <www.nytimes.com/2018/05/23/world/asia/us-china-rim-pac-military-exercise-tensions.html>.

[36] Barry Pavel and Ian Brzezinski, "It's Time for a NATO-China Council," *Defense One*, August 21, 2019, available at <www.defense-one.com/ideas/2019/08/its-time-nato-china-council/159326/>.

[37] Ana Swanson, "U.S. Plans to Sap WTO's Influence in Trade Brawls," *New York Times*, December 9, 2019, A1.

[38] Bonnie Bley, "The New Geography of Global Diplomacy: China Advances as the United States Retreats," *Foreign Affairs*, November 27, 2019, available at <www.foreignaffairs.com/articles/china/2019-11-27/new-geography-global-diplomacy>.

[39] Orville Schell and Susan L. Shirk, *Course Correction: Toward an Effective and Sustainable China Policy*, Asia Society Task Force Report (February 2019), 7.

[40] Timothy R. Heath and William R. Thompson, "Avoiding U.S.-China Competition Is Futile: Why the Best Option Is to Manage Strategic Rivalry," *Asia Policy* 13, no. 2 (April 2018), 91–120; David Shambaugh, "U.S.-China Rivalry in Southeast Asia: Power Shift or Competitive Coexistence," *International Security* 42, no. 4 (Spring 2018), 85–127.

[41] Lyle J. Goldstein, "How China Sees America's Moves in Asia: Worse than Containment," *The National Interest*, October 29, 2014, available at <https://nationalinterest.org/feature/how-china-sees-americas-moves-asia-worse-containment-11560>. Citing a group of Chinese military scholars, Goldstein notes that "China does not just [feel] confront[ed] '遏制' [containment] by the United States, but something perhaps even more bellicose: '围堵' [a condition of being under siege] or even '掣肘' [a condition of being held by the elbows]."

[42] This strategy is partially drawn from Aaron L. Friedberg, "Competing with China," *Survival* 60, no. 3 (June–July 2018), 7–64.

[43] Walter Russell Mead, "China Is Europe's Problem, Too," *Wall Street Journal*, November 25, 2019, available at <www.wsj.com/articles/china-is-europes-problem-too-11574726800>.

[44] *The Indo-Pacific Strategy Report: Preparedness, Partnerships, and Promoting a Networked Region* (Washington, DC: Department of Defense, June 1, 2019), available at <https://media.defense.gov/2019/Jul/01/2002152311/-1/-1/1/DEPARTMENT-OF-DEFENSE-INDO-PACIFIC-STRATEGY-REPORT-2019.PDF>.

[45] Thomas Mahnken, "A 'World-Class' Military: Assessing China's Global Military Ambitions," Statement Before the U.S.-China Economic and Security Review Commission, June 20, 2019; Ratner, *Blunting China's Illiberal Order.*

[46] Campbell and Sullivan, "Competition Without Catastrophe," 110.

[47] *Summary of the 2019 National Defense Strategy*, 8.

[48] Ely Ratner and Samir Kumar, "The United States Is Losing Asia to China," *Foreign Policy*, May 12, 2017, available at <https://foreignpolicy.com/2017/05/12/the-united-states-is-losing-asia-to-china/>.

[49] More information on the BUILD Act is available at <https://www.opic.gov/build-act/overview>. On U.S. options for enhancing geoeconomics in the region, see Daniel Kliman, *To Compete with China, Get the New U.S. Development Finance Corporation Right* (Washington, DC: Center for a New American Security, February 6, 2019), available at <https://www.cnas.org/publications/commentary/to-compete-with-china-get-the-new-u-s-development-finance-corporation-right>.

[50] Joel Wuthnow, "Contested Strategies: China, the United States, and the Indo-Pacific Security Dilemma," *China International Strategy Review* 1, no. 1 (2019), 6, available at <https://doi.org/10.1007/s42533-019-00006-x>.

[51] Based on Thomas Fingar and Jean C. Oi, "China's Challenges: Now It Gets Harder," *Washington Quarterly* 43, no. 1 (Spring 2020), 65–82; "China's Debt Tops 300% of GDP, Now 15% of Global Total: IIF," *Reuters*, July 18, 2019, available at <www.reuters.com/article/us-china-economy-debt-idUSKCN1UD0KD>; Nicholas Eberstadt, *China's Demographic Outlook to 2040 and Its Implications* (Washington, DC: American Enterprise Institute, 2019). A countering view contends that it is the United States that is more susceptible to an economic downturn if engaged in a lengthy economic struggle with China. See Bloomberg View, "U.S. Needs China More than China Needs the U.S.," *Industry Week*, April 6, 2018, available at <www.industryweek.com/the-economy/article/22025438/us-needs-china-more-than-china-needs-the-us>.

[52] Schell and Shirk, *Course Correction*, 10. For an objective evaluation of alliances, see Kathleen J. McInnis, "The Competitive Advantages and Risks of Alliances," in *2020 Index of U.S. Military Strength*, ed. Dakota Wood (Washington, DC: Heritage Foundation, 2019).

[53] Campbell and Sullivan, "Competition Without Catastrophe," 110.

[54] The recent 70th anniversary summit of NATO included the following statement: "We recognize that China's growing influence and international policies present both opportunities and challenges that we need to address together as an Alliance." See London Declaration, press release, NATO Headquarters, Brussels, December 4, 2019, available at <https://www.nato.int/cps/en/natohq/official_texts_171584.htm>.

[55] For recommendations on managing economic relations, see Charles W. Boustany, Jr., and Aaron L. Friedberg, *Answering China's Economic Challenge: Preserving Power, Enhancing Prosperity*, NBR Special Report No. 76 (Seattle: National Bureau of Asian Research, February 2019); Daniel W. Drezner, "Economic Statecraft in the Age of Trump," *Washington Quarterly* 42, no. 3 (Fall 2019), 7–24.

[56] Aaron L. Friedberg and Charles W. Boustany, Jr., "Partial Disengagement: A New U.S. Strategy for Economic Competition with China," *Washington Quarterly* 43, no. 1 (Spring 2020), 23–40.

[57] This section leverages insights of two distinguished strategic analysts. See Hal Brands and Zack Cooper, "After the Responsible Stakeholder, What? Debating America's China Strategy," *Texas National Security Review* 2, no. 2 (February 2019), 68–81.

[58] Blackwill and Tellis, *Revising U.S. Grand Strategy Toward China*, 24.

[59] Marianne Schneider-Petsinger et al., *U.S.-China Strategic Competition: The Quest for Global Technological Leadership* (London: Royal Institute for International Affairs, November 2019). Many of these technologies are discussed in chapter 5 of this volume.

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Chapter 15

Conclusion

Realities, Imperatives, and Principles in a New Era of Great Power Competition

By Thomas F. Lynch III

This chapter summarizes the major features of the new era of Great Power competition (GPC). It then provides an assessment of the novel 2019–2020 coronavirus pandemic implications, concluding that the virus's impact is likely to accelerate ongoing geopolitical trends rather than generate new ones. The chapter analyzes three main imperatives for American success in GPC by observing that the Sino-American dyad is not a new Cold War, successful competition with China must feature a wise choice of U.S. allies, and the United States can succeed only if the national government smartly intervenes in the economy to fortify American competitive advantage. It offers historically based analysis demonstrating that four competitive principles are most critical to U.S. success in a long-term competition with China: firmness with flexibility, durable partnerships and alliances, the peril of reciprocal societal denigration, and playing for time.

The year 2020 began with a global health shock of a kind unobserved in a century—a deadly novel coronavirus (COVID-19) pandemic. This long-predicted, but nonetheless gripping, worldwide trauma layered over the top of ongoing historically broad and deep international economic and geopolitical changes.[1] Decades-long economic globalization began a sharp decline at the end of the 2010s, punctuated by a dramatic trade war between the world's two largest economies: the United States and China. Geopolitics also witnessed dramatic change. Two distinct global rivals—China and Russia—rose during the late 2010s to challenge what had been a quarter-century run of American global dominance, or unipolarity. This era of Great Power competition (GPC) generated patterns of international interaction with far more confrontation and conflict than observed from 1990 to 2015, which largely was characterized by cooperative and collaborative behaviors among the world's largest states.

A century ago, the Great Pandemic of 1918–1919 corresponded with a deadly inflection point within a prolonged period of GPC that ran from 1895 to 1945. The period from 1914 to 1918, during which the major protagonists fulminated their multistate rivalry in a prolonged and horrifically destructive period of direct military clash, became World War I.

That so-called Great War did not end the multiparty competition. There was no clear transition from one dominant power to another and no durable arrangement to channel state competition away from direct military clash. Thus, the multipolar Great Power struggle lurched forward with most of the same prewar players and into an even more global and destructive military clash 20 years later in World War II.[2] In 2020, COVID-19 mixes into a three-state Great Power competition, wherein the United States, China, and Russia openly compete for international status and power and the trajectory of relative power from a long-dominant America to either rival remains incomplete and far from certain.

The chapters of this volume have grappled with the many issues and uncertainties surrounding the ongoing transition from a unipolar world dominated by American global power to one where rivals Russia and China now compete openly with the United States and each other. In the case of Vladimir Putin's Russia, its contemporary power capabilities are mainly reimagined and repurposed military and reenabled propaganda implements rather than anything new. In the case of China, truly historic economic growth is catalyzing new wealth and imagination, generating an array of power capabilities that enable broad competition with the United States and growing influence with other states.

This chapter offers a collection of observations about the dawning new era of Great Power competition. It extends some of the numerous insights generated in the previous chapters but does not recite them all.[3] This chapter evaluates the main elements of contemporary Great Power competition between and among the three main rivals. It situates major contemporary GPC dynamics in context with those of past periods of multilateral Great Power rivalry, including an assessment of what the COVID-19 pandemic might mean for dominant GPC trends. The chapter then addresses the critical question of whether ongoing Great Power transition must result in direct military clash and what factors might elevate the risk. It also analyzes the prospects for GPC to enable viable and durable partnerships for collaboration and cooperation to develop across the five categories of interstate interaction found in table 2.2: political and diplomatic, ideological, informational, military, and economic.

The chapter explicitly covers the objects for influence of contemporary Great Power competitors: other countries and their perspectives. It offers three major imperatives about the reciprocal and dynamic interaction of American competitive advantages and the needs of potential partners. The concluding section presents four principles most vital to U.S. success in its competitive Great Power dyad with China: firmness with flexibility, partnerships and alternative geometries, leaders versus peoples and the poison of mass denigration, and playing for time.

Essential Outlines of Contemporary Great Power Competition

Contemporary Great Power competition is unique, but not unprecedented. Multipolar GPCs have been contested throughout modern history. Each contributed important insights to the dynamics of the contemporary world. At the same time, contemporary dynamics exert their own pull on the choices and risks faced by the modern Great Powers. These factors include, but are not limited to, the impact of modern economic advancements, the importance of new technologies as means of competition, and the influence of warfighting

risks on contemporary societies. Finally, modern GPC is already changing patterns of geostrategic interaction.

> "[T]he official mind in Washington clearly has moved toward the view that China is today, and will be for the foreseeable future, the principal challenger to overall U.S. hegemony in the international system. No other countries come close because they lack comparable levels of comprehensive national power, even though several states, such as Russia, North Korea, and Iran, oppose the United States locally or on important specific issues."
>
> —*Ashley J. Tellis, Alison Szalwinski, and Michael Wills, eds.,* Strategic Asia 2020 *(2020)*

Essential Elements

There are three contemporary Great Powers in 2020. The United States stands atop the triumvirate, with China a rising competitor and Russia vying for top-level prestige while facing clear signs of decline. The emerging strategic aims of China and Russia are incompatible with those established by American power in the post–World War II era; this has produced the return of a historically dominant pattern of Great Power competition. China is the Great Power best poised to displace America from its long-dominant power position. It has a positivist perspective on what a new global order could look like, one loosely captured in its concept of a "community of common identity." While a net power comparison between the United States and China indicates that their power transition timeline is longer than some now fear, the Sino-American competitive dyad is likely to be the dominant Great Power rivalry into the future.[4] Russia is an urgent but transient security risk for the United States and China, with the potential to do enormous military damage to the world if miscalculation leads to military clash. However, Russia practices a reactive, disruptive strategy aimed to pacify its immediate borders (a loosely formed "Eurasia focus") and to question contemporary institutions and processes that it perceives as a threat. Unlike China, it is a competitor without a viable vision for a new world order or the necessary power to generate one. China and Russia may engage in tactical entente to erode American power, frustrate U.S. actions and preferred institutions, and question norms and rules they deem threatening. Their long-term interests, however, diverge too much for a durable partnership. Thus, Washington must remain careful not to misunderstand tactical cooperation as some form of deeper anti-American strategic alliance.

Essential Backdrop

The realignment of Great Power relations from an era of singular American dominance to one with three main actors playing parts in a multipolar competition has evolved slowly. Cooperative relations began to erode in 2008. By 2014–2015, the three protagonists were in a de facto GPC, which was formalized in U.S. strategic documents in late 2017 and early 2018. GPC emerged against a backdrop of major economic change. More than two decades of rapid economic globalization came under increasing scrutiny for a record of fragility and unfulfilled expectations. Mainly, but not exclusively, globalization lost prestige from repetitive boom-and-bust cycles and a propensity for creating an ever smaller circle of extraordinarily rich and comfortable elites juxtaposed against a growing circle of underserved constituent groups.[5] Today, a fourth industrial revolution is fueling deglobalization and eroding global markets and supply chains. On one level, it is exacerbating the socio-

economic disruption of the digital age with widening inequality in incomes and greater unemployment among low-skilled workers. On another level, it is reducing the price of precision and advanced manufacturing and creating a new generation of smaller, smarter, and cheaper weapons. The inexorable movement of product manufacturing closer to domestic markets will continue to be a factor with great impact on GPC.

The foundation of modern Great Power wealth and competitive advantage has fundamentally changed from one dominated by industrial era technology to one in which information technology (IT) has become the source of geopolitical power. China has been the early beneficiary of this change, leveraging an ability to appropriate (and misappropriate) global intellectual property to accelerate technological growth while maneuvering to control global information flows it finds threatening. Russia and China have determined that information power is more likely than industrial power to determine the outcome of long-term geopolitical contests.[6] Thus, both Russia and China have been increasingly waging foreign propaganda campaigns on social media platforms and other online channels of international influence. To keep pace, the United States must rethink its competitive posture, work with other developed nations, and, via public-private partnerships, reprioritize resources into key information technology and capabilities in order to pursue broad, agile approaches to limiting the foreign propaganda threat.

The United States has distinct advantages over both China and Russia as the fourth industrial revolution begins to reshape the world. Working with partners and allies—and while adjusting American laws and regulations to the new economic forces—the United States is well-poised to exploit its natural advantages in higher education, innate innovation, entrepreneurial spirit, and global market share. China also may benefit greatly from the fourth industrial revolution by prioritizing government investment in its high-tech manufacturing sectors. However, it must grapple with looming economic challenges from growing unemployment, an aging and less productive workforce, and a potential for social unrest. Russia, meanwhile, is not well poised for future economic competition, as it lacks the public- or private-sector elements necessary to participate fully in the modern economy.

Geostrategic Interactions

Russia and China present distinct competitive threats to the United States around the globe. In many regions, Russia often poses the more immediate challenge, whereas the repercussions of Chinese economic investments manifest themselves subtly and will likely undermine U.S. strategic interests more gradually.

The United States and China have primary and conflicting interests in the Indo-Pacific region. The importance of those interests to both countries makes the region a central venue for Great Power competition. The U.S. Free and Open Indo-Pacific vision is not compatible with China's aspirations for increasing control within its First Island Chain and wider Chinese regional aims, sometimes espoused as a community of common destiny. Here, Sino-American competition could turn toward confrontation or a military clash if careful diplomacy is not exercised. China has economic dominance in markets and investment across most of the region. It also has eroded U.S. military advantage in potential locations of confrontation near its shores and inside the First Island Chain. The United States retains an overall advantage in military technology and power projection across the

wider Indo-Pacific region, commercial financial dominance, and a resonant ideology and ability to communicate it, along with a regional political and military alliance structure unmatched by China.

Russia has a primary interest in Europe, with special sensitivity to sovereignty in its near abroad—including former Soviet Union provinces. American and European diplomacy will remain challenged to stanch Russian misadventures without generating overt confrontation or clash. While Europeans mistrust Russia generally, their perception of Russia as a security threat varies greatly. Europe cannot alone defend member states from Russia. Thus, Europeans worry that the United States may detach itself from Europe—particularly the North Atlantic Treaty Organization. Today—and in the foreseeable future—Europe remains unable to create an autonomous system of security and defense. Should the United States move to depart the Alliance, Europe may intensify accommodation with Russia—and even with China.

Moscow and Beijing are only nominally united in their desire to compete with and displace U.S. influence across Latin America, the Middle East, Africa, and the Arctic. The United States retains a historic strategic interest in primacy across the Western Hemisphere, and the region appears unlikely to be similarly important for the other two Great Powers in the near term, making it a less intense area of competition absent unforeseen miscalculation. Conversely, the Middle East promises to be an area of dynamic competition and occasional nonmilitary confrontation in the coming decade—with access to resources the principal focal point.

As U.S. and Russian interests in external energy sources wane, however, the competitive focus in the Middle East may shift to prestige and resonance of ideological narratives. States in Latin America, the Middle East, Africa, and the Arctic are often eager recipients of Russian and Chinese attention and resources out of convenience rather than ideological commitment. Thus, the United States should avoid imposing regional strategies that treat Russian or Chinese activities as uniformly harmful to U.S. interests. A Washington focus on American strengths as an economic partner, the quality and quantity of its military assistance, and the positive and benign nature of its military forward presence should best safeguard U.S. interests in these regions of less intense contemporary GPC.

Weapons of mass destruction remain a critical feature and potentially dynamic factor in GPC. The system of arms control treaties that, for decades, limited U.S. and Russian nuclear forces is under great strain and could collapse. Russia began a slow modernization of its aging nuclear forces in the 2000s. In March 2018, Vladimir Putin announced that Russia was developing new types of nuclear systems, including a multi-warhead intercontinental ballistic missile, along with hypersonic, autonomous, and nuclear-powered delivery systems. It is unclear whether Moscow has begun to place a greater reliance on nuclear weapons or the threat to use them during regional conflicts.

The United States is engaged in an expensive recapitalization and modernization of its nuclear forces and plans to begin fielding new systems in the late 2020s. China is investing more in nuclear capabilities, modernizing and expanding strategic systems and developing dual-capable theater-range platforms that would heighten the nuclear risks in Indo-Pacific conflicts. For now, Sino-American nuclear weapons activities do not appear likely to lead to a Cold War–style nuclear arms race. Yet the risk of a new multistate arms race in nuclear

weapons, delivery systems, and missile defenses is growing, as Great Power relations become more competitive and even confrontational. The three Great Powers today signal that they do not anticipate that an unwelcomed conventional clash would escalate to the nuclear level, but risks of threshold miscalculation remain. At the same time, chemical or biological attacks could be difficult to attribute and may be well suited to support Russian and Chinese objectives in operations below the threshold of open armed conflict.

Despite the focus on GPC, threats to peace, stability, and American interests from rogue states and terrorism are far from eradicated. Rogue states such as Iran and North Korea lack the military and long-term economic power and/or transnational cultural appeal to match U.S. power globally or stabilize an alternative international political order. They are motivated by a combination of regime survival, aspirations for regional dominance, and sometimes global relevance, as well as an inclination to confront the United States, which they all believe is the main obstacle to their own aspirations. They tend to confront the United States below the threshold of direct armed conflict and across multiple domains. While a menace to be managed by the United States, there is little prospect for a fully cooperative anti-U.S. rogue state axis. Moreover, China and Russia must fear spillover to their own economic and strategic interests, so Beijing and Moscow are unlikely to join fully in disruptive rogue adventurism, instead pursuing a mixture of cooperative and obstructive responses on a case-by-case basis.

American counterterrorism efforts will confront a set of new realities. Recent American counterterrorism operations in Syria likely will be the model of the future. Russia must be expected to undermine U.S. counterterrorism objectives, either directly or indirectly. As in Syria, Russia will combine diplomatic initiatives, proxy warfare, and electronic warfare to foil U.S. military dominance. Regional states will continue to pursue their own counterterrorism objectives—some that align with U.S. objectives and others that do not. To be effective in this new environment, the United States will require new counterterrorism authorities, new technologies, and other tools that can help manage the risks from small-footprint deployments. It also must hold sponsor states accountable for actions by proxies against U.S. counterterrorism forces.

Finally, two nontraditional competitive venues—space and cyberspace—are those where all three Great Powers have primary interests engaged and growing. There is high risk that intensifying competition in space could lead to greater confrontation there. Agreement on some viable rules and norms for collaborative use and cooperative actions in space could reduce the growing risks of confrontation and miscalculation leading to clash. Likewise, the absence of cooperative rules and norms in cyberspace has contributed to a darkening turn toward confrontational dynamics.

Relevant History and Contemporary Dynamics

The contemporary era is characterized by heightened competition among more than two Great Powers—a multipolar competition. This makes it distinct from the most recent period of GPC, a bipolar rivalry between the United States and the Soviet Union that played out over a 45-year Cold War. In past multipolar Great Power competitions, rivalrous dyads ebbed and flowed. These dyads normally involved a rising power and a dominant one, raising the strategic question about the inevitability of relative power decline by the dominant

state and a power transition between them. Great Power transition challenges rising states with the dilemma of how to assert their relative power gains without provoking outright clash with the dominant state. Transition also confronts the dominant, but relatively declining, state with the vexing question of whether its rising challenger could be accommodated in a manner that avoids destructive military clash and an unacceptable change in the status quo. These transitions play out over decades and centuries, not years.

Although three-quarters of Great Power transitions since 1500 have featured a destructive period of war between them, this outcome is not foreordained. Great Power competitors joined in a relative power transition can culminate their interactions with accommodation or acquiescence short of war, but those peaceful outcomes require hard work and astute leadership. When one side (or both) in a relative power transition dyad recognizes a shift in the relative alignment of economic and military power moving decisively against it, it is much more inclined to risk a preemptive conflict than when it perceives a stable power status quo. Too often, Great Power leaders misperceive relative power, eschewing detailed, empirical assessments of power to inform decisionmaking and abet strategic planning. Even when accurate assessments of relative decline or vulnerability are made, domestic or bureaucratic interests may retard agile adaptation necessary to mitigate risks of Great Power war. Thus, success in GPC requires extraordinary political leadership in both international statecraft and generating domestic renewal and adaptation.

The Sino-American competitive dyad is likely to be a dominant Great Power rivalry well into the future.[7] It is the competitive dyad most fraught with the dangerous dynamics of Great Power transition, although any misstep leading to accidental war with Russia would be enormously destructive and consequential, especially if Russia escalated to a nuclear weapons threat or use in order to end a conventional conflict. While some Western pundits stoke fears of an imminent and disastrous power shift in favor of China on the horizon, a net power comparison between the United States and China indicates that the transition timeline is longer than some now predict. Properly understood, this elongated transition affords China and the United States time to better appreciate the risks of unbridled rivalry and seek a path of modulated competition with elements of confrontation and collaboration underpinning the search for mutually acceptable strategic outcomes.

Geopolitical Shocks and GPC: COVID-19

The big geostrategic question of 2020 is how the COVID-19 pandemic will affect contemporary Great Power competition. As a once in a lifetime, truly global health crisis, COVID-19 must be understood as a factor in evaluating GPC and the future trajectory of relative power transitions between them. An in-stride assessment of likely pandemic impacts on GPC suggests that, while each competitor will suffer absolutely from this significant exogenous shock, none seems likely to endure a mortal blow or one that alters the relative balance of power immediately or shifts the trajectory of relative power transition. This can be established with an overall assessment of historic pandemic geostrategic effects followed by an evaluation of likely impacts from COVID-19 on the three Great Powers.

The Spanish flu, or Great Pandemic of 1918–1919, is the most analogous global health shock in modern memory. Its impact on the world order and the Great Powers of the time remains debatable. The Spanish flu added to an already enormous death toll during World

War I. Along with the Great War, it was a factor that ended the prewar phase of economic globalization, but the pandemic might have had an important effect on the postwar order in general, and the United States in particular, due to the health of the American President, Woodrow Wilson.

While in Paris to negotiate the end of World War I and the framework for the postwar world in April 1919, Wilson contracted the flu and was taken "violently ill."[8] Prior to getting sick, Wilson had been a forceful voice in Paris, challenging the leaders of Britain and especially France to adopt limited war reparations against Germany and for a genial peace that would bind the wounds of war, give voice to oppressed peoples, and widen the space for peace and global integration. After becoming ill, Wilson reportedly grew disoriented and distracted—a symptom attributed to severe influenza and fever. Exhausted, he gave up on the demands he had been making against reparations and forceful occupation of Germany. While hard to know if a healthy Wilson would have won his point against a determined French position to seek a punitive peace, Wilson's physical decline was noteworthy.[9] The "victor's peace" demanded in the final version of the Versailles Treaty set up the humiliation of Germany and a cause that German fascism exploited in its subsequent interwar rise.

Six months later, back in the United States and while in the middle of a bitter political battle with the U.S. Senate to secure ratification of the Treaty of Versailles and entry into the League of Nations, Wilson suffered a severe stroke and withdrew from public life. Again, it is impossible to know whether Wilson's stroke was abetted by his earlier bout with the Spanish flu, but doctors have subsequently linked weakened organs to prolonged oxygen loss and inflammation experienced by survivors of severe influenza bouts. A bedridden Wilson saw his campaign for ratification of the Treaty of Versailles and participation in the League of Nations defeated by the Senate in March 1920.[10] The result was American withdrawal from leadership in world politics for over 20 years—throughout the interwar period—and an absence of American wealth and power as a counterweight to increasing global fragmentation, radicalization, and war.[11]

Fifty million people died during the Spanish flu without redirecting the course of global politics, the framework for domestic politics, or basic human behaviors.[12] The insight of Spanish flu history is that, while a traumatic global pandemic may not alter broad global patterns or trends for key countries, it may have important indirect impact on geopolitical futures should the virus badly afflict an important political leader.

But what about after overarching geopolitical changes from COVID-19? Henry Kissinger wrote in April 2020 that COVID-19 will forever alter the world order, asserting that the pandemic's sweeping global impacts confirm that purely national solutions cannot solve major global issues. Kissinger argued that the ongoing movement toward nationalism must be understood as a danger, and collaborative approaches arising from the pandemic extended toward cooperation to protect the "liberal world order."[13] Skeptics assert that Kissinger wrote earlier, and more accurately, that world orders last until their foundations are fundamentally shattered by events, and a pandemic is not that kind of event.[14] Major trends in early summer 2020 seem to be bearing out an earlier, more skeptical Kissinger. The crisis has undercut support for globalization, but that was already trending, with rising populism around the world. It has exposed an already identified yawning gap between major contemporary security, climate, and health challenges and the insufficient power of

any one country to address these challenges.[15] Thus, the pandemic shows that the modern era needs more global governance, not less—but without enough shock to the system to force significant change.[16]

Then there is the question of whether COVID-19 portends a change in the relative balance of power among Great Power protagonists. Some American political observers worry that the United States could lose the global leadership contest with China if it holds to an "America First" approach and does not seek its historic post–World War II role of leading collective responses to global challenges.[17] These worries are most acute with respect to U.S. relationships in the Indo-Pacific region. There, pundits fear that American regional legitimacy is at risk due to Washington's comparatively feeble pandemic responses vis-à-vis those of partners such as South Korea and Taiwan, China's obvious interest in reviving East Asian economies with an eye to cement its role as a hub, and the risks to U.S. multinational credibility should Washington remain idle and aloof from coordinated regional response and recovery.[18] But China and Russia confront their own challenges in recovering from COVID-19. There is a chance that the virus's economic impact may be harsher on the United States than on China. Should this happen, it would accelerate the power shift to Asia, but that was already under way.[19]

And there are real limits to China's capacity to take advantage of the current crisis. China's economy will not be able to return to its prior growth trajectory of some 5 to 6 percent annually until the economies of the United States and the European Union recover as well. Funding another credit-fueled stimulus as the Chinese did in 2008–2009 is off the table due to China's high overall debt levels and the real risk of triggering a collapse of its financial system.[20]

As of summer 2020, a unique characteristic of the current crisis has been the conspicuous absence of U.S. global leadership. The United States has not rallied the world in a collective effort to confront either the virus or its economic effects. Nor has the United States inspired the world by its approach to the pandemic at home.[21] Should Washington recover its footing and lead a G20 effort at expanded financial cooperation working with regional friends and tying in China and Europe, it might emerge with a stronger reputation regionally and globally. This hopeful outcome seems unlikely given the main policy focus of the Trump administration.

Considering these contemporary factors, the post-COVID-19 world is unlikely to be radically different from the one that preceded it. The pandemic and response are reinforcing fundamental geopolitical traits.[22] Deglobalization, rising anti-immigration sentiment, and Great Power competition all were established before the pandemic. It seems unlikely that the pandemic will shift general trends back toward global cooperation and multilateralism. A lack of global cooperation is likely to continue, resulting in a weakly coordinated response to the health crisis and slow global economic recovery.[23]

But the case of Woodrow Wilson shows individual leaders matter and contingency has to be considered. President Wilson's bout with the Spanish flu occurred in its "second wave" during the winter of 1918–1919. If a second COVID-19 wave in the winter/spring of 2020–2021 were to metastasize and incapacitate or kill senior Great Power leaders, could this generate a major geopolitical shift? For Russia, Vladimir Putin has enormous power and has maneuvered to retain it through 2036. But Putin's death or incapacitation is unlikely

to change the trajectory of Russian strategy or relative power capabilities. Some Western foreign policy experts worry that a Russia under Putin that is weakened by COVID-19 and the collapse of world oil prices might be more openly aggressive and prone to risk military conflict. But others think a weaker Russia would likely become less assertive and more dependent on China.[24] On balance, the trends with Russia seem more likely to accelerate than change. Moreover, major pundits agree that the systems over which Putin presides—political, economic, military, and informational—are rooted in Russian history and likely to outlast him.[25]

In China, President Xi Jinping is powerful and the clear head of the Chinese Communist Party (CCP), but China's strategic vision and development trajectory are deeply grounded and supported by other top CCP leaders. Xi has taken greater risks than some of his predecessors in pursuing CCP aims globally and across the Indo-Pacific region in particular. Nonetheless, the exit of Xi as China's leader would do little to alter China's basic strategic framework or its plans for moving forward—particularly in the Indo-Pacific region. As American policy analyst Richard Haass observed, "nothing about the current crisis will change China's view that the U.S. presence in Asia is a historical anomaly or reduce its resentment of U.S. policy on a range of issues, including trade, human rights, and Taiwan."[26]

In the United States, COVID-19's effect on individual leaders might have modest impact given that 2020 is a Presidential election year. As of fall 2020, major party candidates President Donald Trump and former Vice President Joe Biden are basing campaign strategies on contrasting views of America's proper role in such a sweeping global pandemic. The Trump administration is touting its record of success in America First policies, abstaining from wider global leadership to combat the crisis, and attacking the World Health Organization and China for enabling the pandemic. The Biden campaign promises a less combative United States, and one more focused on leading a collective international response.

Should President Trump suffer incapacitation or death from the virus, a Biden victory would not be certain. Trump's Vice President, Mike Pence, seems a likely torchbearer for the same kinds of policies pursued during 2020, and a Pence election seems likely to entrench America First strategic aims for another 4 years. Conversely, a defeated Donald Trump in November 2020 would have resulted—at least in some part—from the electorate's disapproval of his handling of the COVID-19 pandemic. This would open the door for some greater international collaboration and American leadership, but this door may open only a little bit. A post-Trump Democratic President would still confront some 30 to 35 percent of American voters who are jaded about international commitments and unwilling to sign up for spending American resources leading other "rich" nations in combating major international problems.[27] A new administration might find some support for a late-breaking American-led global initiative to find a vaccine and underwrite its mass distribution, but asking the American people again to tackle all the global problems at the heart of U.S. foreign policy will continue to be a tough sell.[28] The impetus for America and its allies to decouple from the Chinese economy seems likely to grow as a result of the pandemic, and only partly because of concerns about China. There will be renewed focus on the potential for interruption of supply chains along with a desire to stimulate domestic manufacturing. Global trade will partly recover, but more of it will be managed by governments rather than markets.[29]

So the other side of the COVID-19 crisis is likely to look as it did before, with Great Power strategies and relative power positions much the same. New technologies and challenges will continue to outpace the collective ability to contend with them. No single country enjoys the standing the United States did in 1945 or in 1990, and no other country, neither China nor anyone else, has both the desire and the ability to fill the international leadership void the United States has created.[30]

Thus, a viable approach to the new era of Great Power competition must begin with a clear-eyed understanding of the strengths and weaknesses of the major protagonists in the five main categories of interstate competition: political and diplomatic, ideological, informational, military, and economic. As the dominant GPC dyad, China and the United States are the critical nations for comparison. Their relative advantages in these five categories inform the realm of the feasible and establish the unworkable. For Washington, a sober analysis suggests that it must eschew highly confrontational policies in places where it lacks advantage and seek collaboration whenever feasible, while at the same time compete with firmness in categories where it has advantage. America needs to revisit and clearly appreciate that the main source of its ability to project power and exert influence now, as since World War II, is its global networks of allies and partners.

How to Compete Wisely: The Important Role of Alliances and Partnerships

An America that competes smartly with China must understand both the value of time and where it can leverage its major advantages. The United States retains a commanding advantage in military power, although not to the degree it did 20 years ago. But its global military advantages can be offset if China (or Russia) is able to pick favorable physical and political ground for a short, decisive military conflict. Washington must acknowledge this and compensate for it. America's ideology resonates well globally and especially in the Indo-Pacific region. Similarly, its ability to promulgate information and sustain support remains superior to China's, despite Beijing's serious efforts to articulate and reinforce a clear message—a message often undercut by the fact that it features CCP talking points inconsistent with Chinese actions at home and abroad. China is upping its efforts to use political and diplomatic tools to undercut U.S. alliances and partnerships internationally and especially in the Indo-Pacific region, but Washington—despite some obvious recent self-sabotage of its diplomatic advantage—retains strong ties and bonds established over decades that are not easily destroyed. At the same time, China has significant economic advantages over the United States, especially in the Indo-Pacific region. Beijing can mobilize direct trade and investment resources and provide countries with valued opportunities for growth that the United States cannot alone match.

America's relative advantages in ideas, information dissemination, political and military alliances, and conventional military power—when applied away from regions of local Chinese (or Russian) advantage—inform where the United States can build on strength. Concurrently, American weaknesses in relative economic strength compared with China or the conventional military capabilities to defend allies and partners near China (or Russia) informs Washington about how it must proceed for competitive success. The United States

will succeed in competition over time by working with friends and partners and eschewing the strategic error of posing stark binary choices to would-be partners and friends.

These understandings translate into three major imperatives that should inform competition between the United States and China. First, the Cold War was a Great Power competition but not analogous to contemporary GPC. Cold War dissimilarities are important to understand so that policy choices for GPC do not err in applying Cold War lessons. Second, Great Power competitors do best when they form durable partnerships with capable allies and friends. These partnerships are not risk free; Great Powers can make bad choices. However, chosen wisely, Great Power alliance networks expand security options, generate diplomatic leverage and helpful lines of communications, and bolster political legitimacy.[31] Finally, Great Power competitors do not have the luxury of "hands off the wheel" economic and technology policies. In reality, the myth of American capitalism as a laissez-faire, private-market enterprise does not comport with fact—even in times of broad geopolitical and geoeconomic cooperation. During times of Great Power rivalry, the U.S. Government must shake off the myths that constrict competitive decisionmaking and understand the importance of deliberate government-sponsored development in key security and wealth-making technologies and processes.

Despite some contrary commentary, the world is in a new era of GPC.[32] Although the Cold War between the United States and the Soviet Union was a Great Power competition, it was unique in modern history and without great resonance with contemporary GPC dynamics.[33] Nostalgic U.S. calls for broad application of Cold War competitive strategies such as containment fail to appreciate that its unique features make it a poor strategic template for today.[34] However, some aspects of a competitive mindset from that time can be useful in the present.[35]

First, the Cold War was always bipolar and never multipolar. From 1945 to 1991, no other country in the world possessed the global strategic ambitions or the levels of power held in Washington and Moscow. In 2020, GPC is multipolar and has been so from inception.[36] Second, the bipolar competition of the Cold War did not feature a clear rising power challenging a dominant one. Instead, the United States and the Soviet Union each claimed primacy and jousted as presumptive equals in every dimension of state interaction. There was no Great Power transition process during the Cold War. Contemporary GPC features a transition framework consistent with historical precedence with a clearly dominant power, the United States; a clear rising power, China; and another Great Power, Russia, contesting geopolitical primacy but with limited and suspect power capabilities. The ongoing transition raises uncertainties and risk calculations that were not present during the Cold War.

Third, the Cold War began with sharply divided Great Power geographic spheres of influence and little interaction between them. A Soviet bloc and a U.S.-led Western bloc of states quickly formed after 1945, and almost no economic, social, communications, or political interactions existed between them—beyond basic diplomacy and some limited mechanisms for travel and cultural exchange. In a starkly different fashion, the Great Power rivalry dyad of the United States and China evolved after more than 30 years of broadly cooperative interaction and engagement in diplomatic, social, and political activities. In all but the military sphere—and even in the hotly contested communications sphere—American and Chinese competitive tensions evolved against a high degree of interactions and

interdependence. So in the Cold War, an American strategic imperative became one of increasing transparency, openness, and resonance with Soviet bloc peoples in a manner that bypassed Communist leaders and provided greater intellectual and physical opportunities to the masses.[37] In contemporary GPC, the United States, along with its allies, confronts a different competitive challenge: how to selectively disengage itself from China in places of strategic vulnerability without squandering the kinds of beneficial connectivity, transparency, and access that now exist and that remain desirable.

The Cold War bifurcation into trade blocs was outside the historic norm for multipolar GPC. Past Great Power competitions and transitions featured a mosaic of simultaneous economic confrontation and collaboration. The United Kingdom and Imperial Germany had steadily increasing trade volume—although an evolving character of exports—throughout the 25 years before World War I.[38] Napoleonic France retained extensive economic ties with Great Britain beyond its 1803 declaration of war, and when Napoleon tried to impose an end to all British trade on the continent in 1806, extensive British merchant activities through Spain and Russia continued to supply France and Europe.[39] At its Cold War height, Soviet exports to the United States totaled only $1 billion (in 1990).[40] In 2017, Chinese exports to the United States were $500 billion, and U.S. company affiliates in China that year made $544 billion.[41] Severing such well-established economic ties between Great Power rivals is difficult to do. Thus, it cannot be surprising that fully decoupling America from the Chinese economy would be difficult and with a cost that would be unacceptably high.[42] The United States and China already have been gradually disengaging in multiple economic areas. Reciprocal direct foreign investment has been declining for 5 years. Some U.S. technology firms abandoned China as its "Great Firewall" grew, and more have become wary of doing business in China since its 2015 announcement of Made in China 2025 goals for IT and artificial intelligence (AI) dominance. Finally, the number of Chinese students in American universities began to decline in 2018. At the same time, Chinese and American interdependence in trade, capital markets, and currency markets run deep. Until the United States launched a trade war with China in 2018, these areas were not decoupling—thus demonstrating they will be difficult to disentangle.[43]

Past Great Power challenges inform critical dynamics of competition today. Great Power ability to win influence through durable alliances and valuable partnerships with less powerful states matters to successful competition.[44] A dominant power best wins influence with other states by amplifying points of strategic commonality and minimizing points of friction. Today, the United States enjoys common ideological and political objectives with a robust array of states around the world, including across the Indo-Pacific region. Among other regional agreements and treaties establishing this strength are two major, complementary, bilateral vision documents: the U.S.-India Joint Strategic Vision of January 2015 and the India-Japan Vision 2025 strategic document signed in December 2015.[45] Beyond this convergence with liberal democratic states, most countries prefer military cooperation with the United States to the limited and transactional cooperation offered by China.

At the same time, most states do not believe that severing economic ties with China is in their best interests.[46] While American commercial finance stands supreme, China's economic strength in trade supply chains, direct investments for infrastructure, and consumer market power are too large and important for smaller states to summarily jettison.[47] Washington

lacks the economic capability to enforce a full-blown economic decoupling from China on its most important partner states.[48] Thus, the United States will compete best with China by gaining and sustaining influence with ideologically and politically aligned states—without making them choose severing economic ties with China as a cost of participation. It must pick its grounds carefully when urging partners not to engage in particular forms of trade, finance, or technology ventures that would help China build its power and compromise U.S. partners' sovereignty.

America's best choice to compete with China is to anchor a partner/alliance structure on common ideology and political philosophy while leading it into a period of partial economic disengagement.[49] The United States will have to negotiate partner assent to a framework that limits the most dangerous exposure of Western markets, labs, and innovative institutions to CCP control over Chinese economic actors, while continuing mutually beneficial trade and financial activities between China and America and its allies. This approach would require a measured and deliberate move toward restricting some forms of Chinese access to the United States and its partner economies and societies. The start point would see America and its partners agree to three major defensive economic goals from reduced trade with China: Limit vulnerability to CCP surveillance and sabotage, eliminate supply chain dependencies on China that may enable the CCP to credibly coerce or actually disrupt critical Western economic functions, and slow diffusion of innovation and technologies to China that are critical to Western commercial and military competitive edge.[50] A network of cooperative advanced industrial democracies—each committed to common core values and interests—would leverage U.S. competitive advantages in ideological resonance, alliance-building, and partnership reliability without demanding severance of all economic interactions with China.

The network would continue genuine and reciprocal trade with China but take collective steps to monitor and constrain Chinese trade and investment activities aimed to steal advanced technologies from their commercial companies. It would cooperate and participate in collective public-private ventures that offer practical alternatives to Chinese critical information technologies at viable pricing and that form trusted networks that protect sensitive and proprietary data. It would band together in challenging Beijing's most outrageous trade and industrial policies, increasing the odds that China will reconsider uncompetitive and illegitimate practices developed over many years. Finally, it would seek to prioritize meaningful reform of international institutions committed to a truly liberal global economy, overcoming the rise of nontariff barriers and national protectionism while establishing new standards for expanded free trade, investment, and growth in cutting-edge technologies featured in the fourth industrial revolution.[51]

An important catalyst for this kind of a U.S. partnership initiative featuring partial economic disengagement from China would involve high-standard trade agreements linking the economies of North America, Europe, and key parts of Asia. The United States need not begin this task from scratch; it needs only to rethink the opportunities already available to it. The 11 members of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) left the door open to American membership.[52] A bridge from CPTPP through the United States to Mexico might be an important subsequent step. Although a number of Indian impediments to a free and full multilateral trade and finance partnership

remain, earnest dialogue between CPTPP and India could chart a path for future inclusion. That path would include systematic attention to and investment in an enormously important economy in a liberal democratic country that shares Western ideological beliefs and that has great economic potential.[53] A major trans-Atlantic agreement would be an additional logical step.

Exploiting America's comparative advantages in ideological, political, and alliance formation realms—while evolving an alignment of partners committed to partial disengagement from China's economy instead of a stark choice to decouple—best leverages U.S. competitive strength and minimizes risks from abrupt economic stagnation or unintentional war. Nonetheless, such an approach would require an uneasy truce within the American polity. Given its relative economic disadvantages with China, America cannot today swoon to the muse of laissez-faire economics and be properly competitive. Certain segments of the American polity hold to a dogma that unbridled free markets and unshackled private corporations are all that is necessary to ensure American economic success worldwide. This is a misreading of geopolitical competitions and U.S. economic history.

The United States has a clear record of government interventions to favor critical economic activities.[54] It has consistently subsidized American agriculture to sustain farmers from the challenges of foreign competitors with both subsidized and natural comparative advantage. Washington also has favored protective tariffs and quotas against foreign competition in all but brief periods of its history. In times of extreme competition with Great Power rivals, American politicians have moved with great alacrity to subsidize economic programs and segments of the economy deemed to be vital to succeed against international competitors. Before America entered World War II, such subsidies came from U.S. Government loan guarantees for ships, planes, tanks, and industrial products needed by Great Britain and later Russia. During the Cold War, American-targeted investment and complementary tariff barriers "put a finger on the scale" in favor of advanced technologies, defense equipment, and even American mass agriculture in an effort to ensure competitive U.S. advantages against the Soviet Union.[55] During the Cold War, Washington also indulged discriminatory tariffs and quotas for its junior anti-Soviet partners—countries such as Japan, South Korea, Taiwan, and those in Europe—to secure long-term geopolitical advantage despite short-term economic costs.

Educating the public would be necessary to generate political support for domestic economic renewal of a kind necessary to capitalize American government investment in competitive technologies and processes—like those involving IT, 5G, AI, quantum, and space. Here, the mindset of public direction and incentives for competitive and innovative technology that informed American policy in the Cold War is a relevant legacy.[56] As in the Cold War, American policymakers will need to subsidize priority elements for competitive advantage in the economic sphere. Public investment will require investment capital. The need is clear: Federal-level investment in American research and development activities in 2018 was at its lowest level since 1955.[57] To develop that pool, national political leaders will need to confront the extreme concentration of power and wealth in the hands of modern multinational corporate technology giants. With 50 percent of American wealth concentrated in 1 percent of its population, U.S. politicians will need to look at breaking up monopolistic companies and taxing exorbitant wealth as a means to incubate public investment and subsidies to rejuvenate

critical technologies, new businesses, and education to spur innovation.[58] Thus, it will take leadership and political risk, but American national leaders can expose the myth that the U.S. Government is not an essential participant in competitive economics for what it is. Then it may take steps to ally with friendly countries and partner states to advance a program of managed disengagement and enhanced competition with China.

Seen through the lens of applied history, these three imperatives for U.S. success in contemporary Great Power competition—distinguishing modern GPC from the Cold War, building on American competitive advantages with partner states, and acknowledging the role for government management of critical economic programs in GPC—are complemented by four competitive dynamics with relevance for at least the next decade.

Four Competitive Principles

The study of historic Great Power dyadic rivals offers a number of principles that can enable effective competition while minimizing the prospect of Great Power transition collapsing into Great Power war. Four stand out: firmness with flexibility, durable partnerships and alliances, the peril of reciprocal societal denigration, and playing for time.

Firmness with Flexibility

First, the dominant Great Power must demonstrate firmness with flexibility. It must clearly signal the strategic aims that it will defend at all costs and then offer the prospect of dialogue on those it may be willing to negotiate. While firm on its nonnegotiable aims, it should be flexible in finding issues and venues where win-win outcomes are possible. For example, the United Kingdom accepted American primacy in the Western Atlantic as a better path to sustaining high seas primacy on vital routes for its Middle East and Asian colonies—and preferable to naval confrontation in recognition of growing American power. At the same time, the rising United States came to accept the once-abhorrent British monarchy in recognition of growing political enfranchisement for a great number of British citizens. Is there such trade room today for the United States and China to agree on rules for collaboration in space and cyberspace while at the same time negotiating over reduced CCP domestic economic and human rights constraints?

Flexibility must be paired with firm resolve. Strong security arrangements, backed by formidable U.S. military power, might harden feelings of antagonisms and suspicion, but they are indispensable to preserving the peace with China.[59] If the CCP expects resistance from the United States and several mid-sized U.S. security partners, it is unlikely to fight for regional hegemony in the near term.[60] There is a discernible degree of caution in China's behavior that is wary of demonstrated strength and exploits perceived weakness.[61] The United States and its Indo-Pacific partners must stand firm in resistance to China's illegal maritime claims by demonstrating the will to operate in international waters and airspace with freedom of navigation operations and other joint activities. They also must stand firm with Japan on disputed islands. Concurrently, the United States must demonstrate flexibility and adaptability in defense activities within the First Island Chain. It should proceed with a mobile and unpredictable basing posture for American forces. In particular, Washington also should work with Taiwan on development of weapons and tactics for self-defense that emphasize the advantages of smaller, smarter, and cheaper. This kind of flexibility is not the

same as ceding de facto spheres of influence to China with the First Island Chain or elsewhere in the Pacific.[62] Instead, it is an acknowledgment that basic premises about sticking with allies and partners can remain firm even as tactics and techniques adapt.

The United States also can firmly support democratic institutions, individual liberties, and human rights in its alliances and in its interactions with China while demonstrating flexibility in pursuing aspirations for Chinese political reform. After first defending allies and partners from encroachment of Chinese authoritarian tendencies, America can demonstrate flexibility and patience in modeling patterns of individual liberty, freedom of information, and political participation to the people of China. During the Cold War, U.S. efforts to strengthen non-Communist elements within the Soviet bloc often met frustration in the near term. Western radio transmissions were blocked and censored, humanitarian assistance was refused, greater transit and tourism opportunities were blunted, and people-to-people programs declined. But over the long term—and especially after the Helsinki Accords of 1975—these activities gave hope to those laboring for a freer future behind Moscow's Iron Curtain. American support for democracy and liberty in regions around the world during the 1970s and 1980s made the global ideological climate steadily less friendly to the Soviet Union's repressive regime.[63] This kind of a Cold War competitive mindset is applicable for competition with China today and must be melded with modern collective approaches that portray Chinese political and ideological representations as inappropriate. Today, as then, a large amount of America's appeal is the power of an uncensored world.[64]

Durable Partnerships and Alliances

The second competitive principle reinforces the imperative of alliances discussed earlier. This is both an imperative and a principle so important for successful GPC that it is worth reinforcement and extension. History demonstrates that the dominant Great Power must look to build and maintain durable, reciprocal interstate alliances that provide would-be partners with alternatives to the either-or choices posed by a hard-charging rival.[65] Great Britain was right to seek strategic partnerships and allies in its rivalry with Napoleonic France, parlaying these alliances into first containment of the threat and later its defeat. Napoleon largely relied on territorial conquest and installation of family in positions of political power to expand French national power and elements of the French Revolution.[66]

Today, the United States has a far greater base for building economic and military partnerships than any other Great Power in modern history. It also confronts a rising Great Power in China with little experience or inclination in this area. The United States has invested in critical global alliances and partnerships over the years for precisely this kind of moment. Japan is an important illustration. Before the United States sought to secure China's entry into the World Trade Organization—a push in the late 1990s—it first reaffirmed the U.S.-Japanese alliance formally in 1995. This was a prudent hedge of the American bet on China's rise to become a "responsible stakeholder" in the world order and an investment that today blunts Chinese aspiration to dominate the Indo-Pacific beyond its First Island Chain—because Japan sits there.[67] The U.S.-Japan alliance is an example of America's "high card" of alliances and international institutions in its competition with China—and these should be cherished and well played.

Washington has an enormous opportunity to construct alternative economic, diplomatic, and political geometries with an array of partners to give them alternatives to Chinese enticements and blandishments. However, many of America's eager partners are today apprehensive about the recent unpredictability of U.S. foreign policy conduct. They want and value American partnership but worry that, unlike all its post–World War II predecessors, the current U.S. administration views commitment to rules-based international order and institutions to be more of a self-imposed constraint than a competitive advantage.[68] Among other signs they desire in an American strategic partner is a future foreign policy free from sanctions, tariffs, and restricted access to U.S. dollars as major instruments unconstrained by allies, rules, or institutions.[69] To be fully competitive with China, American policy must overcome this apprehension and practice a competitive foreign policy that views alliances as assets to be invested in rather than costs to be cut.[70]

The Peril of Reciprocal Societal Denigration

Third, successful GPC short of direct military clash is extremely unlikely if the rivals descend into a poisonous, open, and reciprocal denigration of one another's people. The choice to criticize the government of a rival state while distinguishing it from the people is not as risky—although a tightrope must be walked to maintain the difference. Once the British and Imperial German press went after the character of the other's societies, the march toward World War I accelerated. So, too, World War II in the Pacific loomed ominously once the United States and Tojo's Japan devolved to mutual societal recrimination, but the U.S. Government's conscious Cold War effort to distinguish the Soviet Union's Communist Party from the Russian people, reserving greatest criticism toward the Party and offering outreach to its people, generated a far different result. American leaders are likely to compete best with China while clearly distinguishing between its criticism of the CCP and its feelings for the Chinese people.

The growing acrimony and invective between China and the United States during the months from 2018 to 2020 is worrisome. In 2018, the Trump administration reportedly considered blocking Chinese citizens from receiving any student visas as part of its package of economic pressure but backed away.[71] In March 2020, the U.S. Secretary of State pressed major industrialized nations to call the COVID-19 pandemic the "Wuhan virus." This action during the G7 Foreign Ministers Meeting was later walked back, but it disrupted American leadership of the global pandemic response and gave CCP propagandists an incident with which to whip up anti-Western Chinese nationalism.[72] President Trump threatened to "cut off the whole relationship" with China during a May 2020 interview.[73] Such broadly critical rhetoric risks reinforcing a tactic already at the top of the CCP playbook: ceaselessly exploiting Chinese nationalism to shore up its legitimacy.[74]

> "We must reject the notion that the competition with China is a 'clash of civilizations' and that conflict is inevitable. Our concerns are with the CCP and not the Chinese people. We can collaborate where possible but compete aggressively to protect our national interest and the international order that has kept us safe since 1945."
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> —*Michael Brown, Eric Chewning, and Pavneet Singh,* Preparing the United States for the Superpower Marathon with China *(Brookings Institution, April 2020)*

The dangers of reciprocity from China are real. While the Chinese foreign minister and other senior government officials often frame their criticism of the United States in ways that target the government in Washington, its activities abroad and at home often cross the line into mass denigration of Americans or other Westerners.[75] Since late 2019, normally taciturn Chinese diplomats are now observed openly criticizing not only Western policies but also the social and cultural aspects of Europeans, Australians, and Americans in what has been coined "Wolf Warrior diplomacy."[76] Inside China, the CCP has co-opted Chinese nationalism as a tool to indoctrinate citizens and its diaspora to a narrative that America and its allies once colonized China and today victimize China by preventing its rise to a superpower, and that the CCP is China's only savior.[77] While the risks from such unbridled and growing mutual denigration do not now seem to include direct military clash, history indicates they will trend toward deepening risks of war in the future should implacable people-to-people hostility grow unabated.

To reduce the risk—and channel competition appropriately—the United States should focus legitimate criticism on the CCP and its policies in a manner that counters Chinese narratives feeding nationalist xenophobia. The line between criticizing the CCP and Chinese society is a fine one to walk—and will require calibration. An American effort to toe this line took place in early May 2020 when the Trump administration deputy national security advisor for Asia delivered a speech in Mandarin Chinese intended for the Chinese people that critiqued CCP efforts to clamp down on free speech while praising brave Chinese doctors and front-line workers in the response to COVID-19.[78] An American program of communication should concentrate on countering CCP-driven disinformation.[79] It also should work to counter the clear CCP domestic narrative that it is all that stands between China and chaos.[80] At the same time, the United States should try to maximize positive interactions and experiences with the Chinese people. The United States and its free-and-open partner societies should consider issuing more visas and providing paths to citizenship for more Chinese, with proper safeguards in place. Chinese who engage with citizens of free countries are the ones who are most likely to question their government's policies whether from abroad or when they return home. In this approach, the United States would do what it did with expatriate Russian communities during the Cold War: View Chinese expatriate communities as valuable citizens while discriminating between Ministry of State security agents for expulsion.[81]

Playing for Time

Finally, some argue that time works in favor of the rising Great Power in a competitive dyad, putting the dominant Great Power at dire risk if it does not take swift confrontational action while its relative power is high. But this thesis rests on at least two dubious assumptions: that the rising power's ascent is likely to be rapid and that the rising power will continue to ascend in a mainly linear fashion and not confront problems or challenges on the way. In the present moment, there is a strong case to be made that the critical factors confronting China at home and abroad make time work in favor of the United States.[82]

First, America has its own domestic inconsistencies and challenges, but these pale in comparison with those certain to play out within China over the coming couple of decades. The CCP faces multifaceted challenges to safeguard both its political position and

> "Beijing is learning, as have other nations, that building advanced equipment is the relatively easy and inexpensive part of becoming a major military power. Its characterization of the international environment, pressures from its military-industrial complex, and the arms race it has triggered will require increased funding and shape debate on how much money can be spent on other national priorities. It will also shape the challenges China faces in the international system because nations will respond to China's buildup by arms purchases of their own and efforts to use alliances, alignments, and other instruments of geopolitics to counterbalance Chinese power."
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> —*Thomas Fingar and Jean C. Oi, "China's Challenges: Now It Gets Much Harder,"* The Washington Quarterly *43, no. 1 (Spring 2020)*

an economic rise that seems critical to CCP legitimacy. These multifaceted challenges include rampant environmental degradation; rising income inequalities; a rapidly aging and less productive population; chronic worry about abuses of political power; widespread corruption; restive domestic regions including Tibet, Xingxang, and Mongolia; and a poor record on human rights.[83] As China's economy shifts toward more reliance on domestic economic consumption, its economic growth decelerates, and its national debt continues to grow, these many domestic challenges are moving to the fore.[84] Second, China faces serious unresolved challenges along its own borders, rendering its ability to dominate the Indo-Pacific region doubtful in the near term and making any global push by Beijing to reorder international norms and institutions a truly long-term proposition. China's neighbors include formidable economic and military powers such as Japan, South Korea, Australia, and India. Each of them is increasingly apprehensive about China's strategic ambitions and is deepening security ties with one another and the United States in response. Beijing's ham-handed efforts to crush democratic resistance in Hong Kong and nationalism in Taiwan have stiffened regional headwinds for Chinese messaging.[85]

It is unwise for the United States to assume that China will succumb to these challenges. Such complacency could distract necessary attention to a serious Great Power rival. At the same time, a U.S. conclusion that China is destined for global dominance—particularly in the near term—is both unsupported and likely to generate strategic overreaction.[86] China's economic rise will make it a long-term challenge for the United States to manage rather than one to be conquered or converted.[87] The United States and China are destined for a lengthy, uneasy coexistence, not decoupling or appeasement.[88] Thus, a U.S. strategy that plays for time as China's contradictions grow and as American resilience, regeneration, and the realization of a new competitive mindset emerge from more than two decades of torpor seems the one best suited for U.S. success in contemporary Great Power competition.[89]

The Way Forward

Knowing the imperatives and principles of what the United States should do to succeed in a new era of Great Power competition is not the same as figuring out how to do it. Galvanizing American resolve to compete with the Soviet Union and move into a Cold War was a challenging process. Former Secretary of State Dean Acheson famously stated that the U.S. Government had to make arguments "clearer than truth" to get the American people and Congress to buy into

the effort to contain the Soviet Union. Acheson's work on National Security Council Paper 68 made the necessity of containment clear but was later critiqued as overreach.[90]

In 2020, the operative U.S. National Security Strategy (NSS) of 2017 stands as a stark contrast to its 2002 predecessor, a mere 15 years prior. The 2002 version of the NSS began with this preamble:

> *The great struggles of the twentieth century between liberty and totalitarianism ended with a decisive victory for the forces of freedom—and a single sustainable model for national success: freedom, democracy, and free enterprise. In the twenty-first century, only nations that share a commitment to protecting basic human rights and guaranteeing political and economic freedom will be able to unleash the potential of their people and assure their future prosperity.*[91]

The 2017 NSS successor paints a starkly different landscape:

> *China and Russia challenge American power, influence, and interests, attempting to erode American security and prosperity. They are determined to make economies less free and less fair, to grow their militaries, and to control information and data to repress their societies and expand their influence. . . . These competitions require the United States to rethink the policies of the past two decades—policies based on the assumption that engagement with rivals and their inclusion in international institutions and global commerce would turn them into benign actors and trustworthy partners. For the most part, this premise turned out to be false.*[92]

In today's new era of GPC, the Sino-American dyad is the rivalry of greatest significance. This contest features an ongoing power transition—always a dangerous dynamic of international politics in modern history. China is clearly growing in relative economic power, but the United States is a dominant state with clear comparative advantages—"high cards" in its hand—that it can build on to advantage.[93] Alliance maintenance and cultivation is the most critical card. Firm and flexible confrontation when necessary and collaboration with China where possible is a second. Avoiding a regressive game of reciprocal societal invective is the third. And playing the long game—playing for time—is the fourth.

The NSS properly recognized the China challenge for what it was—formalizing a de facto new era of Great Power competition—but this overdue recognition could go terribly wrong if it generates unwarranted American hysteria and overreaction against Beijing. Overreaction in Washington could lead to high cards played badly.

The NSS culminates its geopolitical evaluation with a highly relevant rejoinder:

> *We learned the difficult lesson that when America does not lead, malign actors fill the void to the disadvantage of the United States. When America does lead, however, from a position of strength and confidence and in accordance with our interests and values, all benefit. Competition does not always mean hostility, nor does it inevitably lead to conflict—although none should doubt our commitment to defend our interests. An America that successfully competes is the best way to prevent conflict. Just as*

American weakness invites challenge, American strength and confidence deters war and promotes peace.[94]

These words are measured, historically informed, and wise. Applied well—without resort to overreaction or backsliding into complacency—these words can inspire American confidence in the way forward for this new era of GPC. They also can give U.S. allies and potential partners confidence in American leadership and resolve. China's behavior is galvanizing opposition among countries that do not want to be vassal states.[95] A rejuvenating United States, with reframed domestic priorities and renewed focus on well-established and well-treated allies and partners, will have a clear advantage in what is likely to be a drawn-out era of Great Power competition with China.

The author thanks Frank Hoffman and Phillip C. Saunders for their thoughtful observations and critiques on early versions of this chapter.

Notes

[1] Among a long list of public testimony, detailed studies, and published works of nonfiction and fiction predicting that such a novel and deadly virus was increasingly likely and the United States was vulnerable, see Daniel Coats, *Statement for the Record: Worldwide Threat Assessment of the U.S. Intelligence Community to the Senate Select Committee on Intelligence* (Washington, DC: Office of the Director of National Intelligence, 2019), 21; Katie Pearce, "Pandemic Simulation Exercise Spotlights Massive Preparedness Gap," *Johns Hopkins University Hub*, November 6, 2019, available at <https://hub.jhu.edu/2019/11/06/event-201-health-security/>; *Crimson Contagion 2019 Functional Exercise Key Findings—Coordinating Draft* (Washington, DC: Department of Health and Human Services, December 3, 2019), available at <https://int.nyt.com/data/documenthelper/6824-2019-10-key-findings-and-after/05bd797500ea55be0724/optimized/full.pdf>; Sonia Shah, *Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond* (New York: Sarah Crichton Books, 2016); Lawrence Wright, *The End of October: A Novel* (New York: Knopf, 2020).

[2] The Ottoman Empire (Turkey) and Austria-Hungary emerged from World War I so wounded that they would no longer compete as Great Power competitors in the interwar period. For further discussion, see chapter 2.

[3] For a detailed listing of the major insights from the 15 total book chapters (one of which is a couplet chapter, chapter 3), see the Major Findings section at the beginning of this volume.

[4] See this described in detail at Aaron L. Friedberg, "Competing with China," *Survival* 60, no. 3 (2018), 7–64.

[5] For a detailed critique of the most conspicuous failures of modern globalization and hyper-interdependence in supply and finance chains by Nassim Nicholas Taleb, the originator of the terms *black swans* and economic *fat tails*, see Bernard Avishai, "The Pandemic Isn't a Black Swan but a Portent of a More Fragile Global System," *The New Yorker*, April 21, 2020, available at <www.newyorker.com/news/daily-comment/the-pandemic-isnt-a-black-swan-but-a-portent-of-a-more-fragile-global-system>; Nassim Nicholas Taleb, *Antifragile: Things That Gain from Disorder* (New York: Random House, 2012).

[6] For a detailed discussion of this valuation of information power over industrial power, see chapter 6 of this volume.

[7] As demonstrated in chapter 3b of this volume, China does not today possess and is unlikely to attain sufficient power assets in the coming decade to enable a strategy of remaking the international order in its favor before domestic risk factors collapse the rule of the Chinese Community Party (CCP)—even if that was its actual strategy. For an opposite view that asserts China possesses a global grand strategy aspiring for leadership of a new tributary system soon to be resourced through a massive effort organized under three overlapping policies—carrying the names "Made in China 2025," "Belt and Road Initiative," and "Military-Civil Fusion"—see H.R. McMaster, "How China Sees the World: And How We Should See China," *The Atlantic*, May 2020, available at <www.theatlantic.com/magazine/archive/2020/05/mcmaster-china-strategy/609088/>.

[8] Steve Coll, "Woodrow Wilson's Case of the Flu, and How Pandemics Change History," *The New Yorker*, April 17, 2020, available at <www.newyorker.com/news/daily-comment/woodrow-wilsons-case-of-the-flu-and-how-pandemics-change-history>.

[9] Jon M. Barry, *The Great Influenza: The Story of the Deadliest Pandemic in History* (New York: Penguin, 2004), 383–388.

[10] Lloyd E. Ambrosius, "Woodrow Wilson's Health and the Treaty Fight, 1919–1920," *The International History Review* 9, no. 1 (February 1987), 73–84.

[11] Charles P. Kindleberger, *The World in Depression, 1929–1939* (Berkley: University of California Press, 1973).

[12] Barry, *The Great Influenza*, 449–455; Shah, *Pandemic*, 5–6, 97–119, 201–217; James Traub, "After the Coronavirus, the Era of Small Government Will Be Over," *Foreign Policy*, April 15, 2020, available at <https://foreignpolicy.com/2020/04/15/coronavirus-pandemic-small-government-aftermath-nationalism/>.

[13] Henry A. Kissinger, "The Coronavirus Pandemic Will Forever Alter the World Order," *Wall Street Journal*, April 3, 2020, available at <www.wsj.com/articles/the-coronavirus-pandemic-will-forever-alter-the-world-order-11585953005>.

[14] Traub, "After the Coronavirus, the Era of Small Government Will Be Over"; Henry Kissinger, *World Order* (New York: Penguin, 2014), 361–374.

[15] Richard Haass, "The Pandemic Will Accelerate History Rather Than Reshape It," *Foreign Affairs*, April 7, 2020, available at

<www.foreignaffairs.com/articles/united-states/2020-04-07/pandemic-will-accelerate-history-rather-reshape-it>.

[16] Traub, "After the Coronavirus, the Era of Small Government Will Be Over."

[17] See Kurt M. Campbell and Rushi Doshi, "The Coronavirus Could Reshape Global Order," *Foreign Affairs*, March 18, 2020. This is also implied in Kissinger, "The Coronavirus Pandemic Will Forever Alter the World Order."

[18] Matt Burrows and Peter Engelke, *What World Post COVID-19? Three Scenarios*, Atlantic Council Strategy Paper (Washington, DC: Atlantic Council, April 2020), 3–4, available at <www.atlanticcouncil.org/wp-content/uploads/2020/04/What-World-Post-COVID-19.pdf>.

[19] Amitav Acharya, "How Coronavirus May Reshape the World Order," *National Interest*, April 18, 2020, available at <https://nationalinterest.org/feature/how-coronavirus-may-reshape-world-order-145972>.

[20] Michal Green and Evan S. Medeiros, "The Pandemic Won't Make China the World's Leader," *Foreign Affairs*, April 15, 2020, available at <www.foreignaffairs.com/articles/united-states/2020-04-15/pandemic-wont-make-china-worlds-leader>.

[21] Haass, "The Pandemic Will Accelerate History Rather Than Reshape It."

[22] Ibid.

[23] Burrows and Engelke, *What World Post COVID-19*, 3–4.

[24] For a review of these offsetting opinions about Russia's future, see Tom McTague, "The Pandemic's Coming Geopolitical Second Wave," *The Atlantic*, May 18, 2020, available at <www.theatlantic.com/international/archive/2020/05/coronavirus-pandemic-second-wave-geopolitics-instability/611668/>.

[25] See for example, Tony Wood, *Russia Without Putin: Money, Power, and the Myths of the New Cold War* (London: Verso Books, 2018), 1–9; Fiona Hill and Clifford G. Gaddy, *Mr. Putin: Operative in the Kremlin* (Washington DC: Brookings, 2015), especially 190–226, 312–341.

[26] Haass, "The Pandemic Will Accelerate History Rather Than Reshape It."

[27] In 2019, the Chicago Council on Global Affairs survey found that 30 percent of Americans wanted the United States to play no active part in the world. A Gallup Poll that same year recorded up to 35 percent of Americans felt the United States should play much less of a role internationally than it did before the Trump administration. See Dina Smeltz et al., *Rejecting Retreat: Americans Support U.S. Engagement in Global Affairs* (Chicago: The Chicago Council on Global Affairs, 2019), available at <https://www.thechicagocouncil.org/sites/default/files/report_ccs19_rejecting-retreat_20190909.pdf>; V. Lance Tarrance, "Public Opinion and U.S. Engagement with the World," *Gallup*, April 11, 2019, available at <https://news.gallup.com/opinion/polling-matters/248588/public-opinion-engagement-world.aspx>.

[28] Haass, "The Pandemic Will Accelerate History Rather Than Reshape It."

[29] John Lee, *Decoupling the U.S. Economy from China After COVID-19* (Washington, DC: Hudson Institute, May 7, 2020), available at <https://www.hudson.org/research/16009-decoupling-the-us-economy-from-china-after-covid-19>; Haass, "The Pandemic Will Accelerate History Rather Than Reshape It."

[30] Green and Medeiros, "The Pandemic Won't Make China the World's Leader"; Haass, "The Pandemic Will Accelerate History Rather Than Reshape It"; Kissinger, "The Coronavirus Pandemic Will Forever Alter the World Order."

[31] Hal Brands and Peter D. Fever, "Reevaluating Diplomatic and Military Power: What Are America's Alliances Good For?" *Parameters* 4, no. 2 (Summer 2017), 25–30.

[32] A leading voice against calling this a period of Great Power competition (GPC), Michael Mazarr of RAND rests his contrarian view on a very narrow definition of *classic Great Power competition*, which he argues must feature a set of potential enemies with constantly shuffling allegiances and rivalries that typically manifest in military forms of competition. As detailed in chapter 2 of this volume, Mazarr's stimulating viewpoint does not comport with a detailed examination of modern GPC—a history that has included bipolar competition as well as multipolar competition and has consistently involved a wide array of overlapping patterns of collaboration and confrontation in economics, ideas, information exchange, diplomacy, and militaries. See Michael J. Mazarr, "This Is Not a Great-Power Competition: Why the Term Doesn't Capture Today's Reality," *Foreign Affairs*, May 29, 2019, available at <www.foreignaffairs.com/articles/2019-05-29/not-great-power-competition>.

[33] Kurt M. Campbell and Jake Sullivan, "Competition Without Catastrophe," *Foreign Affairs* 98, no. 5 (September/October 2019), 98–101.

[34] For examples of some overwrought calls for Washington to invoke a Cold War against China, see Newt Gingrich, *Trump vs. China: Facing America's Greatest Threat* (New York: Hachette Book Group, 2019); Giselle Donnelly, "What America Needs Is a 'Good,' Long Cold War," American Enterprise Institute, February 10, 2020. For a concise listing of five reasons why the Sino-American strategic competition is not a new Cold War, see Michael Brown et al., *Preparing the United States for the Superpower Marathon with China* (Washington, DC: Brookings Institution, April 2020), 3–5.

[35] Valuable competitive mindset dynamics from the Cold War are different from Cold War strategies and are detailed below, including those found in Stephen M. Walt, "Yesterday's Cold War Shows How to Beat China Today," *Foreign Policy*, July 29, 2019, available at <https://foreignpolicy.com/2019/07/29/yesterdays-cold-war-shows-how-to-beat-china-today/>. Also see Campbell and Sullivan, "Competition Without Catastrophe," 101–107.

[36] Other key differences between today's Sino-American dyadic competition and the Cold War are mentioned in chapter 3a of this volume. By way of extension, China is the one rising Great Power with the positivist ideology and power potential to supplant the preferred U.S. international order. However, in 2020, China is not exporting its ideology aggressively or globally. Unlike the Soviet Union, which aggressively sought the destruction of the United States in the hearts and minds of countries it wanted to become future Communist states, China today has not called for the destruction of the United States and wants the world to be tolerant of its CCP-driven ideology. See Evan Osnos, "The Future of America's Contest with China," *The New Yorker*, January 6, 2020, available at <https://www.newyorker.com/magazine/2020/01/13/the-future-of-americas-contest-with-china>; Odd Arne Westad, "The Sources of Chinese Conduct: Are Washington and Beijing Fighting a New Cold War?" *Foreign Affairs* 98, no. 5 (September/October 2019), 86–95.

[37] See Walt, "Yesterday's Cold War Shows How to Beat China Today."

[38] Edgar Crammond, "The Economic Relations of the British and German Empires," *Journal of the Royal Statistical Society* 77, no. 8 (July 1914), 777–824.

[39] Alexander Grab, *Napoleon and the Transformation of Europe* (New York: Palgrave, 2003), 28–33.

[40] See "1991: Trade in Goods with USSR," United States Census Bureau, available at <https://www.census.gov/foreign-trade/balance/c4610.html#1991>.

[41] Osnos, "The Future of America's Contest with China."

[42] In addition to the extremely high economic costs to the United States from fully decoupling all intertwined supply chains, China could take punitive steps that would impose high costs on an

array of other activities that today are taken for granted in the United States, including, but not limited to, large restraints or high taxes on commercial travel, greater use of non–dollar denominated currencies for international transactions, disruptive manipulation of its own currency and international commercial financial markets, and a resistance to working jointly on a wide array of other mutual issues and interests. See Keith Johnson and Robbie Gramer, "The Great Decoupling," *Foreign Policy*, May 14, 2020, available at <https://foreignpolicy.com/2020/05/14/china-us-pandemic-economy-tensions-trump-coronavirus-covid-new-cold-war-economics-the-great-decoupling/>; Henry M. Paulson, Jr., "Delusions of Decoupling," remarks at the New Economy Forum, Beijing, November 2019, available at <https://www.paulsoninstitute.org/wp-content/uploads/2019/11/Delusions-of-Decoupling.pdf>; Osnos, "The Future of America's Contest with China"; Campbell and Sullivan, "Competition Without Catastrophe," 99.

[43] Kevin Rudd, "To Decouple or Not to Decouple?" Robert F. Ellsworth Memorial Lecture, University of San Diego, November 4, 2019.

[44] This is not to imply that there are not costs and frustrations to alliances and partnership; there are. But the costs of American alliances are actually less burdensome than they are portrayed and more diverse and significant than appreciated. See Brands and Fever, "Reevaluating Diplomatic and Military Power," 25–30. For similar points, see Walt, "Yesterday's Cold War Shows How to Beat China Today"; Mira Rapp-Hooper, "Saving America's Alliances: The United States Still Needs the System that Put It on Top," *Foreign Affairs* 99, no. 2 (March/April 2020), 127–140.

[45] See *U.S.-India Joint Strategic Vision for the Asia-Pacific and Indian Ocean Region* (Washington, DC: The White House, January 25, 2015), available at <https://obamawhitehouse.archives.gov/the-press-office/2015/01/25/us-india-joint-strategic-vision-asia-pacific-and-indian-ocean-region>; *Japan and India Vision 2025 Special Strategic and Global Partnership* (Tokyo: Ministry of Foreign Affairs of Japan, December 12, 2015), available at <https://www.mofa.go.jp/s_sa/sw/in/page3e_000432.html>.

[46] See Ashley Tellis, Alison Szalwinski, and Michael Wills, *Strategic Asia 2020: U.S.-China Competition for Global Influence* (Seattle: National Bureau of Asian Research, 2019), 41–42; Joseph S. Nye, Jr., "Power and Interdependence with China," *The Washington Quarterly* 43, no. 1 (Spring 2020), 15, 19.

[47] As of 2018, 70 percent of countries traded more with China than they did with the United States. In 1980, 80 percent traded more with the United States than China. See Alyssa Leng and Roland Rajah, "Chart of the Week: Global Trade Through a U.S.-China Lens," *The Interpreter*, December 18, 2019, available at <https://www.lowyinstitute.org/the-interpreter/chart-week-global-trade-through-us-china-lens>. At the same time, the United States continues to enjoy unrivaled power from its large commercial financial institutions and the dollar's unrivaled status as the global reserve currency—neither of which is likely to be challenged by China in the near term. See Nye, "Power and Interdependence with China," 15; see also appendix B of this volume, available at <https://ndupress.ndu.edu/Contemporary-GPC-Dynamics-Matrix/>.

[48] Ali Wyne, "How to Think About Potentially Decoupling from China," *Washington Quarterly* 43, no. 1 (Spring 2020), 47.

[49] The concept of *partial disengagement* is derived from Charles W. Boustany, Jr., and Aaron L. Friedberg, *Partial Disengagement: A New U.S. Strategy for Economic Competition with China*, NBR Special Report No. 82 (Seattle: National Bureau of Asian Research, November 2019); Aaron L. Friedberg and Charles W. Boustany, Jr., "Partial Disengagement: A New U.S. Strategy for Economic Competition with China," *Washington Quarterly* 43, no. 1 (Spring 2020), 23–40. A similar construct that focuses beyond economics and on the military, political, and diplomatic domains of Sino-American competition is found in Campbell and Sullivan, "Competition Without Catastrophe," 101–110.

[50] Boustany and Friedberg, *Partial Disengagement*, 26–35.

[51] Most of these ideas are developed in some detail in Boustany and Friedberg, *Partial Disengagement*, 22–25. This approach requires the United States and its allies to cooperate in the reform and advancement of existing international organizations rather than abandon them. The dangers of abandonment are clear, for China has demonstrated an ability to fill the vacuum left by the United States and push for its own interests and agendas. See Colum Lynch and Elias Groll, "As U.S. Retreats from World Organizations, China Steps in to Fill the Void," *Foreign Policy*, October 6, 2017, available at <https://foreignpolicy.com/2017/10/06/as-u-s-retreats-from-world-organizations-china-steps-in-the-fill-the-void/>; Alex Pascal, "Against Washington's 'Great Power' Obsession," *The Atlantic*, September 23, 2019, available at <www.theatlantic.com/politics/archive/2019/09/multilateralism-nearly-dead-s-terrible-news/598615/>.

[52] Among the many appealing for America to rethink and join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, see Boustany and Friedberg, *Partial Disengagement*, 24.

[53] The challenges to fully engaging India economically are significant, but India continues to look seriously at beginning the vital processes of reducing economic protectionism and modernizing land, labor, and environmental laws. See Bill Spindle and Rajesh Roy, "India's Coronavirus Crisis Spurs a New Look at Self-Reliance," *Wall Street Journal*, May 17, 2020, available at <www.wsj.com/articles/indias-coronavirus-crisis-spurs-a-new-look-at-self-reliance-11589724001?mod=itp_wsj&ru=yahoo>.

[54] Harvard Economist and Asia Center Senior Fellow William Overholt makes this point powerfully in many venues, including William H. Overholt, *China and America: The Age of Realist Geoeconomics* (Atlanta: The Carter Center, January 2018); William H. Overholt, "The Enemy Is Us," *The International Economy* (Summer 2015), 46–53.

[55] For the important role U.S. Government subsidization and promotion of agriculture played during the Cold War, see Shane Hamilton, *Supermarket USA: Food and Power in the Cold War Farms Race* (New Haven: Yale University Press, 2018).

[56] For detail, see Walt, "Yesterday's Cold War Shows How to Beat China Today."

[57] Osnos, "The Future of America's Contest with China."

[58] These ideas are from Taleb in Avishai, "The Pandemic Isn't a Black Swan."

[59] Charles Edel and Hal Brands, "The Real Origins of the U.S.-China Cold War," *Foreign Policy*, June 2, 2019, available at <https://foreignpolicy.com/2019/06/02/the-real-origins-of-the-u-s-china-cold-war-big-think-communism/>.

[60] Many Chinese leaders cannot believe that the Obama administration did not react more strongly to the 2010 seizure of Scarborough Shoal and the 2014 arming of it despite Chairman Xi Jinping's promise to Obama that year that China had no intention of doing so. These Chinese officials indicate that a firm U.S. and allied response can moderate intemperate Chinese aggression in the Indo-Pacific region. See Osnos, "The Future of America's Contest with China."

[61] Denny Roy, "China Won't Achieve Regional Hegemony," *Washington Quarterly* 43, no. 1 (Spring 2020), 105–106.

[62] For variations on this misguided notion, see Graham Allison, "The New Spheres of Influence: Sharing the Globe with Other Great Powers," *Foreign Affairs* 99, no. 2 (March/April 2020), 30–40; Fareed Zakaria, "The New China Scare: Why America Shouldn't Panic About Its Latest Challenger," *Foreign Affairs* 99, no. 1 (January/February 2020), 52–69.

[63] Edel and Brands, "The Real Origins of the U.S.-China Cold War."

[64] Osnos, "The Future of America's Contest with China."

[65] Choosing proper allies also was a competitive mindset success for the United States during the Cold War. See Walt, "Yesterday's Cold War Shows How to Beat China Today."

[66] Michael Broers, "Pride and Prejudice: The Napoleonic Empire Through the Eyes of Its Rulers," in *Napoleon's Empire: European Politics in Global Perspective*, ed. Ute Planert (Houndmills, Basingstoke: Palgrave Macmillan, 2016), 307–317; Michael V. Leggiere, "Enduring Strategic Rivalries: Great Britain vs. France During the French Wars (1792–1815)," in *Great Strategic Rivalries: From the Classical World to the Cold War*, ed. James Lacey (New York: Oxford University Press, 2016), 289–390, available at <https://global.oup.com/academic/product/great-strategic-rivalries-9780190620462?cc=us&lang=en&#>.

[67] Nye, "Power and Interdependence with China," 16.

[68] "Don't Be Fooled by the Trade Deal Between America and China," *The Economist*, January 2, 2020, available at <www.economist.com/leaders/2020/01/02/dont-be-fooled-by-the-trade-deal-between-america-and-china>.

[69] Nye, "Power and Interdependence with China," 15–17.

[70] Campbell and Sullivan, "Competition Without Catastrophe," 110.

[71] See Stuart Anderson, "What Will Trump Do Next with Chinese Student Visas," *Forbes*, October 18, 2018, available at <www.forbes.com/sites/stuartanderson/2018/10/18/what-will-trump-do-next-with-chinese-student-visas/#453fb89757a4>.

[72] See John Hudson and Souad Mekhennet, "G-7 Failed to Agree on Statement After U.S. Insisted on Calling Coronavirus Outbreak 'Wuhan Virus,'" *Washington Post*, March 25, 2020, available at <www.washingtonpost.com/national-security/g-7-failed-to-agree-on-statement-after-us-insisted-on-calling-coronavirus-outbreak-wuhan-virus/2020/03/25/f2bc7a02-6ed3-11ea-96a0-df4c5d9284af_story.html>; Jo Kim, "The Chinese People Step Up to Enforce China's Nationalist Propaganda," *The Diplomat*, May 5, 2020, available at <https://thediplomat.com/2020/05/the-chinese-people-step-up-to-enforce-chinas-nationalist-propaganda/>.

[73] Demetri Sevastopulo, "Trump Threatens to Cut Off Relations with China," *Financial Times*, May 15, 2020, available at <www.ft.com/content/cfbba6bf-3de5-458d-92d1-a62fb958a354>.

[74] Minxin Pei, "China's Coming Upheaval: Competition, the Coronavirus, and the Weakness of Xi Jinping," *Foreign Affairs* 99, no. 3 (May/June 2020), 82–106.

[75] See Eva Dou, "In China-U.S. Showdown, Beijing's Steely Propagandist Sharpens Her Attack," *Washington Post*, May 21, 2020, available at <www.washingtonpost.com/world/asia_pacific/in-china-us-showdown-beijings-steely-propagandist-sharpens-her-attack/2020/05/21/f71133e4-94bd-11ea-87a3-22d324235636_story.html>.

[76] Chun Han Wong and Chao Deng, "China's 'Wolf Warrior' Diplomats Are Ready to Fight," *Wall Street Journal*, May 19, 2020, available at <www.wsj.com/articles/chinas-wolf-warrior-diplomats-are-ready-to-fight-11589896722>; Jamie Dettmer, "China's 'Wolf Warrior' Diplomacy Prompts International Backlash," Voice of America, May 6, 2020, available at <www.voanews.com/covid-19-pandemic/chinas-wolf-warrior-diplomacy-prompts-international-backlash>; Lily Ko, "Australia Called 'Gum Stuck to China's Shoe' by State Media in Coronavirus Investigation Stoush," *The Guardian*, April 28, 2020, available at <www.theguardian.com/world/2020/apr/28/australia-called-gum-stuck-to-chinas-shoe-by-state-media-in-coronavirus-investigation-stoush>; John Ross, "China Warns of Student Boycott of Australia," *Inside Higher Education*, May 1, 2020, available at <www.insidehighered.com/news/2020/05/01/china-warns-australia-student-boycott>.

[77] Kim, "The Chinese People Step Up to Enforce China's Nationalist Propaganda"; Vicky Xiuxhong Xu, "China's Youth Are Trapped in the Cult of Nationalism," *Foreign Policy*, October 1, 2019, available at <https://foreignpolicy.com/2019/10/01/chinas-angry-young-nationalists/>.

[78] *Remarks by Deputy National Security Advisor Matt Pottinger to the Miller Center at the University of Virginia* (Washington, DC: The White House, May 4, 2020), available at <https://www.whitehouse.gov/briefings-statements/remarks-deputy-national-security-advisor-matt-pottinger-miller-center-university-virginia/>.

[79] For details on the organizations involved in international propaganda and influence activities, see appendix 1 in Larry Diamond and Orville Schell, eds., *China's Influence & American Interests: Promoting Constructive Vigilance* (Stanford: Hoover Institution Press, 2019), 133–141. Some former policymakers specifically focus on the Chinese Ministry of State Security, the United Front Work Department, and the Chinese Students and Scholars Association as ones for attention to counter CCP-driven propaganda. See McMaster, "How China Sees the World."

[80] Osnos, "The Future of America's Contest with China."

[81] Proper "safeguards" for Chinese student, teacher, and research visas should include very tight limitations on Confucius Institutes in the United States to eliminate their revealed role in espionage, monitoring, and thought-policing on behalf of the CCP. The ideas for American policy valuing the Chinese people while holding the CCP accountable includes McMaster, "How China Sees the World."

[82] Strategic patience during the Cold War also was an American competitive mindset virtue. See Walt, "Yesterday's Cold War Shows How to Beat China Today."

[83] See Pei, "China's Coming Upheaval"; "Revised Demographic Forecasts for China: Key Takeaways," *The Economist*, July 2, 2019; William H. Overholt, *China's Crisis of Success* (Cambridge: Cambridge University Press, 2018).

[84] See William H. Overholt, "The West Is Getting China Wrong," *East Asia Forum*, August 11, 2018, available at <https://www.eastasiaforum.org/2018/08/11/the-west-is-getting-china-wrong/>; Yasheng Huang, "China Has a Big Economic Problem and It Isn't the Trade War," *New York Times*, January 17, 2020.

[85] Wyne, "How to Think About Potentially Decoupling from China," 41–64.

[86] For similar conclusions, see Nye, "Power and Interdependence with China," 13; Wyne, "How to Think About Potentially Decoupling from China," 50–52.

[87] Osnos, "The Future of America's Contest with China"; Martin Wolf, "The Looming 100-Year U.S.-China Conflict," *Financial Times*, June 4, 2019.

[88] Osnos, "The Future of America's Contest with China."

[89] For a detailed assessment of options for a U.S. strategic mindset for competition with China, see chapter 14 of this volume.

[90] On Acheson, see Robert Kagan, "How Dean Acheson Won the Cold War: Statesmanship, Morality, and Foreign Policy," Carnegie Endowment for International Peace, September 14, 1998, available at <https://carnegieendowment.org/1998/09/14/how-dean-acheson-won-cold-war-statesmanship-morality-and-foreign-policy-pub-260>.

[91] *The National Security Strategy of the United States of America* (Washington, DC: The White House, September 2002), available at <http://nssarchive.us/national-security-strategy-2002/>.

[92] *The National Security Strategy of the United States of America* (Washington, DC: The White House, December 2017), available at <http://nssarchive.us/wp-content/uploads/2020/04/2017.pdf>.

[93] See Nye, "Power and Interdependence with China," 16.

[94] *The National Security Strategy of the United States of America* (2017).

[95] McMaster, "How China Sees the World."

Appendix A

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Appendix B

Contemporary Great Power Dynamics Competition Matrix

Available at <https://ndupress.ndu.edu/Contemporary-GPC-Dynamics-Matrix/>

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