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Rising to the China Challenge

Renewing American Competitiveness in the Indo-Pacific

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Foundational Principles

of U.S. Strategy in the Indo-Pacific

The United States and China are locked in strategic competition over the future of the Indo-Pacific—the most populous, dynamic, and consequential region in the world. At stake are competing visions for the rules, norms, and institutions that will govern international relations in the decades to come.¹

The U.S. government aspires toward a “free and open” Indo-Pacific, defined by respect for sovereignty and the independence of nations, peaceful resolution of disputes, free and fair trade, adherence to international law, and greater transparency and good governance.² For the United States, successful realization of this regional order would include strong U.S. alliances and security partnerships; a military able to operate throughout the region, consistent with international law; U.S. firms with access to leading markets, and benefiting from updated technology standards, investment rules, and trade agreements; U.S. participation in effective regional and international institutions; and the spread of democracy and individual freedoms in the context of an open information environment and vibrant civil society.³

By contrast, China is driving toward a more closed and illiberal future for the Indo-Pacific, core aspects of which would undermine vital U.S. interests.⁴ Key features of China-led order would include the People’s Liberation Army controlling the South and East China Seas; regional countries sufficiently coerced into acquiescing to China’s preferences on military, economic, and diplomatic matters; an economic order in which Beijing sets trade and investment rules in its favor, with dominance over leading technologies, data, and standards; and Beijing with de facto rule over Taiwan and agenda-setting power over regional institutions. The order would be further characterized by weak civil society, a dearth of independent media, and the gradual spread of authoritarianism, reinforced by the proliferation of China’s high-tech surveillance state. The net result would be a less secure, less prosperous United States that is less able to exert power and influence in the world.⁵

Ultimately, the competition between the United States and China in the Indo-Pacific is a contest over which of these futures will come closer to fruition, even as neither is likely to attain in its entirety. In the two years since the 2017 National Security Strategy and 2018 National Defense Strategy aptly identified this competition over the regional order in Asia, the U.S. government has taken initial steps toward its goal of a free and open region. On balance, however, critical areas of U.S. policy remain inconsistent, uncoordinated, underresourced, and—to be blunt—uncompetitive and counterproductive to advancing U.S. values and interests.

This independent assessment—mandated by the U.S. Congress in the 2019 National Defense Authorization Act—is intended to help close the considerable gap between the current administration’s stated aspirations for a free and open Indo-Pacific and the actual implementation of policies to advance that vision. Specifically, Congress called for “an assessment of the geopolitical conditions in the Indo-Pacific region that are necessary for the successful implementation of the National Defense Strategy,” with a particular focus on how to “support United States military requirements for forward defense, assured access, extensive forward basing, and alliance and partnership formation and strengthening in such region.”⁶

This report examines how the U.S. government as a whole, not just the Department of Defense, can realize these outcomes. Although the focus of this assessment is on the Indo-Pacific, it is critical to underscore that the China challenge is a global phenomenon, and many of the actions recommended in this report should be taken to bolster U.S. competitiveness beyond the region.

Consistent with the bipartisan mission of the Center for a New American Security, the report’s authors have collectively served on both sides of the aisle in Congress and in the administrations of Presidents George W. Bush, Barack Obama, and Donald Trump at the White House, State Department, Defense Department, Treasury Department, Central Intelligence Agency, and Office of the U.S. Trade Representative.

Included herein are nearly a hundred specific and actionable policy recommendations across critical vectors of American competitiveness in the Indo-Pacific. Before turning to these recommendations, the remainder of this section describes six core principles that undergird the assessment and should form the foundations of U.S. strategy in the Indo-Pacific region.

1. The U.S. government should approach strategic competition with China as an urgent priority.

Business as usual in Washington will be insufficient to address the China challenge in the Indo-Pacific. Among the most important contributions of the National Defense Strategy is this simple statement: “Inter-state strategic competition, not terrorism, is now the primary concern in U.S. national security.”⁷ This is correct: The China challenge—too often described as a problem for the future—is here and now.

As is manifest throughout this report, the United States is at risk of losing strategic advantage to China

across several critical domains and in ways that would have deep and enduring effects on America’s ability to advance its values and interests in the region. This is no reason for panic or pessimism, but a number of troubling trends should nevertheless sharpen America’s strategic focus on the scale and scope of the China challenge. The local military balance in Asia, for instance, is already approaching parity in certain areas, putting at risk America’s ability to deter Chinese aggression.⁸ Meanwhile, China is poised to surpass the United States in gross domestic product, while racing ahead to gain technological advantage in key areas such as artificial intelligence, quantum computing, and genomics. Beijing is similarly outpacing Washington with a more focused and innovative approach to diplomacy and economic development in the Indo-Pacific. America, by comparison, has too often been distracted, reactive, and flat-footed. Moreover, Washington continues to disproportionately direct federal resources toward Europe and the Middle East, which is inconsistent with the National Security Strategy and National Defense Strategy.⁹

China’s resurgence is partially the result of a natural redistribution of power and influence in the world. In many areas, however, eroding U.S. advantages in the Indo-Pacific are within America’s power to arrest and reverse. Doing so will require substantially greater attention and resources than have been applied to date. Renewing American competitiveness will not come cheaply—several recommendations herein call for committing considerable amounts of money, senior-level attention, and bureaucratic focus. This demands prioritizing the China challenge in the Indo-Pacific not only with a greater sense of urgency, but also with a willingness to make hard tradeoffs in other regions and with other issues. Managing the China challenge should be an organizing principle of U.S. foreign policy, not just one among many other pressing priorities in the world.

2. U.S. strategy must be both comprehensive and coordinated across multiple domains.

The United States needs a strategy toward the Indo-Pacific that is both comprehensive in breadth and coordinated in execution. Unlike the Cold War with the Soviet Union, the competition with China will not be waged principally in the military sphere; sustaining deterrence will be essential but not sufficient. A core argument of this report is that bending the Indo-Pacific to a freer and more open future will require the United States to compete effectively across several critical domains, including economics, technology, diplomacy, ideology, governance, and human capital.

Moreover, the whole of the competition is greater than the sum of its parts. Seemingly distinct issues interact and are mutually reinforcing in powerful ways: Technological advantage is a key driver of economic and military power; economic influence shapes decisions on politics and security; diplomacy reinforces military alliances and partnerships; the information environment shapes perceptions of relative power; and competing effectively in every one of these domains requires serious talent management strategies with commensurate investments in human capital. None of these areas should be treated as disparate arenas of the competition.¹⁰

The demand for a comprehensive strategy toward China has significant implications for how the U.S. government should organize in response. Without question, Washington will need a whole-of-government approach that coordinates U.S. policy across multiple issue areas.¹¹ This will require institutional innovations in the U.S. government that cut across traditional bureaucratic lines. Moreover, as is argued throughout this report, Washington will need to enlist a broader set of stakeholders in bolstering U.S. competitiveness, including technology companies, media, universities, civil society, and the private sector. Viewing the China competition through the lens of a whole-of-society approach is necessary and will require further reforms to the ways in which U.S. policy is made and implemented.

3. Strengthening America’s own competitiveness is vital to realizing a free and open Indo-Pacific.

America’s own competitiveness will be the dominant determinant of how the regional order in the Indo-Pacific evolves. U.S. policymakers should—in every dimension of the competition—begin by assessing what Washington can do to make America run faster and jump higher. The United States should take many of the actions recommended herein regardless, but doing so is all the more urgent in the context of strategic competition with China. As each section of this report demonstrates, there is a panoply of steps the United States can take to bolster its own power, thereby sustaining key advantages and reversing areas of strategic decline in the Indo-Pacific.

U.S. policymakers should proceed with the conviction and confidence that the foundations of American power are strong: Its people, demography, geography, abundant energy resources, dynamic private sector, powerful alliances and partnerships, leading universities, robust democracy, and innovative spirit give the United States everything it needs to preserve and advance its interests in the Indo-Pacific.¹² Many of these strengths stand in

stark contrast to a number of obstacles China faces, including its slowing economy, poor demographics, devastated environment, repressive government, and weak rule of law.

Nevertheless, U.S. advantages are neither preordained nor permanent. As is outlined throughout this report, competing more effectively in the region will require greater focus on sustaining core sources of U.S. power and cultivating new ones. This should include protecting the strength of the U.S. financial system, putting greater resources toward research and development, investing in education, developing human capital, leveraging high-skilled immigration, and defending America's democratic way of life.

At the same time, the U.S. government will have to be resourced to reflect the central importance of the Indo-Pacific, ensuring that the relevant bureaucracies—including the State Department, Commerce Department, Treasury Department, Justice Department, and White House—have the people and skills they need to compete in the 21st century. Beyond the issue of resources, U.S. policymakers will have to exhibit high levels of entrepreneurship inside the U.S. government. Existing U.S. departments and agencies will have to be supplemented with new institutions designed to develop and coordinate policy on critical issues, including development finance and public diplomacy. In response to the China challenge, U.S. policymakers will be further tasked with developing new tools of economic statecraft and novel military operational concepts.

4. The United States must compete with and for allies and partners.

At its core, the China challenge in the Indo-Pacific is a problem of both scale and geography. Although the United States still possesses several natural advantages in the region, U.S. policymakers will find it increasingly difficult to generate unilateral solutions to the coercive power Beijing can bring to bear with its growing military and outsized domestic market. This means, in part, that it is no longer viable for the United States to pursue a policy aimed at achieving uncontested dominance.¹³ Instead, as is argued throughout this assessment, coalition building will be essential on nearly every major issue in the Indo-Pacific.

The United States is entering this phase of the competition with China with a key advantage in alliances—with Australia and Japan, as well as NATO, the

Philippines, South Korea, and Thailand—and several partnerships—including with India, Indonesia, Malaysia, Singapore, Taiwan, and Vietnam—that harbor the potential to play consequential roles in the region. Nevertheless, U.S. policy will have to reflect the reality that countries in the region all view China to differing degrees as both an economic opportunity and geographic reality. As a result, attempts to construct an explicitly anti-China alliance will fail. At the same time, countries in the region, by and large, do not want to live in an illiberal China-led order. This presents opportunities for the United States to build meaningful regional partnerships.

Nevertheless, Washington will have to address the pervasive doubts in the Indo-Pacific about the enduring commitment of the United States to the region.¹⁴ As long as capitals are uncertain about America's staying power, they will be reluctant to partner with Washington or stand up to Beijing. In the absence of a more competitive U.S. strategy, other countries will perceive the inevitability of a Sino-centric region, thereby coming to accept certain elements of China's illiberal order regardless of their preferences for American leadership. It is therefore imperative for the United States to provide viable alternatives across issue areas that address the long-term economic, political, and security interests of regional states, and to stick to its commitments.

U.S. strategy should further focus on strengthening the resiliency of regional states against China's political, economic, and military coercion. Bolstering U.S. partners can take a number of forms, as are recommended throughout this report, including strengthening regional institutions, offering targeted military assistance, supporting civil society and anti-corruption initiatives, and providing development finance and human capital training. Rather than being cast as anti-China, this engagement should lead with an affirmative agenda of prioritizing sovereignty and political independence that is free from coercion.

Finally, Washington should leave the door open for cooperation with Beijing, even as it mounts a more competitive strategy in the region. There are areas where, if possible, it would be squarely in America's interest to collaborate with China in the Indo-Pacific, including climate change and energy, global public health, and nonproliferation. Pursuing cooperative efforts with Beijing will not only advance U.S. interests but also send an important message to the region that the United States is not seeking an all-out confrontation with China.

5. The United States should be proactive in building regional order in the Indo-Pacific, establishing new rules, norms, and institutions.

In pursuit of a free and open Indo-Pacific, the United States will have to present an affirmative vision that goes beyond blunting China's illiberal order. Critically, however, Washington's aspirations for the region's future cannot simply be cast as a return to the past. The postwar international order played a vital role in bringing peace and prosperity to Asia, but it has proved insufficient in curbing China's ability and desire to challenge vital U.S. interests in the region.¹⁵ Moreover, new contested domains—including in economics, defense, technology, and information—are emerging in the Indo-Pacific for which the existing rules and institutions are largely silent or inadequate.

As a result, U.S. strategy in the Indo-Pacific should focus on revising the regional order with updated norms, rules, and institutions that are better suited to the realities of the 21st century. To some extent, this will mean modernizing existing bodies. That alone, however, will not be sufficient. Each section of this report offers recommendations for the building blocks of a new regional order that goes beyond simply reinforcing the postwar system. These include specific proposals for advancing new trade and technology standards, new multilateral mechanisms to coordinate on technology issues, new human rights norms associated with digital freedom and access to information, a more networked regional security architecture, and new cooperative efforts on issues such as artificial intelligence, telecommunications, and development finance. Rather than being largely reactive to China's new initiatives, U.S. policymakers should ensure that innovation and entrepreneurship are the watchwords of America's approach to the Indo-Pacific.

6. There is no easy way out of the China challenge.

Achieving long-term stability in the Indo-Pacific will first require a period of intensified competition with China. Even as the United States aspires to a more cooperative relationship—or at least a better-managed competition with Beijing—current realities necessitate greater tension in the near term.¹⁶ At present, the continued erosion of U.S. strategic advantage is creating a permissive environment for Chinese assertiveness and increasing the likelihood of confrontation and conflict. A more competitive United States could reverse these

trends and help stabilize Asia, setting the context for a new strategic equilibrium with Beijing, provided that U.S. policy is sophisticated enough to avoid a counterproductive rivalry.

Public education and engagement will be essential components of this effort: A more competitive U.S. strategy toward China will be neither effective nor sustainable without the informed support of the American people. Washington will have to accept and acknowledge that rising to the China challenge will require difficult sacrifices and tradeoffs. In doing so, U.S. leaders will have to explain the considerable stakes in the Indo-Pacific and be clear—especially with key stakeholders, including in industry and academia—about the requisite costs of renewing American competitiveness.

In particular, defending against China's predatory behavior and protecting key areas of competitive advantage will, in certain areas, affect economic efficiency and openness. There will be necessary costs to the United States' pursuing more secure and diversified supply chains, stronger export controls and investment restrictions, and enhanced visa-screening and counterespionage capabilities. Washington will have to be vigilant in striking the right balance between selective decoupling and continued interdependence, building appropriate boundaries and safeguards while still preserving the enormous benefits America accrues from its open society and economy.

There will also be specific issues—such as the internment camps in Xinjiang, intellectual property theft, and overseas political influence operations—where the United States will have to confront the Chinese Communist Party's most pernicious forms of coercion and illiberalism, even when Beijing is likely to retaliate. The United States should not needlessly provoke China, but neither can Washington be paralyzed by risk aversion.

Building public support for the policies recommended herein will require U.S. leaders to put forward clearer arguments about what is actually at stake for the American people beyond abstract or inside-the-Beltway assertions about the importance of U.S. leadership and the liberal international order. This should include public understanding of the real economic costs to Americans at all income levels if U.S. companies steadily lose access to leading markets; continue to be the victims of intellectual property theft and forced technology transfer; and are increasingly disadvantaged by China's anti-competitive economic policies and China-led standards, investment rules, and trading blocs. Similarly, there should be more public awareness of the heightened risk of conflict in

Asia if the United States finds itself with weaker alliances, fewer security partners, and a military forced to operate at greater distances.¹⁷ Finally, if China's model and tools of censorship, surveillance, and social credit systems become acceptable features of domestic governance and international affairs, there will be harmful effects on the individual freedoms of people around the world, including in the United States.

The China challenge cuts to the core of what Americans hold dear—their security, prosperity, and freedoms—and the locus of that challenge, and the test bed for who will emerge with the advantage, resides in the Indo-Pacific.

The following sections further elucidate these principles and offer specific, actionable recommendations for renewing American competitiveness in the Indo-Pacific. The report begins with the military competition, in part because of Congress's central question on the implementation of the National Defense Strategy, and in part because falling short in this domain would greatly diminish the likelihood of achieving a free and open Indo-Pacific. That said, it bears repeating that U.S. strategy must be competitive and comprehensive across several key domains, providing ample attention and resources to technology, economics, diplomacy, ideology, governance, and human capital.

This report focuses on seven critical vectors of American competitiveness:

- I. Sustaining Conventional Military Deterrence
- II. Securing Vital U.S. Technological Advantages
- III. Bolstering U.S. Economic Power and Leadership
- IV. Strengthening American Diplomacy
- V. Competing Over Ideology and Narrative
- VI. Promoting Digital Freedom and Countering High-Tech Illiberalism
- VII. Cultivating the Talent to Compete with China

The report concludes with a call for renewing America's spirit of bipartisanship, which is essential to the United States' ability to rise to the China challenge.

Policy Recommendations

in Sum

I. Sustaining Conventional Military Deterrence

Develop a new American way of war (p. 14)

- Design a new military strategy and novel joint operational concepts for China contingencies.
- Build a more resilient architecture for command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR).
- Build a combat-credible posture in the Indo-Pacific.
- Increase investments in critical munitions and munitions development.
- Develop concepts and capabilities for contested logistics.

Empower the Defense Department to harness America's national security innovation base (p. 17)

- Reform Defense Department organizations and processes, including requirements, programming and budgeting, and acquisition.
- Ensure the Department of Defense can develop, access, and leverage the latest technologies.
- Sustain and enhance a traditional and nontraditional defense industrial base that is robust, flexible, and resilient.

Strengthen and network U.S. allies and partners (p. 19)

- Develop ally and partner anti-access/area denial capabilities.
- Promote security networks among U.S. allies and partners.
- Build a common operating picture in Southeast Asia.
- Allow exemptions to the Countering America's Adversaries Through Sanctions Act (CAATSA) for countries seeking to balance against China.
- Support Indian military choices that create dilemmas for China in peacetime, crisis, and conflict.

II. Securing Vital U.S. Technological Advantages

Bolster America's innovation engine (p. 21)

- Increase research and development investments in the United States.
- Accelerate U.S. innovation in artificial intelligence through standards-setting, metrics, and horizon-scanning.
- Support U.S. innovation in artificial intelligence and machine learning by increasing the availability of government data and computing resources.
- Forge an alliance innovation base.

Protect critical U.S. technological advantages (p. 22)

- Secure semiconductor supply chains.
- Establish multilateral export controls on semiconductor manufacturing equipment and increase federal funding for next-generation hardware.
- Diversify sources of rare earth minerals.
- Expand export controls based on end use for certain products sold to China.

Counter illicit technology transfer (p. 24)

- Ensure sufficient resources for counterespionage investigations.
- Develop better collaboration between U.S. law enforcement and universities.
- Improve visa screening for espionage risks.
- Expand sanctions authorities to cut off from the U.S. market and financial system Chinese firms that steal U.S. technology.
- Include more People's Liberation Army-linked companies on the export regime Entity List.

Lead on developing new international rules, norms, and standards for emerging technologies (p. 25)

- Create a new grouping of advanced democracies to coordinate on technology policy.
- Engage more proactively in multilateral bodies that set technology standards.
- Lead internationally and engage with China on developing norms and principles for the use of emerging technologies.

III. Bolstering U.S. Economic Power and Leadership

Promote U.S. trade and investment in the Indo-Pacific (p. 28)

- Catalyze greater U.S. investment in the Indo-Pacific through the new U.S. International Development Finance Corporation, bilateral investment treaties, and the Export-Import Bank.
- Enhance U.S. commercial diplomacy in the Indo-Pacific at the Treasury, Commerce, and State departments.
- Expand technical assistance programs that bolster U.S. investment in the Indo-Pacific, including the Infrastructure Transaction and Assistance Network.
- Continue to support an open global trade and investment regime for energy resources.
- Include key Indo-Pacific partners in the Generalized System of Preferences program.

Strengthen and leverage America's financial power (p. 29)

- Promote financial market transparency by passing beneficial ownership disclosure requirements for U.S. companies.
- Delist foreign companies, including Chinese firms, that do not meet audit and disclosure requirements from U.S. exchanges.
- Discourage challenger currencies and payments.
- Develop and exercise strategic concepts for coercive economic statecraft.

Support U.S. leadership and innovation in financial technologies (p. 31)

- Create a regulatory framework for financial technology acceleration to compete against foreign jurisdictions, including China.
- Encourage development of blockchain payments applications.
- Fund and support rigorous education and academic research in blockchain technology.

Revise the economic order in the Indo-Pacific and globally (p. 32)

- Pursue new high-standard multilateral trade agreements in the Indo-Pacific and Europe.
- Use tariffs sparingly against allies and partners.
- Enhance U.S. cooperation with the World Bank and Asian Development Bank to support high-quality infrastructure projects in the Indo-Pacific.
- Lead on setting high standards for development finance.
- Update, strengthen, and reform the World Trade Organization.
- Make any additional tariffs against China more targeted.

IV. Strengthening American Diplomacy

Enhance diplomacy with the highest priority allies and partners in the Indo-Pacific (p. 34)

- Host a regular trilateral dialogue between the U.S., Japanese, and Australian national security advisors.
- Upgrade and institutionalize high-level bilateral diplomacy with key Asian partners, particularly India, Indonesia, and Vietnam.
- Strengthen diplomatic and security ties with Taiwan.
- Intensify cooperation with Europe on Indo-Pacific diplomacy.
- Proactively seek to resolve disputes between allies and partners, including in the South China Sea, as well as between Japan and South Korea.
- Continue to prioritize assistance to Asian states on energy and climate resilience and rejoin the Paris climate agreement.
- Selectively remove barriers to foreign and security assistance to strategic U.S. allies and partners in the Indo-Pacific.

Develop new diplomatic, political, and cultural exchanges with partner states (p. 37)

- Shift International Military Education and Training funding to the Defense Department and create a similar State Department program for foreign diplomats.
- Increase high-level visits to key allies and partners in the Indo-Pacific, including by U.S. congresspersons, mayors, and governors, and create a State-Commerce initiative to brief these officials properly.
- Ramp up youth exchanges and establish additional Fulbright Universities in the Indo-Pacific.
- Create an Asia-Pacific Center for Security Studies satellite office in the Indo-Pacific.

Deepen engagement with regional institutions in the Indo-Pacific (p. 38)

- Participate actively in Asia's leading multilateral institutions.
- Join or increase participation in South Asian and Indo-Pacific multilateral organizations where the United States is not sufficiently active.
- Coordinate with allies and partners on regional institutions in which the United States does not participate.

Restructure U.S. bureaucracies to better compete in the Indo-Pacific (p. 39)

- Increase key U.S. government staffs dedicated to the Indo-Pacific, including at the Treasury and State departments.
- Appoint a deputy assistant to the president for China responsible for coordinating a whole-of-government strategy.
- Create an independent bipartisan Commission on American Competitiveness.

V. Competing Over Ideology and Narrative

Strengthen U.S. public diplomacy in the Indo-Pacific (p. 41)

- Rebuild and enhance U.S. public diplomacy institutions.
- Optimize U.S. information efforts for social media and targeted audiences.
- Launch public diplomacy campaigns to highlight and promote U.S. economic initiatives, development assistance, and private-sector investments in the Indo-Pacific.

Expose China's illegal, aggressive, and repressive actions (p. 41)

- Communicate directly and more systematically to publics both at home and abroad about Beijing's malign activities.
- Redesign declassification processes to make it easier to release information publicly about the Chinese Communist Party's wrongdoings.
- Draw attention to the repression of Uighurs as a religious freedom issue and encourage Muslim communities in Southeast Asia and beyond to speak out.

Build resiliency to China's propaganda and influence operations (p. 42)

- Institute mandatory transparency for U.S. educational and civil society institutions receiving Chinese government funding.
- Require disclaimers on direct foreign government propaganda, including through reform of the Foreign Agents Registration Act.
- Help to root out Chinese Communist Party influence in key allies and partners.

VI. Promoting Digital Freedom and Countering High-Tech Illiberalism

Bolster America's digital engagement in the Indo-Pacific (p. 44)

- Establish a new U.S. Digital Development Fund that would, in coordination with allies, support information connectivity projects in the Indo-Pacific and beyond.
- Direct the new U.S. International Development Finance Corporation to support projects in the Indo-Pacific that provide alternatives to China's digital infrastructure.
- Augment U.S. digital diplomacy in the Indo-Pacific with additional digital attachés and high-level "digital delegations."

Prevent China's dominance of digital infrastructure in the Indo-Pacific (p. 45)

- Revitalize global competition in 5G wireless technology.
- Increase pressure on Huawei's 5G ambitions while honing the current U.S. approach to the company.
- Actively reject the notion of "internet sovereignty" and advance access to fact-based information as a universal human right.

Challenge China's surveillance state domestically and overseas (p. 46)

- Leverage America's economic toolkit to target actors facilitating the spread of China's high-tech illiberalism.
- Design new means to circumvent China's "Great Firewall."
- Promote independent media, civil society, and government accountability throughout the Indo-Pacific.

VII. Cultivating the Talent to Compete with China

Empower the U.S. military to compete in the battle for talent (p. 49)

- Broaden military recruitment strategies to leverage America's talents.
- Rapidly scale military talent management initiatives across active and reserve components.
- Modernize military training, education, and incentives for technical, regional, and language skills.

Strengthen the civilian national security workforce (p. 50)

- Generate leadership expectations of human capital management, including national security civilian readiness metrics.
- Modernize and reduce barriers in federal hiring processes.
- Jump-start civilian professional development to build high-demand skills.
- Enhance talent mobility across the national workforce.
- Update federal education fellowships for great-power competition.

Invest in the public-private technology workforce (p. 51)

- Surge support for science, technology, engineering, and math education across secondary, postsecondary, vocational, and workforce retraining levels.
- Raise the overall cap for H-1B visas and remove the cap for advanced-degree holders entirely.
- Improve workforce mobility between private sector and government technology roles.
- Identify and appropriately staff critical technology roles in government.

Critical Vectors

of American Competitiveness

I. Sustaining Conventional Military Deterrence

Maintaining a favorable balance of power will be essential to achieving America's long-term aims in the Indo-Pacific. Even as the military dimensions of the U.S.-China competition are likely to feature less prominently than in the U.S.-Soviet rivalry of the Cold War, the erosion of conventional deterrence in Asia would threaten to undermine the full range of U.S. economic and political interests in the region. While the United States still retains an overall military advantage over China, the gap has closed considerably over the last two decades and, absent urgent change, the regional balance may tip in China's favor by the late 2020s or early 2030s. In certain scenarios, the military balance may already disadvantage the United States.

China's military strategy has been predominantly asymmetric, seeking to disrupt, disable, or destroy the critical systems that enable U.S. military advantage. Responding to the asymmetric character of this competition poses an enormous challenge to the Defense Department (DoD) because it goes to the core of how the Joint Force fights wars, how the Pentagon and the defense industrial base develop technology, and how U.S. allies and partners build their armed forces. The National Defense Strategy and the Indo-Pacific Strategy Report pointed in the right direction to arrest and reverse these trends. Nevertheless, without requisite prioritization, forward-looking ideas, and consistent funding, subsequent shifts could end up being too little, too late.

In short, the United States needs a new American way of war. The underlying military problem is that U.S. warfighting concepts and forces remain vulnerable to Chinese "systems destruction warfare," which attacks critical nodes to create systemic effects.¹⁸ The challenges that need to be addressed are numerous: U.S. air bases, aircraft carriers, and surface vessels are too vulnerable to Chinese air and missile attacks; current U.S. systems for command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) are brittle in the face of Chinese cyberattacks, electronic warfare, and long-range strikes; U.S. logistics systems, ports, and airfields are vulnerable to cyberdisruptions and physical attacks; and the Joint Force lacks sufficient precision-guided munitions. All of these shortcomings must be addressed with considerable focus and urgency.

To implement a new military strategy, the U.S. government will also have to change the way it does business. Reforming back-office processes cannot be pursued as an administrative sideshow, but rather as a foundation

to America's ability to compete more effectively. The Defense Department should revise its requirements, programming and budgeting, and acquisition processes to support and access the latest technological innovations. Bold and sustained leadership will be necessary at the Defense Department, at the White House, in the military services, and in the U.S. Congress to overcome powerful pockets of resistance that remain committed to legacy platforms and existing business models.

Finally, the United States should make a concerted push to reshape the regional balance of power by further networking the regional security environment and building the capacity of key partners. This should include developing closer military ties that could be leveraged in crisis or conflict, as well as supporting the ability of frontline states to better deter Chinese coercion and aggression. To do so, the United States should help regional militaries—prioritizing Taiwan, Japan, Vietnam, and the Philippines—develop the ability to challenge China's power-projection capabilities.

Different parts of the region will require different fixes. In some cases, the threat of sanctions against countries with security ties with Russia should be eased to facilitate balancing against China. Where more advanced military cooperation is neither technically nor politically feasible—as is the case throughout much of Southeast Asia—the United States should build a maritime common operating picture that can both kick-start security cooperation and deter lower levels of Chinese coercion. Finally, the United States should pay particular attention to supporting India's efforts to pose military dilemmas for China, thereby providing relatively low-cost means to complicate the ability of the People's Liberation Army (PLA) to concentrate attention and resources on U.S. strongholds in East Asia and the Western Pacific.

Recommendations for U.S. Policy

DEVELOP A NEW AMERICAN WAY OF WAR

Design a new military strategy and novel joint operational concepts for China contingencies

Current U.S. military strategy and operational concepts for China incur significant risk of mission failure and unacceptable attrition, and trend lines suggest that this situation will worsen over time. This disadvantage will constrain U.S. policymakers across many potential contingencies, not just conflict scenarios. For instance, responses to gray-zone coercion are likely to be more muted if a strong response provokes

escalation with significant risk to U.S. forces. Absent an appropriate strategy and operational concepts, U.S. modernization and technology developments are likely to be unfocused and inefficient, and allies and partners will lack a clear understanding of their role in response to Chinese coercion or aggression.

The chairman of the Joint Chiefs of Staff should lead the effort to develop a new U.S. military strategy that explains how the United States alongside its allies and partners will use force to achieve the political objectives of defending U.S., allied, and partner interests from coercion while deterring or defeating Chinese aggression. In drafting the strategy, the Joint Staff should work closely with the Office of the Secretary of Defense, the relevant combatant commands, and the services.

The strategy should be grounded in preventing China from achieving its objectives—what strategists call “deterrence by denial”—rather than simply by punishing China, given that Beijing may be willing to tolerate substantial costs to achieve its objectives. This strategy must also account for political dimensions of military action, including China’s ability to escalate strategically through informational, diplomatic, economic, or military means, to include attacks on the U.S. homeland or nuclear escalation. It should exploit the advantages of coalition warfare and force China to be the aggressor or escalator at every step. Finally, the strategy should detail how the Defense Department and the commander of U.S. Indo-Pacific Command intend to coordinate military actions with allies, partners, and other instruments of national power to achieve effects that are greater than the sum of the parts.

Operational concepts for China should describe how the U.S., allied, and partner forces will conduct and coordinate military operations over time to achieve the military objectives of the strategy. The critical shift in these concepts must be the ability—whether through new technology or operational art—to strike at the PLA’s military centers of gravity without first gaining multidomain superiority, or without strategically unfavorable escalation. These concepts must be specific to conflict scenarios including Chinese coercion or aggression against Taiwan or Japan, coercion or conflict in the South China Sea, Chinese intervention into North Korea, and coercion or conflict in the Indian Ocean.

This strategy and these concepts should guide defense investments and reforms while explaining these choices to audiences inside and outside the Defense Department, including allies and partners. As such, they should contain sufficient unclassified information to communicate the main ideas and priorities, while classified versions contain greater detail.

Build a more resilient architecture for command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR)

Information has always been critical in warfare, but the concomitant development of information technology and precision-guided weapons has raised its importance to new heights. Given accurate information, precision-guided weapons can hit targets with reliable accuracy regardless of range. In this new regime, precision trumps mass, but it requires rapid, accurate information.

China’s systems destruction warfare would use multidomain attacks to deprive U.S. forces of the information and coordination that make precision-guided warfare so effective. This approach is particularly problematic because current U.S. C4ISR is relatively brittle, as it was designed and built in an era when competitors or adversaries could not attack U.S. assets in space or at long ranges. A new architecture must be able to operate effectively under long-range multidomain Chinese attacks. Given the inherent vulnerability of some of these systems and the attack surface they present, preclusive defense is impossible. Instead, U.S. C4ISR systems must degrade gracefully under attack and must function in different modalities to complicate China’s counter-C4ISR operations.

Improving the resilience of U.S. C4ISR architecture in the face of attack might be the single most effective step the United States can take to strengthen its conventional deterrent: China will be more readily deterred if Beijing doubts its ability to disrupt, degrade, or destroy U.S. C4ISR systems.

Specific components of this architecture should include:

- Space capabilities that are more resistant to kinetic and nonkinetic attacks;
- Alternatives to space for ISR, long-range communications, and position, navigation, and timing (PNT);
- Low probability of intercept and low probability of jamming data links;
- Cyberprotection that prioritizes sufficient trust in data over protecting network integrity;
- Sophisticated surveillance systems that can penetrate contested environments using speed or stealth to surveil critical targets;
- Alternative ISR systems that utilize large numbers of “good enough” sensors operating collaboratively in contested environments to target massed or imprecisely located targets;

- Doctrine and training to operate using alternative C4ISR concepts, particularly mission orders and peer-to-peer networks;
- Synthetic training environments that allow U.S. forces to exercise contested C4ISR operations;
- Research and development investments in artificial intelligence to improve target recognition, information processing, and the ability of sensors and networks to respond to jamming or cyberattacks; and
- Improvements in defensive countermeasures and offensive capabilities for electronic warfare (EW) that include:
 - » Developing a C4ISR architecture that can use multiple pathways to transmit data, including an ability to use networks of jam-resistant tactical data links to create larger “mesh” networks capable of supporting distributed, multidomain operations;
 - » Increasing the capacity of DoD and the services to conduct EW in multiple domains to disrupt enemy kill chains;
 - » Investing in stand-in jamming capabilities in the air, to include the use of unmanned or attritable aircraft in dense threat environments;
 - » Pursuing a layered EW posture for the Navy to defend against long-range anti-ship missiles, to include anti-satellite jamming, airborne EW platforms, and accelerated investments in terminal defenses;
 - » Investing in ground-based and unmanned EW platforms for the Marine Corps to provide an expeditionary EW capability as part of the Corps’ Expeditionary Advanced Basing Operations concept (EABO) that can disrupt enemy kill chains and enable maritime maneuver in previously contested environments;
 - » Investing in ground-based EW systems for the Army to help defend key forward locations against long-range air and missile attacks; and
 - » Investing in alternatives to GPS for all four services for position, navigation, and timing, and alternatives to millimeter-wave radars for terminal weapons guidance.

Build a combat-credible posture in the Indo-Pacific

If attacking U.S. C4ISR systems is atop China’s targeting list, attacking U.S. forward bases, and particularly air bases, is a close second. China has made significant investments in long-range ISR and strike assets to attack fixed air bases and mobile aircraft carriers. China hopes the threat of these attacks will deter U.S. intervention by negating a substantial portion of U.S. airpower early in a conflict, thereby creating time and space for a fait accompli, and by causing potentially irreparable attrition to forward-deployed aircraft squadrons. A combat-credible posture would undermine China’s deterrence logic and weaken its military strategy by demonstrating that attacks on forward bases would not neutralize U.S. striking power in the region, and that attrition to U.S. forces would be within acceptable limits such that America and its allies could continue fighting.

A combat-credible posture in the Indo-Pacific should include:

- Adopting, exercising, and demonstrating an ability to execute a more dispersed basing posture in which dozens of airfields can support air operations in a crisis;
- Acquiring equipment and maintainer personnel to support rapid movement between bases;
- Making major air bases more resilient to attack by:
 - » Hardening, burying, or making redundant critical facilities such as fuel storage and pumps;
 - » Expanding runways or improving ramp and apron space to serve as expedient runways;
 - » Improving and exercising rapid runway repairs;
 - » Increasing passive defenses against area-effects weapons;
 - » Increasing active defenses against cruise missiles at major air bases;
 - » Increasing use of camouflage, concealment, deception, and electronic warfare to degrade Chinese ISR and battle-damage assessment; and
 - » Exercising air base operations under worst-case attack conditions.
- Renewing and fully supporting the Compact of Free Association with the Federated States of Micronesia, the Marshall Islands, and Palau, which provide irreplaceable access to critical geography;
- Developing support infrastructure and greater access at existing airfields, and improving runways and

infrastructure at key locations in the Compact of Free Association states like Palau and Yap; and

- Increasing deployments of ground-based precision fires for land and anti-ship attacks.

Increase investments in critical munitions and munitions development

Precision-guided warfare against China would require huge numbers of precision-guided weapons. Additionally, these weapons must be capable of striking both high-value and massed targets in highly contested environments with degraded information. Current U.S. munitions inventories are inadequate to support sustained combat against China, and especially in weapons that can penetrate China's anti-access/area denial networks.

To address this, the Defense Department should:

- Increase stockpiles of critical munitions, such as long-range anti-ship missiles;
- Develop and deploy mobile and relocatable land-based launchers for long-range cruise, ballistic, and hypersonic weapons in the Indo-Pacific;
- Develop and deploy affordable munitions that can operate collaboratively in contested environments to strike massed or imprecisely located targets;
- Develop area-effects weapons that comply with current U.S. policies regarding cluster munitions, or seek waivers from these policies;
- Accelerate development of longer-range air-to-air weapons;
- Develop modular weapons with updatable seekers, control units, motors, and software to protect stockpiles from obsolescence; and
- Work with Congress and the defense industry to increase munitions production capacity.

Develop concepts and capabilities for contested logistics

Attacks on U.S. air bases are one part of a broader Chinese strategy to impede the ability of U.S. forces to operate and sustain operations in East Asia. U.S. forces in Asia are at the end of a long logistical tether that was not designed to operate under precision long-range attacks. U.S. surge forces moving into the theater likewise rely on

transportation equipment and infrastructure that were designed assuming sanctuary from attack. China's ability to hold these systems at risk using long-range fires and cyberattacks threatens the ability of the United States to project and sustain combat power in the Indo-Pacific.

To address this, the Defense Department should:

- Integrate logistics and sustainment considerations into military strategy and operational concept development for China from the outset;
- Pursue the air base resiliency initiatives outlined above and apply similar measures to key ports, naval facilities, and other critical infrastructure in the region;
- Conduct a review of the Navy's Combat Logistics Fleet (CLF) force structure, employment strategy, and shipbuilding industry to design a new CLF fleet architecture that can deliver contested maritime logistics support;
- Accelerate development of methods to rearm U.S. Navy vertical launch system cells at sea; and
- Develop concepts and capabilities to support distributed operations with a more responsive logistics system.

EMPOWER THE DEFENSE DEPARTMENT TO HARNESS AMERICA'S NATIONAL SECURITY INNOVATION BASE

Reform Defense Department organizations and processes, including requirements, programming and budgeting, and acquisition

The Defense Department originally designed the core decisionmaking processes that determine the size and shape of the future Joint Force (requirements, programming and budgeting, and acquisition) for the industrial age and the Cold War threat environment. These processes, although still sound, have a range of flaws and assumptions that make them inadequate to the task of building the future force. They should be updated to accommodate new and rapidly changing technologies and the current complex and evolving threat environment.¹⁹ Specifically, the requirements process, which was designed to develop new capabilities from scratch within the defense ecosystem, must adjust to the new innovation environment, developing ways to more quickly and efficiently adapt existing technologies developed outside of DoD or the traditional defense industrial base to emerging warfighting problems. The programming

and budgeting process also need additional flexibility to allow the department to rapidly acquire emerging technologies as they develop, rather than waiting for the next full cycle of the process to culminate 18 to 24 months down the road. To this end, the Office of the Secretary of Defense should consider withholding significant funding when delivering fiscal guidance to the services, using this funding during its review of service spending plans to inject new proposals into the budget throughout the process, as opposed to only at the beginning. Further, Congress should consider realigning appropriations titles according to the type of life cycle a system has (for example, durable goods, such as aircraft carriers; evolvable systems, such as software; or expendable systems, such as munitions) as opposed to the part of the life cycle a system is in (research and development, procurement, or maintenance). This realignment would allow the department to move programs from development into production more quickly, while also making the total life cycle cost of the system more transparent.

Ensure the Defense Department can develop, access, and leverage the latest technologies

The global innovation environment has changed substantially since the Cold War, when big advances in military technology generally came out of DoD labs before eventually migrating to the commercial sector. Now, private companies are at the leading edge of developing new technologies with significant military applications, including artificial intelligence (AI) and machine learning. This presents a major challenge for the Defense Department in identifying these technologies and bringing them into the defense enterprise, when many companies are unwilling or unable to work with the Defense Department as a customer, and DoD is slow to absorb their potential and need for iteration. The defense market is small relative to the size of commercial technology markets, and some companies view cooperation with DoD as damaging to their brand. In addition, barriers to entry into the defense sector are high due to the complex regulatory regime governing defense contracts. DoD cannot easily invest in promising technologies outside of certain contractual frameworks.

To begin to address these challenges, DoD and traditional defense industry primes have developed new means of reaching out to the technology sector, including most notably through government entities, such as the Defense Innovation Unit, and private entities, such as venture capital funds run by defense primes.²⁰ However, these means of bringing new and disruptive technologies

into the defense enterprise remain inadequate given the sheer scale of innovation with military applications happening outside of the Defense Department's remit, and DoD's limitations as a customer.²¹ These dynamics will have to change. DoD should invest more in capturing these technologies and helping new technology start-ups grow, while also continuing to invest in DoD labs and the traditional defense industrial base, which remain critical to sustaining U.S. military technological superiority. DoD should also take steps to make itself a more attractive customer or partner for new technology companies by developing ways to demonstrate a start-up's viability, such as with its own venture capital capability.

Sustain and enhance a traditional and nontraditional defense industrial base that is robust, flexible, and resilient

Large diversified conglomerates mostly comprised the industrial base that produced war materiel for World War II and throughout much of the Cold War. After a wave of divestment of defense business units and the subsequent consolidation of remaining businesses driven by the post-Cold War peace dividend, the U.S. industrial base became dominated by a relatively small number of specialized defense and aerospace companies. These circumstances have left the traditional U.S. defense industrial base exposed to certain vulnerabilities, which were thoroughly catalogued in a 2018 DoD report—including lack of competition, fragile supply chains, and difficulty attracting and retaining skilled labor and engineering talent.²²

At the same time, a new critical component of the defense industrial base has emerged in the form of companies developing advanced commercial technologies with significant military applications, as discussed above. A healthy industrial base, broadly defined, is a vital ingredient to U.S. defense competitiveness; DoD should not be passive about its future. In both cases, DoD must review its own regulatory regimes and contracting practices to foster a healthy defense innovation and industrial base, and Congress must support the department with legislative changes where necessary. DoD should start by fully implementing the new acquisition authorities included in the 2016 and 2017 National Defense Authorization Act, including further streamlining its regulatory frameworks. DoD should also develop a way to evaluate the benefits of a regulation against the cost of enforcing it. Finally, DoD and Congress should both use this metric to evaluate if, when, and under what circumstances different regulations should be enforced. Reducing

regulatory burden could lower barriers to entry into the defense sector, allowing more nontraditional companies to enter the market, as either primes or subcontractors.

STRENGTHEN AND NETWORK U.S. ALLIES AND PARTNERS

Develop ally and partner anti-access/area denial capabilities

America's allies and partners must be capable of defending themselves alongside U.S. forces. Unfortunately, many U.S. allies and partners in the Indo-Pacific face the same challenges as the United States because their armed forces are similarly vulnerable to attacks on air bases, surface vessels, C4ISR systems, and critical infrastructure. They also lack sufficient quantities of the right kinds of munitions to sustain operations against China.

To address this, DoD must work together with the State Department, Congress, and foreign governments to utilize Foreign Military Financing and Maritime Security Initiative (MSI) funding to help regional states develop concepts and capabilities that would challenge Chinese power-projection operations with some of the same kinds of anti-access/area denial systems that China developed to undermine U.S. military advantages. Prioritizing Taiwan, Japan, Vietnam, and the Philippines, specific initiatives should include:

- Conducting wargaming, analysis, exercises, and concept development for high-end warfare with key allies and partners to develop a shared understanding of the challenge and an appreciation of how they can contribute in a crisis or conflict;
- Developing and exercising C4ISR capabilities for cooperative targeting in contested environments;
- Shifting allied and partner operational concepts away from traditional maneuver and territorial defense toward greater use of area denial, long-range fires, cyberattacks, electronic warfare, and mobile defenses in depth;
- Supporting specific investments in mines, coastal defense cruise missiles, jammers and dazzlers for terrestrial and space-based systems, anti-radiation munitions, mobile air and missile defenses, short-range guided munitions such as anti-tank weapons, and cyberattacks;
- Working with more capable allies and partners to add long-range precision fires, air-independent propulsion diesel-electric attack submarines, unmanned surface and undersea vessels, unmanned aerial vehicles for ISR

and offensive strikes, and air and missile defenses for key fixed sites; and

- Encouraging U.S. allies and partners in the region, particularly Taiwan, to stockpile fuel, food, medicines, and munitions to prepare for potential Chinese blockades.

Promote security networks among U.S. allies and partners

The past decade has seen the emergence of new security networks involving various constellations of American allies and partners in the Indo-Pacific. These networks complement U.S. bilateral alliances and strategic partnerships, and Washington should continue to encourage their formation and growth. The United States should support the deepening of security ties between Japan and Australia, including by urging its two allies to finalize a reciprocal access agreement. Trilaterally, Washington should work with Tokyo and Canberra to enhance intelligence sharing, focusing on maritime domain awareness within the first island chain. Through its dialogue with Japan and India, the United States should explore new opportunities for trilateral military exercises and joint defense research and development. Washington should also make a priority of getting trilateral cooperation with South Korea and Japan back on track. Finally, American efforts to advance security networking in the Indo-Pacific should enlist European powers where practical. Specifically, the United States should work with France and India to stand up a new trilateral consortium to share information regarding the movement of Chinese military vessels in the Western Indian Ocean.²³

Build a common operating picture in Southeast Asia

Many U.S. allies and partners are concerned about China's actions toward their maritime territories and resources. Leveraging a shared interest in maritime domain awareness could be advantageous to competition below armed conflict, while building coalition cohesion in the event of a crisis. Toward this end, Congress should expand Foreign Military Financing for Indo-Pacific countries and continue funding the Maritime Security Initiative (Section 1263 of the FY16 National Defense Authorization Act), which is due to expire at the end of FY2020. Without additional resources, Congress should also guard against expanding MSI authorities to other countries for fear of diluting the original intent of building partner capacity among Southeast Asian partners.

Future legislation should more explicitly direct this effort to focus on creating a common operational picture

in Southeast Asia.²⁴ A common operational picture would provide shared situational awareness of activity in the air and maritime domains to all participating allies and partners. It would allow regional states to track activity, both in their sovereign airspace and maritime territory, as well as destabilizing behavior in international airspace and waters. In peacetime, this shared system would keep states apprised of illicit trafficking and violations of fisheries or mineral rights. In crises or conflicts, it would provide situational awareness about the disposition of enemy military forces. The shared nature of this system would provide it with a measure of strategic resilience, as China would be reluctant to attack a shared, multinational system during crises or limited conflicts, for fear of unfavorably escalating a crisis or limited conflict into a broader regional war. Protecting sensitive intelligence, surveillance, and reconnaissance collection capabilities would be an obstacle to developing such a system. To help allay these concerns, the system could be tiered, with the lowest tier sharing basic civilian airspace and maritime awareness data along with commercially available satellite information. The second tier could build on this and incorporate less-sensitive military ISR data, such as electro-optical/infrared (EO/IR) sensor feeds from publicly acknowledged ISR platforms. The third tier could offer fused, multi-intelligence information to the most trusted members.

Allow exemptions to the Countering America's Adversaries Through Sanctions Act (CAATSA) for countries seeking to balance against China

The United States should seek to reduce Russian revenue from overseas arms sales; however, this goal should be pursued more flexibly with greater attention to how it affects the military balance in Asia. Certain Indo-Pacific states, particularly India, Indonesia, and Vietnam, have long been customers of Russian military equipment. It is ultimately counterproductive to sanction these countries, or threaten to sanction them, for buying Russian equipment that would improve their ability to counter Chinese coercion or deter Chinese aggression. Moreover, further isolating Russia in Asia and preventing its arms sales to a variety of states could push Moscow into a closer and more co-dependent relationship with Beijing. Congress should therefore allow CAATSA exemptions for Indo-Pacific states that wish to procure Russian weapons, provided these weapons would be used to balance against China. Over the long term, the U.S. government and defense industry should explore policies, incentive structures, and offerings that would give regional partners affordable options to buy American military equipment and services instead.

Support Indian military choices that create dilemmas for China in peacetime, crisis, and conflict

India has the potential to contribute as a military counterweight to China. Unfortunately, structural impediments and resource constraints have hobbled India's ability to keep pace with China's military modernization over the last 20 years. However, even without fundamental reform, the Indian military can still pose dilemmas for China and support a more competitive posture alongside the United States. Toward that end, the United States should actively support India to take the following actions, in addition to removing U.S. roadblocks when appropriate, such as those associated with CAATSA described above:

- Increasing investments in super- and hypersonic anti-ship missiles, along with investments in maritime domain awareness and long-range ISR to target these weapons;
- Acquiring more submarines—and particularly air-independent diesel-electric attack submarines—relative to surface vessels;
- Improving military transportation infrastructure, particularly from the Indo-Pakistan border to the northeastern border with China, and from the internal lowlands to the mountainous border region;
- Consolidating aircraft procurement around one or two fighters to create greater economies of scale and efficiencies in operation;
- Making major investments in electronic warfare, cyber offense, and counterspace systems;
- Leveraging commercial space systems and partnering with other spacefaring nations such as the United States to share access to certain space-based systems;
- Shifting the “make in India” program away from large systems integration and toward developing centers of excellence and innovation in key areas of technology, modeled on the Israeli defense start-up sector; and
- Shifting the Indian army away from massed territorial defense toward multidomain operations comprising long-range fires, electronic warfare, cyberwarfare, anti-maritime, anti-air, engineering, and information operations.

II. Securing Vital U.S. Technological Advantages

Advanced technology translates directly into military and economic power, and further provides leading nations with the ability to shape international norms and domestic governance practices. Sustaining America’s technological edge will therefore be vital to realizing a free and open Indo-Pacific. Fortunately, the United States retains a number of advantages in the technological competition with China: world-class universities and research institutes, leading technology companies, a vibrant venture capital and start-up ecosystem, and a long history of rewarding innovation. America has also benefited profoundly from being a place where people from around the world want to work and live.

Yet, largely due to choices in Washington and Beijing, America’s position as the global technology leader is under threat. U.S. expenditures on research and development have stagnated for decades as a share of gross domestic product (GDP). In the meantime, China has quadrupled its spending and is on the brink of surpassing the United States in total investments in this area.²⁵ Already, the results are showing: China is now a global powerhouse in a number of strategic technologies, equal to or ahead of the United States in critical areas such as quantum computing, artificial intelligence, and genomics.²⁶ If current trends continue, the downstream military, economic, and political consequences could tip the scales toward China’s vision of regional order in the Indo-Pacific.

To keep apace, Washington will have to do more to reinvigorate American technological leadership. The U.S. government should set ambitious national goals for public and private spending on research and development, while bolstering human capital and high-skilled immigration. Relying on competitive, market-oriented principles—and avoiding a heavy-handed industrial policy in which the government picks winners and losers—Washington should provide resources and data to defend and advance key areas of U.S. competitive advantage, including artificial intelligence and semiconductors.

As it reinvigorates its innovation base at home, the United States will have to be more vigilant in protecting key U.S. technologies. Recent legislative efforts to enhance U.S. investment screening and export controls are a good start and must be followed through. But more comprehensive efforts are still needed to address China’s harmful and illicit practices of forced technology transfer, academic and commercial espionage, and intellectual property theft. Washington will have to establish

a more productive and collaborative relationship with U.S. businesses and universities. It will also be necessary to augment resources for counterespionage investigations and visa screening, as well as a demonstrated willingness and ability to retaliate against Chinese firms and individuals that benefit from technology theft.

Critically, going it alone will be insufficient for the United States, both because of China’s economies of scale and because unilateral defensive measures will be ineffective if Beijing can easily exploit other advanced economies. Washington should lead on establishing a new international body of democratic powers to coordinate on technology policy and develop cooperative solutions to combating China’s anti-competitive practices.

Sustaining U.S. technological advantages will also require the United States to be more proactive internationally in setting new rules around emerging technologies. Active U.S. participation in international standards-setting bodies will be essential. Meanwhile, the United States can lead efforts in the Indo-Pacific and globally to codify norms for the use of emerging technologies. This should include detailed discussions with Beijing over the future of artificial intelligence.

Recommendations for U.S. Policy

BOLSTER AMERICA’S INNOVATION ENGINE

Increase investments in research and development in the United States

The federal government plays a unique and critical role in America’s innovation ecosystem: Government research and development (R&D) spending spurs private-sector investments,²⁷ and the U.S. government remains the largest funder of basic research, which is foundational to game-changing technological achievements.²⁸ Notably, U.S. government investments in the 1960s and 1970s in semiconductors, the global positioning system (GPS), and the early internet paved the way for the digital world of today. Yet, while private-sector R&D investments have steadily increased in the United States, federal government spending has declined as a percentage of GDP from approximately 1.2 percent in 1976 to around 0.7 percent in 2018.²⁹

To sustain another generation of technology leadership, the United States should increase federal R&D spending to 1.2 percent of GDP, matching levels in the 1970s. To execute such a significant increase, funding should increase gradually through existing organizations (Department of Defense, National Institutes of

Health, and Department of Energy, among others).³⁰ The White House Office of Science and Technology Policy (OSTP) should lead an interagency process, in consultation with external scientific advisors, to identify key strategic technologies for focused investment, such as artificial intelligence, microelectronics, quantum computing, wireless networking, synthetic biology, advanced manufacturing, health, energy, or other areas. As a bipartisan response to the intensifying technology competition with China, Congress could jump-start a new era of federal investment by passing a comprehensive appropriations bill.

In addition to federal spending, the United States should increase total national (public and private) R&D expenditures to keep pace with other leading technology nations. South Korea and Israel, for example, spend greater than 4.5 percent of GDP on R&D, while total U.S. public and private R&D spending in 2017 was only 2.8 percent.³¹ Using tax incentives to spur private-sector investment, the United States should establish a goal of bringing total (public and private) R&D spending to 4 percent of GDP by 2030.

Accelerate U.S. innovation in artificial intelligence through standards-setting, metrics, and horizon-scanning

Artificial intelligence and machine learning are rapidly developing fields, fueled by exponential growth in data and computing processing power (“compute”). The federal government has an important role in advancing U.S. competitiveness in these vital areas, even while much of the innovation will remain private-sector-driven.³² Government-led standards-setting is critical for enabling innovation, as are metrics for tracking progress and incentivizing research against specific problems.³³ The National Institute of Standards and Technology (NIST) and the Office of Science and Technology Policy should establish an interagency subcommittee for AI standards and measurement, under the National Science and Technology Council (NSTC) Select Committee on AI.

Long-term analysis on future trends and threats is also critical to understanding rapid technology development and preventing harmful technological surprises. Such efforts can help national security leaders anticipate potential future challenges, such as detection-resistant “deep fakes,” and prepare mitigation measures in advance. The departments of Commerce, Defense, and Homeland Security, along with the intelligence community, should collaborate with OSTP to analyze global AI trends and anticipate future challenges.

Support U.S. innovation in artificial intelligence and machine learning by increasing the availability of government data and computing resources

The U.S. government should take steps to increase the availability of data and compute, both of which are key inputs for research and innovation on AI and machine learning. This is particularly important for university researchers, who may lack the financial resources available to private-sector AI researchers. OSTP and the Office of Management and Budget (OMB) should build on Project Open Data by expanding the number of open-source high-quality datasets, an important asset for machine learning.³⁴ To increase compute resources for researchers, Congress should boost funding for the National Science Foundation’s Enabling Access to Cloud Computing Resources for CISE (Computer and Information Science and Engineering) Research and Education program and the Exploring Clouds for Acceleration of Science (E-CAS) project.³⁵

Forge an alliance innovation base

To keep pace with China’s military-civil innovation complex, the United States should develop deeper technology cooperation with key allies. This could take multiple forms. For example, DoD could expand existing mechanisms for quick-fire international seed projects. More ambitiously, the United States could stand up a “Freedom’s Foundry” that would bring together U.S. innovators and entrepreneurs with counterparts from allied countries to develop novel technologies—even new companies—around specific national security themes. With joint funding from participating governments and the private sector, these efforts could intersect with commercial market opportunities.

PROTECT CRITICAL U.S. TECHNOLOGICAL ADVANTAGES

Secure semiconductor supply chains

Along with artificial intelligence, U.S. technological advantages in semiconductors will be critical to advancing U.S. competitiveness in the Indo-Pacific. Although the United States is a global leader in semiconductor design—with U.S. headquartered firms accounting for roughly half of the global market—most fabrication occurs overseas.³⁶ This heavy reliance on overseas production presents substantial risks to vital U.S. economic and security interests.³⁷ As a result, the United States should develop trusted semiconductor suppliers for

defense and intelligence applications in order to ensure chips are free from potential tampering by adversaries and are not easily subject to disruption. Washington can also collaborate with key allies to establish an international fabrication consortium to diversify semiconductor fabrication.

On the order of \$10 billion to \$20 billion, the costs of establishing a new foundry present a major challenge to diversifying semiconductor supply chains, making onshoring prohibitively expensive even with potential government subsidies.³⁸ Additionally, the U.S. military and intelligence community have special needs for security that go above and beyond what is available in commercial facilities, yet they lack the scale of demand to make a purely government-dedicated foundry profitable.³⁹ DoD and the intelligence community should therefore explore novel approaches for public-private partnerships with U.S. companies to build the capability for trusted design, fabrication, packaging, and testing. Additionally, the United States should explore establishing an international fabrication consortium with allies to share the costs of building new semiconductor foundries that can ensure a trusted and diverse supply chain. As a starting point, member nations of the consortium should include the global leaders in semiconductor manufacturing equipment: the United States, Japan, and the Netherlands.

Establish multilateral export controls on semiconductor manufacturing equipment and increase federal funding for next-generation hardware

The United States has a major global lead in semiconductor design and should enact multilateral export controls, in concert with allies and partners, to protect its current technological advantage in hardware. This is among the most important actions the United States can take to protect its competitive edge in artificial intelligence. Furthermore, export controls should be coupled with increased federal R&D funding for next-generation hardware to ensure continued U.S. leadership.

China is heavily dependent on imports of foreign-manufactured semiconductors to meet internal demand. As part of its industrial policy to seize technological leadership from the United States, China is looking to reduce its reliance on foreign chips by ramping up domestic semiconductor production.⁴⁰ To accomplish this goal, China will need foreign imports of semiconductor manufacturing equipment (SME), which comprises the equipment and tools needed to

establish a chip fabrication facility, or foundry. The global SME market is highly centralized, with the United States, Japan, and the Netherlands accounting for 90 percent.⁴¹

While export controls on semiconductors themselves should be rare and targeted, such as the action against Huawei and a handful of other companies linked to the Chinese military, the United States should enact broad restrictions on sales of SME to China to sustain the U.S. advantage in hardware. In parallel, the Commerce and State departments should work with key allies and partners (the Netherlands, Japan, South Korea, and Singapore) to establish multilateral export controls on SME, thereby further restricting sales to China.

It is true that SME export controls would reduce profits from sales in China that U.S. companies might have reinvested in R&D.⁴² Nevertheless, the imperative of protecting U.S. technological advantage makes this a necessary expense, and the U.S. government can increase R&D funding in next-generation chip design, fabrication, and packaging to help fill the gap and ensure continued U.S. leadership in semiconductors.

Diversify sources of rare earth minerals

The United States must also secure the underlying raw materials behind digital technologies. Rare earth minerals, in particular, are essential for electronics, missile guidance systems, and military platforms such as fighter aircraft and submarines.⁴³ Yet China has near-complete control over the U.S. rare earths supply chain: As of 2018, China supplied 80 percent of U.S. rare earth imports and much of the chemical intermediates and mineral concentrates needed to process what was imported from Estonia, France, and Japan.⁴⁴ China further controls at least 85 percent of global rare earth processing capacity.⁴⁵

The U.S. government can take a number of important steps to help reduce U.S. reliance on China for rare earths. The U.S. Department of Defense, for instance, has already initiated efforts to expand mining and processing of rare earths outside China, including in Australia.⁴⁶ To reduce dependence on overseas suppliers more generally, Congress should ensure funding for the Department of Commerce's plan to reinvigorate mining and processing of rare earths in the United States,⁴⁷ and Department of Energy research into and scaling of rare earth recycling from consumer products, which can stretch existing U.S. supplies.⁴⁸ Finally, Congress should support Department of Energy efforts to develop artificial substitutes, which have proved capable of reducing dependence on rare earths altogether.⁴⁹

Expand export controls based on end use for certain products sold to China

To ensure U.S. technology does not enable China's malign behavior, the U.S. government should develop additional tools beyond existing restrictions on military exports. To that end, the U.S. Commerce Department should undertake the development of a new export control regulation that would restrict the sale of both key U.S.-origin products and key foreign-origin products developed by U.S. companies and their subsidiaries overseas to be used for certain end uses in China, including those that infringe on internationally accepted human rights standards, enable surveillance or cyberespionage, and are involved in domestic security activities.

Creating a new end-use-based control regime would require rigorous consideration by the U.S. government, as well as shifts in compliance protocols by a number of U.S. private-sector exporters. The Commerce Department should develop end-use-based controls in consultation with the U.S. private sector, engaging in a full administrative rulemaking process to seek feedback from national security professionals and industry.

COUNTER ILLICIT TECHNOLOGY TRANSFER

Ensure sufficient resources for counterespionage investigations

China poses a major counterintelligence threat to the United States, accounting for 90 percent of all Department of Justice (DoJ) espionage cases involving a state actor between 2011 and 2018.⁵⁰ The DoJ has begun ramping up efforts to counter this threat, with roughly 1,000 FBI investigations underway involving attempted intellectual property theft by China.⁵¹ Moreover, the DoJ established a new China Initiative in 2018 to increase outreach to universities and business, interagency coordination, and investigation of Chinese investments and influence operations, among other activities.

As these efforts move forward, Congress should provide the FBI and DoJ with sufficient resources—particularly for Chinese language skills and scientific and technical expertise—to ensure there is adequate capacity to carry out thorough counterespionage investigations. FBI Director Christopher Wray has identified Mandarin skills as a gap for the FBI,⁵² and insufficient technical knowledge has at times been an obstacle in prior cases.⁵³

Develop better collaboration between U.S. law enforcement and universities

Universities have a strong interest in preventing countries such as China from unfairly exploiting research by their faculty and students, while also protecting core values of academic freedom and fostering transnational research. As universities and the FBI are both implementing measures to address academic espionage concerns on campuses, greater dialogue is urgently needed between investigators and academics to better understand the scope of the problem and work together on possible solutions.⁵⁴ Fortunately, some positive steps are already underway under the auspices of OSTP and the academic community.⁵⁵ More should be done, however, to ensure greater coordination between universities and the national security community on this important topic. Such action should include the reestablishment of the National Security Higher Education Advisory Board, which was established to build lines of communication and cooperation between universities and the national security community on counterintelligence threats, among other issues.⁵⁶

Improve visa screening for espionage risks

The United States benefits greatly from foreign students at U.S. universities, many of whom stay for work and support the U.S. economy.⁵⁷ These academic exchanges are a significant source of strength for the United States and should be protected. Guided by that principle, Congress should nevertheless work with the State Department, FBI, and intelligence community to develop enhanced criteria for visa screening to identify individuals from China who pose heightened espionage risks.⁵⁸ Possible risk factors could include whether an individual comes from a university with ties to the PLA or cites highly specific research interests relating to defense technologies.⁵⁹

Recently proposed U.S. legislation includes both actor-based and technology-based approaches to improve visa screening. The People's Liberation Army (PLA) Visa Security Act would prohibit F or J visas for PLA-employed, -funded, or -sponsored individuals, and the Protect Our Universities Act of 2019 would mandate background screening of students seeking to work on "sensitive research projects."⁶⁰ Both proposals are sensible measures and should be implemented, but broader screening could still be required. This is in

part because many important technology areas, such as AI, have both commercial and military applications. Beyond evident military-specific research projects, more stringent screening is also needed for a wider range of dual-use technologies.⁶¹

Expand sanctions authorities to cut off from the U.S. market and financial system Chinese firms that steal U.S. technology

The United States has failed to sufficiently penalize Chinese companies known to be benefiting from stolen U.S. technology. Going forward, Chinese firms that engage in significant intellectual property (IP) theft and other anti-competitive behavior should be cut off from the U.S. market and the U.S. financial system. Existing U.S. sanctions authorities allow the executive branch to sanction foreign companies, including Chinese ones, that engage in cyber-enabled IP theft, but these authorities do not fully capture other types of IP theft, such as by corporate insiders. The U.S. Treasury Department, working with the Commerce Department and the State Department, should lead in developing and enforcing a new regime to enable sanctions against the full range of IP theft.

Include more People’s Liberation Army-linked companies on the export regime Entity List

China engages in a systematic and multifaceted campaign of both licit and illicit technology transfer to acquire access to advanced U.S. technology and repurpose it for the Chinese military.⁶² Although U.S. law generally prohibits the sale of U.S. products to the PLA and other military end users in China, Beijing’s promotion of military-civil fusion means that civilian entities in China that are closely linked to the PLA can still legally purchase U.S.-made products.⁶³ This problem is exacerbated by the fact that many cutting-edge technologies, such as AI, are dual-use, with both valuable military and commercial applications.

The U.S. government has made some progress in using existing export control authorities to restrict the export of U.S. products to Chinese entities that are tied to the PLA. For example, in June 2019, the Commerce Department added five PLA-linked supercomputing organizations to the Entity List, which prohibits the sale or provision of U.S.-made products to the designated organizations. Expanding the list of named PLA-linked entities barred from receiving U.S. products and

prohibiting visas for PLA-sponsored individuals will help limit proliferation of U.S. technology to the PLA.

To that end, the Commerce Department and Department of Defense should lead an interagency process to compile an extensive, publicly releasable, and regularly updated list of PLA-linked entities in China and add them to the Commerce Entity List. (An initial such effort is reportedly underway.⁶⁴) In addition to curbing unwanted technology transfer to the PLA, this would help to expose China’s military-civil fusion strategy and make it riskier to invest in companies that work with the PLA. Finally, the United States should prohibit F and J visas for PLA-employed, -funded, or -sponsored individuals.⁶⁵

LEAD ON DEVELOPING NEW INTERNATIONAL RULES, NORMS, AND STANDARDS FOR EMERGING TECHNOLOGIES

Create a new grouping of advanced democracies to coordinate on technology policy

U.S. efforts to spur innovation and protect key areas of competitive advantage are far more likely to succeed if major elements of U.S. policy are coordinated and jointly implemented with allies and partners. Multilateral cooperation among like-minded countries would serve to amplify the effectiveness of the measures across a range of areas, including R&D, supply chain diversity and security, standards-setting, multilateral export controls, and countering illiberal uses of technology. To achieve the necessary level of coordination and collaboration, the United States should lead the creation of a new multilateral grouping on technology policy.⁶⁶

The purpose of this new body would be to coordinate multinational technology policy to protect and advance key areas of competitive technological advantage, and to promote collective norms and values around the use of emerging technologies. Leading liberal-democratic technological and economic powers—including Australia, Canada, France, Germany, Japan, the Netherlands, South Korea, and the United Kingdom, among others—would comprise the group’s core membership. This new organization could cooperate on 5G, semiconductors, AI, cybersecurity, internet of things, and other significant technologies. Increased information sharing and cooperation could help nations develop cooperative solutions for technology leadership and defend against intellectual property theft, espionage, and other unfair trade practices that harm competition and distort free and fair markets.

Engage more proactively in multilateral bodies that set technology standards

The United States has a strong national security interest in the development of international technical standards, which are critical for shaping how technology is adopted around the world for 5G wireless, artificial intelligence, internet of things, and other emerging technologies.⁶⁷ However, while the U.S. government has been insufficiently engaged,⁶⁸ China has become increasingly proactive in international bodies, elevating standards-setting as a major priority with its “China Standards 2035” plan.⁶⁹

Working in partnership with U.S. industry leaders, the U.S. government should increase its participation in international technology standards-setting bodies, including the 3rd Generation Partnership Project (3GPP), International Telecommunication Union (ITU), and International Organization for Standardization (ISO), among others.⁷⁰ To accomplish this goal, OSTP should establish an interagency working group on international technology standards, bringing together the departments of State, Commerce, Justice, and Defense; the U.S. intelligence community; and the NIST to coordinate U.S. government action. This interagency group should also increase engagement with U.S. industry leaders, including information sharing on technical standards and Chinese efforts to exert political influence within international standards-setting bodies.⁷¹ Participation in standards-setting bodies should be explicitly exempted from export controls so U.S. companies and government officials can help shape international standards even if prohibited Chinese entities are also participating.

Lead internationally and engage with China on developing norms and principles for the use of emerging technologies

The United States should work with allies and partners to establish and export norms for using emerging technologies, including AI and biotechnology. U.S. officials should also engage China where there may be opportunities for norm development. The United States has a vested interest in helping to shape, to the extent possible, how China uses technology, which will have significant global implications. A number of Chinese actors have already released AI “principles” documents, similar to those released by businesses, governments, and nongovernmental organizations around the globe. These principles indicate some degree of norm transfer to China.

Continuing to develop formal norms such as the AI principles the Organisation for Economic Co-operation and Development (OECD) recently adopted is valuable, but equally important will be demonstrating responsible use in applications at home and abroad. The dynamic interplay in democratic nations between civil society, nongovernmental organizations, companies, the government, and a free press over how to use technology while balancing competing interests sets an important example for other nations and stands in stark contrast to the illiberal use of technology by autocratic regimes.

III. Bolstering U.S. Economic Power and Leadership

Economics is at the core of American competitiveness. U.S. economic and financial strength provides the foundation for U.S. military power and alliances, technological leadership, and political influence in the region. At home, the United States benefits enormously from the open economic order in Asia, providing a vital and growing region for U.S. trade and investment. These contributions to the prosperity and security of the American people will be at risk if the United States does not renew U.S. economic power and leadership in the Indo-Pacific.

China has eroded America's economic influence by leveraging its huge market, pursuing anti-competitive trade practices, and seeking to revise the regional economic order with institutions and initiatives that advantage Chinese companies. As the dominant trading partner in the region, Beijing selectively uses development finance and market access as carrots and sticks to advance the Chinese Communist Party's domestic and foreign policy agenda.

Meanwhile, Beijing has been nimble in pushing new economic institutions and initiatives—including the Asian Infrastructure Investment Bank (AIIB) and its Belt and Road strategy—to create the veneer, and in some cases the reality, of an increasingly Sino-centric economic order in the region. China's growing economic clout further provides Beijing with the ability to challenge U.S. security interests, both directly by investing heavily in modernizing the People's Liberation Army and indirectly by using economic pressure to shape the decisionmaking of U.S. allies and partners about the breadth and future of their military ties with the United States.

Preserving U.S. economic interests in the Indo-Pacific will require a concerted effort to shape the regional economic order in ways that level the playing field and deny China the advantages it accrues from anti-competitive practices, including systematic intellectual property theft, state subsidies, and limits on access to China's market. While it would be preferable to steer China toward a different course, the current Chinese Communist Party (CCP) leadership in Beijing remains committed to a state-led economic model.

As a result, the United States should no longer center its economic policy on compelling Beijing to make fundamental structural changes to China's economy. Yet, nor should Washington's response be to sever America's economic relationship with China: Many areas of trade and investment are beneficial to the United States and actually provide leverage over Beijing. A broad-based

decoupling of the U.S. and Chinese economies would prove unnecessarily costly to Americans. Instead, a more selective approach to economic interdependence is necessary to address the unfair advantages that China derives from maintaining a fairly closed economy at home while preying on U.S. economic openness.

The United States should respond with a determined economic agenda that simultaneously strengthens U.S. economic influence globally and in the region and reinforces sound governance and best practices for free, fair, and secure international economic activity. This should include revitalizing leadership in international economic institutions and emphasizing adaptations within these institutions that better reflect today's economic realities. Such an approach would target China's anti-competitive behaviors and policies with legal and trade actions, both bilaterally and, to a great extent, with international partners and institutions, including the World Trade Organization (WTO).

Washington should also commit to working collectively with other advanced economies in Asia and Europe on new high-standard trade and investment agreements that both create greater opportunities for U.S. businesses and undermine China's unfair and illegal trade practices. In doing so, the U.S. government should leverage the immense power of the U.S. private sector, augmenting the role of commercial diplomacy and focusing greater attention and resources to catalyze U.S. trade and investment in the Indo-Pacific. Success in this regard will require reversing U.S. withdrawal from multilateral trade mechanisms, and undoing the deeply counterproductive approach of imposing unilateral tariffs on key U.S. allies and partners.

In addition to renewing U.S. economic leadership in the Indo-Pacific, it will be essential for the United States to reinforce the preeminence of the U.S. financial system. America's deep and liquid financial markets are a key anchor of economic growth and stability, as well as leverage the United States can deploy in pursuit of vital national interests. Financial power further enables the United States to assist allies and partners, while using sanctions and other coercive economic tools to pressure potential adversaries. Sustaining the dominant role of the dollar and increasing transparency in U.S. markets will further enhance American's financial strength.

To reinforce America's economic position in the Indo-Pacific, Washington will have to look beyond simply shoring up traditional sources of financial power. The United States should play a more formidable role in shaping the future of financial technology (fintech). Ensuring that major global fintech companies are

anchored in the United States, and that U.S. incumbent financial institutions incorporate and develop new leading fintech applications, will be critical to curbing China's ability to undercut America's financial power.

Ultimately, American power rests on the strength of the U.S. domestic economy. While a comprehensive domestic economic agenda is beyond the scope of this report, America's long-term influence in the world will depend on prudent domestic policies and investments in the economic foundations of American power. As is recommended throughout this report, the United States should increase federal spending in basic sciences; research and development; science, technology, engineering and math education; and high-quality vocational and technical education. The federal government should also increase domestic investments in infrastructure, including both physical infrastructure, such as roads and ports, and in telecommunications infrastructure, which underpins the modern economy. U.S. leaders will also have to prepare for future financial crises and tackle head on the tax and entitlement reforms necessary to ensure that U.S. fiscal policy and debt levels remain sustainable across economic cycles. Ignoring these challenges threatens to undermine America's position as the premier financial powerhouse in the world—a key advantage over China.

Recommendations for U.S. Policy

PROMOTE U.S. TRADE AND INVESTMENT IN THE INDO-PACIFIC

Enhance U.S. commercial diplomacy in the Indo-Pacific at the Treasury, Commerce, and State departments

The Treasury, Commerce, and State departments should significantly increase personnel and professional training for commercial diplomacy, engaging with foreign countries and companies in Washington and abroad. The Treasury Department should expand its program to place attachés in an array of additional foreign capitals and major economic centers to provide technical expertise to U.S. missions abroad and to foreign counterparts. This could include placing Treasury attachés in Shanghai, Hong Kong, Taipei, Shenzhen, Manila, and Mumbai. An expanded attaché program would significantly augment the capacity of the U.S. government for engagement with U.S. companies abroad and with regional and international economic organizations and institutions. This should be paired with a parallel expansion of Commerce

personnel at U.S. missions abroad, as well as significantly expanded and more rigorous economic and financial training for all foreign service officers, including a specific hiring authority to bring greater economic expertise into the State Department.

The State Department's policy and planning function should elevate commercial diplomacy for the department and the secretary by planning a series of public speeches, both domestically and in foreign capitals, to discuss an expanded U.S. approach. Further efforts should include increasing ambassador-level engagement in promoting U.S. commercial diplomacy and better linking priority countries for U.S. commercial diplomacy to U.S. strategic priorities in competing with China. The State Department should also station more officials in commercial diplomacy posts at consulates in foreign countries, creating better and more thorough engagement, information gathering, and communication across important capitals and business centers globally. Additionally, the State Department's Office of the Chief Economist and Office of the Undersecretary for Management should craft a plan for professional development of existing foreign service officers in economic and financial topics, including mentorship opportunities, and should authorize accelerated hiring for midcareer economic subject matter experts into foreign service posts.

Catalyze greater U.S. investment in the Indo-Pacific through the new U.S. International Development Finance Corporation, bilateral investment treaties, and the Export-Import Bank

The U.S. government can strengthen America's position in Asia by bolstering U.S. overseas private investment and reestablishing the United States as a vital economic partner in the region. This should include the rapid deployment of the newly chartered U.S. International Development Finance Corporation (DFC). As a part of this, the White House should be prepared to leverage policy guidance that enables DFC lending to upper-middle-income countries that have the potential to be strategic U.S. partners and to counterbalance surges of state-led investment by China. The Office of the U.S. Trade Representative (USTR) and the State Department should also pursue bilateral investment treaties (BITs), as well as trade-in-goods and trade-in-service agreements, with potentially strategic countries including India and democratic partners in Southeast Asia. The United States should also reauthorize the Export-Import (EXIM) Bank to become a bigger and more robust export

credit agency to encourage private investments in larger projects. To achieve these goals, U.S. policymakers should make a priority of approving a new president and board for the EXIM Bank.

Expand technical assistance programs that bolster U.S. investment in the Indo-Pacific, including the Infrastructure Transaction and Assistance Network

To deepen U.S. economic ties in the Indo-Pacific, it will be essential to assist regional states in enacting economic and legal reforms that make them more attractive and viable destinations for foreign investment. To that end, the U.S. government’s Infrastructure Transaction and Assistance Network (ITAN) promotes high-standard U.S. investment by helping partner countries strengthen legal frameworks for projects, increase transparency, and review project proposals to ensure that they do not include hidden long-term costs. Congress should expand the resources available to the Office of Technical Assistance at the Department of Treasury and to the Transaction Advisory Fund launched in September 2019 under ITAN. Within the Office of Technical Assistance, Congress should increase resources for the Government Debt and Infrastructure Finance (GDIF) program, which helps countries implement debt management practices and develop domestic debt markets to make countries more attractive to private U.S. investors. Lastly, the Department of Commerce should continue to ramp up its outreach program, Access Asia, which aims to connect American firms with opportunities in the region. These efforts should be coordinated with the new DFC to pool resources and ensure that initiatives are not duplicated.

Continue to support an open global trade and investment regime for energy resources

Asia will play an outsized role in future global energy demand.⁷² The United States should continue U.S. exports of crude oil and liquefied natural gas (LNG) to the Indo-Pacific, as well as promote free trade in these key commodities, avoiding calls for limiting U.S. energy exports. Abundant U.S. supply to global oil markets has had a demonstrated calming effect on market prices during times of geopolitical turmoil, which has the benefit of avoiding price spikes even for countries that import little U.S. crude oil. The Overseas Private Investment Corporation (OPIC) should prioritize support for LNG import terminals in key importing markets throughout the region. Congress should allow the Department of Energy to continue to streamline the

approval process for LNG export licenses, including by amending the Natural Gas Act to allow automatic approval for export to countries that do not have a free trade agreement with the United States. This open approach to crude oil and LNG exports will provide considerable security and economic benefits for the United States and U.S. partners in Asia.

Include key Indo-Pacific partners in the Generalized System of Preferences program

U.S. policymakers should seek opportunities to deepen America’s economic ties with strategically important countries in the Indo-Pacific, including by offering special status under the Generalized System of Preferences (GSP) program. For instance, the United States has good reasons to strengthen its economic relationship with India in the context of U.S. strategic competition with China. If India addresses unfair limits on market access for U.S. firms, the United States should return India to the GSP program. USTR should revisit its recent decision to revoke GSP status for approximately one-third of Thailand’s trade with the United States. Finally, USTR should also consider the effects on U.S. competition with China as it reviews Indonesia’s participation in the GSP program.

STRENGTHEN AND LEVERAGE AMERICA’S FINANCIAL POWER

Promote financial market transparency by passing beneficial ownership disclosure requirements for U.S. companies

Congress should enact proposed legislation to require the collection of ultimate beneficial ownership information from companies in the corporate formation process. More transparent commercial entities will enhance economic stability and limit the ability of commercial and strategic challengers to undermine U.S. businesses and national interests or engage in corruption. Specifically, this will limit the ability of China to set up anonymous front companies in the United States to purchase U.S. assets or technology and otherwise threaten critical sectors, data, or infrastructure. Additionally, it will help U.S. firms and authorities to conduct due diligence to know which companies may be linked to banned partners under sanctions or export control laws. Attracting capital to the United States, including Chinese capital, to provide important liquidity and a basis for growth need not mean sacrificing market transparency, a priority for which the United States should strive.

Delist foreign companies, including Chinese firms, that do not meet audit and disclosure requirements from U.S. exchanges

At present, several Chinese firms that list securities on U.S. exchanges are not in compliance with regulatory transparency requirements, specifically audit and disclosure requirements put in place by the Securities and Exchange Commission (SEC). This is the result of the Chinese government blocking the release of full audit reports of certain publicly listed Chinese companies. This lack of compliance and transparency means that U.S. investors do not have the legally required information necessary to assess the riskiness of these investments. To end this practice, Congress should adopt pending legislation that would require all foreign companies listing securities in the United States, including Chinese companies, to comply with audit and disclosure requirements within three years or cease to be permitted to list securities on U.S. exchanges. The SEC should conduct a special review of noncompliant firms to ensure that they are moving into compliance with this new legal framework, specifically ensuring that firms grant U.S. regulators full access to review audits.

Discourage challenger currencies and payments

The centrality of the U.S. financial system is a core U.S. advantage in the Indo-Pacific, providing substantial influence, efficiency, and opportunities for wealth creation. This asset will be diminished, however, if service providers in foreign jurisdictions offer alternative, reliable payments, clearing, or settlements mechanisms. This will be particularly concerning to the United States if these alternative mechanisms are explicitly designed to avoid U.S. jurisdiction and be “sanctions-proof.” The United States should therefore discourage the development of alternative payments or settlement mechanisms beyond their current, nascent state by engaging with Europe and other major financial services and payments centers. The United States should also seek to support U.S.-based or U.S.-linked cross-border payment mechanisms that feature high levels of efficiency, low costs, and full digital functionality in order to compete with challenger payments platforms from China.

Alongside Washington’s tough enforcement posture for U.S. sanctions on Iran, the United States should still seek to engage constructively with Europe over its INSTEX payment mechanism, which is designed to facilitate humanitarian and other trade with Iran permitted

under the terms of the Joint Comprehensive Plan of Action (JCPOA) nuclear deal. Even while discouraging sanctions evasion in the Euro currency area or as facilitated by European central banks, U.S. authorities should ensure that INSTEX is legally permitted to operate so long as it only facilitates humanitarian trade. This will diminish the incentive for European banking authorities to violate U.S. sanctions and create a payments mechanism that is insulated from U.S. sanctions. Additionally, the United States should work closely with Europe to promote U.S. leadership in blockchain-based and other new technologically enabled payments networks for major global currencies, primarily the dollar, including by harmonizing regulatory requirement applicability to new technologies for money transmission. These measures will mean that the nascent alternative payment systems, including as developed by China, remain relatively costly and cumbersome as an alternative to the more reliable and efficient incumbent U.S. and European payments systems.

Develop and exercise strategic concepts for coercive economic statecraft

The United States has come to rely heavily on tariffs, sanctions, and investment controls as part of its foreign policy toolkit. However, there is still a long way to go in developing sound strategies and methodologies for the use of these instruments, as well as rigorous, empirical study of their utility and success. Given the direct linkage with national security issues, U.S. defense and intelligence agencies should support new research and tabletop exercises that explore how these tools affect the economy and financial system of the United States, U.S. allies, and target countries.

Moreover, the Treasury, State, and Commerce departments, in coordination with the Defense, Energy, and other relevant departments, including the intelligence community, should lead an effort to define a set of guiding principles for the use of these tools and methodology for deployment. Furthermore, the Office of Management and Budget should oversee a request in the president’s budget for sufficient personnel to capably deploy these measures, including the capacity to, on an ongoing and regularized basis, study the utility and strategy for deploying coercive economic measures.

SUPPORT U.S. LEADERSHIP AND INNOVATION IN FINANCIAL TECHNOLOGIES

Create a regulatory framework for financial technology acceleration to compete against foreign jurisdictions, including China

The United States, a highly regulated and supervised market, should do more to encourage innovation in fintech, positioning U.S. regulators to move quickly on licensing and chartering, and to provide more interpretive guidance to new firms, particularly new technology entrants into the financial services space. Other jurisdictions, including China, are aggressively promoting fintech development to accelerate and improve financial services offerings in their countries. Without more concerted U.S. action, other jurisdictions will be able to offer certain financial services with greater efficiency and lower cost, undermining U.S. superiority in the financial services sector. To maintain a preeminent position in this sector and accelerate fintech innovation in the United States, U.S. regulators should pursue a pilot regulatory framework to encourage and facilitate development of innovative financial technologies in the United States as stand-alone applications and within existing, incumbent financial institutions. In particular, the United States should seek to facilitate the development and application of new technologies to improve provision of services and financial products in the insurance, lending, payments, settlement, clearing, and tokenized asset space.

Several U.S. federal regulators have established innovation offices, including at the Financial Crimes Enforcement Network (FinCEN), the Office of the Comptroller of the Currency (OCC), the Securities and Exchange Commission, and the Commodity Futures Trading Commission (CFTC), some of which include labs. To help scale fintech applications, Congress should provide these offices with additional resources to support enhanced dialogue with innovators and the regular provision of guidance for industry. Moreover, to achieve the full effect of federal initiatives, state financial regulators should harmonize their definitions and requirements among themselves and, to a greater degree, with federal regulators. This will mean including a “passport” system to apply across jurisdictions and manage compliance with the patchwork of 50 sets of state requirements.

Encourage development of blockchain payments applications

Millions of unbanked and underbanked people around the world, including in areas China is targeting with its Belt and Road, will be able to access financial services through blockchain applications in the years ahead. The companies that develop these applications will control tremendous amounts of user data and have outsized influence on these countries and their relationship with the global financial system. Rather than ceding these critical opportunities to China, the United States should empower U.S. firms to lead in this space by embracing and encouraging the development of blockchain-based payment applications, both for domestic use and for cross-border purposes. To this end, the White House, in coordination with the Treasury Department, should lead an effort to consider regulatory, legal, and other incentives to promote U.S. fintech development of digital wallet, banking, and peer-to-peer payment applications.

In so doing, the United States will compete directly with some of China’s leading digital payment applications outside of China. By promoting U.S. fintech teams in delivering the leading decentralized payments applications to both incumbent financial system users and new digital financial users, the United States will harvest a major economic opportunity. The United States will also achieve a position of influence, including through regulatory means, to encourage privacy and reliability in these technologies and discourage illegitimate surveillance in service provision.

Fund and support rigorous education and academic research in blockchain technology

To compete with China, which has directed central bank resources toward digital currency and blockchain research, the United States should cultivate professionals entering the job market who can understand, develop, and innovate using blockchain payment infrastructure. The rising U.S. business and consumer interest in digital assets has not been accompanied by a sufficient growth in computer science or engineering courses that teach blockchain technology beyond an introductory level. While student interest has driven many university campuses to introduce blockchain and cryptocurrency classes in recent years, these are mostly one-off courses and do not offer a formal concentration or accreditation in building blockchain applications.⁷³ The U.S. government, possibly led by the National Labs or Department of Education, should establish a grant program to fund rigorous blockchain technology courses and graduate-level research on cryptocurrency-related topics.

REVISE THE ECONOMIC ORDER IN THE INDO-PACIFIC AND GLOBALLY

Pursue new high-standard multilateral trade and investment agreements in the Indo-Pacific and Europe

The United States should pursue a comprehensive multilateral trade and investment agreement with allies and partners in Asia to help reduce economic dependence on China and to afford greater opportunities for growth through expanded trade between the United States and the region. Achieving a broader free trade framework between the United States and Europe will also serve to expand economic opportunity in these markets and underscore rigorous rules on labor, environmental standards, currency, and intellectual property protection and enforcement.

Moreover, the inclusion of high-standard rules on subsidies, intellectual property protection, and currency manipulation in multilateral trade agreements in Asia and Europe will develop and implement clear and enforceable rules and market principles for broad swaths of the global economy. This will reinforce for China that its trade distortions and unfair economic practices will not be allowed to predominate in major trading economies of the world.

USTR should therefore develop and articulate the conditions under which the United States would join the successor agreement to the Trans-Pacific Partnership (the Comprehensive and Progressive Trans-Pacific Partnership), while continuing work toward a U.S.-European Union (EU) trade agreement. USTR should also work to negotiate a digital trade agreement with the European Union and close security allies and fellow advanced economies, building upon the recently signed U.S.-Japan digital trade agreement. These agreements help set high standards to facilitate trade and the free flow of data. Digital trade agreements should also include provisions on preventing data localization and technology transfer and ensuring companies' use of encryption technologies, which would further isolate China if it continued these unfair practices.

Use tariffs sparingly against allies and partners

Using and threatening to use tariffs on spurious national security grounds against NATO members, including Canada and Germany, as well as critical Asia-Pacific allies such as Japan and South Korea, and key Southeast Asian partners like Vietnam has undermined U.S. efforts

to build multilateral support for countering China's anti-competitive practices. Building effective coalitions on trade and investment issues will require a less confrontational U.S. approach toward other advanced economies and key partner states. While the United States may need to impose tariffs or take other punitive actions against allies and partners to counter specific trade abuses, such tariffs should be employed sparingly and only in a targeted manner.

Enhance U.S. cooperation with the World Bank and Asian Development Bank to support high-quality infrastructure projects in the Indo-Pacific

China's Belt and Road has received substantial attention—and with it Beijing has garnered considerable influence—by seeking to address the massive infrastructure needs in the Indo-Pacific and beyond. While Washington should not seek to match Beijing dollar-for-dollar in infrastructure spending, the United States can leverage existing regional institutions that provide high-quality financing by increasing available capital and identifying additional ways to partner with them. For example, the United States has increased its support for the Asian Development Bank (ADB), and the U.S. Agency for International Development (USAID) has launched a partnership with the ADB focused on energy projects in the Indo-Pacific. Further supporting the ADB would provide an important alternative and counterpoint to the Belt and Road. The United States should also help fund the World Bank's Global Infrastructure Facility, which helps recipient countries to plan project financing, preparation, and structuring efforts to stimulate the flow of external private capital. Finally, the Treasury Department, in conjunction with the National Security Council and the State Department, should launch a review of whether the United States should join the Asian Infrastructure Investment Bank.

Lead on setting high standards for development finance

China's Belt and Road has both undermined U.S. influence in the region and brought with it a spate of problems associated with corruption, financial nonviability, debt burdens, and environmental damage. The United States can help to curb these harmful lending practices by ensuring that BRI investments are held to higher standards. To this end, the White House should lead an interagency process to craft principles for development finance related to materials, labor, environmental

stewardship, and debt that the United States would then promote globally. The Treasury Department should take the lead on coordinating with other advanced and developing economies to refine and communicate these principles. This should include consulting with other G20 partners to cooperatively advance and implement the six G20 principles for quality infrastructure investment agreed upon by the group at the Osaka Summit in June 2019. These include maximizing the positive impact of infrastructure to achieve sustainable growth and development, raising economic efficiency through the perspective of life-cycle cost, integrating economic and social considerations in infrastructure investments, and strengthening infrastructure governance.⁷⁴

The Treasury Department should also lead a domestic and international effort to encourage private-sector firms to abide by these standards, which will serve to enhance economic stability, as well as America's influence and reputation as a responsible steward internationally. Finally, U.S. leadership in standard-setting should include technical assistance to help countries evaluate project bids, from feasibility studies, environmental assessments, competitive procurement, financial accounting, and other issues. This technical assistance should be elevated as a priority for the U.S. government, and at the Treasury Department in particular, with a commensurate increase in staff, budget, and public messaging.

Update, strengthen, and reform the World Trade Organization

The U.S. Treasury Department, in close coordination with the White House, should lead an effort to reform the Bretton Woods institutions, which still have a critical role to play in advancing U.S. interests and reducing the need and opportunities for alternative China-led bodies. This will require revisiting guidelines and policies for lending resources and standards, and bolstering the reputation of these institutions as the international lender of first resort to contain fallout from global crises. The United States should allow developing countries a larger voice and voting share in Bretton Woods institutions to prevent the formation of parallel or rival lending institutions that could balkanize the global financial system. Without meaningful reform at the WTO, growing dissatisfaction with its record on dispute resolution could lead one or more major economies to withdraw. The U.S. Congress should insist that the WTO define its criteria for “developing country” status, which is currently self-identified and provides benefits to these countries relative to

advanced economies. It should also move to eliminate the consensus decisionmaking process to establish and enforce key rules, particularly to prohibit anti-competitive practices such as below-market financing, subsidies for state-owned enterprises, and discriminatory regulatory treatment. The United States should also stop blocking the appointment and reappointment of judges to the WTO's Appellate Body.

Make any additional tariffs against China more targeted

U.S. tariffs on China have effectively created macroeconomic pressure and, if maintained, have the potential to slow China's rate of growth over the short term. As such, they can be effective policy instruments for the United States to demonstrate resolve and address China's unfair trade and investment practices. Going forward, U.S. tariffs against China should target products and firms that garner anti-competitive advantages under China's industrial development strategy, and where China presents a supply chain risk, such as communications network technology. The U.S. administration should avoid imposing additional tariffs on basic consumer goods where tariffs increase costs for U.S. consumers without providing meaningful strategic benefits.

IV. Strengthening American Diplomacy

Building the cooperation and coalitions necessary to renew American competitiveness in the Indo-Pacific—on security, technology, and trade and investment—will require deft and determined diplomacy. There is no escaping the fact that Beijing enjoys considerable home field advantages in the competition for regional influence. China is geographically proximate to Indo-Pacific states, is a leading trading partner throughout the region, and boasts impressive cultural and people-to-people ties.

China has supplemented these inherent strengths by spending heavily to expand its diplomatic corps, cultivating a cadre of increasingly seasoned diplomats well versed in the politics and culture of many Indo-Pacific countries. Beijing is directing diplomatic resources—including scarce leader-level time and attention—to the region’s pivotal states, summits, and institutions. Recognizing that many Indo-Pacific nations receive insufficient focus from the United States, China is garnering considerable return on these diplomatic investments, particularly when combined with unrivaled economic inducements. Meanwhile, Beijing is constructing and strengthening regional institutions within the Indo-Pacific that threaten to undermine the role of the United States and codify rules and norms that further advance China’s leadership in the region.

Still, Washington retains important advantages in the diplomatic competition with Beijing. The United States possesses long-standing alliances and partnerships, and is generally seen as less threatening than China due to America’s distance from the region and its open and transparent system. Most states, even if at times deferential to Beijing, continue to welcome U.S. leadership and participation in regional affairs.⁷⁵ Nevertheless, U.S. diplomacy in the region has been inconsistent and at times incoherent, leading regional states to question the enduring commitment of the United States.

The prospects for a free and open Indo-Pacific will dim in the absence of greater U.S. attention and resources for regional diplomacy: Regional states will increasingly drift toward Beijing and prioritize Beijing’s preferences on critical issues ranging from security cooperation to trade; foreign political support will erode for forward-deployed U.S. forces and military ties with the United States; and multilateral bodies will increasingly reflect China’s positions on issues ranging from freedom of navigation to human rights.

To ensure American competitiveness in the region, the United States will need to increase its diplomatic

investments and develop a nimble, innovative, and responsive diplomatic strategy. This should start with a concerted focus on upgrading bilateral ties with vital allies and partners. Washington should also do more to manage disputes in the region that draw energy and focus away from the China challenge—including between Japan and South Korea, as well as Southeast Asia nations in the South China Sea.

Washington should also commit to sustained and high-level engagement in regional institutions throughout the Indo-Pacific. This should include participating in the region’s premier summits, increasing the U.S. role in subregional organizations, and coordinating more closely with allies and partners regarding forums where the United States does not participate.

The United States can supplement these efforts by developing new forms of diplomatic, political, and cultural exchange. The United States can do more to help train diplomats in the Indo-Pacific and develop deeper ties at the subnational level. Washington should also focus on bolstering youth programs throughout the region.

Finally, the U.S. government itself should be reconfigured and resourced to reflect the critical importance of the Indo-Pacific. This should include increasing the relative size of core foreign policy and national security bureaucracies responsible for the Indo-Pacific at the State Department and Treasury Department. New positions and institutions within government will also have to be created to manage a number of issues that cut across traditional institutional boundaries. Finally, the U.S. government will need new mechanisms to engage with domestic stakeholders in academia, industry, and civil society with whom greater collaboration will be necessary to enhance American competitiveness.

Recommendations for U.S. Policy

ENHANCE DIPLOMACY WITH THE HIGHEST PRIORITY ALLIES AND PARTNERS IN THE INDO-PACIFIC

Host a regular trilateral dialogue between U.S., Japanese, and Australian national security advisors

Japan and Australia share U.S. concerns about China’s regional ambitions and together form the core of several regional plurilateral initiatives, including the Quad. They are critical to the success of any U.S. regional strategy. For this reason, the U.S. national security advisor should convene an annual high-level trilateral with Japanese

and Australian counterparts to discuss and coordinate policy. In addition, this grouping should be considered a possible core around which future plurilateral gatherings across the Indo-Pacific could be organized. This effort would be separate from and complementary to the bilateral two-plus-two initiatives that occur between the U.S. secretaries of state and defense and their counterparts.

Upgrade and institutionalize high-level bilateral diplomacy with key Asian partners, particularly India, Indonesia, and Vietnam

The United States should invest in more institutionalized bilateral cooperation with critical partners, particularly India, Indonesia, and Vietnam. For India, the current two-plus-two mechanism involving U.S. secretaries of state and defense should be upgraded into something that broadly resembles what was formerly known as the U.S.-China Strategic and Economic Dialogue, which also involved the Treasury secretary. For Vietnam, the current “comprehensive partnership” should be elevated into a strategic partnership, a process that the United States followed with Indonesia. In concrete terms, this could involve concluding a bilateral investment treaty and loosening visa restrictions, as well as more support for Vietnam’s navy and air force, regular joint exercises, and additional U.S. Navy port calls. Finally, although the United States and Indonesia already have a “strategic partnership,” the bilateral relationship has nonetheless lagged behind others in the region. Accordingly, the United States should enhance the partnership with a more robust focus on stalled economic interaction; shared discussions on Indonesia’s vision of Indo-Pacific security; and cooperation on efforts to address election-related disinformation, as well as other issues associated with strengthening good governance.

Strengthen diplomatic and security ties with Taiwan

Taiwan’s continued success as a flourishing democracy is an important ingredient to realizing a free and open Indo-Pacific. The United States can do much to strengthen its diplomatic and security relationship with Taiwan and increase Taiwan’s freedom of maneuver without unnecessarily provoking Beijing. On the economic side, Washington should prioritize a bilateral investment treaty and free trade agreement with Taipei to offset China’s efforts to isolate the island from international economic agreements. On the political side, to compensate for China’s successful efforts to

shrink Taiwan’s international space, the United States can explore new plurilateral initiatives with Taiwan that would give it opportunities to interact with other countries more regularly on the kinds of issues that are discussed in forums that Taiwan cannot join. The United States should also consider supporting or partnering with Taiwan on efforts to counter China’s influence over local media. Given that Taiwan’s most important relationship will remain the United States, enhancing the quality and frequency of diplomatic interactions between Washington and Taipei should be prioritized, beginning with a review of the State Department’s guidance on bilateral personnel engagement. With respect to security matters, the United States should reaffirm its commitment to the Taiwan Relations Act at high levels and with greater frequency. It should also change existing DoD policy to commence bilateral military exercises, including naval and air exercises that seek to enhance cross-strait deterrence.

Intensify cooperation with Europe on Indo-Pacific diplomacy

Leveraging transatlantic cooperation in the Indo-Pacific could serve as a force multiplier for U.S. efforts to build a freer and more open region. To that end, the United States and Europe should increase high-level dialogues focused on Indo-Pacific affairs (at the cabinet and minister level) and inaugurate regular working-level dialogues on Indo-Pacific affairs among those American and European officials responsible for Indo-Pacific economic, military, and security matters. These efforts could help produce a more coherent transatlantic agenda for the region, one that could be discussed and amended through regular joint U.S.-EU statements on the region. Greater coordination on human rights issues, development issues (e.g., Mekong subregion), and higher standards for the Belt and Road could shape the region’s trajectory in ways consistent with U.S. and European values. In addition, on security matters, the United States and Europe could work to strengthen NATO’s partnerships in the area, including through such efforts as NATO’s Interoperability Platform and Enhanced Opportunities Partners program. The United States and select European states could also engage in joint counterpiracy and freedom of navigation operations in the Indo-Pacific. Europe could be more involved in Asian multilateral institutions, and while many European states joined AIIB, the United States should encourage more regular European participation in a variety of other efforts. For example, the EU president has not always

participated in the East Asia Summit, and European participation is generally limited across the region's key multilateral bodies. Scheduling high-level meetings with European counterparts on the sidelines of these summits could help to induce their involvement. Finally, in addition to the European Union, Washington should advocate partnerships between the OECD and Indo-Pacific multilateral institutions, particularly in economic or technical areas.

Proactively seek to resolve disputes between allies and partners, including in the South China Sea, as well as between Japan and South Korea

The United States should engage in leader-level efforts to proactively resolve disputes among allies and partners. Improving ties between Japan and South Korea, which have seen relations dip to their lowest ebb in decades, is vital to competing effectively with China. The downturn in ties has jeopardized military exercises and intelligence sharing, undermined trilateral cooperation, and provided China an opening to weaken the U.S. alliance system. Similarly, disputes among allied and partner states in the South China Sea have weakened the ability to construct coordinated approaches to dealing with China's illegal and assertive behavior. Settling disputes between Brunei, Malaysia, the Philippines, Taiwan, and Vietnam in the South China Sea's Spratly Islands would allow for a more unified response to China's sweeping territorial claims, as well as stronger joint negotiating positions vis-à-vis Beijing on energy exploitation and a regional code of conduct.

Continue to prioritize assistance to Asian states on energy and climate resilience, and rejoin the Paris climate agreement

The Indo-Pacific region is at once a major contributor to climate change and also uniquely vulnerable to its effects. For over a decade, the region has been responsible for more than half of all carbon-dioxide emissions. At the same time, climate experts have noted that while climate change disruption will be global, much of it will be in East, Southeast, and South Asia. The United States can burnish its partnerships in the region by leading in this area. Accordingly, U.S. government efforts in this area deserve continued attention and resources. This includes Asia EDGE (Enhancing Development and Growth through Energy), which has catalyzed a total of \$1.5 billion in public and private investment.

To further enhance U.S. leadership and engagement in the region, the United States should also reverse its announced intention to withdraw from the Paris climate change agreement and should recommit the United States to consistent leadership in the United Nations Framework Convention on Climate Change (UNFCCC). Since the United States announced its planned departure from the agreement in 2020, China has assumed a more significant leadership role in global climate change governance, including at successive summits under the UNFCCC framework. Without the United States in a more active leadership role, there will be no counterweight to China reducing its ambition or backtracking on commitments when it feels that its domestic economic circumstances warrant it. Active U.S. participation in the Paris process would also support U.S. efforts to insist that China follow strong environmental stewardship standards in its development finance efforts. If the United States is more active in financing mechanisms promoted by the Paris agreement, including the Green Climate Fund, the State Department will be in a far stronger position to raise concerns about China's BRI investments in legacy fossil fuels.

Selectively remove barriers to foreign and security assistance to strategic U.S. allies and partners in the Indo-Pacific

U.S. legislation—including the U.S. Arms Export Control Act, the Leahy Law, and the Foreign Assistance Act—sometimes complicates or prohibits security assistance to countries in the Indo-Pacific, particularly those that have suffered democratic backsliding or engaged in human rights violations in the past. Congress should consider narrowly amending some of these laws to permit rare exceptions for those cases in which prohibitions on cooperation either harm U.S. national security or ultimately reduce U.S. leverage and lock in even more repressive policies. For example, the Foreign Assistance Act has prohibited U.S. security cooperation with Thailand because of its military coup. This has in part led Thailand to deepen military and political cooperation with China and Russia. Similarly, various well-intentioned legislative proposals responding to human rights abuses in the Philippines are pushing Manila closer to Beijing, damaging U.S. interests and reducing U.S. influence on the very issues of concern. Similarly, enhanced cooperation with Vietnam has at times been hindered by existing restrictions. New and existing legislation should permit the executive branch some discretion to pursue limited cooperation on a case-by-case basis.

DEVELOP NEW DIPLOMATIC, POLITICAL, AND CULTURAL EXCHANGES WITH PARTNER STATES

Shift International Military Education and Training funding to the Defense Department and create a similar State Department program for foreign diplomats

The United States invests heavily in military exchanges (e.g., International Military Education and Training or IMET), inviting officers from foreign militaries to participate in graduate programs at U.S. military academies or to attend U.S. universities. Today, IMET is funded by the State Department. A reorganization of foreign training programs should shift this authority and appropriation to the Pentagon while creating a new International Diplomat Education and Training (IDET) program focused on expanding opportunities for foreign diplomats at U.S. graduate programs. Today, diplomats from Europe and Northeast Asia are sent to attend graduate school at some of the best international relations graduate programs in the United States. An IDET program would open the door for diplomats from key partners in South and Southeast Asia to pursue similar opportunities. With funding lines similar to today's IMET program, this would expand, regularize, and institutionalize educational and training opportunities for diplomats across the Indo-Pacific. This office could administer programs that invite diplomats to participate in the State Department's own various training and educational programs. It could also fund and administer opportunities for foreign diplomats to earn graduate degrees at U.S. universities or participate in courses at certain U.S. military academies. Importantly, the office should also assume responsibility for sending U.S. diplomats to the diplomatic academies and foreign service institutes of other countries, as the United States has occasionally done with India.

Increase high-level visits to key allies and partners in the Indo-Pacific, including by U.S. congresspersons, mayors, and governors, and create a State-Commerce initiative to brief these officials properly

America's diplomatic agenda would benefit from more regularized high-level visits to the Indo-Pacific, not only from the president and vice president, but also from U.S. congressional delegations, governors, and mayors of major cities. A critical task in making

these delegations effective is to brief participants on U.S. priorities and interests and the strategic, political, and economic developments within the region. The State and Commerce departments should create a joint initiative that would help arrange meetings for congressional, mayoral, and gubernatorial delegations traveling abroad to brief them on matters related to both business and strategy. This initiative could also detail foreign service officers to the offices of governors or mayors, or fund them to travel with congressional, mayoral, and gubernatorial delegations. With respect to briefings, those members of Congress who wish to keep briefings within the legislative branch could use Congressional Research Service staff; for mayoral or gubernatorial delegations, the joint initiative between State and Commerce would supplement a traditional focus on commercial matters with greater strategic knowledge. In both cases, the availability of a service provided by this joint initiative would reduce barriers to overseas travel and increase knowledge ahead of it.

Ramp up youth exchanges and establish additional Fulbright Universities in the Indo-Pacific

Large youth populations in the Indo-Pacific will come to play a central role in shaping the region's future. As an important supplement to official high-level diplomacy, the State Department's Young Southeast Asian Leaders Initiative (YSEALI) and other cross-sectoral initiatives such as Fulbright University Vietnam have proved successful models for building ties with younger generations of Southeast Asians.⁷⁶ The U.S. government should expand youth engagement programs across the Indo-Pacific, particularly by harnessing the strength of U.S. universities and other academic and research institutes, to maximize international students' and researchers' exposure to American political culture and liberal democratic values. These efforts should include welcoming to the United States foreign students from underrepresented Indo-Pacific countries through scholarships and other fellowship programs.

The United States should also found additional Fulbright Universities in the region. The Fulbright University Vietnam was established in Hanoi in 2016 as the country's first independent nonprofit university. It offers undergraduate and graduate classes in a range of disciplines, including engineering, public policy, and the liberal arts. Funding for the university is provided by a unique public-private structure, with Congress appropriating several million dollars each year to continue operations. Given the positive impact the university

has had on the U.S.-Vietnam relationship and young Vietnamese students, similar Fulbright Universities should be pursued elsewhere in the region.

Create an Asia-Pacific Center for Security Studies satellite office in the Indo-Pacific

The Department of Defense should expand the Asia-Pacific Center for Security Studies (APCSS)—an institution with a long history of training military officers throughout the Indo-Pacific—by creating a satellite campus in the Indo-Pacific west of Hawaii (an “APCSS-West”) in an allied or partner state. This campus could supplement offerings by the APCSS headquarters in Hawaii. In addition, the Department of State could leverage the footprint of APCSS by appointing State Department personnel to serve as instructors in training courses for foreign diplomats.⁷⁷ Potential locations include Bangkok, Hanoi, Jakarta, Kuala Lumpur, and Manila.

DEEPEN ENGAGEMENT WITH REGIONAL INSTITUTIONS IN THE INDO-PACIFIC

Participate actively in Asia’s leading multilateral institutions

Asian multilateral organizations, and particularly their annual leader-level summits, represent one of the key avenues through which the United States can shape political developments in Asia, make its case for a free and open Indo-Pacific, reassure Asian states of the U.S. commitment to the region, and efficiently engage a wide range of regional leaders. The most significant of these forums include the annual U.S. summit with the Association of Southeast Asian Nations (ASEAN), the ASEAN Regional Forum (ARF), the Asia-Pacific Economic Cooperation (APEC) forum, and the East Asia Summit (EAS), among others. The United States should seek to shape the agenda in these organizations together with its allies and partners, and to host more Indo-Pacific summits and other convenings. Too often, however, the United States has failed to participate at appropriate levels, thereby reinforcing the narrative of the United States as adrift. Looking ahead, Washington should ensure that the U.S. president attends all leader-level summits, the secretary of state attends key ministerial-level gatherings, and ambassadors to organizations like ASEAN and APEC are promptly appointed and confirmed.

Join or increase participation in South Asian and Indo-Pacific multilateral organizations where the United States is not sufficiently active

Given the importance of the Indian Ocean region to U.S. strategy, Washington should seek to engage the wide range of multilateral bodies across the Indo-Pacific and South Asia that have historically received inadequate attention from Washington relative to comparable East Asian and Southeast Asian bodies. These include the South Asian Association for Regional Cooperation (SAARC), the Indian Ocean Rim Association (IORA), the Indian Ocean Naval Symposium (IONS), and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), among others. In some cases, the United States is an observer or dialogue partner (as in SAARC or IORA); in other cases, the United States is uninvolved (as in IONS and BIMSTEC). The United States could more consequentially engage these organizations by designating a new or existing ambassador for these institutions or establishing diplomatic missions at those institutions interested in such an effort, as it has done with ASEAN. It could also request status as an observer or dialogue partner for those organizations in which it has no current role. In most cases, it will be critically important for the United States to consult with partners, particularly India, on whether and how to improve ties with these institutions.

Coordinate with allies and partners on regional institutions in which the United States does not participate

China often favors and pursues regional bodies in which the United States is not a member. These include the Shanghai Cooperation Organization (SCO), the Conference on Interaction and Confidence Building Measures in Asia (CICA), the Asian Infrastructure and Investment Bank, the New Development Bank (NDB), the Regional Comprehensive Economic Partnership (RCEP), and others. China has used some of these bodies to create rules or norms that complicate U.S. military exercises, basing, and alliances; to mobilize support for its positions and undermine U.S. stances on key security or economic issues; and to weaken the centrality of institutions in which the United States plays a prominent role. Even though the United States cannot or in some cases has chosen not to join these institutions, it should nevertheless engage with allies and partners that are members to influence the agenda of these bodies. For example, India is a member of the SCO, and several U.S. allies,

including the United Kingdom, France, and Germany, are members of the AIIB. Coordination with these states could help to thwart China’s efforts to undermine liberal values or U.S. military alliances within these institutions.

RESTRUCTURE U.S. BUREAUCRACIES TO BETTER COMPETE IN THE INDO-PACIFIC

Increase key U.S. government staffs dedicated to the Indo-Pacific, including at the Treasury and State departments

U.S. departments and agencies have yet to reform their bureaucracies to fully reflect the centrality of the Indo-Pacific or the emerging strategic competition with China. Critical offices remain comparatively understaffed and underresourced, including the Bureau of East Asian and Pacific Affairs at the State Department, embassies and consulates in the region, and the Office of Terrorism and Financial Intelligence at the Treasury Department. To address this continuing shortfall, national security agencies should closely review the relative size, missions, and capabilities of technical and regional offices most urgently needed for competition with China, and resize their teams toward that purpose. Further, just as the war on terror generated temporary hiring authorities to quickly recruit personnel with specialized backgrounds, national security agencies may need to, in the short term, dedicate resources to hire the regional, language, and technical expertise they need to compete more effectively in the Indo-Pacific. Congress can take a primary role in oversight of this issue through congressional hearings and committee reports and through future state foreign operations appropriation bills.

Appoint a deputy assistant to the president for China responsible for coordinating a whole-of-government strategy

The U.S. government is not well configured to deal with the China challenge, leading to gaps and coordination problems on issues that cut across bureaucratic boundaries. To more effectively manage U.S. strategy toward China, the president should create the position of deputy assistant to the president for China with the authority and writ to convene departments and agencies on China-related issues at the deputies level from across the domestic and foreign policy apparatus. The deputy assistant to the president for China should report directly to the national security advisor, the director of the National Economic Council, and the director of the Domestic Policy Council.

Create an independent bipartisan Commission on American Competitiveness

Rising to the China challenge will require a whole-of-society approach that extends beyond the halls of government. Congress should therefore establish an independent, bipartisan Commission on American Competitiveness that is tasked with holding public hearings, meeting privately with senior officials in the executive branch, and issuing an annual report to Congress with recommendations on how key sectors throughout U.S. society—ranging from academia to media to technology companies—can contribute to enhancing America’s competitiveness in the world. The existing United States-China Economic and Security Review Commission could serve as a model in terms of structure and activities.

V. Competing Over Ideology and Narrative

America's ability to compete over ideology and reset the dominant narratives in the region will be powerful determinants of whether the United States can build the types of coalitions and partnerships necessary to support a free and open Indo-Pacific. How publics and capitals view the relative virtues, balances of power, and trajectories of economic influence—and fundamentally, whether the United States presents an attractive and viable long-term alternative to a Sino-centric future—will be at the core of regional countries' decisions to either stand up or acquiesce to Beijing.

Well aware of the stakes in this dimension of the competition, China has been spending tremendous resources around the world employing propaganda, public diplomacy, and strategic messaging to promote a narrative of its inexorable ascendance coupled with America's inevitable decline. At the same time, the Chinese Communist Party has used both overt and illicit means to influence businesses, media, universities, and thought leaders within democratic societies to shape debates, blunt criticism, and build support for its policies at home and abroad. Uneven levels of governance in the Indo-Pacific alongside China's growing control over local media markets have further facilitated these efforts.

When coupled with real-world actions such as China's ongoing military buildup and expansionist behavior in the South China Sea, technological achievements, and overseas investments under the banner of its Belt and Road, Beijing's narrative has successfully convinced large parts of the Indo-Pacific that momentum is on its side, even when the facts on the ground are more mixed. If Washington is unable to reverse these perceptions, the United States will find it difficult, if not impossible, to generate sufficient support for its economic, political, and military initiatives in the region.

Even as the United States must do more to renew its democratic principles at home, it still retains considerable advantages in the ideological competition between liberal democracy and China's model of authoritarianism and state-led economics. Consistent with a dominant theme that appears throughout this assessment, competing effectively with China over ideology should begin by reinforcing America's inherent strengths. Rule of law, representative government, ethnic diversity, and freedom of the press and religion are all vital U.S. assets that, if sustained domestically, can be trumpeted abroad—particularly when contrasted with the Chinese Communist Party's tightening chokehold on the rights and freedoms of the Chinese people.

Competing more effectively over narratives and ideology will also require greater attention and fundamental reforms to the U.S. government's ability to conduct strategic messaging and information operations. The United States will need new public diplomacy institutions—optimized for the digital age—that can effectively communicate and promote America's substantial contributions to the region's security and prosperity. Most elites and publics in the region still prefer American leadership, meaning that countries in the Indo-Pacific are primed to welcome a more coherent and positive American narrative, particularly if backed by the economic and diplomatic initiatives recommended in this report.

As China's propaganda machine continues attacking American democracy and society, U.S. officials should be highlighting the Chinese Communist Party's mistreatment of its own people, as well as the CCP's mismanagement of China's economy and foreign policy. Moreover, the United States can better leverage the fact that confidence in Communist Party Secretary Xi Jinping is low throughout much of the region, and Beijing's geopolitical motivations remain widely mistrusted. Shining a brighter spotlight on China's oppression at home and its corrupt and assertive activities overseas could provide a more realistic view of the ruling regime and make it harder and less desirable for surrounding states to accept China's regional leadership. Washington could do more to expose China's malign activities by selectively declassifying intelligence, as well as using U.S. public diplomacy to encourage Muslim populations around the world to more vocally condemn China's reprehensible actions in Xinjiang.

Finally, the United States should strengthen its own domestic protections against China's influence efforts, while also promoting resiliency within and among like-minded allies and partners. The U.S. government should institute mandatory transparency requirements for U.S. institutions that receive Chinese government funding and should broaden the Foreign Agents Registration Act (FARA) to include official Chinese propaganda and media. Given that CCP influence operations threaten democratic governance and other U.S. interests overseas, the United States should lead multilateral efforts on information sharing and best practices to limit China's ability to influence open societies.

Recommendations for U.S. Policy

STRENGTHEN U.S. PUBLIC DIPLOMACY IN THE INDO-PACIFIC

Rebuild and enhance U.S. public diplomacy institutions

The U.S. government’s current approach to public diplomacy is largely piecemeal, unfocused, and underresourced. Public affairs operations are not well coordinated across government agencies and are mostly tactical in posture—focused on day-to-day talking points, rather than on strategic messaging campaigns executed over months or years. The Global Engagement Center (GEC), mandated by Congress to lead the U.S. government in exposing and countering propaganda and disinformation by foreign actors, including China, remains understaffed relative to its expansive mission.⁷⁸ Going forward, the U.S. government should forge a more robust, whole-of-government public diplomacy capability that is optimized for the digital age.⁷⁹ Strategic messaging should be considered and developed as a core component of U.S. strategy in the Indo-Pacific, rather than an afterthought in support of existing policies. Within the State Department, measures to integrate training across different divisions—including political, consular, economic, management, and public diplomacy—could support a more unified public diplomacy apparatus through which effective messaging is used to advance policy outcomes. Public diplomacy officers should also be trained to work closely with designated counterparts in the intelligence community to respond to disinformation campaigns and engage in targeted countermessaging.⁸⁰

Optimize U.S. information efforts for social media and targeted audiences

Public diplomacy officers should further leverage video, graphic design, interactive infographics, and other formats to creatively disseminate information about U.S. government policies and initiatives. Foreign service officers and other in-country embassy staff should also be trained to employ U.S. and local social media platforms and use translations of different products to expand the reach of their messaging.⁸¹ U.S. public diplomacy should develop capabilities to detect and rapidly respond to emergent opportunities. For example, the State Department could leverage artificial

intelligence-powered sentiment analysis of local news and social media, as well as U.S. Embassy reporting, to track public attitudes and tailor U.S. public diplomacy accordingly.⁸²

Launch public diplomacy campaigns to highlight and promote U.S. economic initiatives, development assistance, and private-sector investments in the Indo-Pacific

Even more important than shining a light on China’s bad behavior, an effective U.S. counternarrative should highlight America’s positive contributions, particularly related to both the quality and quantity of U.S. economic engagement in the region, including substantial U.S. private-sector investments.⁸³ Washington should amplify messaging around the U.S. government’s vast economic and development assistance initiatives in the Indo-Pacific—including the establishment of a new U.S. International Development Finance Corporation, U.S. coordination with Japan on regional energy investments, and the establishment of a U.S.-ASEAN Smart Cities Partnership—as well as tangible USAID and OPIC-financed infrastructure projects and Department of Defense exercise-related construction (ERC).⁸⁴ This in turn requires providing ambassadors and their public diplomacy teams more freedom and financial latitude to pursue original initiatives that can spotlight enduring and reassuring forms of American engagement and investment.

EXPOSE CHINA’S ILLEGAL, AGGRESSIVE, AND REPRESSIVE ACTIONS

Communicate directly and more systematically to publics both at home and abroad about Beijing’s malign activities

Senior U.S. government officials and members of Congress should lead a systematic campaign to educate key U.S. stakeholders—including universities, civil society, and the private sector—about the nature of the China challenge. U.S. leaders should employ a full suite of social media, speeches, private briefings, and opinion pieces to communicate to the American people the urgency of coordinating a whole-of-society approach to compete with Beijing.⁸⁵ In public communications, members of the executive and legislative branches should clearly differentiate between the Chinese people and the malign activities of the CCP. In doing so, U.S. officials should absolutely avoid casting the challenge that

Beijing poses in civilizational or racial terms, which misrepresents the root of the problem and risks heightened xenophobia at home. In communications with global audiences, Washington should continue to raise awareness around challenges associated with China's overseas investment, including the erosion of national sovereignty, lack of transparency, unsustainable financial burdens, disengagement from local economic needs, geopolitical risks, negative environmental impacts, and the significant potential for corruption.⁸⁶

Redesign declassification processes to make it easier to release public information about the Chinese Communist Party's wrongdoings

U.S. intelligence agencies regularly acquire information about China's illiberal, illegal, and corrupt behavior against its own people and abroad. The executive branch should consider when it may be appropriate to loosen declassification processes and authorities to engage in more effective U.S. information operations. Too often, this information is unnecessarily classified and withheld from U.S. policymakers, the American people, and U.S. allies and partners. While still putting a premium on protecting intelligence sources and methods, selective declassification of certain information would better inform the U.S. public and the international community about the often corrupt and abusive domestic and foreign policies of the CCP.⁸⁷

Draw attention to the repression of Uighurs as a religious freedom issue and encourage Muslim communities in Southeast Asia and beyond to speak out

Public reactions in even Muslim-majority Southeast Asian countries to Beijing's oppression of Uighurs in China have been relatively muted. The main excuse that Chinese authorities give for Beijing's campaign of oppression in Xinjiang is that their goal is to prevent terrorism and increase safety.⁸⁸ Despite knowing better, many governments of Muslim-majority countries, in the absence of public pressure, have supported this false narrative. The United States, in its diplomacy with Muslim-majority countries in Southeast Asia and beyond, should articulate China's treatment of Uighurs as a religious freedom issue. One way to do this is to compile a comprehensive list of ways that Beijing directly targets adherence to Islam, including outlawing fasting during Ramadan, destroying mosques

and religious schools, punishing Uighurs for speaking languages other than Mandarin, and monitoring imam sermons in real time.⁸⁹ In relatively democratic Muslim-majority countries, greater public focus on Xinjiang as a religious freedom issue could help to create pressure on governments to respond.

BUILD RESILIENCY TO CHINA'S PROPAGANDA AND INFLUENCE OPERATIONS

Institute mandatory transparency for U.S. educational and civil society institutions receiving Chinese government funding

A number of U.S. universities, academic departments, individual scholars, think tanks, and other civil society organizations receive substantial funding from Beijing that is often targeted at shaping views and discourse on China.⁹⁰ Higher degrees of transparency can help to ensure that this funding is not generating hidden forms of foreign lobbying, self-censorship, or other activities that undermine core U.S. democratic principles. To that end, the U.S. government should significantly lower the funding cap that triggers a requirement for U.S. institutions to disclose these foreign contributions. Concurrently, Congress should also expand the reach of the Foreign Agents Registration Act to require universities to set standards and limits for student organizations and cultural exchange institutions that rely on external, especially foreign government, sources of funding.⁹¹

Require disclaimers on direct foreign government propaganda, including through reform of the Foreign Agents Registration Act

Positive initial steps have been taken to enforce FARA more systematically for state-run and state-funded press outlets to register as foreign agents, as well as the Federal Election Campaign Act, which requires that campaign-related advertisements contain disclaimers. To provide even broader public transparency, the U.S. government should require that Chinese and other state media label their public productions with clear and prominent disclaimers that indicate their funding streams, particularly from foreign governments.⁹² Congress should also bring greater scrutiny to U.S. media outlets that legitimize Chinese state-run propaganda by running it on their websites and in print in ways that are barely distinguishable from content that is generated or approved by the host platform.

Help to root out Chinese Communist Party influence in key ally and partner countries

The United States should convene regular dialogues with Five Eyes countries to share best practices for addressing China's influence efforts during elections, as well as in media, entertainment, academia, and the private sector. Beyond Five Eyes consultations, the United States should hold a similar multilateral dialogue with a more expansive grouping of allies and partners, particularly Taiwan and countries in Southeast Asia, as well as select countries beyond the Indo-Pacific that are at the front lines of CCP influence campaigns, including in Africa, Eastern Europe, and Latin America. As part of these larger dialogues, the United States should encourage its allies and partners to share technical expertise and best practices for identifying and countering CCP domestic interference, including through more rigorous reporting requirements for spending on paid advertisements, media ownership structures, and other ties to the CCP.⁹³ Recognizing that many of its allies and partners fear retribution by Beijing, the United States should publicly frame this dialogue as centered on upholding sovereignty against foreign interference, rather than explicitly aimed at countering CCP influence campaigns.

VI. Promoting Digital Freedom and Countering High-Tech Illiberalism

The digital domain will be a primary battleground between freedom and authoritarianism in the Indo-Pacific. A more open approach to the internet, stronger data protections, and shared telecommunications infrastructure would be a catalyst for the kind of free and open region championed by the United States. On the other hand, China's control of these assets would likely be cause for democratic decline and the narrowing of civil liberties and individual rights throughout large swaths of Asia.⁹⁴

Current trends in China provide a stark warning about how the Chinese Communist Party is harnessing a suite of new technologies—ubiquitous surveillance cameras coupled with facial recognition software, big data feeding the development of social credit scores, pervasive online censorship, and more—to facilitate repression and social control. China's high-tech illiberalism is most pronounced in the western region of Xinjiang, now a police state where Beijing has coupled 21st-century innovation with 20th-century-style mass detention camps to persecute the region's Uighur population.

Overseas, China has reoriented its Belt and Road strategy to focus more on digital connectivity, exporting infrastructure not only for communications, but also surveillance and censorship. Through the provision of technology, funding, and know-how, Beijing's digital expansion is making repression easier and more attractive to governments with weak democratic institutions, and further entrenching the rule of fellow authoritarian regimes. As China increases its role in the digital ecosystem of the developing world, Beijing is leveraging its influence to encourage a global shift toward a more closed model of internet governance. Left uncontested, already burgeoning trends of democratic decline and digital repression are certain to accelerate.

Washington has been slow to respond to these troubling trends. U.S. policymakers have largely focused on traditional national security dimensions of China's digital expansion, particularly the spread of its 5G infrastructure. While still managing this legitimate concern, the United States should adopt a more comprehensive approach to the wider set of governance challenges China's high-tech illiberalism poses. Doing so should focus on three main lines of effort.

First, Washington should bolster U.S. engagement with countries throughout the Indo-Pacific with an affirmative agenda in the digital domain, including by establishing a new U.S. Digital Development Fund,

leveraging the new U.S. International Development Finance Corporation, and deploying more digital attachés. Second, America should prevent China from dominating digital infrastructure in the Indo-Pacific, including by developing alternatives to Chinese companies for 5G infrastructure, increasing pressure on Huawei's 5G ambitions, and advancing access to fact-based information as a universal human right.

Finally, the United States should challenge China's most pernicious use of repressive technologies by levying targeted sanctions against individuals and firms that are complicit and imposing export restrictions to prevent U.S. firms from abetting these activities; developing and disseminating the means to disable China's censorship tools; and increasing support for foreign media, civil society, and government accountability throughout the region.

Recommendations for U.S. Policy

BOLSTER AMERICA'S DIGITAL ENGAGEMENT IN THE INDO-PACIFIC

Establish a new U.S. Digital Development Fund that would, in coordination with allies, support information connectivity projects in the Indo-Pacific and beyond

U.S. companies are often at a competitive disadvantage to Chinese firms in third markets given Beijing's financial and political support to its national technology champions. A new U.S. Digital Development Fund would help to rectify this imbalance by leveraging lines of credit to support information connectivity projects overseas, including in the Indo-Pacific. These projects would run the gamut from telecommunications equipment to online payment platforms to smart cities to undersea cables. Although preferencing American firms, the Digital Development Fund should have the ability to support and leverage cooperation with foreign companies based in (or ultimately controlled by) countries that adhere to widely recognized norms of online freedom of expression and privacy. The Digital Development Fund should be a standalone agency, which would ensure it does not get crowded out by competing organizational priorities, and enable it to serve as a symbol of enhanced U.S. economic engagement in the Indo-Pacific.

Direct the new U.S. International Development Finance Corporation to support projects in the Indo-Pacific that provide alternatives to China’s digital infrastructure

Washington should leverage the DFC’s resources and expanded authorities to promote digital alternatives to China. The DFC can help galvanize the entry of American technology firms that would otherwise not compete against Chinese firms in high-risk markets. Beyond supporting U.S. companies, Washington should leverage the expanded authorities granted to the new DFC to selectively back ally and partner firms that are well positioned to provide alternatives to China’s digital infrastructure.

Augment U.S. digital diplomacy in the Indo-Pacific with additional digital attachés and high-level “digital delegations”

The Department of Commerce’s Digital Attaché Program is an excellent tool for American companies that need assistance in understanding foreign regulatory policies and market dynamics. There are already Digital Attaché trade officers located in many major economies in the Indo-Pacific, including China, India, Indonesia, Japan, Singapore, and South Korea.⁹⁵ But there are still important opportunities to expand the program within the region to additional countries, including the Philippines, Thailand, and Vietnam. Another high-profile digital diplomacy opportunity would be the establishment of U.S. “Digital Delegations.” Co-led by the U.S. secretaries of state and commerce, these delegations would bring leaders from American technology companies to countries in the Indo-Pacific traditionally underserved by the U.S. private sector, such as Indonesia.

PREVENT CHINA’S DOMINANCE OF DIGITAL INFRASTRUCTURE IN THE INDO-PACIFIC

Revitalize global competition in 5G wireless technology

The United States has taken a series of defensive measures in response to China’s unfair competitive practices in 5G, as well as security concerns associated with China-controlled telecommunications infrastructure. Beyond just playing defense, the United States should also seek to revitalize American innovation, particularly in the radio access network (RAN). Rather than back a “national champion” as China has done with Huawei, the

United States should pursue a market-driven solution that leverages the advantages of American innovation and open competition. The U.S. government should work with U.S. industry leaders and allies and partners to revitalize competition in the global wireless telecommunications market, ensuring secure and trusted supply chains for telecommunications equipment.

One promising solution is to reorient the global telecommunications market by pushing for a shift to network virtualization—software-defined networks operating on generic hardware, rather than proprietary hardware. Because the software industry has relatively low barriers to entry, network virtualization promotes vendor diversity by enticing new entrants to the market. Increased interoperability prevents vendor lock-in, and marketplace competition incentivizes superior security practices for vendors to differentiate themselves from their competitors. Finally, network virtualization leverages American strengths in software and opens the door for U.S. firms to compete in 5G.

The U.S. government has a number of policy tools to work with industry to revitalize the 5G ecosystem, including R&D funding, tax incentives, and government buying power. OSTP should sponsor an interagency process, including the departments of State, Commerce, and Defense and the intelligence community, to work in partnership with U.S. industry leaders and U.S. allies and partners to identify market-driven solutions to revitalize the health of the global 5G ecosystem, particularly the RAN, and specific government policy actions that could assist the development of a more competitive market. Software virtualization should be considered, among other potential solutions, as a means to spur continued innovation, fair competition, and trusted suppliers for secure 5G networks.

Increase pressure on Huawei’s 5G ambitions while honing the current U.S. approach to the company

A decision by U.S. allies to allow Huawei to participate in their 5G networks poses significant national security risks, including that China could disrupt telecommunications networks during times of geopolitical tension. In addition, multiple assessments have found “significant” security flaws in Huawei equipment.⁹⁶ In response to these concerns, the U.S. government enacted rules in 2019 to prevent the export of most U.S.-made equipment to Huawei. However, existing Commerce Department rules do not prevent companies from shipping equipment to Huawei that is not of U.S. origin, and both U.S. and multinational companies continue to sell to Huawei.

As a result, Huawei has largely been able to continue operating, including building 5G networks, despite U.S. actions.

The United States should escalate pressure on Huawei's capacity to roll out 5G equipment by expanding prohibitions on the sale of equipment and services used in 5G network infrastructure to cover sales by the foreign subsidiaries of U.S. companies and to foreign companies, after an appropriate consultative process. Choking off Huawei's ability to purchase international parts and not just U.S.-origin equipment for 5G network equipment would create significant operational challenges to Huawei's efforts to build such networks and would deter network operators from purchasing such equipment from Huawei.

However, the United States should carefully calibrate its approach to Huawei's non-5G business, including handsets and tablets, which poses fewer risks and where Huawei is likely to remain a significant global player. The Commerce Department should carefully weigh whether to approve licenses for U.S. firms selling hardware and software to Huawei's handset business (and other non-5G business), considering the costs and benefits to U.S. firms, U.S. technology leadership, and whether cutting off such equipment effectively advances U.S. goals in undermining Huawei's 5G ambitions.

Actively reject the notion of “internet sovereignty” and advance access to fact-based information as a universal human right

Beijing has developed an authoritarian model of information management in which the state not only exercises censorship but also surveils populations, aggregates data, and curates content to shape popular perceptions in support of CCP goals.⁹⁷ Moreover, China is increasingly trying to market and export its concept of a closed and censored internet.⁹⁸ China's authoritarian model of information management appeals to less open governments in the Indo-Pacific, and in recent years, online freedom has eroded in the region, particularly in Southeast Asia.⁹⁹

The United States should take action—unilaterally, with allies and partners, and in multilateral organizations—to challenge Beijing's model and reinforce democratic alternatives. This starts with periodically introducing fact-based information into China's online ecosystem to highlight critical developments such as the protests in Hong Kong and demonstrate that Washington rejects Beijing's concept of “internet sovereignty.” In conjunction with select allies and partners, the United States should promote efforts to develop technology, institutional capacity, and media literacy in countries

of strategic importance to help citizens identify disinformation and inorganic content amplification in an increasingly polluted online space. Lastly, the United States should cooperate with allies and partners at the United Nations and in other relevant multilateral organizations to advance access to fact-based information.

CHALLENGE CHINA'S SURVEILLANCE STATE DOMESTICALLY AND OVERSEAS

Leverage America's economic toolkit to target actors facilitating the spread of China's high-tech illiberalism

The United States should use a combination of sanctions and export controls to impose costs on Chinese individuals and companies and deter American firms from becoming complicit in the use or creation of new digital tools for repressive ends. The executive branch has taken an important step forward by adding a significant number of Chinese high-tech companies implicated in human rights abuses against Uighurs in Xinjiang to the Entity List.¹⁰⁰ It should not undercut this action by offering temporary exemptions to American firms that do business with these companies. In concert with the use of the Entity List, the executive branch should leverage the Magnitsky Act as a response to Chinese human rights abuses in Xinjiang. It should also expand Magnitsky Act sanctions to include executives and managers in Chinese technology companies active in Xinjiang. This action will ensure that responsible individuals in China incur a personal economic cost for being directly involved in Beijing's systematic campaign of repression.

Design new means to circumvent China's “Great Firewall”

The United States should seek to disrupt the CCP's system of online censorship, which is a core element of Beijing's repressive toolkit. In the lead-up to its late 2017 Party Congress, Beijing began cracking down on virtual private networks (VPNs) and other mediums of dissent that had allowed Chinese consumers and visitors to China to circumvent China's firewall and access censored content.¹⁰¹ Since then, a variety of circumvention technologies, such as Freegate and Ultrasurf, have enabled users to penetrate firewalls by routing users' requests through unblocked webpages.¹⁰² The United States should expand and diversify its toolkit for communicating directly with Chinese citizens, both through circumvention technologies and other measures—including expanding

Chinese-language websites—to help create an alternative, fact-based information infrastructure.¹⁰³ Beyond developing more tools to evade firewalls, the U.S. government should continue to fund technologies and the distribution of devices that help dissidents maintain digital security, ensure mobile access, and reconstitute websites after a cyberattack.¹⁰⁴ To develop these tools and foster further innovation, the U.S. government should expand the sources of technology funding to include foreign governments, foundations, and the private sector.¹⁰⁵

Promote independent media, civil society, and government accountability throughout the Indo-Pacific

Independent media and robust civil society are vital to insulating countries from adopting China's model of high-tech illiberalism.¹⁰⁶ Since 2018, the U.S. government has bundled existing programs intended to strengthen democratic institutions and processes in strategically important countries under its Indo-Pacific Transparency Initiative, modestly increasing the funding available for such activities. Congress should double the current level of resources and avoid earmarking funds to specific countries or programming in order to enable the executive branch to rapidly respond as countries become receptive to American capacity-building efforts, as occurred after elections in the Maldives and Malaysia. Beyond capitalizing on emerging opportunities through more flexible funding, the United States should more actively support foreign civil society organizations that can promote good governance and play an important role in providing fact-based coverage of Beijing's activities within their home countries. Finally, in highly repressive environments where civil society is weak or nonexistent, the U.S. government can support public use of technologies to circumvent online censorship and protect journalists' anonymity in order to promote at least a limited flow of fact-based information concerning China's activities.¹⁰⁷

VII. Cultivating the Talent to Compete with China

Ultimately, the ability of the United States to shape the future of the Indo-Pacific will rest on whether America has the people and talent to continue fueling its economic power, innovation engine, government bureaucracies, and world-class military. With its democratic values, open economy, and diverse citizenry, the United States possesses a number of distinct advantages in the development of human capital. Nevertheless, while a common refrain in defense and technology circles is that people are America's greatest asset, in practice, senior leaders across sectors have treated human capital as a lesser or administrative concern. Without renewed focus, the American public and private workforce risks falling behind.

China, meanwhile, has recognized the imperative of developing and recruiting top talent. Beijing has initiated a top-down human capital agenda to increase investments in STEM education, target higher quality recruits for its military and civil service, and integrate its security and technology sectors.¹⁰⁸ Notably, China has in part sought to re-create America's core strengths within the limits of its state-driven system. Although China lacks critical ingredients that power America's innovation culture, it is striving to make up for these gaps with far greater attention and resources than are currently being applied in the United States.

That said, China's momentum is worth studying, but not duplicating—the U.S. response should instead seek to leverage its own best attributes.¹⁰⁹ The United States remains light-years ahead of China in terms of its recruitment, retention, and management of a professional military force. Nevertheless, trends similar to those China faces—competition with the private sector, demands for a more technically skilled force, and large percentages of youth disqualified from accession—will strain the Department of Defense's ability to maintain the cutting-edge force it requires.¹¹⁰ DoD has made headway in addressing some obstacles to service, with steady reforms in talent management,¹¹¹ broadening geographic recruitment,¹¹² experimenting with lateral entry,¹¹³ and honing career fields. Despite these efforts, the demands of great-power competition will necessitate even greater creativity and flexibility in military recruitment, training, and education.

Washington must also reform and elevate its public-service sector. Limited leadership attention and reliance on an antiquated federal personnel management system have stymied the national security bureaucracy's

ability to grapple with the China challenge. Going forward, the federal government will need to take several steps to more effectively hire, retain, develop, and promote the diverse and highly skilled civilian experts it needs to build and sustain a more competitive strategy in the Indo-Pacific.¹¹⁴ The United States should not take for granted that public service remains a top career choice for American youth and should dedicate the leadership necessary to maximize the potential of a diverse American federal workforce.

Finally, U.S. government, academic, and private-sector institutions should collaborate to build, source, and manage technical talent. A large proportion of technology workforce requirements in the public and private sectors is currently unmet.¹¹⁵ Private-sector competition with government for such talent is shaped in part by superior compensation and benefits, but bureaucratic and cultural factors are equally determinative. Public-private partnerships that might ease the strain of talent competition are difficult, with technology companies and workers often wary of cooperation with national security institutions.¹¹⁶ While seeking to overcome these obstacles, the United States should also look to draw upon the best and brightest from around the world. The United States should revise policies that limit high-skilled immigration, which can bolster the American workforce.¹¹⁷

These changes will be all the more impactful if they are comprehensive, addressing human capital as a complex ecosystem: Investments in education without a military and public sector prepared to utilize such talent is a missed opportunity; reforming uniform and federal personnel systems without enabling permeability within and among these fields is an unnecessary constraint of talent; and strengthening the U.S. tech sector, while making no progress on its strained relations with key government agencies, is harmful to U.S. economic and security interests.

In the final analysis, people have to be at the core of America's strategy to compete with China in the Indo-Pacific. A diverse, skilled, and flexible American workforce—in uniform, in Silicon Valley, in government bureaucracy, and in the classroom—is essential to enhancing American competitiveness in the Indo-Pacific. But U.S. leaders must recognize that it is no longer sufficient to passively rely on inherent American advantages. America's mobilization of talent can and should be a primary advantage in strategic competition with China—but only if the U.S. government gives commensurate focus to this vital arena of the contest.

Recommendations for U.S. Policy

EMPOWER THE U.S. MILITARY TO COMPETE IN THE BATTLE FOR TALENT

Broaden military recruitment strategies to fully leverage America's talents

The Department of Defense should continue broadening its efforts to expand the pool of recruits into each of the services, reflecting the growing need for a highly skilled and diverse force. Today, a range of operational and cultural factors intersect to make military service less attractive to vital targets in the recruit population: two decades of high-tempo operations in the Middle East and Afghanistan; policies that fail to leverage the potential contributions of women and underrepresented minorities; limited connections between those in uniform and much of the population; and the belief that many high-demand skills will be better rewarded and utilized outside the military. Recent programs to recruit in traditionally underserved areas are a good first step but will need to be backed by wider civil-military engagement and education to demystify elements of military service.¹¹⁸ A broader challenge is mobilizing the rich diversity of America and persuading populations who do not see themselves having a career in the military that their service is valuable.¹¹⁹ This will require addressing policies and regulations that unnecessarily deter vital pools of talent, as well as modernizing force management and military benefits, including health care, child care, and dual-military family services.¹²⁰ Other policies that reduce the propensity to serve among younger populations demand top-down attention and reversal, including recent transgender service bans, slow acceptance of women in leadership or combat roles, and medical prohibitions with little relevance to cyberwarriors.¹²¹ Likewise, the Military Accessions Vital to National Interest program—which allowed recruitment of immigrants with special language, cultural, and technical skills that may prove uniquely useful in the Indo-Pacific—should be reinstated.

Scale military talent management initiatives across active and reserve components

There already exist several pilot programs and task forces designed to make the best use of the present force and maximize its skills, knowledge, interests, and potential.¹²² There is no shortage of ideas and energy, and many military leaders publicly recognize the human

capital challenges they face: military skill requirements growing more technical, dual-career families requiring greater flexibility, informal networks and requirements driving promotions, and service members growing dissatisfied with how their expertise and expensive training is (or is not) used. These problems are exacerbated by frequent leadership transitions, insufficient or inaccessible service member data, obsolete evaluative metrics, and accommodation of antiquated systems and preferences.¹²³ Military service leaders should elevate talent management to the top of their priority list, investing in end-to-end systems and institutionalizing worthwhile reforms early and across the full scope of active and reserve forces. They should in parallel demand regular feedback and red-teaming on implementation, modifying as needed to ensure new talent management systems do not result in the same old outcomes. At the same time, the military services need to excel at the back office basics, such as modernized data management, timely pay and reimbursement, or simple connectivity between the dozens of legacy personnel systems required as service members proceed through their career. While the personnel management and administrative backbones of all services are out of date, those of most reserve components are incapable of supporting today's operational tempo and tomorrow's demands.¹²⁴ These challenges will only grow as the Reserves are able to access the wide variety of skills necessary for great-power competition.¹²⁵ Likewise, the services' growing need for permeability across active and reserve components—like a single appointment authority for officers—should reinforce the need to make these reforms a strategic priority, not an administrative afterthought.

Modernize military training, education, and incentives for technical, regional, and language skills

Given the difficulty of simply recruiting all of the personnel necessary for competing effectively in the Indo-Pacific, the U.S. military should do more to develop much-needed skills within the force. For example, the military services should look to the Air Force's Computer Language Initiative as a model for creating career-driven incentives for skill-building in high-demand areas.¹²⁶ Incentivizing personnel to pursue Indo-Pacific languages and regional expertise—both within and outside the foreign area officer community—is another evident step, but will require demonstrating that such investments are rewarded with career advancement in the way of relevant assignments and promotion paths.¹²⁷

STRENGTHEN THE CIVILIAN NATIONAL SECURITY WORKFORCE

Generate leadership expectations of human capital management, including national security civilian readiness metrics

Readiness measures exist in the U.S. military, but no civilian corollary exists. Senior administration officials across all national security agencies should make clear to their subordinates at all levels that they consider national security human capital to be among their top priorities. Appointees' performance must be judged by their attention to the health and strength of their workforce, and agency leaders should regularly engage their teams on whether they have the talent necessary to support National Security Strategy execution. With these inputs, the National Security Council should initiate a process to generate metrics for national security civilian readiness.

Modernize and reduce barriers in federal hiring processes

Without renewed and dedicated investment in recruiting and retaining talent, the U.S. government will struggle to develop and implement a more competitive approach to the Indo-Pacific. Too often, talented national security experts are deterred from federal service due to needless barriers that do not screen for quality.¹²⁸ Agencies continue to rely on belated, short-lived, and inefficient authorities to hire high-demand regional and technical talent, and inadequately utilize those experts emerging from federally funded academic studies.¹²⁹ Although government remains a top career interest for college students,¹³⁰ a wide range of government-controlled factors deters such service. As a consequence, America's federal workforce is aging and young talent is underrepresented, particularly when compared to the private sector.¹³¹ As a starting point to address these issues, the public sector should dedicate resources for regular retraining of managers and human resource specialists to access the full range of authorities and opportunities for hiring and managing a workforce.¹³² Moreover, as encouraged by recent Office of Personnel Management guidance, hiring managers need to be brought more closely into hiring processes, such as in the United States Digital Service system, in which they can regularly communicate with candidates.¹³³ National security agencies should also share lessons of pilot programs to recruit those with high-demand technical expertise—which vary considerably from DoD to the Department of Homeland Security—and make them permanent.

Jump-start civilian professional development to build high-demand skills

After years of underinvestment, national security agencies should allocate specific funds for professional development of their current workforce. Just as important as recruiting high-demand skillsets is upskilling present employees in technical and regional areas vital to the Indo-Pacific.¹³⁴ Investing in personnel fluency in technical policy matters relevant to artificial intelligence, 5G, quantum computing, and other advanced technologies will offer significant return.¹³⁵ Likewise, seasoned policymakers without substantial experience in the Indo-Pacific should receive additional training in the form of short courses on the region's cultural, political, and security dynamics.¹³⁶ Such investments should be linked to personnel assignments, service commitments, future professional development, and other talent management incentives as appropriate.

Enhance talent mobility across the national workforce

On- and off-ramps for the federal workforce are limited by both policy and culture. While federal employees once sought a three-decade career within a single agency, younger personnel have different expectations for career management. Likewise, many evolving fields (from STEM to regional expertise) benefit enormously from experts who can refresh their knowledge and experience by moving in and out of government, with simplified paths of exit and reentry. To create a flexible and permeable workforce, the Office of Personnel and Management should work with Congress and federal agencies to change present policies to allow prior government employees to be rehired noncompetitively at any level for which they are qualified.¹³⁷ Just as importantly, agencies should remove barriers to talent movement between departments and agencies—including excessive and slow security clearances and transfers. Finally, federal agencies should enable more seamless on-ramps for internship and fellowship programs.¹³⁸

Update federal education fellowships for great-power competition

The U.S. government funds a wide range of national security programs for postsecondary and graduate education, with highly variable requirements for service, such as the Boren Scholarship and Fellowship, the National Defense Science and Engineering Fellowship,

Critical Language Studies scholarships, and the Foreign Language and Area Studies program. While these programs continue to have real merit, many deserve updating to reflect the demands of the modern economic and security environment. Hiring managers and human resources professionals have inconsistent understanding of their access to specific experts with service requirements, such as Boren Fellows, reflecting a real need for up-to-date training resources across national security agencies.¹³⁹ Scholars with no service requirements (such as Foreign Language and Area Studies) have little to no ongoing ties to national security institutions after degree completion; in fact, many scholars who pursue field research and study find themselves at a disadvantage for cleared positions in practice, despite their federally invested knowledge. Although adjusting these programs to require federal service may deter participation, sponsoring agencies should explore other options to make better returns on investment, including giving preferred status for civil service hiring for veterans of these programs; voluntarily enrolling them as government consultants for relevant agencies; making security clearance allowances for program alumni; and making term-limited appointments available for short periods. Agencies could also consider creating new, frequently updated fellowship programs reflecting current regional, language, and technical needs for the Indo-Pacific. Regardless, the United States should increase its investments in language, area-relevant studies, and high-demand STEM field education.

INVEST IN THE PUBLIC-PRIVATE TECHNOLOGY WORKFORCE

Surge support for science, technology, engineering, and math education across secondary, postsecondary, vocational, and workforce retraining levels

The United States is not meeting critical public and private technology workforce requirements. In response, the U.S. government should further invest in STEM education at all levels. Although the United States still possesses many of the world's leading institutions in STEM research and education, young Americans continue to lag globally. And despite some signs of progress in increasing testing levels overall, unequal access to STEM higher education across gender, ethnic, and socioeconomic groups remains a considerable problem.¹⁴⁰ As a consequence, the United States faces an acute personnel shortfall in critical high-technology

areas, such as cybersecurity and artificial intelligence. The White House has already generated a strong and practical strategy for STEM education under the auspices of its National Science and Technology Council.¹⁴¹ The strategy is comprehensive, emphasizing the need for widespread STEM literacy in the general public, diversity and inclusion in STEM educational opportunities, and preparing the STEM workforce for the future, with specific potential actions across these goals. But implementation and follow-through will be critical. The NSTC should work collaboratively with Congress to develop an implementation plan to execute the council's recommendations, task specific agencies, generate sustainable resources, and partner productively with the private sector and academia.

Raise the overall cap for H-1B visas and remove the cap for advanced-degree holders entirely

To compete effectively with China, the United States should attract and leverage high-tech talent from around the world. U.S. technology companies have relied on H-1B visas to fill shortfalls in critical areas, yet the number of H-1B visas has been capped since 2005 at 85,000 per year, with 20,000 visas designated for those with graduate degrees. Meanwhile, the demand for foreign talent has surged, with 199,000 applicants in 2018.¹⁴² Particularly at a time of historically low unemployment, this is a remarkable lost opportunity for the United States. Congress should move quickly to raise the overall H-1B cap and remove the cap entirely for advanced-degree holders.

Improve workforce mobility between private sector and government technology roles

Although political and mission differences will limit the eagerness of some high-tech workers to pursue short- or long-term stints in government, small investments could make some transitions easier and more attractive. The most obvious is the security clearance process, which is undergoing positive reform but whose complexity and backlog undoubtedly deter talented and interested personnel from pursuing government roles, even temporarily.¹⁴³ Because of that, continuous focus on expediting the process and reviews and improving continuous monitoring should be a national security priority. Along with improving clearance processes, national security agencies should continue to carve out, to the extent possible, noncleared roles that enable working closely with technical talent on critical security challenges. The

United States Digital Service has been a notable success for temporary exchanges and should be sustained across administrations.¹⁴⁴ Finally, agencies with high technical demands should consider bureaucratic and cultural shifts that might encourage more technical hires, such as permitting opportunities to work remotely, as well as making serious investments in the modern hardware and software both necessary and expected by today's technology workforce.

Identify and appropriately staff critical technology roles in government

Many vital policy and management functions within government demand technical expertise that may not be resident within the present federal workforce at senior levels or within the typical political appointee cadre. These pools of talent must be expanded at the leadership level, which requires revisiting the natural candidates for such jobs and the required skills. National security agencies should begin the process of identifying required technical skills for specific senior roles—management officers, technology and information officers, cybersecurity policy overseers, acquisition officials, and more—doing what they can to highlight needs and match them to external recruits. The technical skills needed to advise policymakers will differ from those necessary to build management systems, test weapons platforms, or purchase software.

A Call

for Bipartisanship

It is no secret that partisanship in Washington is at a fever pitch. Some degree of political competition, of course, is natural and even healthy for American democracy. No single party has a monopoly on good ideas, and the American people deserve a range of choices in their leaders and associated policies. At the same time, however, American foreign policy debates are increasingly infused with and defined by partisan divisions—often to the detriment of U.S. power and influence in the world.

If policy toward China falls prey to similar dynamics, the United States will fail to rise to the China challenge. Renewing American competitiveness in the Indo-Pacific will require the kind of bold decisions, sustained attention, well-functioning government, and willingness to commit resources and endure costs that can only be achieved through bipartisan cooperation. While neither political party will get everything it wants, it is also the case that there is considerable overlap of political interests across each vector of American competitiveness outlined in this report. Where partisan differences do exist, it will be incumbent upon leaders on both sides of the aisle to compromise and make tradeoffs in ways that are unfortunately not the norm in present-day U.S. politics. Pursued deftly, competition with China should bring American political leaders together rather than drive them apart.

It is encouraging that there exists today a strong bipartisan consensus on the need to compete with China. It is imperative that this be sustained proactively. Efforts to gain partisan advantage on China policy should be avoided and rejected. We believe this is possible: The day-to-day lived experience at the Center for a New American Security is that Republicans and Democrats can still come together to find common ground in areas of vital U.S. interest in the world. This report is the product of a commitment to bipartisanship and the belief that China strategy should be an area where U.S. policymakers can rise above party politics. It is our hope that current and future generations of America's leaders share this obligation to work together to renew U.S. competitiveness in the Indo-Pacific and beyond.

Endnotes

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