SEPTEMBER 2020



CHINA TASK FORCE REPORT

CHAIRMAN MICHAEL McCAUL

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED AND SIXTEENTH CONGRESS

TIMELINE: 40 YEARS OF U.S.-CHINA RELATIONS

1972

President Richard Nixon visits the People's Republic of China (PRC) in February and meets with Chairman Mao Zedong

1979

Then-President Jimmy Carter grants full diplomatic relations with the PRC

1984

President Ronald Reagan visits the PRC

1989

Tiananmen Square massacre

1993

Clinton launches what's known as "constructive engagement" with the PRC

1996

The PRC attempts to influence the 1996 election through illegal campaign donations

2000

U.S. and the PRC normalize trade relations and the PRC joins the World Trade Organization

2008

The PRC becomes the largest foreign holder of U.S. debt, passing Japan

2010

The PRC becomes the world's second largest economy, only behind the U.S.

2014

Chairman Xi Jinping calls for "absolutely no mercy" in Xinjiang, laying the groundwork for massive concentration camps

2015

President Obama hosts Chairman Xi for a state visit, where the PRC pledges they do "not intend to pursue militarization" of the South China Sea

2018

In response to IP theft and other harmful trade practices, President Donald Trump begins to place tariffs on imports from the PRC. The PRC retaliates with tariffs of their own, kicking off a trade war

2019

March: Hong Kongers begin to protest the Hong Kong extradition bill

May: U.S. Commerce Department places Huawei on its "Entity List," restricting its access to U.S. technology

November: In response to the brutal crackdown by the police, President Trump signs the Hong Kong Human Rights and Democracy Act

2020

The CCP covers up the coronavirus outbreak, allowing the virus to turn into a pandemic

June 30th: The PRC passes a new national security law imposing severe punishments for anyone both inside and outside Hong Kong for encouraging democratic ideals, obliterating the long-standing "one country, two systems" policy

July 14th: In response to the Hong Kong national security law, President Trump ends the U.S.' preferential trade status with Hong Kong

July 23rd: U.S. orders the PRC to close its consulate in Houston, calling it a hub of espionage. The PRC retaliates by closing the U.S. embassy in Chengdu

September 30, 2020

The Honorable Kevin O. McCarthy Republican Leader House of Representatives Washington, D.C. 20515

Dear Leader McCarthy,

Pursuant to your May 7, 2020, announcement on the formation of the **China Task Force (CTF)**, which you empowered me to Chair, I submit to you the report.

The greatest generational challenge we face today is the threat of the Chinese Communist Party (CCP). As a result of the COVID pandemic that has so far killed one million people worldwide, and decimated the world economy, America has woken up to what many of us have been talking about for some time - that the CCP is our strategic adversary and has been going to great lengths to spread its deception and malign influence around the world.

You charged the 15 Members serving on the CTF, representing 11 committees of the U.S. House of Representatives, with examining six CCP-related challenges: Ideological Competition, Supply Chains, National Security, Technology, Economics and Energy, and Competitiveness. The CTF conducted over 60 briefings with current and former top administration officials on both sides of the aisle, business executives, Ambassadors, and various outside experts. In total, the CTF engaged with more than 130 leaders to listen to their insights and solutions. After months of virtual and socially distanced, in-person classified and unclassified briefings, the CTF drafted this report with 82 key findings and more than 400 forward leaning recommendations.

For over six months, you discussed the creation of a bipartisan task force to develop long-term solutions to address the malign behavior of the CCP. Unfortunately, when the time came to begin this effort last May, Democrat leaders decided it was "a diversion" and refused to participate. However, as you know, the CTF repeatedly invited Democrats to join our efforts on this pressing challenge. For example, in July, the CTF invited all Members of the House to present their ideas or bills for consideration; only Republicans showed up. In addition, we invited all Members to provide examples of CCP activity in their districts (e.g., IP theft); only Republicans responded.

I believe the report would have been even further enriched by Democrat participation. The CCP does not respect ideological differences and we are always stronger as a country together. In that spirit, the CTF prioritized recommendations that have bipartisan support and have already moved forward in the legislative process. As a result, well over half of the legislative recommendations are bipartisan and more than one-third have passed either the House or the Senate. This report is the blueprint for bipartisan action Congress and the Administration can take now to address the **greatest national and economic security challenge of this generation.**

I commend you for creating this Task Force and I look forward to working with you and my colleagues on both sides of the aisle to implement the Task Force's recommendations.

Sincerely,

Michael T. McCaul

Chairman, China Task Force

PI W/and

The United States wants an open and constructive relationship with China, but achieving that relationship requires us to vigorously defend our national interest. The Chinese government has continually violated its promised to us and so many other nations.

- U.S. President Donald J. Trump, "Remarks by President Trump on Actions Against China" May 29, 2020

America had hoped that economic liberalization would bring China into greater partnership with us and with the world. Instead, **China has chosen economic aggression...**"

- U.S. Vice President Mike Pence, "Remarks by VP Pence on the Administration's Policy Toward China" October 4, 2018

Look, we have to admit a hard truth. We must admit a hard truth that should guide us in the years and decades to come, that if we want to have a **free**21st century, and not the Chinese century of which Xi Jinping dreams, the old paradigm of blind engagement with China simply won't get it done.

We must not continue it and we must not return to it."

- U.S. Secretary of State Michael R. Pompeo, "Communist China and the Free World's Future" July 23, 2020

CHINA TASK FORCE

Republican Leader Kevin McCarthy

California

China Task Force Chairman Michael McCaul

Texas

Rep. Adam Kinzinger

Illinois

Rep. Andy Barr

Kentucky

Rep. Chris Stewart

Utah

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Rep. Anthony Gonzalez

Ohio

Rep. John Joyce

Pennsylvania

Rep. Guy Reschenthaler

Pennsylvania

Rep. Denver Riggleman

Virginia

Rep. Michael Waltz

Florida

The China Task Force would like to thank the many individuals and organizations who made the review possible. While some are not listed by name in this report, their inputs were not forgotten and helped shape the findings and recommendations contained herein. Most important the Task Force would like to thank the many staff members who contributed to the final product for their hard work and dedication to country.

Luke Murray, Leader McCarthy Republican Staff Lead Brendan Shields, Chair McCaul Republican Staff Lead

Special thanks to Committee and Member office staff who contributed to this final report:

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The **China Task Force (CTF)** conducted an expansive survey of U.S. interests relating to the People's Republic of China, to clarify the scale and urgency of the threat of the Chinese Communist Party's (CCP) global malign behavior and develop a specific and actionable response plan. A summary of its recommendations can be found in Appendix I. The CTF conducted briefings with current and former administration officials on both sides of the aisle, business executives, Ambassadors, and various outside experts. In total, the CTF met with more than **130 leaders** in over **60 engagements** to gather information, learn about their perspectives and ask questions.

The **15 Members** of the China Task Force represented **11 committees** in the U.S. House of Representatives. Their diverse experience ensured the China Task Force could best address this multi-faceted challenge. The Members were assigned to **six pillars** to address the various aspects of the China Challenge: Ideological Competition, Supply Chain Security, National Security, Technology, Economics & Energy, and Competitiveness. Staff from the committees and personal offices supported the Members by providing policy expertise in addition to facilitating briefings and conducting research. While the full CTF held over a dozen of briefings, the bulk of the engagements were handled at the pillar level.

The CTF's overall goal was to use the information gathered to assemble a comprehensive report and action plan to illustrate to the American public how Congress and the Administration can best address the growing dangers of the CCP.

Where practicable, the CTF cited publicly available sources, due to the fact that most of the China Task Force's briefings were either closed to the public or classified. The final report was submitted to Republican Leader Kevin McCarthy on September 30, 2020, to be considered and prepared for final release.

EXECUTIVE SUMMARY

The Generational Threat of the Chinese Communist Party

Since the establishment of diplomatic relations with the People's Republic of China (PRC) more than 40 years ago, the United States has sought to draw the PRC into the community of nations as a responsible stakeholder. U.S. leaders pursued a strategy of engagement based on the assumption that expanding the bilateral economic relationship with the PRC would advance the U.S. national interest and lead the Chinese Communist Party (CCP) to change. This engagement strategy often turned a blind eye to the CCP's human rights violations, economic malfeasance, expansionist aggression, and empty promises, as well as the CCP's deep commitment to a hostile Communist ideology that drives this malign behavior. This strategy has, simply put, failed.

In just the past year alone, the CCP has violated an international treaty and dismantled Hong Kong's civil liberties; continued its oppression of ethnic minorities, including Uyghurs and Tibetans; increased its military buildup, conducted increasingly belligerent provocations, and violated other nations' sovereignty at sea; engaged in fatal skirmishes to conduct a land-grab on the Indian border; and asserted new territorial claims over Bhutan. Moreover, by silencing doctors and suppressing medical information from the world, the CCP allowed a local outbreak of a virus to turn into a global pandemic, killing almost one million people to date and devastating the global economy. This pandemic exposed various U.S. supply chain vulnerabilities, the dangers of U.S. overreliance on the PRC, and the need for a more robust domestic medical and technological manufacturing capacity.

This series of wakeup calls has revealed how CCP ideology is undermining the core principles of the international system and putting Americans' safety and prosperity at risk. Leniency and accommodation of the CCP and its oppressive agenda is no longer an option. To preserve democracy and freedom around the world, the U.S. must act decisively with our allies to regain the initiative. Addressing such malign conduct can no longer be one of many priorities for our respective governments, but rather the organizing principle of the free world.

Assessing the Chinese Communist Party Threat

Recognizing the urgency and magnitude of the CCP's threat to American values and interests, Republican leaders in the U.S. House of Representatives set out to develop a policy action plan for Congress and the Administration to better combat this multifaceted challenge. Despite numerous and repeated invitations over a series of months, House Democrats refused to join or contribute to this vital effort. The GOP had no choice but to move forward independently due to the exigency of the threat.

Fifteen Members representing 11 Committees addressed he U.S. strategic competition with the CCP by focusing on: Ideological Competition, Supply Chain Security, National Security, Technology, Economics and Energy, and Competitiveness. The CTF conducted briefings with current and former administration officials on both sides of the aisle, business executives, Ambassadors, and various outside experts. In total, the CTF engaged with more than 130 leaders to provide insights and solutions for its comprehensive action plan.

Results of the Review

After months of virtual and socially distanced, in-person classified and unclassified briefings, the CTF drafted this report with 82 key findings and more than 400 forward leaning recommendations. The CTF prioritized recommendations that have bipartisan support and have already moved forward in the legislative process. As a result, well over half of the legislative recommendations are bipartisan and more than one-third have passed either the House or the Senate. This report is the blueprint for bipartisan actions Congress and the Administration can take now to address the greatest national and economic security challenge of this generation.

Key CTF Recommendations Include:

Ideological Competition

- Evaluating whether the CCP's crimes against Uyghurs amount to genocide, fully implementing sanctions laws enacted in response to the CCP's Hong Kong crackdown, and taking further specific actions to respond to the full range of CCP human rights violations, from religious freedom violations to forced organ harvesting.
- Coordinating a whole-of-government offensive information statecraft campaign to counter the CCP's propaganda machine by using truth and our values to undermine CCP's lies and malign ideology.
- Ensuring our citizens are aware when they are watching or listening to CCP sponsored and censored media and entertainment content.
- Countering the CCP's global malign influence by requiring transparency and accountability within the United Nations system, including at the World Health Organization.
- Funding technologies and the distribution of devices that help democracy fighters maintain digital security, ensure mobile access, and reconstitute websites after a cyberattack.
- Highlighting the CCP's rampant environmental destruction, including its status as the world's largest carbon emitter.

Supply Chain Security

Better securing our medical and national security supply chains by:

- Providing aggressive, smart, and targeted tax incentives to accelerate our research and development (R&D) and production of crucial medicines, medical supplies, ingredients, tests, and vaccines;
- Creating a grant program necessary to catalyze domestic production of important technologies and designing tax incentives to secure U.S. supply of advanced semiconductors; and
- Overhauling the federal permitting process for mineral development and prioritizing advancements in mineral refining so neither industry nor the Defense Industrial Base are reliant on the CCP.

National Security

- Working with the DoD to modernize force structure, posture, operational concepts, and acquisitions in order to deter CCP aggression in the Indo-Pacific and around the world.
- Ensuring modernization of all three legs of the nuclear triad as well as development and fielding of conventional capabilities critical to counter the PLA in the Indo-Pacific, including ground-launched cruise and ballistic missiles.
- Underscoring the need for a minimum three to five percent real growth in the defense budget per year in order to deter and defeat the PLA and other key adversaries.
- Increasing focus on how the U.S. military protects space capabilities and carrying out space exploration goals by leveraging private sector investments.
- Cutting off material support of CCP military industrial base companies, including divestment from companies with ties to the CCP's military.
- Safeguarding the U.S. electoral process and the integrity
 of our elections with various measures, including the
 identification of foreign malign actors and ensuring any
 individuals who engage in interference are inadmissible
 for entry to the U.S. or deportable if already present.
- Providing more resources for investigations, criminal prosecutions, and other actions against CCP sponsored IP theft in addition to closing loopholes the CCP has exploited in our visa system.
- Enhancing federal counterintelligence capabilities and bolstering Mandarin language capacity.

Technology

- Taking a whole-of-government approach to assess the security risks posed by the PRC in 5G networks and increasing cooperation between the U.S. and its allies and partners in identifying and countering them.
- Supporting the formation of a new D-10 group of leading democracies to develop and deploy 5G and subsequent generations and establishing a reimbursement program for companies to remove equipment from their communications networks that poses a national security risk.

- Securing international leadership in the technologies of tomorrow, including Al, quantum, 5G, and autonomous vehicles.
- Sanctioning PRC telecommunications companies engaged in economic or industrial espionage and any PRC entity that tries to hack COVID-19 researchers working on a vaccine.

Economics and Energy

- Ensuring no U.S. taxpayer dollars support any PRC stateowned enterprises.
- Harmonizing export control policies with our partners and allies to keep critical technologies, including semiconductor manufacturing equipment and R&D, from our adversaries.
- Applying heightened scrutiny for investments in U.S. companies or operations from the PRC.
- Strengthening trade relationships with our allies to establish U.S. standards and counter the PRC's influence.
- Pursuing trade policies that deter and protect against the PRC's theft of IP.
- Enforcing reciprocal treatment of PRC investment into the U.S. to restore symmetry in bilateral investment rules.
- Ensuring PRC companies are held to the same financial disclosure standards as American companies when listing on U.S. stock exchanges.
- Working to deepen our trade ties with Taiwan and resolving specific outstanding trade issues so the Administration can take steps to launch trade agreement negotiations once those issues are addressed.
- Strengthening the Development Finance Corporation, Export Import Bank, and other government efforts to more robustly counter the CCP's Belt and Road Initiative and debt trap diplomacy.
- Continuing to advance U.S. energy security in order to be a global counter against the PRC, particulary on the nuclear energy front.

Competitiveness

- Doubling the funding of basic science and technology research over the next 10 years.
- Increasing coordination and funding for STEM education to create a more capable, skilled workforce.
- Strengthening the protection of sensitive research at America's colleges and universities and leading research institutions which includes restricting all federal employees and contractors from participating in foreign talent programs.
- Requiring colleges and universities to annually report all donations from the PRC.

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The Chinese Communist Party is heading even faster and further in the wrong direction – more internal repression, more predatory economic practices, more heavy-handedness, and most concerning for me, a more aggressive military posture."

- U.S. Secretary of Defense, Mark Esper Munich Security Conference February 15, 2020

Many of the distinctions that we hold dear and that are so ingrained in the way we operate in this country are blurred – if they exist at all – in China. I'm talking about distinctions between the Chinese government and the Chinese Communist Party, distinctions between civilian and military sectors or uses, distinctions between the state and their business sector.

INTRODUCTION

Introduction

In his farewell address in January 1989, President Reagan reminded all Americans that "as long as we remember our first principles and believe in ourselves, the future will always be ours." He went on to reassert that U.S. policy toward the Soviet Union—or any totalitarian regime—must be based on facts and deeds, not wishful thinking and promises. The Great Communicator's words remain touchstones of American wisdom and strength.

Six months later, the Chinese Communist Party (CCP) slaughtered thousands of innocent students peacefully assembling on Tiananmen Square to call for democratic reforms. Yet the very next month, the U.S. National Security Adviser secretly went to Beijing to meet with the CCP's top leader Deng Xiaoping, who ordered and oversaw the massacre. Visiting again just five months later, the same U.S. official toasted his CCP hosts three miles from the scene of the massacre at Tiananmen, saying his delegation had "come here today as friends to resume our important dialogue."

U.S. leaders quickly abandoned President Reagan's advice to remember our first principles, and successive administrations helped build the strength of the CCP despite its outright hostility to U.S. values. Ignoring the CCP's own stated goals and actions, U.S. leaders justified this decision on the faulty assumptions and empty promises that greater levels of trade and investment between our two countries could induce the CCP to liberalize its political system and economy.

If this policy of unprincipled engagement continues, the U.S. stands to lose the future to today's communist superpower.

This overly optimistic policy has already resulted in countless factories across our nation being shuttered and millions of Americans losing their jobs. The stakes are as urgent as they are existential, as the CCP sets its sights on the crown jewels of American economic and technological competitiveness—including artificial intelligence (Al), semiconductors, and quantum computing. A two-million-person military with a nuclear deterrent capable of placing all the continental U.S. under threat is shifting the balance of military power towards the CCP as its ambitions become increasingly global. The CCP is jeopardizing the transparency and accountability of an international system that was meant to prevent crises like the COVID-19 pandemic.

To secure the future, the U.S. must apply President Reagan's wisdom. Our approach to the People's Republic of China (PRC) must be rooted in American principles and based in reality. This starts with acknowledging that the CCP is completely committed to a hostile communist ideology that seeks to eliminate any perceived threats

to its security—chief among them the values that underpin American society and the U.S.-built international system.

Communist ideology dictates the CCP's every decision and action. Ethnic and religious minorities are being blindfolded and shipped to concentration camps, once free people in Hong Kong have had their civil liberties stripped away, democracies like Taiwan are being intimidated by hostile military drills, and people of faith in Tibet and throughout the PRC are having religious scripture rewritten according to 'Xi Jinping Thought'. These realities, which have been largely ignored by previous U.S. administrations, must be the starting point for U.S. policy toward the CCP, otherwise our nation risks losing the freedoms that past generations fought and won for us. The time for debate is over, we must act.

The Chinese Communist Party

The U.S. will not be able to come to grips with China today without an understanding of the CCP. The CCP is the world's longest-ruling communist party and will commemorate its 100th anniversary in 2021. To extend his regime's survival, General Secretary Xi Jinping cautions his CCP members that the Soviet Union collapsed not from military or economic strain, but from losing its devotion to Marxist-Leninist ideology. Central to the CCP belief system is a dogma that communism is superior to all other governance systems, including democracy. When speaking for domestic audiences, CCP leaders constantly reiterate their unswerving loyalty to Marxist theory, and state that the totalitarianism of the CCP is the essence of their government.

The leadership of the CCP is the essence of Socialism with Chinese Characteristics... the Party is the highest political leadership power."

- Chinese Communist Party Central Committee, 20192

Yet, since the U.S. established diplomatic relations with the PRC in 1979, U.S. government policy has downplayed the fact that the PRC is a communist nation. Indeed, Americans have used a Western lens to analyze the PRC and our own language to describe it. The U.S. government and media routinely refer to Xi Jinping as the PRC's president, which confers an implicit democratic legitimacy to his position. However, Xi does not hold the title of "President"—the position does not even exist in the PRC government—and is never referred to as "President" in Chinese-language media. Of his three titles—General Secretary of the CCP, Chairman of the Central Military

Commission, and Chairman of the PRC—his government role is always listed last because it is the least important. As a result, Americans and others have failed to understand that General Secretary Xi's power comes from the CCP, not the people of the PRC. Some analysts even argue that the PRC is no longer truly communist because the CCP embraced capitalism. Yet CCP leaders themselves tell a very different story.

The CCP never embraced capitalism and in fact argues that it is a tool of the West intended to undermine the CCP's grip on power and doomed to fail. Even Deng Xiaoping, the architect of the PRC's economic reforms and growth, said "capitalism would get China nowhere." More recent CCP documents make clear that "what China is doing now still truly is Socialism," and the current CCP leader, General Secretary Xi Jinping, explicitly promotes China's model as a superior alternative to capitalism. CCP leaders have never called their economic reforms 'capitalist,' but only 'opening up.' Opening up' is not capitalism, but simply profit-driven zero-sum globalization of their communist economy, which remains dominated by state-owned enterprises, tightly managed by industrial policy, and closed to outside competition.

The CCP remains adamant that its governance is still communist. "Upholding Marxism-Leninism" is one of the CCP's non-negotiable bottom lines. Marxism-Leninism, the same ideology which governed the Soviet Union, is the fundamental concept behind Communism. It rejects the Western democratic idea of individual liberty, and instead preaches the fantasy of an all-powerful state enforcing a Utopian egalitarian society "from each according to his abilities, to each according to his needs." In reality, every time Marxism-Leninism, or Communism, has been instituted as a system of national government, it has led to totalitarianism and mass murder, from the Soviet Union, to the Khmer Rouge regime in Cambodia, to North Korea.

"Under communism, individuals are merely a means to be used toward the achievement of the ends of the collective nation state. Thus, individuals can be easily sacrificed for the nation state's goals. Individuals do not have inherent value under Marxism-Leninism. They exist to serve the state; the state does not exist to serve them."

- National Security Adviser Robert O'Brien7

The CCP is a proud practitioner of the bankrupt communist ideology of Marxism-Leninism and applies it onto the PRC through a system of government called "socialism with Chinese Characteristics" (SWCC). The main idea of SWCC is simple: the CCP controls everything. In a July 2020 article titled "The leadership of the CCP is the most essential feature of SWCC," General Secretary Xi Jinping repeatedly described his political system by writing "the Party, the government, the military, the people, and academia – east, west, south, north, and center – the Party leads everything." SWCC is quite simply and literally the absolute totalitarianism of the CCP.

General Secretary Xi does not exaggerate. SWCC means that in the PRC today, the CCP controls every aspect of government, business, society, and personal life. The PRC's entire civil government is subservient to the CCP. All companies are required to establish CCP cells in their operations and support CCP security agencies. All civil society groups must be approved and report to the police. All religious organizations are directly controlled by the CCP—an officially atheist organization. The CCP is instituting a dystopian social credit system to monitor and score every citizen's personal behavior and requiring the use of brainwashing apps to enforce the study of "Xi Jinping Thought." "East, west, south, north, and center" is not an exaggeration.

We Must Stop Ignoring the CCP's Communist Ideology

The U.S. and the free world must understand and accept the reality of the CCP's loyalty to communist ideology, because it reveals that the CCP can never be a trustworthy partner, a "responsible stakeholder," or even a 'competitor' that plays by the same rules. The CCP's obsession with absolute control means that **free people and free societies will always be the enemy** of the Party. At home or abroad, the CCP does not allow its power to be constrained by laws, rules, or norms, instead using force and coercion. The CCP's communist ideology, and the totalitarianism that results, causes the CCP behaviors that are most threatening to the American way of life – humanitarian atrocities, the erosion of democracy, territorial aggression, and theft of American intellectual property (IP).

The COVID-19 pandemic is the clearest example yet that the CCP's ideology is a direct threat to the U.S. and all people around the world. The severity of the pandemic is the direct result of the CCP's obsession with its control and reputation. Its response from the critical early stages of the outbreak to today has relied on coverups, arrests and blame-shifting, rather than transparency. Officials inside the system, including at the local level, are disincentivized from sending negative information upward within the government, lest they are scapegoated or punished for incompetence. The CCP downplayed the crisis and continues to hide key information from the world. The result was a global disaster. **The CCP's communist ideology itself brought the world to a deadly, painful, and costly standstill.**

"Every Communist must grasp the truth; "Political power grows out of the barrel of a gun."

- "Problems of War and Strategy" [Selected Works, Vol. II, p. 224.] (November 6, 1938),

The pandemic is far from the only sign that the free world is in an irreconcilable clash of systems with the CCP. When the CCP's ideology demands total control, anything different or independent is a threat to be eliminated. The Party cannot tolerate allegiance to a higher power and is committing horrible atrocities against Muslim Uyghurs, has destroyed the way of life of Tibetan Buddhists, and seeks to re-write Christian scripture to align with "Xi Jinping Thought." The Party violated international law to dismantle civil liberties in Hong Kong because their system of total control cannot tolerate free thinking people. The CCP is also trying to subvert the international system to redefine human rights as the collective wellbeing offered by the state, rather than the fundamental rights inherent to every individual human being.

The threat of the CCP's ideology is not limited to human rights; it also drives its economic misconduct. Xi believes that the rise of independent oligarchs created independent centers of power in the Soviet Union, contributing to its collapse. The CCP embeds its members in every company and organization. It directs the economy to pursue state goals through industrial policy like "Made in China 2025." The CCP's paranoia about achieving economic and technological self-sufficiency has led to an historic level of IP and technology theft. Because the CCP derives its political legitimacy from economic growth and job creation, market forces and fair competition are a security threat to its regime.

Nor does the CCP's desire for total control end at the PRC's borders. The CCP's national security law defines national security as the "absence of international or domestic threats to the state's power." The CCP has enshrined in law its belief that it will not be secure until all threats foreign and domestic are eliminated, and therefore external aggression is legally required.

Internal documents also reveal that the CCP explicitly considers constitutional democracy, internationally recognized human rights, liberal economics, independent journalism, and civil society to be threats.

This view of national security and systematic desire to eliminate American values makes genuine mutual benefit impossible because the CCP believes that strengthening other centers of power, wealth, influence, or ideas will undermine its own power. The totalitarianism of the CCP must be universal and unchallenged. Therefore, the CCP's greatest threats to the U.S. cannot be handled through engagement, negotiated away, or whitewashed as "winwin cooperation," because they stem from the CCP's ideology itself. Yet for decades, U.S. policy towards the PRC has tried to do just that.

The Rise of the CCP and Its Authoritarian Embrace Affects the Lives of Every American

Decades of ignoring CCP ideology has contributed to a world that is more hostile towards bedrock American principles than at any time since the Cold War. The CCP's degradation of individual liberty and democratic principles is not a theoretical challenge or one that only matters inside PRC borders. It already reaches into the daily lives of average Americans. Using deception and coercion, the CCP and its hostile ideology is securing footholds across our society—including in our universities, businesses, entertainment, and media. Continuing to recklessly disregard the CCP's malign influence in American life will erode our morals, threaten our privacy and security, undermine our economic and technological leadership, and harm our academic institutions.



On September 25, 2015, during CCP General Secretary Xi's state visit to the United States, President Obama and Xi gave remarks to the press in the White House Rose Garden. The two leaders announced that they had agreed "neither the U.S. or the Chinese government will conduct or knowingly support cyberenabled theft of intellectual property, including trade secrets or other confidential business information for commercial advantage." Xi also pledged that "China does not intend to pursue militarization" of the South China Sea.

Neither of these promises to the American people were made in good faith. Today, "China is using cyber-enabled theft as part of a global campaign to 'rob, replicate, and replace' non-Chinese companies in the global marketplace," according to Assistant Attorney General John Demers. Meanwhile, the PRC's military outposts in the South China Sea have been proven "capable of supporting military operations and include advanced weapon systems," according to the Pentagon.

Morals

America derives its strength and dynamism from its firm commitment to a moral leadership that seeks the protection of universal and inalienable rights for our people and those around the world. However, the CCP's integration into nearly every channel of global trade and commerce is forcing American consumers to make decisions incongruent with their own values.

Right now, upwards of a million Uyghurs and other religious and ethnic minorities in the PRC are being held against their will in concentration camps in the Xinjiang Uyghur Autonomous Region ("Xinjiang"). CCP authorities are tearing families apart, subjecting targeted ethnic groups to forced abortion, forced sterilization, and involuntary birth control, as well as other forms of heinous abuse and indoctrination. These abuses appear to meet the legal definition of genocide, and U.S. Secretary of State Michael Pompeo has referred to these crimes as "the stain of the century."

Less well-known is that these concentration camps are being used as a feeder system for forced labor not only in Xinjiang but throughout the PRC economy. The Australian Strategic Policy Institute found in 2020 that the supply chains of at least **82 global brands**, including Apple, Gap, and Nike, are using forced Uyghur labor. Because many global brands source cotton and yarn from Xinjiang, it is estimated that 1 in 5 cotton garments sold globally could be tainted with Uyghur forced labor. It is almost certain that the closet of every American has clothes spun with cotton produced by the slave labor of a people subjected to ongoing crimes against humanity.

Consequently, any product labeled "Made in China" may be perpetuating the erasure of a people and culture in Xinjiang. Every consumer purchase is setting a precedent that the CCP's moral vulgarity can be overlooked because it is a critical spoke in our global economy. If Americans let the CCP succeed in degrading our morals through commerce, we also allow the CCP to degrade the principles on which our country was built.

Privacy and Digital Security

CCP-controlled digital products and services are growing in usage around the world, including in the U.S. By using these products and services—from Huawei to Alipay—consumers are giving these companies access to our most sensitive information, from our bank accounts to our private conversations.

These companies are not private, independent actors like their American competitors, but de facto arms of the state that can be used to serve the CCP's ideological and geopolitical goals. A complex web of PRC laws and policies gives the CCP the right to take any private sector technology for military use, obtain any data collected by a private enterprise, and compel any organization or individual to carry out intelligence operations. For example, Zhang Yiming the founder of ByteDance, a nominally private PRC-based technology company, said "technology must be led by the socialist core value system" and "strengthening the work of Party [CCP] construction" in his company is a primary way to "introduce correct

values into technology and products." ¹⁴ Zhang, who also created TikTok, one of the largest social media platforms in the U.S., extolled the virtues of "further deepening cooperation with authoritative [CCP propaganda] media" and ensuring their message is "broadcast forcefully." ¹⁵

Furthermore, these CCP technology companies are refining instruments of digital repression, including through dystopian surveillance, social credit, and predictive policing systems, that subvert the freedoms and liberties of their own citizens. In addition to lining the streets of the PRC, these CCP products and services are powering surveillance systems in at least 63 countriesmany of which are participating in the Belt and Road Initiative (BRI). 16 The paranoia of this system and need for absolute control by the CCP is exemplified by the arrest of Luo Daiqing, a 20-year-old undergraduate student from the PRC, who, while studying at the University of Minnesota prior to returning home, tweeted pictures of General Secretary Xi as various cartoon characters, such as Winnie the Pooh. Unfortunately, this is one case of many. In 2017, a 24-year-old college student at the University of Washington, U.S. green card holder and member of a Muslim minority group, was arrested while visiting her father in the PRC and imprisoned in a concentration camp for using a virtual private network to submit her homework.17

The cruelty and absurdity by which the CCP uses technology to imprison its own citizens should strike fear in Americans that use these products and services. Already Feroza Aziz, a 17-year-old American teenage girl, had her account suspended on TikTok, for posting a video, disguised as a makeup tutorial, in which she talked about the atrocities in Xinjiang. In addition to removing users from its platform, TikTok is also reportedly blocking content based on CCP censorship standards, including filtering out news about the Hong Kong pro-democracy demonstrations. If a totalitarian regime can successfully silence the voices of Americans—especially those residing in our own country—our own fundamental freedoms and democratic institutions are in danger.

Economy and Technology

The previous U.S. policy of engagement—based on hopes over evidence without recalibration—considered economic interdependence with the PRC to be the means by which the U.S. could change CCP ideology through the creation of a middle class that demanded political liberalization. However, today **interdependence has become a vulnerability**. By becoming a critical link in the supply chains of essential everyday items Americans rely on—from pharmaceuticals to nearly every type of electronic device—the CCP has dramatically increased its leverage over the U.S.

The COVID-19 global pandemic laid bare the dangers of reliance on the PRC, as it nationalized control of medical supplies that the world depended on, directed its global network of embassies and associations to stockpile medical supplies in foreign countries and send them back to the PRC during the outset of the pandemic, and threatened to suspend the export of pharmaceutical ingredients and plunge America into "the mighty sea of

corona virus." This crisis revealed that the CCP treats supply chains and commerce—in this case access to essential medicines and personal protective equipment—as tools of coercion.

The supply chain risks exposed by the pandemic were a wakeup call to all Americans, but pale in comparison to the incipient risks of broader CCP ambitions—control of the science, technology, and innovation necessary for critical sectors of the 21st century economy. Al, semiconductors, quantum, 5G, and robotics are only a few of the industries the CCP aims to monopolize. Plans such as Made in China 2025 are being implemented using what Assistant Attorney General for National Security John Demers calls the CCP's "rob, replicate, and replace" policy. The idea is simple: steal American IP, replicate the product or service, and replace the American company. The policy is so pernicious that the Federal Bureau of Investigation (FBI) is opening a counterintelligence case with links to the PRC every 10 hours.

Our economic reliance on the PRC too often requires appeasing CCP ideological dictates. Hollywood regularly censors its scripts in order to screen movies in the PRC. In the credits of 'Mulan,' **Disney** gave special thanks to numerous CCP entities involved in committing and covering up its atrocities in Xinjiang, including a CCP propaganda bureau and an entity subject to U.S. sanctions. The **NBA** groveled before the CCP when the General Manager of the Houston Rockets used Twitter—an American social media platform blocked in the PRC—to support the Hong Kong protests. Marriot Hotels fired a Nebraska-based employee for "liking" a tweet by a Tibetan group that offended the CCP.

Corporate abasement is shortsighted. PRC industrial policy documents such as Made in China 2025 illustrate that the PRC buys Boeing planes not to see the U.S. company become a fixture in its airline industry, but out of necessity and with the goal to force the company to move more production to the PRC to extract its technology and eventually replace it with its own domestic championstate-owned Commercial Aircraft Corporation of China (COMAC). An official at the U.S. Chamber of Commerce starkly observed that success of these plans, which require technology transfer on a massive sale, would mean "the U.S. and other countries...become just commodity exporters to China—selling oil, gas, beef and soybeans."20 Put another way, the CCP plans to hollow out and supplant the industrial and innovative capabilities needed for our economic and military survival.

Academic

American universities meant to foster free speech are increasingly being subverted to promote, or at least not offend, CCP ideology. Through **Confucius Institutes**, monitoring of students, and direct interference by PRC diplomats, the CCP is trying to force its views upon our institutions of higher learning.

The CCP's Confucius Institutes currently operate on at least 75 U.S. college campuses, in addition there are around 500 Confucius Classrooms in grade schools and high schools across the U.S.²¹ Framed as simply language and cultural centers, Confucius Institutes censure

discussions on Tibet and Taiwan and interfere in broader campus events at the behest of the CCP. In 2009, a CCP Politburo Standing Committee Member and ideology czar said the Confucius Institutes "are an important part of China's overseas propaganda setup."

In addition, PRC citizens who aspire for freedom of expression at our universities are **monitored** and **silenced**. When Yang Shuping, an undergraduate student from the PRC studying in the U.S., expressed her gratitude to the University of Maryland during her commencement speech for teaching her "free speech" and that her "voice mattered," she was forced to apologize after CCP state media and nationalistic internet users attacked and criticized her.

PRC diplomats are contacting our universities directly to influence their programming and speech and CCP military officers are using covered identities to steal American research. Between 2010 and 2013, officials from the PRC's Chicago consulate contacted the University of Wisconsin-Madison to complain it was hosting "too many Taiwan-related events."22 Ambassador O'Brien explained in a speech on CCP ideology and global ambitions that when the University of California at San Diego (UCSD) hosted the Dalai Lama as a commencement speaker in 2017, Beijing banned PRC students from visiting UCSD on government funds.²³ In July 2020, four researchers from the PRC were charged by the Department of Justice (DoJ) with visa fraud after lying about their work for the CCP's military. One of the individuals, Wang Xin was the equivalent to a major in their army and was ordered "to observe the layout of the UCSF lab and bring back information on how to replicate it in China."24

Americans are not the only ones at risk

Americans reject allowing the CCP's communist ideology to affect our way of life. Nine-in-ten U.S. adults see the PRC's power and influence as a threat.²⁵ Each new or uncovered CCP transgression brings Americans' understanding of the threat into sharper focus. The delusion that the CCP could possibly emerge as a responsible stakeholder is vanishing as its actions and behaviors more closely resemble a massive criminal network. CCP totalitarian aggression extends well beyond the United States and affects the core of the rules-based international system.



The CCP is Eroding the Foundation of the International System

The U.S. has always been committed to a foreign policy that bolsters the open, transparent, and rules-based international order. Since the end of the Second World War, this international system has lifted hundreds of millions of people out of hunger and poverty, sparked unprecedented technological innovation, and largely fostered peace between and among democratic countries. However, the values and missions of the international organizations that comprise our global system must be reinvigorated and cannot continue to appease totalitarian dictates.

The CCP is Degrading Governance at International Institutions

For decades, the naivete among many international organizations about the CCP's ideology and goals has led to dangerous contradictions and absurdity. The theory that accommodation and leniency toward the CCP's rampant violations would somehow hasten cooperation or at least chasten its zero-sum impulses has proved flat out wrong. Looking back, it was a mistake to presuppose that a hardened Marxist-Leninist party would adhere to a system whose values threaten its survival. Rather than encourage the CCP to reform its internal governance and external behavior, international institutions' disregard of CCP ideology and appeasement of CCP misconduct is turning these institutions against the very principles they were created to uphold.

The institution responsible for global health, the World Health Organization (WHO), was a co-conspirator in covering up the COVID-19 outbreak in Wuhan, China, parroting CCP propaganda and disinformation—including that the virus was not transmitting from human-to-human despite evidence from Taiwan and others to the contrary. When forced to make a determination on whether to declare a Public Health Emergency of International Concern, which is critical to combating the spread of a pandemic, WHO Director-General Tedros declined to make the declaration, likely at the behest of the CCP; five days he later traveled to Beijing to praise the CCP's "transparency" in sharing information.²⁶

The institution responsible for global trade, the World Trade Organization (WTO), has been unable to force the PRC to live up to its original commitments since it joined the body nearly 20 years ago. In addition, WTO rules are inadequate to deal with many of the CCP's pernicious policies. Without these brakes, a country whose domestic economy is structured to compel technology transfer and sponsor IP theft is now the world's second largest economy, while still self-identifying as a developing country at the WTO.

The institution responsible for lending to the developing world, the World Bank, counts the PRC, the world's top exporter of high-tech products and second largest economy, as one of its top recipients of loans. At the end of 2019, the World Bank approved a five-year lending plan of more than \$1 billion to the PRC. Whereas there are 88 World Bank projects worth more than \$11 billion in the PRC, countries like the United States and Japan have none.

The institution responsible for global telecommunications standards and interoperability, the International Telecommunications Union, is led by a national from the PRC, a country that firewalls its domestic internet from the world and requires all of its own telecommunications firms to be tools for spying, surveillance, and censorship.

The institution responsible for protecting human rights globally, the United Nations Human Rights Council, has given a seat on its consultative council to the PRC, a country responsible for concentration camps, atrocities targeted by ethnicity, and depriving more human beings of fundamental human rights than any other government in the world today.

Continued acceptance of the CCP's malign ideology and behavior has changed the international system from one that promotes freedom and openness into one that allows their degradation. If this blatant abuse of international rules and norms continues unchallenged, these organizations are likely to either become meaningless or disappear. This outcome is indeed not coincidental but part of a CCP design to parasitically extract maximum self-benefit from the current system, while building an alternative governance model to eventually fill the void after its collapse.

The Belt and Road to Dependency

The BRI is the cornerstone of the CCP's vision for an authoritarian world order. Characterized by debt-trap diplomacy, bribery, resource extraction, and opaque financial and commercial agreements, the BRI is modern-day colonialism. Reflecting the CCP's corrupt and zero-sum ideology, the CCP is the primary beneficiary and deals with BRI participants from a position of leverage rather than as partners. Over time, the PRC plans to become the global center of trade, commerce, and technology, with a network of vassal states whose political and economic survival are reliant on the CCP. The global economy of sovereign states generally abiding by a rules-based order would be replaced with satellite states whose survival is inextricably linked to the survival of the CCP's opaque and murderous regime.

The CCP is making strides toward this goal. The CCP and its companies have stakes in at least 40 ports globally, including military dual-use locations in Sri Lanka, Djibouti, and the Panama Canal. Along the BRI, companies like Huawei and ZTE—known threats to U.S. national security—are building the digital infrastructure that powers communications systems and undergirds critical infrastructure from farming to finance. Linking all these digital and physical assets is a constellation of PRC satellites that form the Beidou navigation system—the PRC's version of GPS. To complete this digital ecosystem is a range of Al surveillance products and services that can provide the CCP with access to massive data sets and give autocrats sharper instruments to oppress their people.

By outsourcing key elements of their societies to the CCP, corrupt and naive leaders are allowing for the piecemeal formation of a CCP world order. Sovereignty and rule of law will be replaced with dependency and rule by might.

The CCP's top diplomat Yang Jiechi put its foreign policy succinctly, "China is a big country and other countries are small countries, and that's just a fact."

A Generational Call to Action

The policy of engagement that typified prior administrations' approach to the PRC set aside and ignored the CCP's communist ideology and instead American and international institutions—from businesses to universities to the United Nations (UN) itself—grew to accommodate it. Indeed, these groups, captured by the promise of profit, created a lexicon of dismissals that attempted to rationalize relations with a murderous regime.²⁷ Companies naively aligned their long-term corporate strategies with CCP five-year plans and industrial policies that aimed to replace them. Consultants sold executives on corporate strategies to appear "less American" to gain favor in Beijing.

Now, as policymakers seek to reclaim vital supply chains and protect critical technologies from malign uses-including repressive surveillance and advanced weaponry-some of these groups who recklessly tied their financial future to a dictatorial regime are still advocating for the CCP. Some U.S. academic institutions say that new rules banning agents of the CCP's military from obtaining U.S. master's degrees in military fields are "counterproductive." 28 Some U.S. businesses are publicly and privately pushing back on a series of rules to restrict the ability of Huawei—a CCP company indicted for a multitude of crimes—to obtain U.S. technology. Emblematic of this continuing divergence with the national interest, the CEO of KLA-Tencor recently tried to reassure analysts that the company would be able to dodge U.S. Department of Commerce (DoC) regulations to continue sales to potential military end-users in the PRC.25

U.S. policy towards the CCP, its malign ideology, and the dangerous aggression it drives stands at a pivotal moment. The CCP has exploited our so-called engagement policy and reversed the theory of economic entanglement—or the idea that high levels of trade and investment between countries could promote peace and deter aggression. Cornerstone American institutions are working against the U.S. national interest in service of the CCP's long-term goals. American technology, knowhow, and investment³⁰ is empowering a regime that is launching what has been called a silent invasion against our societies and is eviscerating liberal values globally. Today, economic entanglement is increasing the risk of conflict and aggression by holding liberal countries back from meaningfully responding to CCP transgressionsbe they economic, diplomatic, or military-for fear of economic reprisals.

Americans and the World Must Stand Up to the CCP

The U.S. and our allies and partners can no longer acquiesce to CCP blackmail. Liberal, democratic societies must go back to their first principles and stand up to this generational revisionist power. Taken together, the free world is still the leader in technology, talent, market size, and capital. The world is waking up to the nature and

goals of the CCP but needs to be alert to the exigency of the threat. More than 200,000 Americans have lost their lives from COVID-19. Had the CCP followed global health protocols—deliberately put in place to avoid a global pandemic—hundreds of thousands of innocent people could still be with their families and friends. Instead doctors were silenced and the WHO acquiesced to the CCP. The free world must accept that it built up a morally bankrupt regime that is now responsible for a global pandemic, commands hundreds of nuclear weapons, leads a more than two-million-person military, and directs the second largest economy in the world. The stakes are existential.

The banner of socialism with Chinese characteristics is now flying high and proud for all to see... It offers a new option for other countries and nations who want to speed up their development while preserving their independence; and it offers Chinese wisdom and a Chinese approach to solving the problems facing mankind."

- Xi Jinping, 19th CCP National Congress, 2017

Coordinated, decisive action must be taken to protect the values that underpin the safety and durability of free societies. Americans cannot do this alone. Democracies must deal with the CCP in full acknowledgment that their actions are dictated by their adherence to a communist ideology. Addressing such malign conduct can no longer be one of many priorities for our respective governments, but rather the organizing principle of the free world. The free world needs a unified approach that safeguards our markets, financial systems, technologies, and peoples from CCP exploitation. Government, industry, academia, and civil society must come together to implement policies that protect and strengthen our people and institutions from CCP aggression and subversion.

In his inaugural address President Reagan reminded Americans that "freedom is never more than one generation away from extinction." That maxim has a striking resonance today. A unique and exceptional threat by a totalitarian regime marks an emergency for liberal democracies. Xi Jinping himself frames the period between 2017 and 2022 as the pivotal moment for the CCP's long term plan of "national rejuvenation," to overtake the U.S. by 2049, the 100th anniversary of communist rule in China, and achieve "[a] world in which China's preeminence is achieved and recognized, and China is unconstrained. A world, in short, with China at its center."3132 Without immediate, sustained, and comprehensive action we risk President Reagan's cautionary point that "one day we will spend our sunset years telling our children and our children's children what it was once like in the United States when men were free."

CHAPTER I: IDEOLOGICAL COMPETITION

Introduction

A contest of two types of ideology is intensifying."

- Xi Jinping, 2014. Declassified in 2020

Nowhere is the U.S. strategic competition with the CCP starker than in the ideological domain. CCP leaders themselves believe the Party stands existentially threatened by "false ideological trends" arising from constitutional democracy, universal values, civil society, free markets, independent journalism, dissidents, and even the Party's own checkered history. This is a lesson that CCP General Secretary Xi has taken directly from the collapse of the USSR, which he attributes to its lack of ideological vigor. As Xi has put it, "The wavering of idealistic faith is the most dangerous form of wavering. A political party's decline often starts with the loss or lack of idealistic faith."

This totalitarian vision has led to extreme repression in the PRC, most notably in Xinjiang where a million or more Uyghurs are languishing in concentration camps where they are forced to undergo extensive ideological "re-education," among countless other abuses.



Even outside of Xinjiang, the CCP's nascent social credit system, which seeks to score every aspect of life, from the purchases individuals make, to their internet history, relationships, conscientiousness, and loyalty and usefulness to the Party, reinforces both the CCP's desire for total control and its habitual insecurity.

The impacts of this insecurity are not limited to PRC borders. The CCP has long emphasized the importance of United Front Work, which consists of "a range of methods to influence overseas Chinese communities, foreign governments, and other actors to take actions or adopt positions supportive of Beijing's preferred policies." However, in recent years, United Front Work has taken on even greater importance within the CCP hierarchy, and Xi himself has singled it out as a "magic weapon" to promote the "great rejuvenation of the Chinese nation."

This magic weapon can take a variety of forms, but typically involves co-opting elites in foreign governments as well as in international organizations in a way that subtly but steadily reshapes the international system away from western or universal values and towards a Sino-centric international order that reflects the CCP's deep paranoia and authoritarianism.

Corruption is central to the CCP's strategy to reorient the values of the international system in a way that makes the world safe for its authoritarianism. In recent years, United Front networks have featured prominently in the alleged bribing of two former Secretary Generals of the UN General Assembly, as well as international advocacy in support of BRI. The CCP has also made frequent use of bribery when it comes to foreign governments. For instance, as former Sri Lankan President Mahinda Rajapaksa racked up Chinese debt in support of a highly questionable port in his hometown of Hambantota, the PRC state-owned enterprises financing the deal poured at least \$7.6 million into bank accounts affiliated with his campaign. The CCP's goal, in Sri Lanka and elsewhere, is to create a network of like-minded anti-liberal, or at least corrupt, states that owe their political power to Beijing.

The good news is that this competition is playing out on grounds favorable to the U.S. Given the choice between Beijing's totalitarian system, international bullying, and rampant corruption, American values provide an effective contrast with a track record that speaks for itself. Unlike the CCP, which has clients but no friends, the U.S. leads the world's largest alliance system. While a competition between the U.S. and the PRC may well be a near-peer contest, a competition between the PRC and the U.S. together with U.S. friends and allies is not. The central challenge for the U.S. is to inspire its friends and allies to join the U.S. in actively contesting this 21st century adversary.

Here again, the U.S. is on favorable ground. The nations the U.S. most needs on its side across Europe and Asia largely share similar values. While these countries may hold different perceptions of the CCP threat, they should all share a common revulsion towards the CCP's totalitarianism and crimes against humanity, particularly in Xinjiang. If the U.S. treats the PRC as just another rogue

international state — unpleasant but wrong within normal boundaries — U.S. allies may not be particularly convinced. Instead, as the Reagan Administration's National Security Decision Directive-75 put it, "U.S. policy must have an ideological thrust which clearly affirms the superiority of U.S. and Western values of individual dignity and freedom, a free press, free trade unions, free enterprise, and political democracy over the repressive features of Soviet Communism." U.S. policy today needs that same kind of ideological thrust that both confidently asserts and elaborates upon the superiority of our values, calls out the CCP for its abuses, and most critically of all, uses shared values to win allies over to our point of view.

Ideological Warfare

[T]he kind of order Beijing desires is not one where its socialism system is merely secure, but also covered in glory. Xi's aim is not simply, in the colorful phrase some Western scholars have used, 'a world safe for autocracy.' Rather, the Party seeks an order in which China's achievements as a great power are not only recognized but also credited to its particular brand of socialism and lauded as a moral triumph both for socialism and for the Chinese nation."

- Professor Daniel Tobin, Before the U.S.-China Economic and Security Review Commission

Key Finding: The CCP seeks to denigrate democracy and overturn the post-Cold War consensus that democratic governance is the preeminent route to liberty and prosperity. In its place, it seeks to champion socialism with Chinese Characteristics as a legitimate form of government and spread its authoritarian model across the developing world.

The CCP understands that Western values such as democracy, human rights, capitalism, and independent journalism are an existential threat to Party rule. The Party is fanatically committed to blocking these values from reaching PRC society through the Great Firewall and its extreme control on information. At the same time, the Party conducts propaganda offensives to discredit these ideas in front of audiences both foreign and domestic. During the 2019 U.S. government shutdown, for example, PRC state media argued that not only was American democracy unable to solve issues such as the income gap and political polarization, but that U.S. institutions themselves were to blame for American decline. As the CCP-controlled Global Times put it, gridlock and stagnation was "an inevitability of U.S. democracy."

The CCP holds its system up as the natural alternative to aging and ineffective democracy. On the occasion of

the CCP's 19th National Congress, a column in Xinhua criticized Western democracy, emphasizing how the CCP's model leads to "social unity rather than the divisions which come as an unavoidable consequence of the adversarial nature of western democracy today." At the same time, it emphasized that under the CCP's benevolent rule, the PRC has seen "unparalleled growth and staggering achievements" and contrasted the Partv's 96-year run with the frequent changes in leadership in democratic societies. In his keynote at the National Congress, General Secretary Xi Jinping said, "the banner of socialism with Chinese characteristics is now flying high and proud for all to see... blazing a new trail for other developing countries to achieve modernization. It offers a new option for other countries and nations who want to speed up their development..."

CCP leaders are explicit about the goal of this messaging: they want foreign countries to develop along the PRC's model, and not the U.S.'. In recent years, the CCP has expanded efforts to export its technologically enabled authoritarianism abroad. In one of the most telling examples, ZTE has been working with the Venezuelan government to create a "fatherland card" that mirror's the CCP's social credit system. The more countries that employ PRC technology to monitor and oppress their populations, the safer the world will be for socialism with Chinese characteristics.

Recommendation: The Administration should clearly and publicly state an intention to break the CCP's totalitarianism. In order to effectively respond to the CCP's ideological challenge, the U.S. needs to borrow from the Reagan Administration's strategy against the Soviet Union. President Reagan's policy was guided by an overarching objective as timely now as it was then: America's goal must not be indefinite coexistence with a hostile Communist state, but rather, the end of the Party's monopoly on power. All policies should flow from this north star.

Recommendation: The Administration should revise and reissue the 2020 "U.S. Strategic Approach to the People's Republic of China" to incorporate the principle above. This document states that the U.S. approach to the PRC has two objectives: reinforcing "our institutions, alliances, and partnerships," and compelling Beijing to "cease or reduce" harmful actions. This second objective is not achievable so long as the CCP maintains unchallenged totalitarianism in the PRC, because its malign conduct is an intrinsic product of its ideology.

Recommendation: The Administration should continue directly attacking the legitimacy of socialism with Chinese

Characteristics, as National Security Adviser O'Brien did in his June 2020 speech in Phoenix, Arizona. It is not enough to criticize CCP behavior, which is ultimately driven by its ideology. The CCP's continued commitment to Marxist-Leninist communism is at the heart of its challenge to the U.S. and the international system, but also a vulnerability the CCP seeks to obscure to the outside world. The more that the world understands that the CCP is preaching the bankrupt legacy of communism, the more countries will make decisions in favor of their own sovereignty, which is in the U.S. interest.

Recommendation: The Administration should continue reasserting that democratic freedoms are the right of every human being, whether they live in Shanghai, Xinjiang, or anywhere else in the world. Freedom is not the exclusive domain of one nation or one people, and the CCP's enslavement of one-fifth of mankind threatens both U.S. interests and values. In two seminal speeches at Westminster and later at Moscow State University, Reagan laid out the case for why the democratic world must stand united, and why the Russian people were no less worthy of those freedoms than Americans. On the hundredth anniversary of the May 4th movement, Deputy National Security Advisor Matt Pottinger gave the spiritual successor to President Reagan's Moscow State speech by talking directly to the people of the PRC– in Mandarin – about China's many contributions to democratic values and international order. The U.S. should emphasize this message, along with President Reagan's appeal for democratic solidarity, whenever possible.

Recommendation: Congress should continue developing comprehensive, omnibus legislation for competition with the CCP which recognizes that the CCP is a threat across the full range of U.S. interests. Such efforts include S.4272, the STRATEGIC Act, which would advance a competitive strategy towards the CCP with concrete provisions to combat CCP economic and industrial policy, revitalize U.S. technological competitiveness, safeguard U.S. institutions from undue influence, maintain the integrity of international organizations, and bolster deterrence and allied defense cooperation.

Recommendation: The Administration should continue its use of diplomatic authorities to pressure the CCP for its restrictions on U.S. diplomats, properly identify CCP propagandists operating in the U.S., and highlight the CCP's malign ideology. Such actions have included the designation of CCP propaganda outlets as foreign missions and the establishment of travel disclosure requirements for PRC diplomats in the U.S., which are partially reciprocal to restrictions U.S. diplomats face in the PRC.

With the ink on the CCP's sham national security law for Hong Kong barely dry, the world is witnessing how the CCP's totalitarianism doesn't stop at PRC borders. In September, 12 democracy activists were arrested at sea while trying to flee Hong Kong, and instead of being returned to Hong Kong, were brought to the PRC to face its opaque, CCP-controlled courts. The CCP has also issued arrest warrants for pro-democracy activists living outside of Hong Kong, including a United States citizen, simply for exercising their right to free speech. U.S. citizen Samuel Chu recently woke up to media reports that he was a wanted fugitive under Hong Kong's national security law for "inciting secession" and "colluding with foreign powers." Under this new law, the CCP is attempting to criminalize speech everywhere, not just in Hong Kong. As Chu said when he heard this news, "[W]e are all Hong Kongers now."

U.S. Diplomatic Resources

Key Finding: Successive administrations have announced plans to "pivot" to, "re-balance" towards, or otherwise prioritize the Indo-Pacific since 2013. Backed up by the 2017 National Security Strategy and the 2018 National Defense Strategy, there is bipartisan consensus that the Indo-Pacific is the U.S.' prevailing foreign policy and defense priority for the foreseeable future. Despite this, the allocation of diplomatic resources for the region has failed to reflect this strategic priority.

The Indo-Pacific continues to receive a disproportionately low share of foreign assistance resources in each fiscal year relative to its share of the globe's population and its relevance to U.S. strategic interests. For example, in 2015 a \$1.7 billion increase in foreign aid appropriations for Africa was more than the entire amount of U.S. foreign aid received by all countries in the Indo-Pacific region that year. In its most recent budget, the two regions that make up the Indo-Pacific, East and South Asia, were the Administration's smallest requests apart from Europe. The FY2021 budget requested more funds for the Western Hemisphere than for the entire Indo-Pacific region, allocated more than three times the Indo-Pacific's funding for Africa, and more than six times as much for the Near East.

The U.S. competition with the CCP is global, and the allocation of foreign assistance resources involves many considerations, including needs in less-developed areas all over the globe. Ultimately, the lodestar of U.S. foreign aid decisions must be the U.S. national interest. Successive administrations have concluded that the Indo-Pacific is the primary priority for the national interest, and the Indo-Pacific is the region most susceptible the PRC's geopolitical, military, and economic might. The 2018 National Defense Strategy made clear that the CCP "seeks Indo-Pacific regional hegemony in the near-term," a way-point toward the "displacement of the U.S. to achieve global preeminence in the

future." Averting this future requires treating competition with the CCP, and accordingly treating the Indo-Pacific, as a deciding factor in resource decisions, not coequal with other interests. However, the last decade of foreign aid data does not reflect a prioritization of the Indo-Pacific.

It is important for the Administration and Congress to have a **full accounting of what federal funding benefits and counters the CCP.** A recent directive from the Office of Management and Budget (OMB) requiring federal agencies to compile such information is a helpful step. In addition, last year Congress appropriated \$300 million for a "Countering Chinese Influence Fund," but as the fiscal year draws to a close, it is not clear whether the Administration has obligated the full amount to counter the CCP, or whether Congress will continue to replenish the Fund at its original amount in ongoing appropriations processes.

Recommendation: The Administration and Congress should prioritize competition with the CCP as a deciding factor for federal resource decisions, including for foreign assistance and foreign service personnel allocations for the Indo-Pacific.

Recommendation: Congress should pass H.R.7937, the Countering CCP Malign Influence Act, which would authorize the new Countering Chinese Influence Fund at its original appropriated level of \$300 million and require the Fund to be overseen by a regional expert. In the interim, the Department of State (DoS) must immediately improve its management and implementation of the Fund. Currently, it appears that the Fund is controlled by the Department's Office of Foreign Assistance, rather than regional experts, and that the full amounts available in the Fund are not being obligated to counter the malign influence of the CCP.

Recommendation: Congress should pass H.R.8058, the Chinese Research Funds Accounting Act, which would direct the Comptroller General to conduct a study on federal funding made available to entities in the PRC or controlled by the CCP. OMB should continue its efforts to create an inventory of all programming across the U.S. government that involves collaboration with CCP controlled entities or the transfer of federal funds to such entities, including through intermediaries such as NGOs. OMB should also continue its efforts to measure the totality of funding being used to counter the CCP.

Recommendation: Congress should ensure final passage of Titles V, VI, and VII of the bipartisan Eliot L. Engel Department of State Authorization Act of 2020, which is included in H.R. 6395 in the FY2021 National Defense Authorization Act (NDAA). Specifically, these provisions would ensure new stringent research and evaluation metrics are employed to measure the effectiveness of U.S. messaging and develop new training for public diplomacy officers to counter malign messaging from strategic competitors. It would also extend authorities at the Global Engagement Center so that it can continue its work countering CCP and other propaganda; designate a point of contact at every foreign mission charged with monitoring and reporting corrupt activities in each host country and require DoS to consolidate all corruption reporting and indices into one publicly available database, which will give added focus to the extensive corruption perpetrated by the CCP; and ensure that the IT resources at DoS are more secure and better able to resist malicious penetration by foreign actors, including the PRC. It would also require an interagency-created list of dangerous telecommunication contractors that DoS would be prohibited from contracting with.

Malign Influence & United Front Work

Key Finding: Using covert, coercive influence to advance its interests inside other countries is an intrinsic part of the CCP's nature. The CCP's United Front Work Department (UFWD) cultivates and controls pervasive networks of affiliates around the world. Through overseas "United Front Work," the CCP has gained effectively unchallenged direction over vast swaths of the world's Chinese diaspora organizations and Chinese-language media, providing infrastructure for corruption, political interference, and malign influence.

Recommendation: Congress should create a new sanctions mechanism specifically tailored for the UFWD, which can be used to apply visa and asset blocking sanctions on UFWD officials and affiliates who are responsible for CCP malign influence operations which threaten U.S. national security.

Recommendation: The Administration should prioritize counter-United Front programming through the Indo-Pacific Transparency Initiative, an interagency foreign assistance initiative to promote good governance in the Indo-Pacific which was announced by the Vice President in 2018. The Administration should develop and fund specific counter-UFWD programs under the Initiative, and DoS should update and reissue its fact-sheet on the Initiative to publicize these efforts.

Recommendation: Congress and the Administration should prioritize legal assistance for foreign influence transparency, foreign agent registration, and political donations (in a similar manner to the existing focus on foreign investment screening regimes) using the Transparency Initiative and other existing foreign assistance programming.

Recommendation: Congress and the Administration should commission and fund country-specific, open-source, and unclassified studies of CCP malign influence, including United Front Work. The few existing examples of such work have been critical in exposing undercover People's Liberation Army (PLA) scientists operating abroad and documenting United Front networks, and further such efforts will be essential in uprooting United Front and other malign activity around the world.

Recommendation: The Administration should explore options for making the U.S. funded International Law Enforcement Academy (ILEA) in Bangkok a regional hub for law enforcement cooperation and training regarding CCP United Front activity. Following the Hong Kong Police Force's ejection from ILEA as part of the Administration's response to Beijing's National Security Law for Hong Kong, the Academy is now free of PRC participation and could be a helpful, pre-existing platform for counter-United Front efforts.

Recommendation: DoS should use existing diplomatic and foreign assistance resources to counter the UFWD, including but not limited to the items listed below. Congress should conduct oversight of these items and if necessary, legislate further reporting requirements to drive Administration action. Working together, DoS and the United States Agency for International Development (USAID) should:

- Prioritize assistance to law enforcement bodies handling foreign interference such as election interference, in a similar manner to existing programming for counterterrorism and human trafficking units.
- Ensure all embassies and consulates are equipped to monitor and understand what is happening in Chinese diaspora communities.
- Continue and expand recent efforts to assign dedicated personnel to select embassies to monitor CCP activities at a regional level. The information gathered should be appropriately shared outside of the Department with other government entities.
- · Support Chinese diaspora civil society organizations that are independent of CCP control.
- Train politicians, public officials, reporters, and business figures in UFWD awareness, related political and criminal risks, and how to avoid contributing to foreign interference.

Human Rights

Key Finding: Human rights are a dimension of the free world's competition with the CCP, no less than security or economics. At home, the CCP is the world's most accomplished human rights abuser, depriving 1.4 billion human beings of their fundamental rights. Internationally, the CCP is advancing its revisionist definition of human rights that substitutes collective material advancement for individual liberties. The CCP's threat to human rights extends far beyond its domestic borders, threatening the national security of the U.S. and its our like-minded partners. The CCP is perfecting, modeling, and distributing a system of repression that empowers authoritarian regimes like itself and degrades the values on which democracy is built.

Amid worsening repression by the Chinese Communist Party, many Uyghurs have fled the PRC. A now public extradition request sent to the Turkish government by the CCP confirmed what many Uyghurs living outside of the PRC have long feared- the CCP is pressuring foreign governments to deport Uyghurs back to the PRC where they will be subject to the CCP's brutality. Enver Turdi, a Uyghur who is named in the extradition request, fled to Turkey in 2014 after being targeted by the CCP for telling the truth about the CCP's human rights abuses. He said: "I spend most of my nights in fear. I usually don't sleep until after 1am because I am afraid they will come for me and my family."

Recommendation: The Administration should continue and expand enforcement actions in line with its "Xinjiang Supply Chain Business Advisory," a notice issued by DoS, Department of Treasury (DoT), DoC, and the Department of Homeland Security (DHS) to highlight "the risks for businesses with supply chain links to entities complicit in forced labor and other human rights abuses in Xinjiang and throughout China." Examples of such enforcement actions include the use of Withhold Release Orders from U.S. Customs and Border Protection to block imports made with forced labor. The Administration should regularly update the Business Advisory and issue further such advisories when appropriate. For private sector and consumer audiences, the Administration should continue elaborating the costs of entanglement in an economy rife with human rights violations, which will help degrade the profitability of CCP abuses.

Recommendation: The Administration should reexamine all export licenses issued pursuant to DoS' International Traffic in Arms Regulations and DoC's Export Administration Regulations to entities in Hong Kong prior to July 2020. The Administration has stopped granting Hong Kong differential export control treatment following the Secretary of State's determination that Hong Kong is no longer meaningfully autonomous from the PRC, and the President's Executive Order on Hong Kong Normalization directed the termination of license exceptions and suspensions for Hong Kong. However, preexisting licenses for the export of sensitive technology to Hong Kong remain in effect and should be reexamined following the expansion of the CCP's police state into Hong Kong.

Recommendation: The Administration should fully implement recent bipartisan sanctions laws to respond to CCP human rights violations, including the Reciprocal Access to Tibet Act (P.L. 115-330), the Hong Kong Human Rights and Democracy Act of 2019 (P.L. 116-76), the Uyghur Human Rights Policy Act of 2020 (P.L. 116-145), and the Hong Kong Autonomy Act (P.L. 116-149). Recent high-profile actions, such as the sanctioning of Chen Quanquo under the Global Magnitsky Act, are positive steps, but the enacted laws specifically crafted to respond to CCP human rights violations have not been fully enforced. For example, the President's Executive Order on Hong Kong Normalization incorporates some, but not all, elements of the Hong Kong Autonomy Act. Rigorous implementation of such authorities against CCP human rights abusers, as well as the companies and plutocrats that facilitate these abuses, will encourage other countries to multilateralize their sanctions efforts and coalesce behind U.S. efforts to hold the CCP accountable.

Recommendation: The U.S. should evaluate whether to modify, strengthen, or make permanent a limitation in the current appropriations law that prohibits certain types of bilateral cooperation between the U.S. and the PRC without a government certification. Currently, the U.S. government must certify 30 days in advance that a bilateral interaction will not result in the transfer of technology, data, or other information with national security or economic security implications to the PRC or a PRC-owned company and will not involve knowing interactions with officials who have been determined by the U.S. to have direct involvement with violations of human rights.

Recommendation: Congress should secure final passage of H.R. 6210, the Uyghur Forced Labor Prevention Act, a bipartisan measure to help prevent the CCP from using American consumers to subsidize human rights abuses against Uyghurs, with refinement as necessary during Senate consideration.

Recommendation: Congress should ensure final passage of H.R. 4331, the Tibetan Policy and Support Act, a bipartisan measure which would reject CCP efforts to install a handpicked successor to the Dalai Lama who is loyal to the CCP.

Recommendation: Congress should pass H.R. 7805, the Stop Predatory Organ Trafficking Act, a bipartisan measure which would authorize the imposition of visa sanctions on officials complicit in organ trafficking. Furthermore, Congress should require an interagency assessment of forced organ harvesting specific to the PRC, and if necessary, single out and sanction the officials who run the PRC's organ transplant system.

Recommendation: The Administration should levy Global Magnitsky sanctions on officials from the United Front's Religious Work Bureau, as appropriate, to apply consequences for the oppression of Christianity. Under General Secretary Xi Jinping, the CCP's UFWD was given control of all religious affairs in the PRC in 2018, including the PRC's only state-approved churches, and recent reports have indicated that the CCP is attempting to re-write Christian scripture to incorporate "Xi Jinping Thought". Meaningful consequences would help draw necessary attention to the CCP's oppression of the house church movement and its regulation and perversion of Christianity overall.

Recommendation: DoS should consider issuing a determination that the CCP's crimes against Uyghurs amount to genocide. Recent research has revealed that the CCP has suppressed Uyghur birth rates through forced sterilization and birth control, which may support a determination that the CCP's crimes constitute genocide under the UN genocide convention.

Recommendation: Congress should pass legislation calling on companies to disclose to American audiences that entertainment productions, such as films or sporting events, that are distributed or intended to be distributed in the PRC, have had their content approved by CCP censors. The legislation should also call on companies to disclose entertainment partnerships or investments from CCP-controlled entities.

Recommendation: Congress should pass H.R. 5725, the Hong Kong Be Water Act, a measure that would impose Global Magnitsky sanctions on Hong Kong and PRC government officials responsible for suppressing or facilitating the suppression of Hong Kongers' freedoms of speech, association, assembly, procession, or demonstration. These sanctions would build on those imposed by DoT pursuant to Executive Order 13936 and those mandated under the bipartisan Hong Kong Autonomy Act (P. L. 116-149) through the freezing of assets of state-owned enterprises that undermine the autonomy, basic liberties, and human rights of Hong Kongers.

Recommendation: Congress should support the Administration in its pledge to "reallocate admissions within the refugee ceiling set by the annual Presidential Determination to residents of Hong Kong based on humanitarian concerns, to the extent feasible and consistent with applicable law..." as stated in The President's Executive Order on Hong Kong Normalization, issued on July 14, 2020. In addition, Members of Congress have begun developing legislation aimed at humanitarian assistance for Hong Kong dissidents who are in need of protection. The vetting process for such dissidents must ensure proper counter-intelligence screening.

Recommendation: Congress should pass Section 1284 of H.R. 6395 in the FY2021 NDAA, a bipartisan provision reflecting the text of H.R. 7307, the Foreign Advanced Technology Surveillance Accountability Act. The Act would require DoS' annual Country Reports on Human Rights Practices to include information on the use of surveillance and advanced technology to suppress rights.

Global Corruption

Key Finding: The CCP channels corruption as a tool of domestic control and geopolitical advantage. The U.S. and likeminded democracies remain among the most attractive destinations for kleptocrats to stash their ill-gotten gains, hide assets from the dictators they prop up, and escape the authoritarian system they help build. Globally, and especially in the developing world, the CCP deploys strategic corruption, using bribes and kickbacks for geopolitical advantage.

Recommendation: Congress should pass the following pieces of bipartisan legislation:

- H.R. 3843, the CROOK Act, which would create anti-corruption points of contact at embassies to report on corruption related to BRI;
- H.R. 3441, the Kleptocrat Exposure Act, which would empower the Secretary of State to publicly name and shame foreign persons who have had their U.S. visas revoked for human rights violations or significant acts of corruption;
- H.R. 4140, the Foreign Extortion Prevention Act, which would allow the U.S. to extradite foreign
 officials who engage in corruption against a U.S. person;
- H.R. 4361, the Justice for Victims of Kleptocracy Act, which would instruct DoJ to compile and publicly list assets which have been seized from corrupt officials; and
- H.R. 2167, Protecting U.S. Businesses Abroad Act, which authorizes visa sanctions on foreign
 individuals or entities that engage in certain forms of corruption, expropriation, or extortion
 against a U.S. investor in a foreign country.

Recommendation: Congress should pass H.R. 2514, the Coordinating Oversight, Upgrading and Innovating Technology, and Examiner Reform Act, a bipartisan measure to strengthen anti-money-laundering and counter-terrorism-financing laws.

Environment/Conservation

Key Finding: The CCP is preying on the international community's prioritization of climate change, posturing itself as an essential partner to collect undue credit and discourage nations from responding to malign CCP behavior. The CCP claims a self-interested, hollow, and revisionist definition of environmental leadership, in which the CCP gains geopolitical clout for empty gestures while wreaking global environmental havoc for its own advantage.

Despite pushing a narrative about the importance of developing renewable energy resources, the **CCP** is continuing to export some of the most environmentally damaging technologies through BRI. While seeking to decrease the use of coal at home, the CCP has dedicated over \$50 billion through BRI to develop coal projects across 150 countries in the last seven years. Over 70percent of coal-fired power plants being built today are dependent on PRC financing.

Publications like the CCP's 2018 Arctic white paper are filled with references to sustainable development and climate change, yet the CCP is keen to saddle developing countries with long-term debt and power plants that emit the highest volumes of CO2. The same Arctic white paper also sought to establish the PRC as a "near-Arctic state," a non-existent and unrecognized categorization. This attempt to grant the CCP legitimacy in seeking more access to the fragile Arctic ecosystem is greatly concerning in light of the **PRC's track record of disregard for environmental concerns and illegal fishing activities elsewhere.**

According to the Global Initiative Against Transnational Organized Crime, the **PRC ranked first out of 152 countries in terms of illegal, unreported, and unregulated fishing worldwide.** PRC fleets have decimated fishing stocks off the shores of North Korea, violated U.N. sanctions prohibiting fishing in North Korean waters, and are now threatening fisheries off the coast of Africa and around the Galapagos Islands. Not only do these efforts deplete the resources of the communities that have historically depended on them, but they endanger ecologically sensitive areas, providing further evidence of the CCP's blatant disregard for the environmental impacts of its efforts to economically compete with the U.S.

Recommendation: The Administration should establish a program to highlight the CCP's environmental hypocrisy, along with the millions of dollars the U.S. continues to spend each year to promote environmental conservation globally through U.S. foreign assistance programming. This program could involve DoS public diplomacy efforts, as well as efforts from the U.S. Agency for Global Media (USAGM).

Recommendation: The Administration should issue a plan to respond to the CCP's perpetuation of global climate change as the world's largest carbon emitter by a massive margin. The U.S. has a strong, bipartisan legacy of advancing environmental conservation while promoting economic strength. The U.S. needs to reclaim global environmental credibility and leadership. Simply pointing out the CCP's hypocrisy is unlikely to dissuade the international community from viewing the CCP as a partner on climate change, rather than the antagonist it is.

Recommendation: The Administration should continue its efforts to counter and expose CCP attempts to perpetuate and whitewash its environmental malfeasance through the UN system and International Financial Institutions (IFIs).

Recommendation: Congress should pass H.R. 4636, the Partnering and Leveraging Assistance to Stop Trash for International Cleaner Seas Act (PLASTICS), a bipartisan measure which would advance global efforts to prevent and reduce marine debris and plastic waste.

Recommendation: Congress should pass H.R. 5859, the Trillion Trees Act, a bipartisan bill which would establish a commitment to a global effort to plant one trillion trees by investing in national and international reforestation and authorizing reforms to improve forest management, utilize wood products, and increase global carbon sequestration.

International Organizations

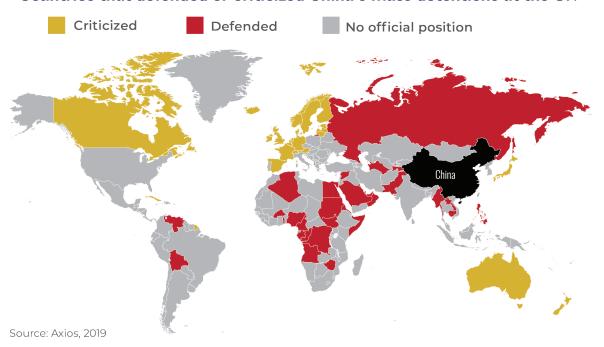
Key Finding: To advance its own interests, the CCP is undertaking a concerted strategy to subvert the U.S. built, post-WWII international system to its ideological and geopolitical advantage. The CCP seeks to install its handpicked personnel in key positions and redefine the norms the UN was built to preserve. A U.S. counterstrategy, in partnership with its key allies, should push the CCP to change its behavior and stop its efforts to revise the UN, while demonstrating the strength of democracies and reasserting democratic values, human rights, and the rule of law.

In June 2019, a PRC candidate soundly won the director-generalship of the UN Food and Agricultural Organization (FAO), cementing PRC leadership over four of the 15 major technical agencies within the UN system. No other nation leads more than one. The CCP triumphed over candidates supported by democracies through a corrupt process, leveraging BRI investment promises and trade threats to secure votes.

The CCP is undertaking expansive efforts to hijack the UN system to serve the CCP's advantage, legitimize its communist ideology, and add a veneer of credibility to its corrupt dealings. In addition to securing key leadership positions, the CCP seeks to install its personnel into key posts within organizations it controls, such as IT, IG, and HR departments, while also outpacing the U.S. in support for mid- and entry-level positions in the UN. Such CCP-supported personnel unabashedly denigrate the impartiality that is required of UN officials. In one instance, a former UN Under-Secretary-General bragged about using UN security to expel a Uyghur from a UN seminar, saying "We have to strongly defend the motherland's interests."

In addition, the PRC utilizes the Junior Professional Officer (JPO) program to place PRC nationals within the UN career staff. While the program is designed to help countries increase their representation in the civil service, the CCP abuses the program to place CCP loyalists in key positions. Within the UN Secretariat, the PRC sponsors 45 JPOs – in comparison, the U.S. only sponsors two. Currently, the U.S. sponsors approximately 65 JPOs across the entire UN system, a number that pales in comparison to the PRC. It is important to increase the number of U.S. sponsored JPO slots to provide an alternative to the CCP's practices and ensure the independence of the international civil service.

Countries that defended or criticized China's mass detentions at the UN



To serve its self-interest, the CCP uses this presence to wield influence well beyond what its modest financial contributions would otherwise allow. Since 2016, PRC personnel have sought to insert the CCP's communist ideology into UN resolutions and other documents in order to reshape international norms to better support the CCP's totalitarianism, expansionist economic policies, and foreign policy objectives, as well as shield the CCP's human rights abuses and corruption from external criticism. The CCP also uses its UN presence to exclude Taiwan and cover-up its COVID-19 malfeasance.

In the aftermath of the FAO election, the U.S. has upscaled its efforts to counter CCP subversion of the UN system. The Administration established a new Special Envoy for UN Integrity, to coordinate interagency and like-minded efforts. The Administration has taken a more deliberate approach to UN elections, begun efforts to support more U.S. personnel in the UN, and drawn attention to the insidiousness of CCP ideology in the UN. These efforts have already brought success, most notably the overwhelming defeat of the CCP's preferred candidate to lead the World Intellectual Property Organization (WIPO). However, CCP efforts to reshape the world in its own image will persist, and this new U.S. approach must be continued and expanded.

Recommendation: Congress should pass H.R.7939, the United Nations Transparency and Accountability Act (UNTAA), which would counter malign influence operations within the UN system, coordinate the election of U.S. and U.S.-supported candidates for leadership within the UN system, support the employment of U.S. citizens as international civil servants, and require transparency and accountability to Congress for U.S. contributions to the UN system.

Recommendation: Congress and the Administration should work together to place more American personnel in the UN system. The Administration should ensure that the presence of U.S. personnel is appropriately prioritized and coordinated, while Congress should ensure that these efforts are appropriately funded. Currently there is no interagency clearinghouse for coordinating the placement of U.S. personnel in the UN, a shortcoming the UNTAA seeks to address. Beyond this, there is no established funding mechanism for Junior Personnel Officers, a main entry-level mode of UN employment. Candidates for mid-level entry into the UN system from U.S. government employment encounter hindrances involving their retirement benefits and time-in-grade.

Recommendation: Congress should authorize the Administration's recently created position of Special Envoy for UN Integrity. The Special Envoy position, created in 2019, is the first role that specifically focuses on evaluating and countering malign activities in the UN system, as well as coordinating interagency and multilateral response.

Recommendation: Congress should pass H.R.7733, the Li Wenliang Global Public Health Accountability Act, which would authorize financial and visa sanctions on senior foreign officials who conceal information about public health crises such as COVID-19, implementing direct consequences on individuals who hamper the response to pandemics.

Information Statecraft

Key Finding: The CCP is undertaking massive global efforts to control information and its means of transmission in order to cement its power, conduct propaganda and disinformation campaigns, promote its geopolitical objectives, and build its "discourse power," or its ability to conduct ideological warfare. The CCP seeks to control information, the technologies and platforms that transmit information, and the laws and norms that govern information to advance an authoritarian information model that acts as a transmission vector for authoritarianism.

The 2017 National Security Strategy described such efforts as "weaponiz[ing] information to attack the values and institutions that underpin free societies, while shielding themselves from outside information." The National Security Strategy (NSS) considers these activities, as well as the U.S. response, to be "Information Statecraft," a form of diplomacy in which information is used to attack and defend authoritarian and democratic ideology.

The U.S. used Information Statecraft to great effect to challenge the legitimacy of Soviet communism. But until very recently, the U.S. had abandoned the explicitly competitive frame of Information Statecraft towards the CCP. Going forward, the U.S. must increasingly apply Information Statecraft to reduce the CCP's discourse power, challenging CCP efforts to promote its ideology, shield itself from outside information, control information globally, and execute propaganda and disinformation campaigns.

Recommendation: Congress should pass H.R.7938, the USIA for Strategic Competition Act, which would draw on the Cold War-era experience of the U.S. Information Agency and the Active Measures Working Group by requiring a whole-of-government offensive information statecraft strategy to attack the CCP's discourse power, discredit the CCP, and use truth and values to combat CCP lies and malign ideology.

Recommendation: The Administration and Congress should continue fully funding DoS' Global Engagement Center (GEC) and ensuring the GEC is not budgetarily reliant on the Department of Defense (DoD). The GEC was established by Congress to respond to foreign adversaries' disinformation and propaganda and plays a key role in analyzing and responding to CCP efforts to shape the information environment

to its authoritarian advantage.

Recommendation: Congress should Open Technology H.R.6621, the Fund Authorization Act, a bipartisan measure which has been incorporated into the FY2021 House and Senate-passed NDAAs. The Act would foster the development of technologies to penetrate closed authoritarian information ecosystems such as the CCP's Great Firewall. The U.S. should continue to fund security-tested and opensourced technologies and their distribution that help dissidents maintain digital security, ensure mobile access, and reconstitute websites after a cyberattack. The Administration should fully fund the Open Technology Fund in accordance with the most recent Congressionally approved spend plan, and sources of funding for the development and innovation of such tools should be expanded to include foreign government, foundations, and the private sector.

Recommendation: Congress should pass legislation calling on social media companies to disclose when CCP and other state propaganda is disseminated on social media platforms. Certain social media companies have instituted policies to label state media that is editorially controlled by hostile governments; such practices should be followed by other entities in this sector. Furthermore, state media in traditional formats, such as print, radio, and television, should also carry clear and prominent disclaimers indicating their funding streams and lack of editorial independence.

Recommendation: Congress should pass legislation calling on U.S. media organizations to disclose when they receive payments for advertisements from companies or news outlets with strong ties to adversarial governments, such as the CCP. These practices grant an asymmetric advantage to PRC state media, as no U.S. government entity would be able to purchase such advertising space in the PRC.

Recommendation: The Administration should increase existing foreign assistance programming to expand investment mechanisms for investigative, unbiased media in capital-poor countries where the CCP saturates the media landscape, such as in Africa and the Pacific Islands. CCP-controlled media entities are willing to pay to influence such populations and hold direct investments in local media organizations. If further attention reveals that existing foreign assistance resources are insufficient, Congress should authorize and fund programming to support independent local investigative media, including Chinese-language media, in areas subject to significant CCP malign influence.

Recommendation: Congress should pass H.R.6570, the Online Consumer Protection Act, to warn individuals when they download an app that is stored in a country that poses a national security risk, such as the PRC. By informing consumers where their data is stored, they can make a decision as to whether they would like to continue downloading the app.

Ideological Allies

Key finding: The U.S.' extensive networks of allies and security partners, based on common principles, is an asymmetric advantage over the CCP. These allies and partners are awakening to the CCP threat, and the U.S. should amplify and reinforce defenses of shared values and national sovereignty in the face of CCP aggression.

Thanks in large part to CCP's pandemic cover-up, increased territorial aggression, growing human rights violations, and belligerent rhetoric, the political center of gravity in many allied capitals is shifting to ground more favorable to the U.S. The EU-China Leaders' Meeting on September 14, 2020, offers an illustrative example; an event originally expected to advance an investment agreement with the PRC instead featured European leaders urging transparency concerning COVID-19, reasserting the need for economic fairness, and reinforcing fundamental human rights with specific attention paid to Xinjiang, Tibet, and Hong Kong. Later in September, the United Kingdom, France, and Germany joined the U.S., Malaysia, Vietnam, the Philippines, Indonesia, and Australia in formally rejecting the CCP's illegal claims in the South China Sea. The U.S. should expand the advantage of our shared values through increased outreach to allies and partners on all fronts, from inter-parliamentary diplomacy to finding new ways to create economic ties between like-minded nations. The free world's joint vision of an alternative to CCP hegemony will be essential to avert a world built in the CCP's image.

Recommendation: The Administration should continue its efforts to issue multilateral or coordinated statements with like-minded allies on malign CCP activities. Recent examples include the joint U.S., Australia, Canada, and United Kingdom statement on the CCP's national security law for Hong Kong, and Australia's call for an independent investigation into the origins of the COVID-19 virus. Such statements help underscore that the CCP's malign activities are a shared threat to the free world at large, not just U.S.-PRC competition, as well as foster a common understanding among democracies and other partners of the CCP's true nature, its ambitions, and the stakes of strategic competition with the PRC.

Recommendation: The Administration should issue further definitive statements on CCP activities which are illegal under international law. For example, DoS' July 2020 statement, "U.S. Position on Maritime Claims in the South China Sea," clarified that the CCP's territorial aggression in the Sea is illegal, lent weight to international law, supported the sovereignty of Association of Southeast Asian Nations (ASEAN) states, and facilitated likeminded democracies following suit. The Administration could take similar action regarding the CCP's illegal conduct in other areas, including around the Senkaku Islands and along India's border.

Key Finding: Taiwan is a critical focal point in the free world's confrontation with the CCP, and under a more direct threat of CCP armed aggression than any other U.S. partner. In Xi Jinping's words, the forced annexation of Taiwan is "critical to the rejuvenation of the Chinese nation," and is the CCP's overarching objective to overcome the PRC's colonial legacy. Xi has implied that he aims to control Taiwan during his rule.

The CCP is diligently working towards this objective; which would be a significant blow to U.S. security and global democracy. Taiwan is a bona fide democracy and a de facto sovereign nation and U.S. security ally. The U.S. relies on Taiwan as a defense link in the First Island Chain, the sole source of the most advanced semiconductor technology, and a champion of democracy under the CCP's shadow. CCP control of Taiwan would undermine U.S. security alliances globally, gut our technology supply chains, and strike a grave blow to democracy worldwide.

However, despite Taiwan's drastically increased significance to our national destiny over the last forty years, the core elements of U.S. Taiwan policy have remained stagnant since Congress passed the Taiwan Relations Act in 1979. At that time, Taiwan was an authoritarian state with no relevance to critical U.S. supply chains. Major improvements are required to update U.S. policy in keeping with Taiwan's modern-day significance to U.S. national security.

Recommendation: The Administration should allow Taiwan to change the name of its diplomatic office to the "Taiwan Representative Office" or a similar title. Taiwan's primary diplomatic organization inside the U.S. is currently called the "Taipei Economic and Cultural Representative Office," an anachronistic title that does not reflect the fact that the U.S. enjoys broad, substantial relations with all of Taiwan, not just its capital city.

Recommendation: Congress should ensure final passage of H.R. 2002, the Taiwan Assurance Act, a bipartisan bill which would require the Administration to review longstanding restrictions on Taiwan relations and make these rules available to Congress. Since 1979, the U.S. has maintained "unofficial" relations with Taiwan but has also abided by numerous self-imposed restrictions that are not required to maintain "unofficial" relations, such as restrictions on where U.S.-Taiwan meetings may take place or which U.S. officials may visit Taiwan.

Recommendation: Congress should ensure final passage of H.R.353/S.249, a bipartisan bill which would the Secretary of State to develop a strategy to regain observer status for Taiwan in the WHO. This legislation has passed both chambers of Congress and would help prioritize Administration efforts to promote Taiwan's participation in the WHO, which is all the more urgent given that Taiwan's marginalization from international health cooperation contributed to the COVID-19 pandemic.

Recommendation: Congress should pass H.R.6287, the Taiwan Symbols of Sovereignty (SOS) Act, a bipartisan measure which would permit government officials and armed service members from Taiwan to display or wear Taiwan's flag for official purposes in the U.S. "Unofficial" relations with Taiwan do not require the U.S. to prevent the display of Taiwan's flag, but longstanding policy has done so nonetheless.

Recommendation: Congress should pass H.R.7414, the Taiwan Fellowship Act, a bipartisan measure which would establish a fellowship program in Taiwan for small numbers of qualifying U.S. government employees. The program is modeled on the longstanding and successful Mansfield Fellowship for Japan, which has facilitated closer government-to-government ties by allowing U.S. personnel to gain experience inside Japan's government.

Recommendation: Congress should pass H.R. 6974, the Taiwan Non-Discrimination Act of 2020, which would condition any International Monetary Fund (IMF) shareholding increase for the PRC on Taiwan's meaningful participation in the Fund's activities. Taiwan's importance to the global economy and the significance of its foreign exchange reserves calls for normalizing the country's relations with the IMF. Moreover, IMF membership is open to countries even when they are not recognized as member states of the UN.

Recommendation: Congress should pass Section 1851 of H.R. 6395 in the FY2021 NDAA, a bipartisan provision reflecting the text of H.R. 6014, the Employment Fairness for Taiwan Act of 2020, which would require the U.S. to use its voice and vote at the IFIs to ensure that Taiwan nationals are not discriminated against in employment decisions.



Photo Credit: Nicolas ASFOURI / AFP

CHAPTER II: SUPPLY CHAIN

Introduction

The CCP-enabled pandemic has exposed the vulnerabilities of the U.S. supply chain, including the dangers of our reliance on the PRC and the need for a more robust domestic manufacturing capacity. In the early days of the pandemic, the CCP demonstrated its control of PPE supply chains by forcing U.S. producers in the PRC—like General Motors and 3M—to produce PPE which they quickly hoarded for themselves to the detriment of the U.S. and the world. When other countries decried the CCP's mishandling of COVID-19, they weaponized their stranglehold on the global supply of PPE. Beijing used the stockpile to try and buy forgiveness from other countries for their complicity in the global suffering and even threatened to withhold needed supplies from the U.S.

One of the CCP's primary industrial initiatives is to become the global leader in specific emerging technologies like robotics, transportation, bio-pharmaceuticals, new materials, and other industries critical to national defense. Their plan seeks to advance the PRC's position in the global manufacturing value chain by leading emerging technologies and reducing reliance on foreign companies. This makes the American manufacturing and defense industrial base more vulnerable and places increased importance on the U.S. industrial base to become less dependent on the PRC.

An area where the U.S. has fallen behind is in advanced semiconductor manufacturing which enables countless technologies and drives innovation. While the U.S. is the global leader in IP and design of semiconductors, most chips are not manufactured in the U.S. In fact, nearly 90 percent of the world's semiconductors are produced outside of the U.S. Meanwhile, the CCP is spending hundreds of billions of dollars with the goal to establish itself as the global leader in all segments of the semiconductor supply chain, including the production of chips. Specifically, the Made in China 2025 plan directs the CCP to produce 40 percent of the semiconductors it uses by this year—increasing to 70 percent by 2025. This level of dominance could flood the global semiconductor market with inexpensive, PRC chips, and heighten their ability to control this ubiquitous component of so many of today's technologies.

Additionally, the PRC controls the bulk of the global supply of critical and strategic minerals which are vital to many components that enable America's defense industrial base and economy. The demand for these minerals should steadily increase as global economy adopts new technologies—placing the U.S. and its allies at a growing disadvantage unless critical steps are taken to shift production and sourcing away from CCP controlled entities. The risk of supply disruptions is amplified by U.S. dependence on them and in many cases, our paucity of domestic supply. Simply put, lack of action to address this challenge puts the U.S. more and more in a strategic corner.

Fortunately, Congress has taken a number of recent actions to reduce the negative consequences of U.S. reliance on the CCP's ambitions on chips and critical minerals through the FY2021 NDAA. The NDAA includes provisions of the bipartisan Creating Helpful Incentives to Produce Semiconductors (CHIPS) Act, H.R. 6395, to boost advanced semiconductor manufacturing and research and development (R&D). Overall, a revitalization of U.S. manufacturing industries, with domestic companies to develop and produce leading edge advanced materials, advanced semiconductors, and automated systems, will provide the necessary tools to develop new weapons systems and consumer products in a more strategically advantageous manner. The NDAA also includes provisions to scale back our dependence on PRC minerals by prioritizing trusted sources and reducing use of certain PRC materials. These are important steps to secure America's critical supply of sensitive and strategic materials and scale back its dependence on the PRC.

Congress also passed the bipartisan Coronavirus Aid, Relief, and Economic Security (CARES) Act that takes steps to advance biomedical R&D and manufacture critical medical supplies in the U.S.

The Administration has also worked to ensure that Americans have better access to PPE and other vital medical supplies while reducing U.S. dependence on PRC products and supply lines by granting the Development Finance Corporation (DFC) Defense Production Act (DPA) authority. This streamlining allows the DFC to expedite the production of necessary medical supplies and grant contracts to companies who produce medicines in the U.S. to fight COVID-19. This is all the more important because the PRC produces a substantial portion of the active pharmaceutical ingredients (APIs) found in U.S. marketed medicines.

While Congress and the Administration have taken important steps, it will require a continued, whole-of-government approach along with the private sector to strengthen and diversify U.S. supply chains to sustain the health, well-being, and prosperity of Americans. This combined effort is necessary to safeguard national supplies, rebuild U.S. industry, and work collaboratively with allies to create a safe supply chain network.

U.S. Defense Industrial Base

Key Finding: The CCP represents a significant and growing risk to the supply of materials and technologies deemed critical to U.S. national security, and U.S. dependency on the CCP has created gaps and vulnerabilities in the industrial base that must be eliminated. Greater transparency and U.S. understanding of the CCP's penetration into the U.S. defense industrial base is required.



A healthy industrial base is a critical element of U.S. power and the National Security Innovation Base. The ability of the military to surge in response to an emergency depends on our Nation's ability to produce needed parts and systems, healthy and secure supply chains, and a skilled U.S. workforce."

- 2017 National Security Strategy"

The U.S.' manufacturing and defense industrial base supports economic prosperity and global competitiveness and arms the military with capabilities to defend the nation. The U.S. manufacturing and defense industrial base must be secure, robust, resilient, and ready to provide for our national security. A comprehensive and detailed strategy focused on eliminating the gaps and vulnerabilities in the national technology and industrial base is the first step to ensuring a secure, robust, and resilient industrial base. Without this, DoD's efforts are temporary and ineffective.

Recommendation: Congress should pass section 845 of H.R. 6395 in the House passed FY2021 NDAA, which would limit funds until DoD develops a national security strategy for the defense industrial base in order to assess gaps and vulnerabilities to the national technology and industrial base. Current law requires DoD to develop a comprehensive and detailed national security strategy for the defense industrial base.

Recommendation: Congress should pass section 1254 of H.R. 6395 in the House passed FY2021 NDAA, which would extend the requirement for public reporting of CCP military companies operating in the U.S., including a list of each entity determined to be directly or indirectly owned,

controlled, or beneficially owned by the PLA, or a military-civil fusion contributor to the CCP defense industrial base.

Recommendation: Congress should pass section 1255 of H.R. 6395 in the House passed FY2021 NDAA, which would direct a federally funded research and development center to conduct a study on the defense industrial base of the CCP.

Recommendation: Congress should encourage companies that make up the defense industrial base, as part of the terms of their contract with DoD, to participate in a threat intelligence sharing program that would be housed at DoD component level.

Recommendation: Congress should support DoD's Cybersecurity Maturity Model Certification program to seek and identify cybersecurity threats and vulnerabilities within the information systems of defense industrial base companies.

Recommendation: Congress should consider legislative proposals to effectively cut off material support for CCP military industrial base companies. For instance, H.R. 7064, the Stop Funding the People's Liberation Army Act, would require divestment from certain companies with ties to the CCP military. Since the U.S. seeks access to the PRC market for benign trade and investment, but state control over the economy in the PRC is pervasive, Congress should ensure that restrictions on financing for CCP military industrial base companies are targeted, effectively administered, and designed to achieve clear national security goals. These efforts should also permit DoS and DoT to calibrate actions, including in partnership with U.S. allies, as part of a comprehensive strategy to counteract the CCP's military ambitions.

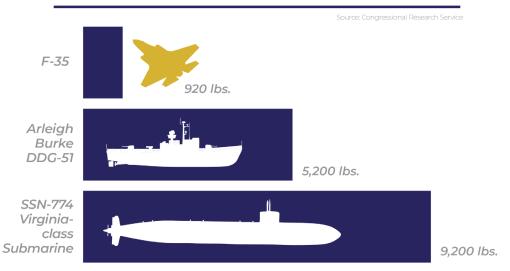
Sensitive and Strategic Materials

Key Finding: The CCP is seeking to control global sensitive and strategic materials, upon which U.S. national security, economic growth, and energy independence are on dependent on. The U.S. must secure the U.S.' critical supply of sensitive and strategic materials in order to reduce its reliance on the CCP.

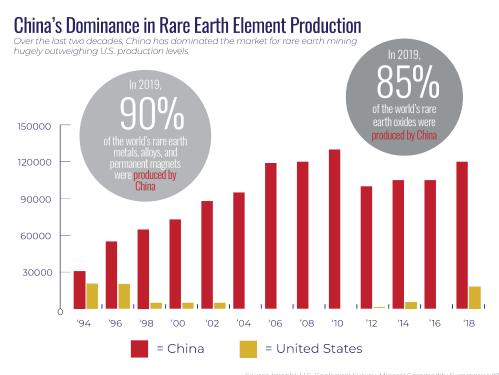
The PRC dominates the world's production of most critical sensitive and strategic minerals, increasing the risks of price spikes and supply disruptions to the U.S. economy. A 2018 DoD report describes the PRC as a "significant and growing risk to the supply of materials and technologies deemed strategic and critical to U.S. national security." Areas of concern to the U.S.' manufacturing and defense industrial base include a growing number of widely used and specialized metals, alloys, and other materials, including rare earth metals.

Rare earth metals are critical elements used across many of the major weapons systems the U.S. relies on for national security, including lasers, radar, sonar, night vision systems, missile guidance, jet engines, and alloys for armored vehicles.⁶⁷ The PRC is also the single sole supplier for a number of specialty chemicals used in munitions and missiles.

Breakdown of Rare Earth Material: U.S. Defense Systems



Additionally, the CCP's control over private entities in the PRC creates numerous potential vulnerabilities for their foreign customers. For example, the PRC provides 58 percent of the rare earth metals imported into Japan, and in the past has limited exports of rare earth elements to Tokyo in retribution to disputes between the two countries. U.S. import dependence on the PRC creates significant risks to the U.S. economy and national security. The demand for critical minerals and rare earth elements will continue to grow with adoption of new technologies. Steps should be taken to increase secure and reliable U.S. supplies of sensitive and strategic materials and reduce susceptibility to supply disruptions.



Source (graph): U.S. Geological Survey, Mineral Commodity Summaries ('94 - '20) Source (stats): Center for Strategic and International Studies (CSIS) Recommendation: The U.S. should pass section 824 of H.R. 6395 in the FY2021 NDAA, which would mandate a preference for sourcing rare strategic and critical materials, including rare earth materials, from the National Technology and Industrial Base (as defined in section 2500 of title 10, U.S. Code).⁷⁰ It would also require DoD and DoS to issue guidance on the elimination of U.S. dependency on rare earth materials from the PRC by Fiscal Year 2035.

Recommendation: Congress should pass section 823 of H.R. 6395 in the FY2021 NDAA, which would expand the prohibition on acquiring certain sensitive materials from the PRC.

Recommendation: Congress should pass section 826 of H.R. 6395 in the FY2021 NDAA, which would mandate where printed circuit boards can be manufactured and assembled.

Recommendation: Congress should pass section 835 of H.R. 6395 in the FY2021 NDAA, which would expand the prohibition on government procurement or use of any commercial off-the-shelf drone or certain unmanned aircraft systems from foreign entities subject to influence or control by the PRC.

Recommendation: Congress should pass section 829 of H.R. 6395 in the FY2021 NDAA, which finds that aluminum production capacity in the U.S. is critical to U.S. national security and designates aluminum as a specialty metal. Congress should also pass section 830 which would require the Secretary of Defense to report on how authorities under the Defense Production Act of 1950 could be used to provide incentives to increase activities relating to refining aluminum and the development of processing and manufacturing capabilities of aluminum, and whether a new initiative would further the development of such processing and manufacturing.

Recommendation: Congress and the Administration must remove regulatory barriers to domestic mining, in part to ensure a sufficient domestic supply of critical minerals and rare earth elements for multiple applications, including renewable energy infrastructure, electric vehicles, and telecommunications equipment.

Recommendation: Congress should pass H.R. 7061, the American Critical Mineral Exploration and Innovation Act, which would overhaul the federal permitting process for mineral development and prioritize advancements in mineral refining. The bill also supports R&D for new mining and mapping techniques and other technologies to advance critical minerals development. Cutting red tape and supporting innovation in the U.S. will ensure a domestic supply of critical minerals and rare earth

elements and avoid a U.S. dependency on the PRC for them.

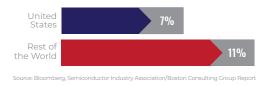
Recommendation: Congress should pass H.R. 8198, the National Security Through America's Resources and Permitting Reform Act of 2020, which would include as a covered project eligible for FAST 41 permitting, projects related to the extraction, recovery, or processing of critical minerals, rare earth elements, micro-fine carbon, or carbon from coal, coal waste, coal processing waste, pre-or post-combustion coal byproducts, or acid mine drainage from coal mines for the purposes of securing the economic and national security of the U.S.

Recommendation: The Administration should continue to prioritize initiatives, including DoS' Energy Resource Governance Initiative, that strengthen cooperation with allied countries in the mining and energy sector with a specific focus on mining sector governance, strengthening private investment, and securing supply chains. These initiatives should involve allies in the Western Hemisphere, including Canada, Peru, Chile, and Brazil.

Semiconductors

Key Finding: The PRC is the largest market for semiconductors in terms of consumption and has ambitious goals for the continued development of its domestic semiconductor industry. The U.S. should encourage trusted vendors to invest in new, advanced semiconductor fabrication in the U.S. and with trusted allies and partners.

U.S. Falling Behind: Annual Chipmaking Capacity Growth Rates



Semiconductors are the tiny chips that power modern technologies and are driving digitization. They enable a wide variety of products from smartphones and computers to cars and industrial equipment, while also making possible emerging technologies such as Al, quantum computing, and 5G. Although the U.S. is a world leader in the IP for, and design of, semiconductors, nearly 90 percent of the global fabrication of semiconductors occurs outside the U.S. Under the Made in China 2025 industrial plan, the PRC aims to produce 40 percent of the semiconductors it uses by 2020 and 70 percent by 2025 and has been pouring money into portions of its domestic semiconductor industry. At the same time,

the CCP is spending hundreds of billions of dollars to dominate all segments of the semiconductor supply chain, including the fabrication of chips. Unless the U.S. takes bolder action, the U.S. may forever lose its ability to make semiconductor chips to the PRC. By providing funding, investment tax credits, and support throughout the semiconductor supply chain – from R&D to fabrication – the U.S. can supercharge private investment, create thousands of high-paying jobs, and safeguard our national security.

Recommendation: Congress should pass certain advanced semiconductor manufacturing incentives found in the provisions of the bipartisan H.R. 7178, the CHIPS for America Act, including relevant sections included in the House and Senate passed FY2021 NDAA. For example, the bill includes establishment of a DoC grant program designed to incentivize investment in domestic advanced semiconductor fabs, as well as provisions to bolster and coordinate federal support for advanced semiconductor R&D. Additionally, Congress should support a study of semiconductors technologies in the U.S. industrial base and provide funding for the development and adoption of secure semiconductors and secure semiconductor supply chains.

Recommendation: Congress should design and pass tax incentives to encourage more domestic production of advanced semiconductors.

Recommendation: The Administration and Congress should seek to make substantial direct and indirect investment in semiconductor and electronic component assembly in the U.S. sufficient to meet the needs of defense and critical infrastructure systems. This is essential to undermine the PRC's control over the U.S.' capacity to rebuild after a cyber incident and prevent the introduction of malicious components during the manufacturing process.

Supply Chain Diplomacy

Key Finding: The CCP's massive subsidies and statedirected predatory industrial policies have undermined critical supply chains, and in some cases hollowed out critical industries in the U.S. and other countries. The U.S. response so far has been too slow and reactive; it has failed to establish a threat-specific supply chain strategy and expand partnerships with allies, likeminded nations, and the private sector to shift key supply chains to affordable and more secure locations while maximizing the competitiveness of U.S. industries producing these products.

U.S. allies and other trading partners share many of the U.S. concerns that they are overly reliant on the PRC for key products in their supply chains.

In many cases, our allies have become more concerned about the CCP's abuses than ever before as the CCP has retaliated against them for speaking out against their actions.

For example, shortly after the Government of Australia called for an independent investigation of the origins of COVID-19, the PRC retaliated against important agricultural products from Australia. The PRC blocked certain beef imports from their four largest slaughterhouses and levied 80.5 percent tariffs on barley imports from Australia, actions that Australian Prime Minister Scott Morrison described as attempts to coerce Australia and undermine its values.⁷²

This dynamic creates more opportunities for the U.S. to work cooperatively with these trading partners to develop resilient supply chains outside of the PRC for key products. Given that the U.S. share of the PRC's exports has declined over time, the U.S. increases its leverage when it works closely with like-minded countries that are also major export markets for the PRC.⁷³ Such partnerships to secure key supply chains are unquestionably in the U.S. interest because they maintain the competitiveness of export-oriented U.S. industries⁷⁴ and maximize the ability of U.S. companies to determine the most efficient place outside of the PRC to produce key products.⁷⁵

Recommendation: The Administration should establish a threat-specific supply chain strategy and expand partnerships with allies, like-minded nations, and the private sector to shift supply chains to affordable and more secure locations. DoC should work through the National Telecommunications and Information Administration, and other agencies as directed by the President, to implement Executive Order 13873, Securing the Information and Communications Technology and Services Supply Chain.

Recommendation: Congress and the Administration should make securing the supply chains of the most strategic products for national security and health requirements a top priority in bilateral, plurilateral, and multilateral trade and economic discussions with allies and other trusted trading partners, by taking such actions as:

- Working closely together to prioritize cooperation in existing fora, including the G7 and the Asia-Pacific Economic Cooperation forum.
- Using the consultation mechanisms in the 20 current U.S. Free Trade Agreements to work with partners to address supply chain security.
- Securing priority supply chains in ongoing and future trade negotiations, including those currently underway with the United Kingdom and Kenya.

- Completing ongoing analysis to identify the highest priority products to secure supply chains and enhance
 cooperation with allies in doing so, including through the International Trade Commission's analysis pursuant
 to the April and August 2020 bipartisan requests from House Ways & Means and Finance Committee leaders
 to provide more detail on supply chains for COVID-19 related products and the conditions of competition, to be
 used to work with allies and the private sector.
- Prioritizing the establishment of robust government and private sector cooperation to secure key supply chains in all Congressional dialogues with governments of allies and trusted trading partners.
- Working together to develop a unified U.S. position to partner with other WTO members that are like-minded about the threat the PRC poses to critical supply chains to reach plurilateral agreements to secure key supply chains

Health, Medical Supply, and Pharmaceutical Security

During the COVID-19 pandemic, a new light has been shone on the over-reliance on certain countries, specifically the PRC, for our drug supply chain. Our dependence on certain countries – both for raw materials and manufacturing assistance – creates a serious health and security vulnerability for our country.

Millions of U.S. consumers take life-saving or life-sustaining drugs that contain ingredients made in the PRC, even if finished drugs themselves are not made in the PRC.⁷⁶ U.S. consumers, including the U.S. military, are reliant on drugs or active ingredients sourced from the PRC, which presents economic and national security risks, especially as the CCP aims to become more competitive in new and emerging therapies.⁷⁷

If a nation monopolizes the production of a drug and wishes to retaliate against the U.S., it could substantially increase drug prices or radically reduce supply in an attempt to cause shortages, limiting access to critical medications. In a time of crisis, such possible actions could cost American lives.

Through passage of the bipartisan CARES Act, Congress has already taken steps to further advance biomedical research and promote the development and manufacture of necessary medical supplies in the U.S. Congress and the Administration must continue to work together to strengthen and diversify U.S. supply chains to sustain the health, well-being, and prosperity of Americans.

The CARES Act allowed the Biomedical Advanced Research and Development Authority (BARDA) to more easily partner with private sector on R&D by removing the cap on other transaction agreement authority. To "prevent, prepare for, and respond to coronavirus, domestically or internationally," the CARES Act appropriated the following to the National Institutes of Health:

The CARES Act appropriated the following to the National Institute of Health (Millions):



The CARES Act also appropriated \$12.7 billion to the Public Health and Social Services Emergency Fund to remain available until September 30, 2024, for the development of necessary countermeasures and vaccines, prioritizing platform-based technologies with U.S.-based manufacturing capabilities, the purchase of vaccines, therapeutics, diagnostics, necessary medical supplies, as well as medical surge capacity, and related administrative activities addressing blood supply chain, workforce modernization, telehealth access and infrastructure, initial advanced manufacturing, novel dispensing, enhancements to the U.S. Commissioned Corps, and other preparedness and response activities.

Key Finding: The PRC is actively developing, producing, and controlling the most important medical and pharmaceutical products, leaving physical and economic health in the U.S. vulnerable to the CCP's priorities. Additionally, U.S. supply chains for certain medical and pharmaceutical products have become too reliant on the PRC, undermining our medical and national independence. To mitigate the PRC's dominance in the medical supply chain, it is imperative that the U.S. develop market-based incentives without imposing sweeping government mandates or controls in order to increase U.S. domestic manufacturing and cooperation with trusted allies and partners.

The Administration has taken important steps to help increase the production of medical supplies in the U.S., both in the near and long-term. A key example was the use of authorities under the Defense Production Act to secure domestically produced ventilators and grant contracts to companies to produce finished drugs APIs, including those needed to respond to COVID-19. Moreover, the Department of Health and Human Services (HHS) announced a partnership with industry in May 2020 to expand U.S.-based manufacturing of API and medicines needed during the COVID-19 response and future public health emergencies. These actions will help mitigate and prevent current and future drug shortages which have been exacerbated by the pandemic.

To avoid reliance on the PRC, the U.S. must address the issue of overreliance on undependable countries to produce certain medications. According to the Food and Drug Administration (FDA), manufacturing of many APIs has moved out of the U.S. into foreign countries over time and the PRC has 13 percent of facilities that manufacture APIs for U.S. marketed drugs.⁷⁸

However, data limitations hinder our ability to fully understand our reliance on overseas manufacturing. Dr. Janet Woodcock, Director of the Center for Drug Evaluation and Research (CDER) at the FDA, in her 2019 testimony before the House Committee on Energy & Commerce, stated:

These limitations mean that, although CDER can describe the locations of API manufacturing facilities, we cannot determine with any precision the volume of API that the PRC is actually producing, or the volume of APIs manufactured in the PRC that is entering the U.S. market, either directly or indirectly by incorporation into finished dosages manufactured in the PRC or other parts of the world.⁷⁹

Recommendation: Congress should pass section 712, a bipartisan provision of H.R. 6395 in the FY2021 NDAA, which would require the next National Security Strategy to include the provision of drugs, biologics, vaccines, and critical medical equipment. It would also require a classified report on the vulnerabilities to the medical supply chain of the U.S. from foreign countries like the PRC.

Recommendation: Congress should pass Section 1808(f) of H.R. 6395 in the FY2021 NDAA, a bipartisan provision reflecting the text of H.R. 6399, the Securing America's Vaccines for Emergencies (SAVE) Act. This legislation would require the President to deliver a national strategy for use of the Defense Production Act in order to ensure the supply of medical articles essential for national defense.

Recommendation: Congress should pass section 750L, a bipartisan provision of H.R. 6395 in the FY2021 NDAA, which would require DoD, in consultation with other relevant federal agencies, to conduct a targeted study and submit a classified report to Congress on DoD's Joint Development Formulary (JDF), which would include a core list of pharmaceutical items that are required for contingency operations, identify barriers that may limit DoD from procuring necessary items, and identify international military partners who can help manufacture them. It is crucial the U.S. track the ingredients and components of pharmaceutical, biologics, and medical devices to ensure transparent business practices and compliance with FDA regulations where necessary and appropriate.

Recommendation: The Administration should quickly implement section 3112 of the CARES Act, which requires drug manufacturers to report drug and API volume and will provide needed insight into the amount of drug products the U.S. received from foreign countries Additionally, the National Academies of Sciences, Engineering, and Medicine should act swiftly to begin the study required under section 3101 of the CARES Act. This study requires the National Academies to examine and issue a report on U.S. medical product supply chain security. The report will provide more clarity on how to improve supply chain resiliency and address vulnerabilities.

Recommendation: Congress should pass, H.R. 6670, the Prescription for American Drug Independence Act, which would require the National Academies to establish a committee of drug supply chain experts, convene a public symposium to analyze the impact of U.S. dependence on foreign manufacturing of critical drugs, and recommend strategies to reduce dependency on foreign manufacturing while still ensuring a diversified supply chain.

Recommendation: Congress should pass legislation to require the National Academies of Science, Engineering, and Medicine to conduct a study on why pharmaceutical manufacturing has moved off-shore, what products (such as APIs) were or were not historically manufactured in the U.S., and what market incentives would need to change to increase domestic drug manufacturing.

Recommendation: Congress should pass the bipartisan H.R. 4866, the National Centers of Excellence in Continuous Pharmaceutical Manufacturing Act, which directs the FDA to designate National Centers of Excellence in Continuous Pharmaceutical Manufacturing to work with the FDA and industry to craft a national framework for continuous manufacturing implementation. Congress and the Administration should encourage the development and use of advanced manufacturing technologies which can reduce drug shortages and quality issues. Advanced manufacturing technology can be scalable to rapidly produce vaccines and medical countermeasures, shorten supply chains, and speed development of therapeutics.

Recommendation: The Administration should promote the use of the Centers for Innovation in Advanced Development and Manufacturing (CIADMs) Program. BARDA has existing authorities under the Public Health Service Act to support the manufacturing of products needed in public health emergencies and for bioterrorism response through the use of the CIADMs Program. These public-private partnerships can provide domestic infrastructure in the U.S. capable of manufacturing medical countermeasures on a commercial scale, as well as vaccines and therapeutics for the prevention and treatment of pandemic influenza and other infectious diseases.

Recommendation: Congress should pass the bipartisan H.R. 6531, the Medical Supplies for Pandemics Act, that would allow the Strategic National Stockpile to enter into joint ventures with domestic manufacturers to establish new or expanded manufacturing lines for personal protective equipment.

Recommendation: Congress should pass legislation to continue to promote policies intended to prevent and mitigate drug shortages, such as legislation that would allow the government to enter contracts with pharmaceutical distributors in which the distributors would secure, manage, and replenish a supply of drugs that are at high-risk of shortage.

Recommendation: Congress should pass provisions of the bipartisan H.R. 6930, the Manufacturing API, Drugs, and Excipients (MADE) in America Act, to require a GAO study to assess whether the differing regulatory requirements across countries creates inefficiencies in drug manufacturing, enhance transparency of facility inspection timelines, and codify FDA's advanced manufacturing technologies program. This legislation would make regulatory processes more efficient and incentivize domestic production.

Key Finding: The CCP uses a full range of policy tools to incentivize or mandate more influence over the medical and pharmaceutical industry. Allowing supply chains for key medical products to be concentrated in the PRC is much riskier than sourcing from otherwise affordable and more secure partners or encouraging domestic production. Changing U.S. tax incentives to relocate such key supply chains back to the U.S. will be instrumental for the U.S. to compete with the PRC in this market.

Congress should pass aggressive, smart, and targeted tax incentives to accelerate U.S. R&D and production of crucial medicines, medical supplies, ingredients, tests, and vaccines.

Recommendation: Congress should pass H.R. 7767, the Domestic Medical and Drug Manufacturing Tax Credit, which cuts the U.S. tax rate in half for income from domestic manufacturing and sale of APIs and medical countermeasures through a tax credit and provides a 30 percent investment tax credit for new investments in advanced manufacturing equipment used in the U.S. to manufacture drugs and medical products.

Recommendation: Congress should pass H.R. 7555, the More Cures Act, and H.R. 7556, the Startups for Cures Act, which create R&D incentives for biotech companies that are engaged in infectious disease drug development or research and provide refundable R&D credits for infectious disease vaccine and drug research for pre-revenue biotech companies in order to remove obstacles that prevent innovators from starting U.S. companies to work to cure diseases.

Recommendation: Congress should pass H.R. 7537, the Infectious Disease Therapies Research and Innovation Act of 2020, which creates earlier investment and stronger research in critical therapies and vaccines by amending the passive loss rules currently in the tax code in order to help these smaller firms raise private funds from more investors at an earlier stage.

Recommendation: Congress should pass H.R. 7505, the American Innovation Act of 2020, which would make it easier for America's innovators to start new drug companies that can research and develop new cures and treatments by providing special tax treatment for start-up costs and by preserving valuable tax attributes like R&D credits.

CHAPTER III: NATIONAL SECURITY

Introduction

The Administration's 2017 National Security Strategy and the 2018 National Defense Strategy rightly describe the PRC as a revisionist power that threatens U.S. security, influence, and interests. Indeed, in 2017, Xi Jinping announced that the PLA was "at a critical stage in the path toward being a world power." The national security threat posed by the CCP has only increased in recent years. Today, the CCP is developing and militarizing illegal manmade islands in the South China Sea, expanding its reach across the Middle East and Africa, bullying its neighbors, and seeking to construct military bases around the world to project power and challenge the U.S. and other nations. ⁸⁰

The PRC is undertaking aggressive military transformation to become a modernized force by 2035 and emerge as a world-class military by the end of 2049.81 The growing challenge posed by the CCP today is likely the military challenge of the century.

The CCP is also seeking to be the global leader in technology. To achieve this goal, the CCP steals IP, conducts industrial espionage and state-sponsored market manipulation, and exploits the openness of the U.S. higher education system to extract information for both military and economic applications using non-traditional intelligence collectors and military personnel.

This malign activity is not new; the CCP have been stealing our technology for decades. For example, in the late 1970s, the CCP began an aggressive and multifaceted campaign that resulted in the theft of classified design information on our most advanced thermonuclear weapons and related technology. In the 1990s, they conducted an espionage campaign targeting ballistic missiles and space programs. They have honed their practices over the years and are now more aggressive than ever.³²

The CCP uses a range of predatory and unlawful tactics that often involve trade secret theft and the forced transfer of IP. Attorney General William Barr has noted that "[a] bout 80 percent of all [U.S.] federal economic espionage prosecutions have alleged conduct that would benefit the Chinese state, and about 60 percent of all trade secret theft cases have had a nexus to China."83

The CCP has demonstrated the capability and willingness to conduct cyber-attacks against the U.S., putting American consumers and U.S. critical infrastructure at risk. A **resilient cyber ecosystem** is essential for reducing the risk of a significant attack on military and critical infrastructure systems and the open economy. Coordinated government action and new legislative solutions are required to meet this **rapidly evolving threat**.

Additionally, the CCP seeks to influence communities, businesses, and local and national elections in the U.S. in order to foster favorable attitudes and policies toward the CCP while undermining democracy. Most recently, a U.S. intelligence leader stated that "China prefers that President Trump—whom Beijing sees as unpredictable—does not win reelection" and that "China has been expanding its influence efforts ahead of November 2020 to shape the policy environment in the U.S., pressure political figures it views as opposed to China's interests, and deflect and counter criticism of China."⁸⁴

The Administration and Congress have stepped up efforts to highlight and expose the threats and challenges posed by the CCP, but more must be done. It is critical that the Administration continues to prioritize strategic **competition** with the PRC in its official strategic documents and implements whole-of-government and whole-ofsociety efforts aimed at protecting U.S. national security and upholding U.S. values. U.S. military modernization and defense investments, along with measures to safeguard U.S. critical infrastructure from cyber-attacks, protect research security and IP, and defend against malign CCP influence in the democratic system, are essential to ensuring that the U.S. and its citizens are not put at further risk. These efforts are fundamental to safeguarding American values and the international rules-based order that the U.S. has fought to achieve and maintain alongside its allies and partners.

Defense

Military Modernization

The PLA ground, air, naval, and missile forces have become increasingly able to project power during peacetime and in the event of regional conflicts. The PLA will almost certainly use this growing ability to attempt to shape international perceptions of the PRC as a regional power and global stakeholder. To that end, the PRC is developing capabilities such as a new long-range bomber, land-based aircraft, aircraft carriers, and long-range missiles. It is also rapidly advancing its nuclear triad, space and counterspace capabilities, and cyberspace activities.

For example, as of 2020, the PLA Navy (PLAN) is the largest navy in the world. The PLAN consists of **over 300 ships**, making it larger than the 293 vessels comprising the deployable battle force of the U.S. Navy.⁸⁶ The PLAN has improved survivability through the introduction of the Type 094 class ballistic missile submarine (SSBNs), capable of carrying 12 modern JL-2 submarine-launched ballistic missiles (SLBMs) with a range of approximately 7,400 km.⁸⁷

Additionally, the PLA Air Force (PLAAF) is closing the gap across a broad range of capabilities, such as aircraft performance, C2, electronic warfare, and advanced air-to-air long-range munition development and procurement. The PLAAF has fielded at least 800 fourth-generation fighters and is believed to have begun low-rate production and limited fielding of J-20 fifth generation stealth fighters. Plans are also underway to accelerate development and production of another fifth-generation stealth fighter, the J-31, along with continuing research for advanced next generation fighters. According to the DoD, the PLAAF is **rapidly catching up to Western air forces and continues to modernize their forces** with the delivery of domestically built aircraft and a wide range of unmanned aerial vehicles (UAVs).⁸⁸

The PRC is leading in hypersonic technology due in part to Beijing's strategic investments in its industrial base, exploiting U.S. research centers, and IP theft. 8990 Hypersonic glide weapons challenge U.S. early warning, tracking and identification capabilities and complicate our ability to counter and defeat an attack. Some of the PRC's most significant developments have been in air-to-air missiles, which have wide range and electronic radars that make evasion difficult for fighter jets. In 2017, combat modeling by RAND Corporation found that, for the first time, the PRC had achieved parity with the U.S. in air superiority for a conflict close to its mainland, including over Taiwan.

The PRC has developed its conventional missile forces unrestrained by international agreements. The PRC now has more than 1,250 ground-launched ballistic missiles, while the U.S. "fields one type of conventional ground-launched ballistic missile with a range of 70 to 300 kilometers." The PRC possesses ground-launched cruise missiles with ranges between 500 and 5,500 kilometers, while the U.S. does not field any ground-launched cruise missiles. 91

Additionally, the PRC is making considerable investments to modernize and expand its nuclear forces, including by developing a new generation of road-mobile ballistic missiles and nuclear-capable delivery systems. The PRC is pursuing its own nuclear triad featuring ground and sea-based platforms, as well as a nuclear capable air-launched ballistic missile that is under development.

Warning of the PRC's nuclear ambitions, then-Defense Intelligence Agency Director Lt. Gen. Robert Ashley said:

Over the next decade, China will likely at least double the size of its nuclear stockpile in the course of implementing the most rapid expansion and diversification of its nuclear arsenal in China's history."³³ The PRC has also emphasized the utility of low-yield nuclear weapons, as DoD has noted, "in order to increase the deterrence value of China's nuclear force without defining specific nuclear yield values."

The PRC has been able to make technological strides through its strategy of "military-civil fusion," under which the CCP mandates the fusion of the defense and civilian industrial sectors—forcing any and all technology to potentially be diverted for military purposes. Companies are legally bound to adhere to this strategy, which Xi Jinping "personally oversees."

While the U.S. has for years assumed that it has, and will continue to retain, an overall military advantage over the PRC, that gap is closing, as mentioned above. In some cases, the PRC has already achieved parity with—or even exceeded—the U.S. in several military modernization areas, according to the DoD.95 Congress must continue to support DoD's investments in air, sea, land, and space, including critical munitions such as long-range precision and strategic fires. Congress must also ensure that DoD is maintaining, training with, and upgrading these capabilities to secure a state of readiness. Congress must continue to push for DoD to support emerging technologies, find winners, and integrate them into DoD's warfighting capability. H.R. 6395, the bipartisan FY2021 NDAA, makes progress in many of these areas, but U.S. defense investments must increase for the U.S. to maintain its edge.

Key Finding: The CCP is rapidly developing a military force capable of winning regional conflicts and is expanding its military footprint globally. The PRC has set benchmarks for completing military modernization by 2035 and becoming a world class military by 2049, which could complicate U.S. military operations in a contingency or conflict.

Recommendation: The U.S. must close capability gaps with the PLA in certain areas and maintain its competitive advantage in others. Doing so will require steady investments in the capabilities required for a joint campaign and joint warfighting operations along with their supporting infrastructure.

Navy and Marine Corps

- 355 ship Navy
- Virginia Class attack submarines
- Surge Sealift force recapitalization
- Seabed Warfare to include Unmanned Underwater Vehicles and Offensive Mining
- F/A-18E/F Super Hornets, F-35B and F-35C fifth generation Joint Strike Fighters
- Forward sustainment and rearming capabilities

Air Force

- B-21 penetrating bomber
- B-52 standoff bomber
- Tanker Aircraft (KC-46A)
- F-35 fifth generation Joint Strike Fighters
- Next Generation Air Dominance capabilities
- F-15EX fighter aircraft
- · Advanced air-to-air munition capability
- Advanced Battle Management Family of Systems and Joint All Domain Command and Control Capabilities
- Advanced Unmanned Air System Development for ISR and Strike capability

Army

- · Contested logistics capabilities
- Improved and modernized prepositioned stocks and specialized equipment activity sets
- Long range precision fires
- Integrated Air and Missile Defense for Base Defense

Air and Missile Defense

- Regional Layered cruise and missile defenses
- Hypersonic and ballistic tracking space sensor (HBTSS)
- Standard Missile-3 Block IIA ballistic missile interceptor
- Standard Missile-6
- Mobile and Maneuverable Short-Range Air Defense
- Integrated Air Missile Defense Guam
- Homeland Defense Radar Hawai

Long Range Precision Fires and Strategic Fires

- Hypersonic strike weapons (Conventional Prompt Strike, Long Range Hypersonic Weapon, Air-Launched Rapid Response Weapon, Air-breathing Research & Development)
- Maritime Strike Tactical Tomahawk, Naval Strike Missile, Standard Missile-6
- Joint Air-to-Surface Standoff Missile (JASSM)-Extended Range
- Precision Strike Missile
- · Mobile Medium Range Missile
- · Long-Range Anti-Ship Missile
- Ground Launched Cruise Missile, Ground Launched Ballistic Missile
- Intermediate-range missile development, testing, fielding

Strategic Mobility and Sustainment

- Air Lift and Sea Lift
- Tanker suppor

Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance & Reconnaissance (C5ISR)

- Joint All-Domain Command and Control/Airborne Battle Management System/Navy Integrated Fire Control/Integrated Air and Missile Defense Battle Command System
- Airborne, Space, and Ground based electronic warfare for highly contested Electromagnetic Spectrum Operations
- Offensive cyberwarfare
- Artificial Intelligence and Machine Learning

Space Force

- U.S. manufactured launch capabilities
- Next Generation Overhead Persistent Infrared
- Hypersonic and Ballistic Tracking Space Sensor
- Global Positioning System Block III
- \bullet Investments in commercial partnerships for space domain awareness, Battle
- $management\ for\ distributed\ sensors,\ communications,\ and\ architectures$
- Software-enabled constellation and payload automation for efficient tasking, collection, processing and dissemination of space-based data into Joint All-Domain Command and Control (JADC2) programs
- Offensive and defensive space control systems with associated strategic policy and delegated authorities for employment

Recommendation: In addition to the investments needed to acquire critical U.S. defense systems, the U.S. must prioritize activities that sustain these capabilities, including training, maintenance, mechanical upgrades, and procurement. Doing so will ensure these capabilities remain fully operational. Both the House-passed and Senate-passed FY2021 NDAAs include many of these activities and enhancements. Congress should ensure final passage of the FY2021 NDAA and continue supporting sustainment.

Key Finding: The PRC has large quantities of ground-based missiles due in large part to not being party to the recently terminated Intermediate Range Nuclear Forces Treaty. The PRC is now the leading theater range missile power with both dual conventional and nuclear delivery capabilities.

Recommendation: Congress should cease all limitations on DoD's ability to develop and field conventional ground-launched cruise and ballistic missiles and should support Administration efforts to work with Indo-Pacific allies to regionally base U.S. intermediate-range missiles. This capability is critical for the U.S. to regain the advantage and bolster deterrence in the Indo-Pacific. Congress should fully fund the Long-Range Precision Fires requirement of \$267 million in the FY2021 and \$760 million over the FY 2022-2026 period described by Indo-Pacific Command (INDOPACOM) in its report to Congress pursuant to Section 1253 of the FY2020 NDAA.

Key Finding: The CCP has been modernizing its nuclear forces steadily since 1996, increasing the quantity of its arsenal as well as improving quality. The CCP's nuclear stockpile, currently publicly estimated to be in the low 200s, is expected to at least double over the next decade. The PRC is developing or modernizing its air, sea, and land-based nuclear capabilities in pursuit of a "nuclear triad" and has also emphasized the need for lower-yield weapons. U.S. military nuclear modernization, meanwhile, has lagged.

Recommendation: U.S. nuclear modernization is imperative for ensuring effective deterrence and maintaining U.S. military superiority over the PRC. Nuclear modernization must be fully funded to ensure the nuclear triad and other capabilities are effective, safe, and credible. Further delays on any of the legs of the triad would have grave consequences for the security of the U.S. and its allies. Nuclear Command, Control, and Communications modernization is the fourth leg of modernization and is also vitally important. Upgrades to infrastructure and an active industrial base are needed to support the nuclear enterprise. Emphasis should be placed on the following investments:

- Ground Based Strategic Deterrent
- · Columbia-class submarines
- · Long Range Stand Off Weapon
- Field dual-capable B-21 heavy bombers
- Develop W-93 sea-launched warhead
- Develop submarine-launched cruise missile
- Modernize nuclear command control and communications infrastructure
- Recapitalize National Nuclear Security Administration infrastructure
- Ensure the nuclear security enterprise produces no less than 80 war reserve plutonium pits (the fissile core of a nuclear warhead) per year by 2030
- F-35 Dual Capable Aircraft that are configured to perform either conventional or theater nuclear missions

Recommendation: As the CCP develops new nuclear and asymmetric military capabilities—including its medium-and intermediate-range ballistic and cruise missile force, anti-satellite capabilities, offensive cyber weapons, and space operations—the U.S. should continue pressing to bring the PRC into arms control negotiations.

Key Finding: The CCP is using electronic warfare, counter-space, and cyber capabilities to disrupt, paralyze, or destroy U.S. operational capabilities and early warning, navigation, and communication systems. Additionally, the CCP is using emerging technologies, including hypersonics, robotics, quantum computing, Al, and machine learning to gain operational advantages against the U.S.

Recommendation: The U.S. must prioritize the development of emerging technologies while also increasing its ability to defend against them. This includes substantial investments to maintain anti-access/area denial capabilities

and investment in Al, lethal autonomous weapons, long-range strike weapons, directed energy weapons, biotechnology, and quantum technology to achieve air, space, and maritime superiority early in a conflict.

Recommendation: Congress should evaluate whether DoD has the appropriate authorities and flexibility to make changes to its budget and fund experimentation of emerging technologies for DoD use. Such experimentation would guide new investments, prioritize winning solutions, and acquire and integrate them quickly into our military doctrine and planning.

Predictable Strategy-Based Defense Budget

-- Then-Secretary of Defense Mattis said in 2018:

As hard as the last 16 years of war have been, no enemy in the field has done as much to harm to the readiness of the U.S. military than the combined impact of the Budget Control Act's defense spending caps, worsened by operating for 10 of the last 11 years under continuing resolutions of varied and unpredictable duration."96

Key Finding: The CCP's approach to funding security requirements and its military has been deliberate and substantial. Its increased military spending has allowed for steady, sustainable expenditure growth and qualitative improvements throughout the PLA. By contrast, U.S. defense budget uncertainty and underfunding continue to gravely undermine military readiness and lethality.

The CCP's military spending increased by an average of ten percent per year from 2000 to 2016, with approximately five to seven percent growth in 2017 and 2018.97 "In 2019, the CCP announced its annual military budget would increase by 6.2 percent, continuing more than 20 years of annual defense spending increases and sustaining its position as the second-largest military spender in the world".98 The U.S. defense budget, however, has been constrained by inconsistent appropriations, uncertainty about future budgets, and macro-level ambiguity in U.S. government expenditures. Congressional continuing resolutions have exacerbated uncertainty, both for DoD and the supply chain. Without correcting or mitigating budget instability, it will be increasingly challenging for DoD to effectively implement the National Defense Strategy and ensure a secure and viable supply chain, which is critical to sustaining U.S. military dominance.99 According to the bipartisan National Defense Strategy

Commission, "Without additional resources, and without greater stability and predictability in how those resources are provided, DoD will be unable to fulfill the ambition of the National Defense Strategy or create and preserve U.S. military advantages in the years to come. **There must be greater urgency and seriousness in funding national defense.**" 100

Recommendation: Congress must pass a stable, strategy-based defense budget that is on time to allow the military to make deliberate funding choices and plan programmatically. A predictable budget is required for DoD to execute programs, fund legacy systems with lethal and deterrent value, modernize existing capabilities, and develop emerging capabilities. The bipartisan National Defense Strategy Commission recommends that the base defense budget must grow by three to five percent above inflation through the Future Years Defense Program per year at minimum to adequately resource the NDS. Consistent funding will help fix years of setbacks to military modernization and readiness caused by sequestration, inadequate budget deals, and reliance on continuing resolutions.

Recommendation: Congress should require DoD to provide a classified budget exhibit that demonstrates how the defense budget is aligned with and supports the National Defense Strategy, with emphasis on competing with and deterring the PRC. Congress should also require the Secretary of Defense to conduct an independent assessment along with an outside assessment to examine whether there is proper alignment and delegated decision-making authority within DoD's current processes and organizational structure so that DoD can most effectively prioritize and implement National Defense Strategy objectives to compete with the PRC. If the assessments determine organizational reform is needed, they should provide recommendations.

Operational Concepts

--INDOPACOM Admiral Phil Davidson said in March 2020:

A new warfighting concept must deliver a similar sense of assurances to our allies and partners today that Air Land Battle provided to NATO member states in Europe in the 70s and 80s."¹⁰¹

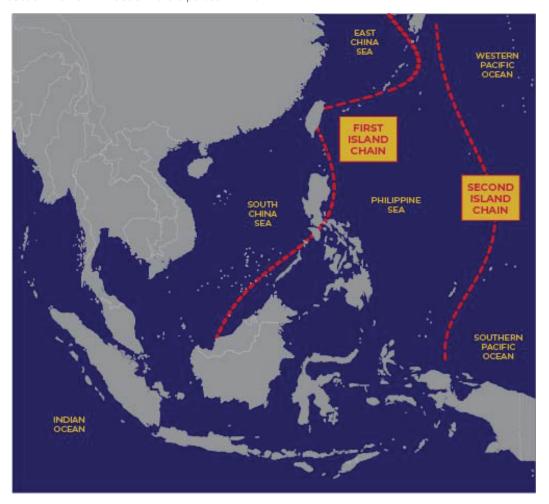
Key Finding: The CCP's ability to escalate using conventional and nuclear capabilities across multiple domains, as well as its gray-zone tactics between peace and war, pose novel challenges to U.S. military strategy and operational concepts and could constrain U.S. options to respond in potential contingencies or conflicts.

DoD warned in a September 2020 report that the PLA "is developing the capabilities and operational concepts to conduct offensive operations within the Second Island Chain, in the Pacific and Indian Oceans, and in some cases, globally." The same report further noted that CCP leaders are "encouraging the PLA to embrace new operational concepts," all while modernizing force structure, advancing combat readiness, and **increasing the PRC's global footprint**. U.S. military joint operating concepts¹⁰² that align with current and future investments and are designed to defeat specific PLA capabilities are critical for establishing deterrence and ensuring victory in conflict. Additionally, the capability to sustain the Joint Force across all domains in a denied environment is essential for the U.S. to defeat CCP aggression in the INDOPACOM area of responsibility. **DoD must develop and test joint concepts**, including testing technologies and logistics required to transport forces and capabilities forward.

Recommendation: Congress should exercise greater oversight of DoD's investments to ensure capabilities align with operational challenges. The Joint Force, comprised of the relevant services and combatant commands, must develop joint, modernized operating concepts to overcome the challenges posed by the CCP, such as PLA gray-zone aggression, hybrid warfare efforts, and the potential for rapid escalation in the nuclear, space, and cyber areas. Logistics should be a core element of military strategy and operational concept development.

Recommendation: Congress should require DoD to report on operational concepts that address scenarios involving highly escalatory approaches from the PLA against a defense partner like Taiwan or against a treaty ally like Japan. Additionally, DoD should be required to describe how it plans to perform multiple missions in different theaters on a near-simultaneous basis, any gaps and vulnerabilities within that plan, and resources or authorities required for mitigation.

Recommendation: The capability to sustain the Joint Force across all domains in a denied environment is essential for the U.S. to defeat CCP aggression in the INDOPACOM area of responsibility. DoD must prioritize the development of forward sustainment and rearming concepts to support the Joint Force. DoD must take into account the technologies and the logistics required to transport forces and capabilities forward that will be most critical to operationalizing these concepts. Further, the services must develop supporting concepts and begin investing in capabilities that support distributed and redundant logistics closer to the point of need. The Secretary of Defense and the Joint Chiefs of Staff should provide to Congress a detailed and consolidated plan to integrate joint training range exercises and the specific infrastructure and logistic priorities for the Indo-Pacific region as required in section 1704 of H.R. 6395 in the bipartisan FY2021 NDAA.



Posturing Against CCP's Aggression in the Indo-Pacific Region and Globally

--"Both the National Security Strategy and the National Defense Strategy affirm the Indo-Pacific as critical for America's continued stability, security, and prosperity. The U.S. seeks to help build an Indo-Pacific where sovereignty and territorial integrity are safeguarded, the promise of freedom is fulfilled, and prosperity prevails for all."

—Department of Defense Indo-Pacific Strategy Report, June 1, 2019

Key Finding: The CCP's aggressive actions in the South China Sea, East China Sea, and Taiwan Strait highlight Beijing's intentions to use coercive actions and force, if necessary, to advance its territorial objectives in the Indo-Pacific region.

The CCP is engaging in a **campaign of coercion** in an effort to assert control of the Indo-Pacific region. The CCP has pursued unlawful militarization of disputed spaces in the region, including by placing anti-ship cruise missiles and long-range surface-to-air missiles on the Spratly Islands, conducting military exercises around the Paracel Islands, and patrolling near the Japan-administered Senkaku Islands with maritime law enforcement ships and aircraft. The CCP also continues to develop and deploy advanced military capabilities that would be needed for a potential military campaign against Taiwan. The PLA has conducted **increasingly provocative naval and military aviation operations** in the vicinity of Taiwan. In response, since late January 2020, American B-1B and B-52 bombers, usually operating in pairs, have flown about **20 missions over key waterways**, including the South China Sea, the East China Sea and the Sea of Japan.¹⁰³ In November 2019, Secretary of Defense Esper stated that the U.S. has conducted more freedom of navigation operations in the past year or so than in the past 20-plus years."¹⁰⁴



In this April 21, 2017, photo, PRC structures and an airstrip on the man-made Subi Reef at the Spratly group of islands in the South China Sea are seen from a Philippine Air Force C-130. (Source: Francis Malasig/AP)

A **dynamic** and **distributed** presence that includes access locations across South Asia, Southeast Asia, and Oceania in the Indo-Pacific region is necessary to maintain international rule of law, quickly and forcefully respond to any PLA aggression, and achieve U.S. strategic objectives to deter the CCP and their malign agenda there. Dynamic basing of maritime and air forces, pre-positioning of equipment, expeditionary capabilities, multi-domain operations, and other investments are critical to properly posture in the region. Indo-Pacific Commander Admiral Davidson's independent assessment to Congress titled Regain the Advantage outlines several resourcing requirements for implementing the National Defense Strategy that aim to enhance Joint Force lethality, force design and posture, strengthen allies and partners, exercises, experimentation, and innovation, and logistics and security enablers.

Recommendation: Congress should pass the "Indo-Pacific Deterrence Initiative" as proposed in H.R. 6613 and the contents for the initiative, which are included in the FY2021 House and Senate NDAA. The initiative, which is similar to the European Deterrence Initiative to deter Russia, would require DoD to submit to Congress a future years defense plan and budgeted funding for certain activities and capabilities in the Indo-Pacific region. Congress should both authorize and appropriate funds to increase rotational and forward presence, defend U.S. bases such as Guam, improve military capabilities, defense infrastructure, basing, logistics, and assured access, enhance the storage and prepositioning of equipment and munitions, and increase bilateral and multilateral military training and exercises with regional allies and partners.

DoD should look to maintain its hardened military bases and forward-deployed troops in the First Island Chain as well as find new areas to operate in the Second Island Chain in the Indo-Pacific region in order to bolster deterrence and signal U.S. resolve and commitment. DoD should develop and/or maintain expeditionary airfields and ports in order to better the U.S.' ability to counter the PLA during a potential conflict and increase deterrence. Congress should support this effort by sufficiently funding military construction, prepositioning, strategic airlift, tanker support, and surge capacity in the Indo-Pacific.

Recommendation: The Administration should continue to publicly identify the CCP's actions in Indo-Pacific waters as unlawful and should continue to promote frequent and sustained U.S. freedom of navigation operations in the region, including conducting more joint patrols with other countries in the South Pacific and Southeast Asia, as well as European nations including France and the United Kingdom. Further, Congress should affirm that it is the policy of the U.S. to support lawful commercial interests and activities in the South China Sea and East China Sea, and support in international fora the legitimate cases and grievances brought against the PRC by regional states and stakeholders.

Recommendation: Congress should pass H.R. 3508, the South China Sea and East China Sea Sanctions Act of 2019, a bipartisan measure which opposes actions by the CCP to pursue illegitimate claims and to militarize the South China Sea, supports continued U.S. actions to expand freedom of navigation operations and overflights, and imposes sanctions against PRC entities responsible for PRC's activities in the South China Sea and East China Sea. In August 2020, the Administration added 24 PRC companies to a government list that bans them from buying American products, citing their role in helping the CCP military construct artificial islands in the disputed South China Sea.¹⁰⁵

Recommendation: Congress should pass H.R. 7423, the Taiwan Defense Act, which requires DoD to report on the U.S. military's ability to conduct combined joint operations to deny the CCP the ability to execute a fait accompli against Taiwan.

Recommendation: Congress should continue to encourage and approve arms sales to Taiwan. It should also support Taiwan's acquisition of asymmetric capabilities for self-defense and the implementation of its Overall Defense Concept. Congress should support S. 878, the "Taiwan Assurance Act of 2019." Congress should also pass language included in the House and Senate FY2021 NDAA that supports Taiwan's continued pursuit of asymmetric capabilities and concepts as well as regular U.S. sales and transfers of defense articles to Taiwan, including undersea warfare and air defense capabilities.

Recommendation: Congress should ensure DoD and the inter-agency takes steps to expand defense and security cooperation with Taiwan. H.R. 6395 in the FY2021 NDAA requires DoD to brief Congress on its policies with respect to commencing bilateral military exercises with Taiwan, including naval and air exercises that seek to enhance cross-strait deterrence, utilizing ship visits, and any other matters that would deepen and expand defense cooperation with Taiwan.

Recommendation: The Administration should continue its efforts to clarify and reassert the U.S.' longstanding security commitments to Taiwan. Specifically, the Administration should reinforce its stated policy in the Taiwan Relations Act, which is "to maintain the capacity of the U.S. to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan." Since the U.S. established diplomatic relations with the PRC, U.S. undertakings regarding Taiwan have all been predicated on the requirement that Taiwan's future be determined by peaceful means, but the CCP continues to reassert its willingness to use force against Taiwan and continues to conduct increasingly belligerent military provocations. To build deterrence against further CCP aggression, the Administration has already taken steps to clarify U.S. security commitments to Taiwan by declassifying Reagan Administration documents supporting robust arms sales, and such efforts should continue.

Key Finding: The CCP is expanding its global security footprint through the acquisition and leasing of ports, airfields, and critical information and technology infrastructure around the world. These efforts pose a threat to global U.S. military operations.

Outside of the Indo-Pacific region, the CCP is seeking to establish a more robust overseas logistics and basing infrastructure to allow the PLA to project military power at greater distances. ¹⁰⁶ According to DoD, beyond its current base in Djibouti, the CCP is very likely already considering and planning for additional overseas military logistics facilities to support naval, air and ground forces in Southeast Asia, South Asia, the Middle East, and Africa. ¹⁰⁷ Infrastructure projects such as ports, airfields, and rail projects, along with Digital Silk Road projects, enable the CCP to gain a greater foothold in the Middle East, South America, Africa, and Europe. While in the near-term, a conflict or crisis in the Indo-Pacific itself is more likely and requires changes to force posture, the **U.S. must carefully review the CCP's global footprint**, which could complicate U.S. military efforts to maneuver in the future. DoD has stated that a global PLA military logistics network could interfere with U.S. military operations and provide flexibility to support offensive operations against the U.S. ¹⁰⁸ The U.S. should engage with allies and partners and **use diplomatic, economic, and military tools** to mitigate CCP's ability to disrupt or counter the U.S.' global posture in strategic locations.

Recommendation: Congress should require DoD to biannually update the report mandated in the FY2018 NDAA to assess the foreign and non-military activities of the PRC that could affect regional and global U.S. national security and defense interests. DoD's "Assessment on U.S. Defense Implications on China's Expanding Global Access" should serve as the basis for regular updates.

Recommendation: Congress should encourage the NATO Parliamentary Assembly and other parliamentary assemblies around the world to collaborate and examine how CCP investments in critical infrastructure, information, and technology could impact their defense and national security, allied and partner military operations and capabilities, and secure communications.

Recommendation: The Administration should build a coalition of partners and allies around the world to share knowledge on key strategic locations where the CCP is seeking to secure military footholds. The Administration should direct the Secretary of Defense and Secretary of State to work with this coalition to provide alternative options to host nations that may be considering CCP military infrastructure projects such as naval ports and airfields that may be sovereign debt traps.

Allies and Partners

Key Finding: Allies and partners are force multipliers and are fundamental for deterrence, peace, and stability. Upholding these relationships through exchanges of information, bilateral or multilateral military exercises, and coordination in security cooperation efforts is in the U.S.' national interest.

Around the world, but especially in the Indo-Pacific, regional allies and partners are fundamental to **ensuring readiness and lethality.** This is the case for allies like Japan and Australia, who have long been actively looking to safeguard their nations from malign foreign influence. It is also the case for key partners like the Freely Associated States, where the CCP is aggressively looking for a foothold.

Allies and partners around the world are also critical for countering the CCP's expanding global footprint and other activities that could have a military orientation. Currently, the CCP is increasing its efforts to secure new military partnerships and compete with the U.S. through foreign military sales and military training programs around the globe. Enabling U.S. allies and partners to better defend their own sovereignty and serve as critical force multipliers will allow for greater deterrence. Additionally, promoting interoperable military systems among allied and partner nations and fostering closer defense and security cooperation is critical for winning global strategic competition.

Recommendation: The U.S. must continue to uphold its alliances and partnerships in the Indo-Pacific through close dialogue and military cooperation in order to ensure effective deterrence.

Recommendation: Congress and the Administration must ensure commitments with the Freely Associated States are extended beyond 2023, including Compact of Free Association funding to the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau. The U.S. should also seek new opportunities for security agreements with non-traditional partners to allow for a more distributed footprint.

Recommendation: Congress should fully fund efforts in the House-passed and Senate-passed NDAAs to build partnership capacity through security cooperation programs and the Indo-Pacific Maritime Security Initiative. Congress should support DoD in utilizing security cooperation programs with the specific aim of great power competition and determine which countries world-wide should be prioritized for this aim.

Recommendation: The U.S. should improve predictability of arms sales with allies and partners and expand military training with allied and partner nations. Doing so will improve interoperability with the U.S., support and protect American values, advance U.S. national security and foreign policy interests, and promote the U.S. as the partner of choice. To these ends, Congress should continue to support professional military education for foreign partners carried out by DoD, including an increase in funding for the Department of State International Military Education and Training (IMET) program.

Recommendation: The U.S. should expand forward presence and improve interoperability with allies and partner nations through the use of joint training and exercises, including by bringing together and regularizing multilateral exercises with like-minded nations such as Australia, Japan, India, and other interested nations.

Space and Cyberspace Capabilities

Key Finding: The CCP is looking to become a space superpower. The PRC now launches more satellites than any other nation in the world. The CCP has integrated management over cyberspace, space and electronic warfare under the PLA's Strategic Support Force. The CCP's intent is to reduce the effectiveness of U.S. and allied militaries by reducing U.S. competitive technological advantage.

In 2015, the CCP officially designated space as a new domain of warfare in its defense white paper, and in 2019, the CCP described space as a "critical domain in international strategic competition." Beijing has since devoted significant resources to military space applications, such as accelerating its fielding and operations of space capabilities, including more counterspace systems entering production and being fielded to operational units. It has also formed operational military units with anti-satellite missions to conduct training and exercises. The CCP has significantly increased its research and development of capabilities that threaten the U.S.' ability to use space as an enabler for military operations on earth, such as data/command links, ground-based systems, and user equipment. Additionally, the CCP continues to invest in improving capabilities in space-based intelligence, surveillance, reconnaissance, satellite communication, satellite navigation, and more.

In order for the U.S. to maintain a strategic advantage in space, there must be greater focus on joint space warfighting operations, how the U.S. military protects space capabilities, what future space architectures to invest in, and the intelligence needed to support joint space operations.

Recommendation: Innovative space architectures and secure dynamic edge processed networks in space will be essential for the U.S. to anticipate, deter, and ultimately respond, counter, and defeat the CCP in a future conflict. DoD must move faster in acquiring space capabilities.

- Congress should pass section 1610 of H.R. 6395 in the FY2021 NDAA, which would require DoD to
 develop more distributed military and Intelligence Community (IC) satellite architectures so that the
 loss of any one satellite does not present a catastrophic loss.
- Congress should pass section 1604 of H.R. 6395 in the FY2021 NDAA, which would require the Secretary of Defense to develop an operational plan and acquisition strategy for responsive satellite infrastructure. To these ends, Congress should require DoD to develop the ability to rapidly replenish satellites that may be lost to CCP attack. This includes launchers that can quickly be brought to launch, a reserve of communications and sensing satellites that can service a large number of combatant command requirements in a time of conflict, and the rapid acquisition of resilient government systems that can meet very specific exquisite IC requirements.
- Congress should pass section 1605 of H.R. 6395 in the FY2021 NDAA, which would encourage the
 development of a domestic small class rocket launch industry. The U.S. must develop policies and
 requirements that encourage responsive and reliable access to space through the development
 and launch of DoD small-class payloads.
- The U.S. should develop capabilities to respond to CCP activities in space that are rapid, scalable, and
 require an operational plan for unpredictability (e.g. revealing capabilities at a time of its choosing
 to impose cost on malign activity.) The U.S. should also further develop offensive counterspace
 capabilities to act as a deterrent and to degrade CCP space-based C4ISR capabilities.
- Congress should give DoD acquisition authorities similar to the National Aeronautics and Space Administration (NASA)—specifically, its NASA Space Act Agreements—to incubate space technology across the domestic and international landscape. The rapid growth of both the U.S. commercial space market and allied and partner space capabilities provides the U.S. with a unique opportunity to leverage these capabilities and to integrate them into U.S. architecture planning and capability acquisition.

Recommendation: DoD must normalize space warfare as a key joint competency and develop operational intelligence to support space operations.

- Like other combatant commands in other warfighting domains, space commanders and their forces need agreed-upon delegated command authorities across the DoD and IC to defend satellites. They must develop standing rules of engagement authorizing response options at all orbital regimes, and, according to the operational environment, routinely train and exercise on them.
- Congress should provide DoD with appropriate rapid acquisition authorities for space that will allow the Space Force to develop, acquire, test, and deploy new technologies at the speed of relevancy.
- Congress should encourage DoD to develop budget structures that accurately capture space investments in a transparent manner.
- Congress should pass section 1603 of H.R. 6395 in the FY2021 NDAA, which seeks improvements
 to Space Situational Awareness (SSA) capabilities so that the U.S. can leverage existing commercial
 solutions to fill validated SSA requirements while the Space Force-developed "C2 program"
 continues execution.
- Congress should require DoD to develop Foundational Military Intelligence for space, which includes both order of battle analysis and areas such as emerging strategic technologies, infrastructure and logistics, defense acquisition, and many others. Such analysis has atrophied since the end of the Cold War. Longer-term analysis is necessary to understand how CCP satellites and space systems work, how they acquire their targets, how they are networked and controlled, how many there are, and where they are located. Increased investments in foundational space intelligence functions at the National Air and Space Intelligence Center would provide an integrated point of contact for the space acquisition community to send requirements and receive end-to-end adversary system architecture analytics, as well as increase resources and training to enable efficiencies in analytics.
- Just as the U.S. military defends freedom of navigation on earth, the U.S. should develop policies to determine DoD's role in defending all U.S. space capabilities during peace and all phases of conflict, including intelligence, civil, and commercial space systems and activities.

Key Finding: While U.S. military power has so far deterred CCP military aggression below the threshold of the use of military force, malign CCP cyber activities have continued with few consequences. Left unchecked, these activities threaten the security of classified information, the ability of our weapons systems to perform their intended missions, and more.

On a day-to-day basis, cyberspace is the most contested domain in the U.S.-PRC competition. Currently postured U.S. forces are failing to deter significant CCP cyber-attacks. While many of these attacks, such as the theft of the background investigations of nearly 20 million individuals from the Office of Personnel Management (OPM) and the Equifax data breach that exposed sensitive data on nearly 150 million Americans, have focused on civilian or private targets, the U.S. military has not been immune from compromise. ¹⁰⁹ In 2013, the Defense Science Board revealed that CCP hackers had at least partially compromised more than two dozen major weapons systems, endangering the backbone of the U.S. military. ¹¹⁰ More recently, 2018 public reports indicated that the CCP stole large amounts of data regarding undersea warfare from the systems of a Navy contractor. ¹¹¹

A 2018 Government Accountability Office (GAO) report found that many key DoD weapons systems face critical cyber vulnerabilities.¹¹² If the CCP believes it can disarm or otherwise disable key U.S. military capabilities—including nuclear command, control, and communications—the consequences could be dire. Therefore, the U.S. must be prepared to defend forward in cyberspace in day-to-day competition to counter adversarial cyber campaigns, as well as stand ready to prevail in crisis and conflict.

Recommendation: Congress should direct DoD to perform a Cyber Mission Force (CMF) structure assessment and define authorities for cyber operations. Currently, the CMF consists of about 6,200 individuals across 133 teams, a requirement that was defined in 2013. Since then, the CCP has conducted numerous high-profile attacks against public and private networks. It is long past time to update this force structure assessment while reviewing additional authorities that may be effectively delegated to U.S. Cyber Command, the National Security Agency (NSA), and various DoD components.

Recommendation: Congress should pass section 1621 of H.R. 6395 in the FY2021 NDAA, which would direct DoD to create a Major Force Program category for the training, manning, and equipping of U.S. Cyber Command. Functionally, this would be similar to the Major Force Program category afforded to U.S. Special Operations Command. Requiring a new budget justification for the Cyber Mission Force under U.S. Cyber Command would provide Cyber Command with greater budgetary and acquisition authority.

Recommendation: Congress should pass section 1628 of S. 4049 in the FY2021 NDAA, which would require DoD to assess the need for, and requirements of, a military cyber reserve, its possible composition, and its structure.

The assessment should consider talent management, current and projected cyber workforce shortcomings, retention, and other elements. This reserve component would ensure DoD has cyber surge capacity to mobilize in the event of a crisis.

Recommendation: Congress should pass section 1629 of S. 4049 in the FY2021 NDAA, which would require DoD to conduct an annual cybersecurity vulnerability assessment of all segments of the nuclear command and control system. This requirement would amend Section 1651 of the FY 2018 NDAA by broadening the required assessment to include quality assurance and the active identification of cyber vulnerabilities that require mitigation. Given the stakes, Congress must ensure the U.S.' nuclear deterrent is not eroded by perceived cyber vulnerabilities.

Recommendation: Congress should pass section 1630 of S. 4049 in the FY2021 NDAA, which would require DoD to annually present a plan to assess major weapons system cyber vulnerabilities. This plan would include an after-action report that describes efforts to address vulnerabilities across systems and mission areas. It would also include best practices drawn from the annual cyber resiliency of nuclear command and control systems assessment required by Section 1651 of the FY 2018 NDAA.

Critical Infrastructure and Cyber Security

Key Finding: The threat the CCP poses to U.S. critical infrastructure is real and growing. Lifeline sectors, including defense, energy (electricity, oil, natural gas, nuclear), financial services, transportation, telecommunications, and water are critical to national security. The U.S. must prioritize efforts to elevate and monitor security concerns and test its response. Mitigation measures must be continuous, adaptative, and forward-looking.

The CCP remains willing and able to disrupt or destroy critical infrastructure in the U.S. for days or weeks. ¹¹³ Conditions exist for a cybersecurity "Sputnik moment", a state-backed cyber offensive of unparalleled proportion and impact. The CCP defense decision-makers will see little distinction between the military and civilian effects of a state-sanctioned cyber offensive targeting U.S. infrastructure. The CCP's cyber capabilities and objectives are distinct from other strategic competitors and remain effective, persistent, and numerous.

The U.S. must dispose of the notion that only defense-adjacent companies need to consider the CCP in their threat models.

The Cybersecurity and Infrastructure Security Agency (CISA), NSA, FBI, and other federal agencies must work closely with critical infrastructure partners to remediate vulnerabilities and prepare contingency plans for zero-day attacks or unforeseen compromises.

APT 10's (aka Cloud Hopper) success at compromising corporate networks through managed service providers highlights the need to evaluate and harden network connections to external services. Systematic compromises of vendors and service providers highlight the need to examine downstream relationships, including subcontractors, to evaluate the risk and potential compromise (electronically or organizationally) of essential support systems. Critical infrastructure operators must be prepared to ask new and more detailed questions about their own IT support contracts and supply chains. The CCP's expanding cyber capabilities will also challenge state, local, tribal, and territorial governments and could impact their ability to deliver essential services. Work is already underway at CISA and other agencies to evaluate precisely what infrastructure and services depend on outside contractors and subcontractors to handle, process, or access essential government information at rest and in-transit.

Recommendation: Congress should require DHS and the FBI, in coordination with other appropriate federal departments and agencies, to conduct a study mapping CCP investment and contracts with lifeline sectors in the U.S., including energy (electricity, oil, natural gas), transportation, telecommunications, and water companies, and any other sectors DHS and FBI deem as critical infrastructure. DHS and FBI should partner with the private sector to build a thorough understanding of CCP's connections to critical infrastructure while protecting U.S. security.

Recommendation: The National Telecommunications and Information Administration, in coordination with CISA and the NSA, should undertake a comprehensive review of core internet vulnerabilities, including Border Gateway Protocols (BGP), to begin the remediation and removal of technologies and entities compromised by CCP security services.

Recommendation: Congress should codify the recommendations of the Cyberspace Solarium Commission reflected in H.R 6395 in the FY2021 NDAA to strengthen the federal government's ability to secure critical infrastructure and respond to 21st century threats.

Recommendation: Congress should direct CISA, in coordination with the National Telecommunications and Information Administration, to report to Congress on any additional resources, facilities, and authorities required to threat hunt across the .gov domain.

Recommendation: Congress should establish a Bureau of Cyber Statistics within DoC. The Bureau would be charged with collecting, processing, and disseminating statistical data on cybersecurity, cyber incidents, and the cyber ecosystem to the American public, Congress, federal departments and agencies, state and local governments, and the private sector. This statistical analysis would inform a variety of essential functions, including the creation of more accurate cyber risk models for the private sector and more effective federal cybersecurity policies.

Recommendation: Congress should codify into law the concept of "systemically important critical infrastructure" so that entities responsible for systemically critical systems and assets are granted special assistance from the U.S. government and shoulder additional security and information-sharing requirements. Congress should direct DHS, in coordination with other appropriate federal agencies and departments, to develop a process to identify key systems and assets underpinning critical functions. Priority should be given to critical functions that support or underpin national security, government, or military operations, constitute essential economic functions or underpin the national distribution of goods and services, and support or underpin public health and safety.

Key Finding: A resilient cyber ecosystem is essential for reducing the risk of a significant attack on military and critical infrastructure systems and the open economy.

As much as 85 percent of the U.S.' critical infrastructure is owned and operated by the private sector. While federal, state, and local governments have important roles to play in securing these assets, ultimately, the private sector must function as the "supported command." Far from leaving the private sector to sink or swim on its own, the federal government should work to bolster collective defense and national resilience to ensure the private sector has the tools and resources it needs to reduce the risk of a catastrophic cyber-attack.

In order to support a more resilient cyber ecosystem, the federal government must put procedures and resources in place ahead of time rather than scramble to improvise in the aftermath of a significant cyber strike on critical infrastructure. Without a roadmap and relevant authorities to restart the U.S. economy in the event of a significant cyber disruption, precious time will be lost navigating between national and local requirements. At the same time, critical infrastructure may be subject to damaging but less significant cyber-attacks that fall below the threshold of a declared disaster. The federal government needs additional authorities and resources to assist public and private entities facing significant cyber distress to aid in their recovery.

Recommendation: The Administration should develop and maintain, in consultation with the private sector, a continuity of the economy plan, to ensure the continuous operation of critical functions of the economy in the event of a significant cyber disruption. This plan will analyze national critical functions, prioritize response and recovery efforts, identify areas for investments in resilience, identify areas for preserving data, and expand education and readiness of the general public. This proposal was included in section 1086 of S. 4049 in the FY2021 NDAA.

Recommendation: Congress should codify a "Cyber State of Distress" in the event of, or in preparation for, a significant cyber incident or series of incidents to enable the Secretary of Homeland Security to coordinate asset preparation, response, and recovery operations. When this declaration is issued, responding federal departments and agencies will be able to increase, scale up, or augment the capabilities through a cyber response and recovery fund. This declaration is necessary to enable the federal government to respond to significant cyber incidents that fall below an Emergency Declaration or Major Disaster.

Recommendation: Congress should amend the Homeland Security Act of 2002 to protect U.S. critical infrastructure by authorizing CISA to notify U.S. private and public sector entities put at risk by cybersecurity vulnerabilities in the networks and systems that control critical assets. Current authorities are limited to criminal contexts and fail to address circumstances where systems are vulnerable but not yet compromised. Granting CISA the power to serve administrative subpoenas to the owners of systems with known vulnerabilities would help prevent breaches and mitigate future intrusions.

Counterintelligence and Illicit Activities

--FBI Director Christopher Wray stated:

We've now reached the point where the FBI is opening a new China-related counterintelligence case about every 10 hours. Of the nearly 5,000 active FBI counterintelligence cases currently underway across the country, almost half are related to China."115

Key Finding: U.S. prosecutions of CCP economic espionage and theft of U.S. trade secrets have risen sharply over the past several years, requiring greater resources.

In a response to a surge of CCP malign behavior targeted at the U.S., DoJ rolled out its China Initiative in 2018 to better counter the CCP's threats to national security, reinforce the Administration's overall national security strategy, and better align DoJ's resources to respond to these threats and challenges. The China Initiative has strengthened U.S. efforts to aggressively investigate and prosecute cases of CCP economic espionage and theft of U.S. trade secrets. Attorney General Barr remarked that "[a]bout **80 percent** of all [U.S.] federal economic espionage prosecutions have alleged conduct that would benefit the Chinese state, and about **60 percent** of all U.S. trade secret theft cases have had a nexus to China."

DoJ has won convictions and brought indictments in notable recent examples of CCP economic , a PRC citizen who stole trade secrets from two U.S. companies for the CCP, was convicted of economic espionage, theft of trade secrets, and conspiracy to commit both two CCP intelligence officers working with co-conspirators and insiders, were charged with conspiracy to steal sensitive commercial aviation technology related to airplane turbofan engines.¹¹⁸ Additionally, both PRC hackers purportedly working with the CCP's Ministry of State Security, were indicted on 11 counts of conducting a long-running global hacking campaign since 2009. They targeted defense companies, dissidents of the CCP, trade secrets, and other valuable data, including most biotech and other firms publicly known for work on COVID-19 vaccines, treatments, and testing In July 2020, DoS ordered the closure of the PRC's Consulate General in Houston, Texas due to the CCP's economic espionage and IP theft.¹²⁰ Secretary of State Michael Pompeo noted that "there were spies operating" from the Houston Consulate and "it had truly become a den of spies." ¹²¹ While briefing reporters on the Consulate's closure, senior U.S. government officials further explained how the Consulate was "implicated in an investigation of grant fraud at a Texas research institution" and that officials working for the Consulate "were directly involved in communications with researchers and guided them on what information to collect." ¹²²

These pervasive threats posed by the CCP will take a unified whole-of-government and whole-of-society approach and should be addressed with urgency. Important efforts like those laid out in the National Counterintelligence Strategy for 2020-2022 should be continued across government.

Recommendation: Congress should ensure that the DoJ's China Initiative has the necessary resources and tools to confront the CCP's malign behaviors, to include investigations and prosecutions of counterintelligence threats posed by the CCP.

Recommendation: The FBI should develop more tailored or sector-specific unclassified training and other education resources to enable more effective security measures against CCPdirected espionage. The FBI should establish a secure online portal to enable dissemination of training materials and should provide local field offices additional funding and personnel to conduct the necessary outreach to improve awareness of CCP threats. Congress should examine measures to codify a Higher Education Initiative in the FBI's Office of Private Sector to direct the FBI to conduct proactive outreach to institutions of higher education and National Academies to investigate agents of foreign governments participating in federally funded research.

Recommendation: Congress should pass legislation that provides additional support for Mandarin language and other major Chinese dialects at DoJ, including mid-career courses to maintain or enhance language proficiency, so that it can better investigate and prosecute cases implicating the CCP.

Recommendation: Congress should support the study of the CCP throughout academia, including by improving the teaching of China's history and culture to counteract CCP propaganda. Some National Resource Centers authorized in the Higher Education Act should shift their focus onto Chinese history, language and culture to strengthen our understanding of China and counteract CCP machinations. Statutory language would help, but the Administration can also realize the importance of this strategic shift in the next award cycle.

Recommendation: The Administration should ensure that the federal government's PRC-focused open source publications are best addressing their customers' needs regarding this growing multifaceted threat. These efforts will help better inform Department and Agencies analysis and decision making. Consideration should also be given to evaluating key Departments and Agencies needs for dedicated open source centers for their specific focus areas and missions.

Recommendation: Congress should authorize military counterintelligence organizations within the services and DoD counterintelligence entities, such as the Defense Intelligence Agency and the Defense Counterintelligence and Security Agency, to support the FBI in investigations of CCP espionage against DoD and the Defense Industrial Base.

Recommendation: The Director of National Intelligence (DNI) should establish small counterintelligence cells composed of IC professionals at federal agencies and elements targeted by the CCP. The mission of the counterintelligence cells should be to expedite dissemination of threat information to the elements of the U.S. government targeted by CCP espionage and to provide feedback to the counterintelligence enterprise on threat activity.

Recommendation: DNI and DoD should examine the CCP's intent and the threat to U.S. research and produce an annual report on sensitive research targeted by the CCP. The report should describe targets, methods, goals, and objectives of CCP espionage and cyber operations. (National Laboratories and research universities would likely comprise the bulk of these targets, but there would likely be business research on the list too.) This classified document should be disseminated appropriately to inform FBI and whole of government efforts to protect U.S. innovation.

Recommendation: Congress should pass H.R. 3997, Safe Career Transitions for Intelligence and National Security Professionals, which would ensure that government leaders, members of industry, or academia experts are not employed by certain covered entities, such as Huawei and ZTE, within five years of holding a security clearance.

Key Finding: Greater collaboration and information sharing with allies and partners is critical to effectively and efficiently respond to security threats and challenges posed by the CCP and hold the CCP responsible for its track record of malevolent actions against the U.S. and other nations.

Recommendation: The Administration should seek greater collaboration with Five Eyes¹²³ allies in sharing and releasing information of CCP sponsored counterintelligence activities. The Administration should also coordinate with other partners to ensure that their own critical infrastructure and technology remains free from CCP influence operations or counterintelligence activities.

Chinese Surveillance Activities

Key Finding: The CCP is using social-media platforms and mobile applications to collect information on Americans, which threatens U.S. national and economic security.

According to the Director of the FBI, "China is using social media platforms—the same ones Americans use to stay connected or find jobs—to identify people with access to our government's sensitive information and then target those people to try to steal it." ¹²⁴

In one notable example, a CCP intelligence officer allegedly used a fraudulent Linkedln account, which is a platform focused on professional networking, to attempt to recruit Americans with access to government and commercial secrets.¹²⁵ The CCP has also influenced mobile applications to remove users that criticize the CCP's agenda. National Security Advisor, Robert O'Brien explained that, "[o]n TikTok, a Chinese-owned social media platform with over 40 million American users . . . accounts criticizing CCP policies are routinely removed or deleted."126 Additionally, NSA O'Brien highlighted how Twitter has suspended over "23,000 CCP linked accounts for spreading propaganda on Hong Kong and COVID-19," which was a supplemental action to Twitter previously removing "more than 150,000 CCP linked accounts that were used to spread anti-American disinformation and generate the illusion of popular support for Beijing's policies in the U.S."127

Recommendation: Congress should build the federal government's capacity to quickly identify and, when appropriate, disrupt efforts by the CCP to exploit legitimate mobile applications and internet platforms for malign activities against not only government employees and officials, but also the American public. The Administration has taken important steps in these and related areas. Specifically, the DoS' Clean App, Clean Network and Clean Store initiatives, and the overall Clean effort, should be supported.

Recommendation: Congress should pass H.R. 6896/S. 3455, the bipartisan No Tik Tok on Government Devices Act, which bans federal employees from using TikTok, a CCP-controlled video-sharing mobile application, on all government-issued mobile devices.

The DHS, Transportation Security Administration (TSA), and the U.S. military have already banned the use of TikTok on federally-used phones. Similarly, the Government of India has implemented a prohibition on the use of TikTok and other PRC origin mobile applications.

Key Finding: The CCP is using its hacking capabilities to collect Americans' sensitive personal information as evidenced by large data thefts of Anthem (a U.S. health insurance company), Equifax (a consumer credit reporting agency), Marriott International, and OPM. The CCP is also using technology platforms to conduct surveillance and collect sensitive data from Americans and its own people.

The CCP has conducted cyber-attacks against the U.S. government and U.S. companies to steal personal information about Americans.

According to National Security Advisor Robert O'Brien:

The Party is collecting your most intimate data—your words, your actions, your purchases, your whereabouts, your health records, your social media posts, your texts, and mapping your network of friends, family, and acquaintances... [I] n 2014, the CCP hacked Anthem insurance, collecting sensitive information on 80 million Americans. In 2015, the CCP hacked OPM, which holds security clearance information, acquiring sensitive data on 20 million Americans who work for the federal government. In 2017, it hacked Equifax, obtaining the names, birthdates, social security numbers, and credit scores of 145 million Americans. In 2019, the CCP hacked Marriot, gathering information on 383 million guests, including their passport numbers." 128

The CCP collects this data to leverage Americans to advance its interests. This systemic pattern of abuse is deeply troubling.

Earlier this year, DoJ charged four members of the PLA who were allegedly engaged in the three-month hacking campaign acquiring names, birth dates and social security numbers of millions of Americans.¹²⁹ The individuals were indicted for computer fraud, economic espionage, and wire fraud.³⁰ At the time that DoJ announced the charges against these individuals, Attorney General William Barr stated that the attack "was a deliberate and sweeping intrusion into the private information of the American people" and that the "hack fits a disturbing and unacceptable pattern of state-sponsored computer intrusions and thefts by China and its citizens that have targeted personally identifiable information, trade secrets, and other confidential information."¹³¹ **The CCP also uses various technology platforms to monitor and likely collect data on Americans and its own people.** For example, Hangzhou Hikvision Digital Technology Company and Zhejiang Dahua Technology Company are two of the world's largest makers of video surveillance products—both companies are inextricably tied to the CCP. In October 2019, the DoC imposed export licensing requirements on both of these companies, along with 26 other PRC entities, based on their role in "human rights violations and abuses in China's campaign targeting Uyghurs and other predominantly Muslim ethnic minorities in the Xinjiang Uyghur Autonomous Region (XUAR)."¹³²¹³³

Furthermore, unmanned Aircraft Systems (UAS) produced by Da Jing Innovations (DJI), a PRC company, accounts for nearly 80 percent of drone sales in the U.S. In 2017, Homeland Security Investigations (HSI), the investigative component of U.S. Immigration and Customs Enforcement, issued an alert warning that DJI drones are "[I]ikely providing U.S. critical infrastructure and law enforcement data to [the] Chinese government." That alert "assesse[d] with high confidence [DJI] is selectively targeting government and privately owned entities within [infrastructure and law enforcement sectors] to expand its ability to collect and exploit sensitive U.S. data." In May 2019, CISA issued a similar warning that PRC-made drones pose a "potential risk of an organization's information." In June 2019, a senior official for DJI testified before the Parliament of the United Kingdom that if the PRC legally required DJI to turn over data captured on DJI drones, the company would do so.

Several federal departments and agencies have banned or ceased to operate DJI drones. For example, the U.S. Army banned the purchase and use of DJI drones in 2017. In January 2020, following a review of its drone fleet, the Department of the Interior (DoI) temporarily retired non-emergency drones. According to Secretary of Interior David Bernhardt's order, "information collected during UAS missions has the potential to be valuable to foreign entities, organizations, and governments." The FY2020 NDAA banned the purchase and use of PRC-made drones across the U.S. military.

Recommendation: Congress should pass the section 1256 of H.R. 6395 in the FY2021 NDAA that requires the President to produce a whole-of-government strategy to impose costs on and deter CCP cyber-enabled corporate espionage and personal data theft.

Recommendation: The Administration should strictly enforce its October 2019 export licensing requirements on PRC-surveillance firms. The Administration should also encourage other allies and partners to take similar actions given considerable security risks posed by these companies.

Recommendation: Congress should require federal law enforcement entities to share information with state and local law enforcement agencies regarding likely security concerns surrounding drones with a nexus to the CCP. Congress should further encourage states and local governments to consider banning or limiting the use of drones produced by, funded by, or linked to the CCP.

Intellectual Property (IP) Theft

Key Finding: The CCP seeks to overtake the U.S. as the global leader in technology through IP theft, industrial espionage, and other hostile acts, which are conducted through official state actions as well as unofficial/covert state actions and policies that incentivize malign activity by non-state actors in the PRC.¹²⁴, ¹³⁵

Under the CCP, foreign businesses seeking to operate or invest in the PRC are **forced to disclose and transfer IP and technology**, such as valuable trade secrets, to companies as well as authorities in the PRC.¹³⁶ These policies, such as denying necessary licenses, unless they comply with this forced technology transfer, prevent or restrict foreign businesses from accessing the PRC market.¹³⁷ The PRC government also interferes with contractual negotiations between domestic companies and foreign companies, forcing foreign companies to disclose sensitive technical information and preventing them from utilizing standard measures to protect their IP and technology.¹³⁸

The CCP further uses investments in foreign companies, such as by PRC state-owned enterprises or PRC companies subsidized by the government, to acquire or gain access to foreign technology and R&D for the benefit of the CCP. In 2013, Beijing Genomics Institute (BGI) acquired Complete Genomics, an American innovator in gene sequencing equipment. BGI has been the recipient of substantial government subsidies and economic assistance, and its leadership includes multiple former CCP officials. As a result, the CCP effectively subsidized BGI's acquisition of a U.S. company, which provided BGI with advanced gene sequencing technology. In addition to the biotechnology sector, the CCP has pursued similar strategies in the automotive, aviation, electronics, energy, industrial machinery/robotics, and information technology (IT) and communications sectors.

The CCP conducts intelligence operations in the U.S. and leverages PRC nationals employed by U.S. companies, educational institutions, and other organizations to steal technical secrets.¹⁴⁴ For example, the CCP has deployed intelligence operatives to the U.S. with fraudulent identities to **deceive U.S. businesses** into divulging sensitive technical information, exploited PRC nationals employed by U.S. businesses to release malware into company networks, and used state-owned enterprises to engage in trade secret misappropriation.¹⁴⁵

One recent instance of IP theft involved Yi-Chi Shih and his co-conspirator, Kiet Ahn Mai, who conspired to illegally access protected trade secrets and other information from a restricted computer system of a U.S. technology company using fraudulent identities. These individuals caused export-controlled semiconductor chips with military applications to be shipped to a PRC company despite export licensing requirements imposed on that company for "illicit procurement of commodities and items for unauthorized military end use in China." Mai pled guilty, and Shih was convicted on 18 counts in 2019, for their roles in this conspiracy to steal U.S. IP and circumvent U.S. export controls on sensitive technology with national security implications.¹⁴⁶¹⁴⁷

The CCP orchestrates cyber intrusions into the systems of U.S. companies and institutions to illegally access protected information. ¹⁴⁸, ¹⁴⁹ CCP military intelligence units and CCP-backed hackers have conducted numerous cyber-attacks that compromised sensitive information and stole technical secrets from U.S. businesses operating in industries that the CCP has targeted for accelerated development, including steel manufacturing, nuclear power, semiconductors, and satellite technology. ¹⁵⁰, ¹⁵¹ In 2014, five CCP military hackers were indicted by a federal grand jury for stealing trade secrets and other sensitive information from six U.S. businesses for eight years to benefit PRC companies and state-owned enterprises. ¹⁵² These hackers used social engineering tactics to compromise employees and gain access to protected information, such as confidential and proprietary technical and design specifications for nuclear power plants, commercial secrets relating to the development of advanced steel alloys, and sensitive information relevant to ongoing legal and trade disputes with PRC competitors. ¹⁵³ Although DoJ has indicted PRC companies and individuals for cyber-related economic or political espionage, DoT has not yet imposed financial sanctions on PRC entities or individuals for cyber-related IP theft or similar cyber-attacks.

Recommendation: The Administration should rigorously enforce all of the IP provisions of the Phase 1 trade agreement with the PRC, including those concerning technology transfers, trade secrets, pharmaceutical-related IP, geographical indications, trademarks, and counterfeit goods. This enforcement should include full use of the agreement's innovative enforcement mechanism, which requires timely consultation about potential breaches and re-imposition of certain U.S. tariffs in short order if the PRC fails to fully abide by the agreement.

Recommendation: The Administration should continue to vigorously investigate and identify PRC entities and individuals engaged in IP theft and industrial espionage, such as through the China Initiative at DoJ. The Administration should expand the use of strong penalties for IP theft and industrial espionage, including criminal prosecution and economic and financial sanctions. The Administration should work more closely with U.S. businesses to improve the detection of IP theft and obtain more information about the scope and nature of such activities, including cyber intrusions.¹⁵⁴ Congress should reinforce the Administration's authority in these areas and/or supplement existing resources, if necessary.

Recommendation: The Administration should exercise the powers outlined in Executive Order 13694, "Blocking the Property of Certain Persons Engaging in Significant Malicious Cyber-Enabled Activities," to use property-blocking sanctions against both the perpetrators and beneficiaries of cyber-enabled IP theft by the CCP.

Recommendation: Congress should require the Administration to provide an annual report to Congress identifying PRC businesses and organizations that have engaged in pervasive or repeated acts of IP theft or industrial espionage against the U.S. For each entity identified in the report, Congress and the Administration should work together to ensure that proportionately severe sanctions are imposed and other appropriate actions are taken.

Recommendation: Congress should increase funding and support for federal departments and agencies—including DoJ, DHS, DoT, and DoC—to step up investigations, criminal prosecutions, and other actions against PRC entities/individuals for violations of relevant U.S. laws regarding IP theft. Congress and the Administration should also pursue trade policies that deter and protect against IP theft, and provide more protection for U.S. companies operating abroad.

Recommendation: Congress should continue to support measures and programs that provide U.S. companies with tools to protect their technology and IP from CCP activities, including the Defend Trade Secrets Act (DTSA), the National Intellectual Property Rights Coordination Center (IPR Center), and the IP Attaché Program of the U.S. Patent and Trademark Office (USPTO). Congress should amend the DTSA to clarify that its reach encompasses individuals and conduct outside of the U.S. when an appropriate nexus with the U.S. is found. ¹⁵⁵ Congress should also amend the Foreign Sovereign Immunities Act to prevent PRC companies working with the CCP from abusing its provisions to avoid accountability in U.S. courts for IP infringement and theft.

Recommendation: Congress should ensure that relevant laws (e.g., the Computer Fraud and Abuse Act) provide all necessary authority to empower the Administration to effectively address the CCP's increasingly sophisticated cyber activities and combat the CCP's continued use of cyber-attacks against U.S. businesses to steal their IP and technology. Congress and the Administration should work together to ensure sufficient resources and incentives are made available to both government and private entities for the development and deployment of improved defenses to cyber-attacks.

Recommendation: The Administration should promote greater cooperation and coordination among federal departments and agencies to detect and prevent acts of IP theft and industrial espionage, including increasing information-sharing and expanding the role of the IP Enforcement Coordinator in the Executive Office of the President to help organize comprehensive government-wide responses to serious incidents and to help prevent further incidents.

Key Finding: The CCP seeks to damage or destroy the value of the IP of U.S. businesses, thereby inflicting economic harm to the U.S., while simultaneously enabling PRC firms to profit from the theft of that IP. Moreover, the CCP seeks to disrupt the U.S. economy by exploiting the IP systems of the U.S. to give PRC firms an edge over U.S. competitors, such as by raising costs or creating obstacles for U.S. businesses.

The CCP facilitates the activities of PRC entities that are flooding the U.S. and other markets with counterfeits of U.S. products. In FY 2019, approximately **92 percent of IP-related seizures** by U.S. Customs and Border Protection (CBP) originated in the PRC (including Hong Kong). ¹⁵⁶ Counterfeit goods harm U.S. businesses by diverting sales from authentic products, undermining prices for authentic products, and infringing IP rights protecting authentic products, such as patents and trademarks. In addition, counterfeit goods degrade the value of IP rights, such as by associating valuable

trademarks with counterfeits that suffer from inferior quality and health and safety risks. The economic harm of counterfeiting is substantial; billions of dollars of counterfeit American products enter markets worldwide every year.¹⁵⁷

PRC entities also are seeking to jam the U.S. trademark registry with numerous fraudulent trademark registrations.

Since 2013, trademark registration applications originating in the PRC have surged more than twelve-fold. 158

Reports indicate that PRC provincial governments are paying their citizens to obtain U.S. trademark registrations, and that the applications for those registrations often contain fraudulent information.¹⁵⁹ As a result, U.S. businesses seeking to avoid infringing legitimate trademarks are forced to assess thousands of fraudulently obtained trademarks in the U.S. registry, raising compliance costs.

Recommendation: Congress should strengthen the ability of relevant agencies and departments of the U.S. government—including CBP and the IPR Center—to detect and prevent the importation of counterfeit or infringing goods from the PRC. These steps include providing further resources to those agencies, encouraging and facilitating further cooperation and informationsharing among U.S. government entities and U.S. businesses (e.g., via the IPR Center), and increasing funding and support for the efforts of U.S. authorities to identify and prosecute the criminals involved in the production, importation, marketing, and/or sale of counterfeit goods from the PRC.

Recommendation: The Administration should coordinate with the governments of other nations to enhance anti-counterfeiting efforts and protection of IP rights, and hold the CCP accountable for facilitating counterfeiting activities and failing to take reasonable measures to prevent them. These efforts may include coordinating trade policies toward the PRC, sharing intelligence and other information about counterfeiting activities, and organizing joint efforts to improve detection and interdiction of counterfeit goods. The Administration should also continue to maintain pressure on the CCP to take meaningful steps to curb the activity of PRC entities producing or trafficking in counterfeit goods, including by monitoring and enforcing PRC compliance with the Phase 1 trade agreement and continuing to address anti-counterfeiting measures in future trade negotiations.

Recommendation: Congress should pass H.R. 6196, the Trademark Modernization Act, a bipartisan measure which would provide U.S. businesses and the USPTO with the tools necessary to combat fraudulent trademark registrations from the PRC and purge any fraudulent registrations that have already been entered. Congress and the Administration should work together to provide sufficient resources and any additional authority necessary to the USPTO to address the CCP's campaign against the U.S. trademark system. The Administration should also ensure that the next potential phase of trade negotiations with the PRC government includes an agreement by the PRC to end its practice of providing incentives for PRC entities and individuals to fraudulently obtain U.S. trademark registrations.

Recommendation: The Administration should act to limit the CCP's influence over international IP policy at WIPO and ensure U.S. interests are protected, such as in the areas of international patent cooperation and administration over the Patent Cooperation Treaty (PCT), geographical indications, and overlaps between IP policy and international trade.

Immigrant Visas for CCP Members

Key Finding: CCP Members seeking to engage in illicit conduct in the United States have utilized, and will continue to utilize, programs and loopholes in U.S. immigration law and policy in order to enter the country, remain here long-term, and eventually become U.S. citizens.

One immigration program overwhelmingly used by PRC nationals, and linked to members of the CCP, is the EB-5 Immigrant Investor Visa Program. The program provides green cards to foreign nationals who invest a certain amount of money in commercial enterprises that "benefit the U.S. economy and create" not fewer than ten full time jobs for U.S. citizens or other individuals who are authorized to work in the U.S.¹⁶⁰ Between 2012 and 2018. 80 percent of the nearly 10,000 EB-5 visas available each year went to PRC-born investors.¹⁶¹ The vast majority of the EB-5 backlog currently consists of PRC investors. 162 DoJ has prosecuted multiple PRC nationals who have misused the EB-5 program - either by using laundered money for the investment or by perpetrating visa fraud during the application process. Current statutory language governing the program, however, is insufficient to prevent national security threats, including investment in EB-5 projects, and use of the program to obtain green cards, by CCP members.

Recommendation: Congress should pass legislation building on the reforms to the EB-5 Immigrant Investor Program implemented by the Administration in its November 2019 regulation. Such reforms must ensure that the Administration has the statutory power to deny, terminate, or revoke EB-5 designations based on national security concerns.

Key Finding: The Immigration and Nationality Act does not specifically prevent members of the CCP from using the U.S. immigration system to gain a foothold in the United States.

While U.S. immigration law contains an inadmissibility ground for a foreign national who is a member of or affiliated with "the Communist" party, the provision is not specific to the Chinese Communist Party, and waivers are available.[i] Thus, a member, or past member, of the Chinese Communist Party can become a lawful permanent resident in the U.S., as can his or her close relatives. As FBI Director Christopher Wray has noted, "the Chinese government tries to entice scientists to secretly bring our knowledge and innovation back to China..." And they use the U.S. immigration system to do so. For instance, scientist Hongjin Tan, a PRC national and U.S. green card bolder, pleaded guilty in February 2020, to crimes related to his theft of trade secrets. Cases such as these may be preventable if CCP membership specifically precluded a foreign national from being eligible for a green card.

Recommendation: Congress should pass H.R. 7224, the End Communist Chinese Citizenship Act, which prohibits members of the CCP or its successor, or those affiliated with the CCP or its successor, from obtaining green cards. H.R. 7224 would, however, maintain the exemption for involuntary membership, which allows green cards to CCP members when an affiliation was either against their will, or only when younger than 16 years of age.

Illicit Fentanyl

Key Finding: Illicit fentanyl and fentanyl-related substances are predominately sourced from the PRC and Mexico. These lethal drugs continue to fuel the U.S. opioid crisis. In 2016 and 2017 alone, more Americans died from opioid overdoses than U.S. servicemember deaths in the entire Vietnam War. Strikingly, deaths involving synthetic opioids such as fentanyl from 2017 to 2018 rose by 10 percent and accounted for 67 percent of opioid-involved deaths in 2018.

Fentanyl, a synthetic opioid analgesic, remains the leading catalyst behind the ongoing opioid crisis in the U.S. and is involved with more deaths than any other illicit drug.¹⁶³

The U.S. Centers for Disease Control and Prevention (CDC) reported that drug overdose deaths rose from 38,329 in 2010 to 70,237 in 2017, followed by a decrease in 2018 to 67,367 deaths. 64 Among the 67,367 drug overdose deaths in 2018, 46,802 involved an opioid – nearly 70 percent. Furthermore, from 2017 to 2018 deaths involving synthetic opioids rose by 10 percent from 28,466 to 31,335 and accounted for nearly 67 percent of opioid-involved deaths in 2018. Expectedly, most recent cases of fentanyl-related overdoses are associated with non-pharmaceutical fentanyl and are driven by the availability of the drug. The Drug trafficking organizations and their chemists modify versions of the base fentanyl molecule to create new but similar-acting or sometimes more powerful substances, in order to circumvent legal controls under the Controlled Substances Act (CSA).

The Drug Enforcement Administration's (DEA) 2019 National Drug Threat Assessment stated that "[f]entanyl and other highly potent synthetic opioids" are "primarily sourced from China and Mexico" and "continue to be the most lethal category of illicit substances misused in the U.S." though it also noted that there are "new source and transit countries emerging" as key players in the production of illicit fentanyl. The DEA's most recent 2020 intelligence report assessed that "China remains the primary source of fentanyl and fentanyl-related substances trafficked through international mail and express consignment operations environment, as well as the main source for all fentanyl-related substances trafficked into the U.S." 169

The SUPPORT for Patients and Communities Act (P.L. 115-271) requires that the United States Postal Service (USPS) provide advanced electronic data such as basic information, to include the name and address of the sender and recipient, on 70 percent of all packages mailed from foreign posts and 100 percent of all packages mailed from the PRC.¹⁷⁰ According to the Senate Homeland Security and Governmental Affairs' Permanent Subcommittee on Investigations, for January 2019, USPS collected data on 76 percent of packages from the PRC and 57 percent of data on packages from all foreign posts.¹⁷¹ Prior to that, in all of 2018, USPS obtained data on 70.7 percent of packages from the PRC and a bit over 50 percent of all international packages.¹⁷²

Following talks between President Trump and General Secretary Xi Jinping at the G-20 summit in Buenos Aires, Argentina, on April 1, 2018, the PRC officially announced the class-wide scheduling of all forms of fentanyl as a class of drugs, effective May 1, 2019.¹⁷³ However, despite some positive developments, concerns remain regarding the PRC's ability to effectively implement and enforce its drug laws.

Recommendation: The Administration must continue to encourage diplomatic and law enforcement cooperation with the PRC to hold illicit fentanyl and other drug traffickers accountable for circumventing important U.S. and PRC regulations and enforcement protocols.

Recommendation: Congress must ensure effective implementation by the USPS and DHS of the bipartisan Synthetics Trafficking and Overdose Prevention Act (P.L. 115-271).

Recommendation: Congress should pass section 6284 of S. 4049 in the FY2021 NDAA, Blocking Deadly Fentanyl Imports, a bipartisan measure which would expand reporting requirements related to foreign nations that produce illicit fentanyl, to include publicly identifying countries that are major producers or traffickers of these poisonous drugs. This legislation would further require foreign nations to criminalize the illicit production of fentanyl and prosecute violators. Should nations fail to cooperate with U.S. narcotic control efforts they would risk becoming ineligible for U.S. taxpayer-funded foreign aid and development loans.

Recommendation: Congress should pass H.R. 4963/S.2764, the Stop the Importation and Manufacturing of Synthetic Analogues Act, a bipartisan measure which would update the CSA to provide prompt action to stop the unlawful importation and distribution of synthetic drugs. This legislation would modernize the CSA by creating a new "Schedule A" to allow for an expedited pathway for the Attorney General to schedule certain drugs considered to be used in the same illicit way as already scheduled or prohibited drugs. Substances would be temporarily or permanently added to "Schedule A" if those substances have a chemical structure that is substantially similar to an existing controlled substance in Schedules I through V, and have an actual or predicted physiological effect on the human body equal to or greater than an existing controlled substance in Schedules I through V. Furthermore, this legislation establishes penalties for illegally importing or exporting a Schedule A substance and includes provisions to allow for legitimate research on substances placed on Schedule A.

Recommendation: Congress should pass H.R. 2935/S. 3148, the Stopping Overdoses of Fentanyl Analogues Act, that would close a loophole in current law to amend the CSA to list fentanyl analogues as Schedule I controlled substances, defined as drugs with no currently accepted medical use and a high potential for abuse. Congress previously passed the Temporary Reauthorization and Study of the Emergency Scheduling of Fentanyl Analogues Act (P. L. 116-114), which extended the status of fentanyl analogues as Schedule I controlled substances under federal law until May 6, 2021. Without permanently banning all fentanyl analogues as Schedule I controlled substances, many drug traffickers operating in the PRC will continue to skirt the law by modifying the chemical composition of fentanyl.

Research Security

Key Finding: The CCP is engaged in a whole-of-society effort to target and extract information and technology from U.S. institutions of higher learning, research institutions, and businesses. Lax security around sensitive technology research and the desire of U.S. institutions of higher learning for additional sources of funding allow the CCP to take advantage of U.S. educational systems and research institutions.

The CCP's whole-of-society effort carries the full weight of CCP security services while PRC law requires its citizens to "support, assist, and cooperate with state intelligence work." Research programs at U.S. colleges and universities are increasingly targeted by students and researchers acting as "non-traditional collectors." These students, ranging from undergraduates to postdoctoral researchers, are generally untrained in espionage techniques but are asked to **actively target sensitive dual-use technologies and other emerging research during their time in the U.S.** The stated goal for these operations is to exfiltrate research data from the U.S. to the PRC. Many students and researchers are **legally bound** to participate in **technology transfer programs to benefit the CCP defense-industrial complex and state-run companies** upon their return to the PRC.

Recommendation: Congress should ensure that DHS and DoS have the authorities necessary to improve visa security programs and processes, and to prevent entry of foreign nationals with known ties to CCP defense and intelligence services traveling to the U.S. from the PRC to engage in sensitive technology research. HR 8310, the Countering China's Theft of American Research and Innovation (CCTARI) Act; HR 8346 the Academic Research Protection Act; H.R. 2713, the PLA Visa Security Act; H.R. 7326, the Protecting America from Spies Act; and H.R. 1678, the bipartisan Protect our Universities Act offer a range of solutions to better vet those seeking to work with sensitive technologies at U.S. institutions and protect taxpayer investment in critical research from being shipped back to the PRC.

Recommendation: Congress should require institutions of higher education to disclose appropriate information on individuals participating in research on sensitive technologies after entering the U.S. to identify individuals who may have circumvented initial visa security screening.

Recommendation: DHS and DoJ must use additional investigative tools and coordination with companies and research institutions to identify individuals located within the U.S. who are national security threats with known ties to CCP defense and intelligence services and who are engaged in sensitive technology research and technology transfer.

Recommendation: Congress should limit all federal funds to institutions of higher education with Confucius Institutes unless such institutions impose policies to protect academic freedom, prohibit the application of any foreign law on campus, and grant full managerial authority of the Confucius Institute to the institution. Restrictions on these organizations are included in Sec. 1797 of H.R. 6395 in the FY2021 NDAA and Sec. 1090 of the S. 4049 in the FY2021 NDAA.

Recommendation: Congress should address the CCP's use of various nontraditional intelligence collection platforms in the U.S., including students, nongovernmental organizations, tourists, and businesses to collect information on research. Congress should require the National Counterintelligence and Security Center and the FBI to enhance their efforts to provide the public and stakeholders with information about CCP intelligence collection methods so universities, businesses, and private citizens have the information needed to protect sensitive information and research.

Recommendation: Congress should pass section 228 of H.R. 6395 in the FY2021 NDAA, which would require DoD to maintain a public list of "foreign talent programs" that provide a threat to national security interests as defined in the FY2019 NDAA.

Recommendation: Congress should support a regulation, reportedly being drafted by the Administration, to prevent certain student visa holders from being initially admitted to the United States for the duration of their schooling – no matter how long that schooling lasts. The regulation would require such student visa holders to apply for extensions of their admission every two or four years.

Recommendation: Congress should pass section 229 of H.R. 6395 in the FY2021 NDAA, which would require any individual applying for federal research grants or funds to disclose all sources of foreign funding.

Election Security and Domestic Influence

Election Interference

We assess that China prefers that President Trump – whom Beijing sees as unpredictable – does not win reelection. China has been expanding its influence efforts ahead of November 2020 to shape the policy environment in the U.S., pressure political figures it views as opposed to China's interests, and deflect and counter criticism of China. Although China will continue to weigh the risks and benefits of aggressive action, its public rhetoric over the past few months has grown increasingly critical of the current Administration's COVID-19 response, closure of China's Houston Consulate, and actions on other issues. For example, it has harshly criticized the Administration's statements and actions on Hong Kong, TikTok, the legal status of the South China Sea, and China's efforts to dominate the 5G market. Beijing recognizes that all of these efforts might affect the presidential race."

-- August 2020 statement by National Counterintelligence Security Center Director, William Evanina

Key Finding: The CCP has attempted to interfere in past elections and continues to influence election dynamics and outcomes.

The CCP is engaging in **domestic influence campaigns** in the U.S. to create more favorable policies toward the PRC by attempting to influence politics and elections outcomes at the local, state, and federal level. U.S. law enforcement investigations into CCP efforts resulted in numerous criminal convictions for campaign finance violations during the 1996 presidential campaign, wherein several individuals, including Johnny Chung, were in league with CCP intelligence officials and attempted to influence U.S. elections to benefit one candidate.

The CCP has also directed well-documented interference campaigns in Taiwan's 2018 local and 2020 presidential elections through hacking, disinformation campaigns, media manipulation, and diplomatic pressure. According to the Hoover Institution, in 2017, the Australian Security Intelligence Organization warned the major political parties that two of Australia's most generous political donors had "strong connections to the Chinese Communist Party" and that their "donations might come with strings attached." For example, one donor leveraged a \$400,000 donation in an attempt to soften the Labor Party's position on the South China Sea.¹⁷⁸ Additionally, Senator Sam Dastyari, a rising politician who told an assembly of CCP media at a political campaign event that "the South China Sea is China's own affair" and that Australia should "respect China's decision" had to step down after it was revealed that he had taken political donations from donors linked to the CCP.

Recommendation: Congress should require the President to identify any foreign persons responsible for actions to access, disrupt, influence, or in any way alter information or information systems related to U.S. political parties or elections for federal office, and make any unclassified portion of the list publicly available and published in the Federal Register.

Recommendation: Congress should pass H.R. 7905, the Emergency Assistance for Safe Elections Act, which would help states manage elections during COVID-19; H.R. 4736, the Honest Elections Act, which would reduce foreign interference in U.S. elections by strengthening the Foreign Agent Registration Act, prohibiting the use of ballot harvesting in federal elections, and prohibit states that allow non-citizens to vote from receiving certain federal funds; H.R. 6882, the Election Fraud Prevention Act, which would ban payments to states that allow ballot harvesting by certain third parties; and H.R. 5707, the Protect American Voters Act, which would establish the Emerging Technology Committee to guide the Election Assistance Commission in adopting voluntary guidelines for use of nonvoting election technology. Collectively, these legislative proposals would help protect the integrity of U.S. elections and safeguard the U.S. electoral process.

Recommendation: Congress should pass H.R. 3442, the Defending Elections against Trolls from Enemy Regimes (DETER) Act, which would make aliens who engage in improper interference in a U.S. election inadmissible for entry in the U.S. or deportable if already present in the U.S.

Domestic Influence Campaigns

Key Finding: The CCP uses a broad variety of influence mechanisms to advance its interests in the U.S., and particularly in Washington, D.C. These include both overt and covert efforts to corrupt U.S. interests, institutions, and individuals through lobbying and funding for key think tanks, events, and programming.

The CCP enlists individuals to advance its agenda through a broad range of political, informational, and economic measures to influence or undercut the interests of the U.S. and its partners. The CCP's goal is to shift public perceptions and policies in a direction favorable to the CCP while seeking to conflate criticism of the CCP with criticism of all individuals of Chinese descent. Frequently, these activities connect economic incentives with political compliance. Individuals, entities, and countries that adapt language and policies favorable to the CCP can receive lucrative rewards. Those who challenge the **CCP** orthodoxy are often publicly rebuked. After Houston Rockets General Manager Daryl Morey tweeted an image in support of demonstrations in Hong Kong, CCP state media guickly suspended cooperation with the Rockets and across the National Basketball Association (NBA), high-profile players, coaches, and owners soon distanced themselves from Morey's statement. The NBA ultimately released a statement that included Chinese-language text saying it was "extremely disappointed in the inappropriate comment."179

U.S. state and local governments are also targets for malign CCP political influence operations. The CCP has used economic leverage, illegal political contributions, and the development of relationships through intermediaries and organizations to establish long-term influence at the state and local level. These actions combined create a coordinated effort to influence politicians and local governments that may be agreeable to PRC investment and projects and sympathetic to issues important to the CCP, such as Taiwan. Earlier this year, the President of the Wisconsin State Senate received emails from PRC diplomatic staff with a request that the Wisconsin State Senate pass a resolution supporting the PRC's efforts to combat COVID-19. The resolution, drafted by the PRC consulate, was filled with falsehoods related to the PRC's handling of COVID-19, and instead prompted the U.S. State Senator to introduce an alternative resolution condemning a wide array of actions by the CCP.¹⁸⁰

The CCP hires former U.S. government officials to lobby on its behalf, including for companies like Huawei. DoD identified Huawei as a CCP military company, along with 19 other PRC firms with ties to the CCP's military.¹⁸¹

A DoD spokesperson later explained that DOD "envision[s] this list will be a useful tool for the U.S. government, companies, investors, academic institutions, and likeminded partners to conduct due diligence with regard to partnerships with these entities, particularly as the list grows." ¹⁸²

Additionally, the CCP often uses its large market size to pressure individual U.S. companies to conform to its Communist political values. For example, in October 2019, Tiffany & Co., a luxury jewelry retailer, deleted a tweeted advertisement showing a Chinese model wearing a Tiffany ring on her right hand as it covered her right eye. Many PRC social media accounts claimed the pose to be associated with the Hong Kong pro-democracy protesters. In January 2019, McDonald's, a U.S. fast-food restaurant, apologized after some PRC social media users accused the company of supporting Taiwan's independence in an advertisement. Major U.S. airlines have removed references to Taiwan as a separate country from their public websites and applications at the direction of the Civil Aviation Administration in China. The U.S. movie industry has been pressured to appease CCP film regulations and PRC viewers – a trailer for a seguel to the movie "Top Gun" removed images of the Japanese and Taiwanese flags.

Recommendation: Congress should pass H.R. 1811/S. 480, the Countering Chinese Government and Communist Party's Political Influence Operations Act, a bipartisan measure that requires DoS and DHS to develop a long-term strategy to counter the CCP's political influence operations in the U.S. and partner nations.

Recommendation: Congress should evaluate legislation to require individuals lobbying on behalf of PRC companies (or their affiliates/subsidiaries) to register under the Foreign Agents Registration Act in addition to the Lobbying Disclosure Act (LDA). This could address a loophole through which individuals lobbying on behalf of CCP-directed entities like Huawei have been able to register through the LDA's lower disclosure thresholds. PRC laws in effect deputizes all PRC companies as part of the national intelligence service, and those who lobby on their behalf should not be able to claim that they are representing purely commercial interests rather than a foreign power.

Recommendation: Congress should support the sharing of information and coordination of efforts between federal, state, and local law enforcement to counter these influence campaigns at the state and local level. Counterterrorism 'fusion centers' established after 9/11 could be used as a model. Such efforts would facilitate information of ongoing CCP influence efforts, the development of training, guidelines and resources for identifying influence operations and establish points of contact for non-elected entities such as local businesses to provide and receive information on CCP influence efforts.

Key Finding: The UFWD operates in the U.S. to advance CCP interests in American society, without a concerted federal response, or even meaningful public awareness of UFWD activities and affiliate organizations.

The CCP's UFWD oversees a vast tapestry of affiliate organizations in the U.S. and conducts a multitude of activities designed to influence American society and promote CCP interests. From the Chinese People's Association for Friendship with Foreign Countries, which pursues sister city relationships, to "Peaceful Reunification" councils which promote the PRC's annexation of Taiwan, to chambers of commerce, such entities exist as a part of the U.S.' open civil society in a way that U.S. organizations never could under CCP rule. These UFWD front groups operate without any widespread understanding that they are directed by the CCP

The CCP's UFWD also conducts influence operations through funding influential American academic and policy institutes to guide perspectives and dialogue favorable towards China. For example, the China-United States Exchange Foundation (CUSEF), which is registered under the Foreign Agents Registration Act provided funding to a prominent U.S. university in Washington, D.C. for a new endowed professorship and research project.¹⁸⁴, ¹⁸⁵ The CUSEF was established in 2008 by Dr. Tung Cheehwa and has further cooperated with a number of Washington. D.C. think tanks—including the Brookings Institution, the Center for Strategic and International Studies, the Center for American Progress, the East-West Institute, the Carter Center, and the Carnegie Endowment for Peace. Dr. Tung currently serves as a vice chairman for the Chinese People's Political Consultative Conference—which is responsible for directing and overseeing the UFWD.

Additionally, the vast majority of Chinese-language media in the U.S. is influenced or controlled by the CCP, and the most popular Chinese-language app in the U.S., WeChat, is monitored and censored by the CCP. Recent reporting¹⁸⁶ and criminal indictments¹⁸⁷ have revealed the extent to which the CCP takes an active hand on U.S. college campuses. The CCP has routinely activated these networks to conduct political activity in the U.S., **including to suppress Americans' free speech,** with little to no response or consequence. In one particularly galling example, in 2008, PRC Ministry of State Security agents deployed to San Francisco to coordinate pro-CCP street action and suppress pro-Tibet protests during the Olympic Torch relay.¹⁸⁸

In September 2020, federal prosecutors charged a New York City police officer and U.S. Army reservist for acting as an agent of the PRC, among other crimes. ¹⁸⁹ According to charging documents, this individual was found to be covertly working for two officials at the PRC's New York consulate, one of whom "is believed to have been assigned to the 'China Association for Preservation and Development of Tibetan Culture,' a division of the [UFWD]... [The UFWD] is responsible for, among other things, neutralizing sources of potential opposition to the policies and authority of the PRC." ¹⁹⁰

Recommendation: DHS and other federal entities, including the FBI, should ensure the interagency has a complete picture of UFWD affiliates operating within the U.S., and the Administration should educate the American public on the goals and methods of CCP influence operations and the reality that no such organizations – corporate, academic, or people-to-people – are free of Beijing's control.

Recommendation: The Administration should designate UFWD organizations as foreign missions, where applicable. DoS has previously used this authority under the Foreign Missions Act to address the malign conduct of CCP propaganda agencies, as well as the Confucius Institute U.S. Center, the de facto headquarters of the Confucius Institute network in the U.S., which is guided by the UFWD.

Recommendation: The Administration should continue outreach to local and municipal governments to counter CCP influence in American society. Recent examples include Secretary Pompeo's speeches before the National Governor's Association and the Wisconsin legislature, and the September 2019 letter from the Departments of Commerce, Agriculture, and State to state and local governments supporting cooperation with Taiwan.

Recommendation: The Administration should require that any memorandum of understanding or contract between a U.S. state and municipal government, company, institute of higher education and a CCP entity must be transparent and public, and no exceptions to U.S. laws or best practices should be made to placate CCP requests.

CHAPTER IV: TECHNOLOGY

Introduction

The world is facing a technological revolution and maintaining U.S. leadership in technology is essential for U.S. growth, security and competitiveness in the 21st century. Advances in AI, wireless communications, quantum technology, autonomous transportation, cybersecurity, biotechnology, manufacturing, and space exploration are quickly creating the industries and jobs of the future. The nation that leads in these technologies is likely to shape the world order for the next century.

The CCP has made it an explicit goal to surpass the U.S. in critical technologies. The Made in China 2025 (MIC) initiative outlines its intent to become the global leader in ten priority technology areas, including IT, robotics, transportation technology, biopharmaceuticals, and new materials. The industrial plan, which the CCP introduced in 2015, seeks to advance the PRC position in the global manufacturing value chain by leading innovation in emerging technologies and reducing reliance on foreign companies. The plan also seeks to boost the CCP's technological prowess through government-funded acquisition of IP, companies, and people. This technology transfer is obtained by both legal and illegal means.

A 2017 study by the U.S. Chamber of Commerce concluded: MIC 2025 aims to leverage the power of the state to alter competitive dynamics in global markets in industries core to economic competitiveness. By targeting and channeling capital to specific technologies and industries, MIC 2025 risks precipitating market inefficiencies and overcapacity, globally.¹⁹¹

By 2035, the CCP seeks to reach parity with the U.S., making its own major technological breakthroughs, leading in advanced industries, and setting global technology standards. By 2049, to mark its 100th anniversary of Communist rule, the CCP aims to surpass the U.S. to be the world's top economy. **This ambitious plan is a direct threat to U.S. economic and national security.**

As the CCP attempts to accelerate its recovery from the coronavirus it attempted to coverup, the COVID-19 pandemic has made the U.S. reliance on technology even more apparent as many Americans work, learn, and receive health care from their homes. The U.S.' leadership in the future will be defined by its leadership in the area of technology.

Eric Schmidt, the founder of Schmidt Futures and chairman of the National Security Commission on Artificial Intelligence and the Defense Innovation Board, warns:

Americans should be wary of living in a world shaped by China's view of the relationship between technology and authoritarian governance. Free societies must prove the resilience of liberal democracy in the face of technological changes that threaten it."

The U.S. cannot afford to cede leadership in critical technologies and their development to the CCP. If the CCP surpasses the U.S. in critical technologies like AI or quantum it will have significant implications for U.S. national security, economic competitiveness, and the American way of life.

Since the beginning of the last century, Americans have been pioneers in technology, and that spirit must be renewed. In 1969, driven by curiosity, ambition, and an innate urge to explore, the U.S. landed on the Moon. Doing so at the height of the Cold War helped establish U.S. technological supremacy and gave the U.S. a fundamental edge over the Soviet Union.

Michael Kratsios, the Administration's Chief Technology Officer, identified core areas of industries of the future to Congress earlier this year, "To this end, we identified four key pillars that underpin the U.S. efforts across Al, 5G, QIS, biotechnology, and advanced manufacturing—fundamental R&D, workforce development, light-touch regulation, and international engagement." ¹⁹²

The U.S. must ensure continued leadership in federal research investment, enhanced public-private partnerships, and policies that promote private sector innovation and reduce regulatory barriers to responsible development and deployment in six emerging technology areas: Al, 5G wireless communications, quantum information science, autonomous vehicles, cybersecurity, and biotechnology. To enable these technologies the U.S. must prioritize streamlined permitting, international cooperation, standards development, and privacy risk management. Finally, space is still the next frontier of technological development and achievement. The CCP's ambitions for space exploration and development require a renewed commitment by the U.S. to return to the Moon and continue its mission on to Mars.

Emerging Technologies

Key Finding: As the CCP pursues an aggressive plan to become the world's leader in AI by 2030, U.S. leadership in the development and adoption of AI underpinned by democratic U.S. values, is imperative to national and economic security.

Al may be the most disruptive technology of the 21st century and is rapidly advancing in capability. Al includes technologies that allow computers and other machines to learn from experience and complete tasks that have traditionally required human intelligence or reasoning. Due to the enormous economic and security implications of Al, leading nations and companies are in a race to develop and deploy this technology in nearly every sector, from healthcare to financial services to agriculture. The National Security Commission on Al (NSCAI), established by Congress in the FY2019 NDAA, wrote in a 2019 interim report:

Al will shape the future of power. The nation with the most resilient and productive economic base will be best positioned to seize the mantle of world leadership. That base increasingly depends on the strength of the innovation economy, which in turn will depend on Al. Al will drive waves of advancement in commerce, transportation, health, education, financial markets, government, and national defense."

The U.S. remains the global leader in Al, but that lead is shrinking. In July 2017, the State Council of the PRC released the "New Generation Artificial Intelligence Development Plan," which outlines the CCP's strategy to build a domestic Al industry worth nearly \$150 billion in the next few years and to become the leading Al power by 2030. 193 More information is needed about the exact level of the CCP's investment in Al.

On February 11, 2019, the Administration issued an executive order to launch the American Al Initiative, which directs federal agencies to develop Al R&D budgets to support their core missions. ¹⁹⁴ Federal agencies are also directed to increase access to their resources to drive Al research by identifying high-priority federal data and models, improving public access to and quality of federal Al data, and allocating high-performance and cloud computing resources to Al-related applications and R&D. In its FY2021 budget request, the Administration proposed doubling non-defense spending on Al over the next two years from \$973 million to almost \$2 billion. ¹⁹⁵

Congress and the Administration are reviewing how to accelerate investment in AI research and development, develop and adapt a U.S. workforce for AI-enabled industries, support public-private partnerships in AI, and develop a regulatory framework. By fulfilling these initiatives, the U.S. can lead the world in deploying trustworthy AI underpinned by democratic values of fairness, transparency, and protection of civil liberties.

Recommendation: Congress should ensure final passage of the bipartisan National Artificial Intelligence Initiative Act of 2020, as included in sections 5001-5502 of H.R. 6395 in the FY2021 NDAA. This legislation would create a national initiative on AI to coordinate and accelerate federal investments across federal research agencies, direct the development of a voluntary risk management framework for trustworthy AI standards, facilitate public-private partnerships on AI through the creation of a national network of AI institutes, and support development of K-12 curriculum in AI as well as fellowship and traineeship opportunities to expand the AI workforce.

Recommendation: Congress should support the Administration's FY2021 commitment to accelerate funding for R&D of trustworthy Al across the federal government, with the goal of doubling funding over the next two years. Federal investments across the civilian and defense agencies will develop the Al standards and solutions to compete and prepare an American workforce for Al-enabled jobs.

Recommendation: Congress should pass H.R. 8132, the bipartisan American COMPETE Act, which would facilitate a roadmap for commercial adoption of Al and related technologies and remove impediments for U.S. companies to invest and innovate.

Recommendation: The Administration should finalize and adopt the OMB Memorandum on "Guidance for Regulation of Artificial Intelligence Applications." The Federal Trade Commission (FTC) and the Consumer Product Safety Commission (CPSC) should also adopt this guidance. The guidance directs agencies, when considering regulations or policies related to Al applications, to promote advancements in technology and innovation while protecting U.S. technology, economic and national security, privacy, civil liberties, and other American values, including the principles of freedom, human rights, the rule of law, and respect for IP.

Recommendation: Congress should pass sections 217, 222, 241-249, bipartisan provisions of H.R. 6395 in the FY2021 NDAA, which are recommendations made by the NSCAI to ensure the necessary talent, infrastructure, and authorities to accelerate the adoption of DoD AI.

Key Finding: The U.S. and the CCP are in a global race for deployment of 5G wireless technology. The CCP seeks to increase its global power by building 5G infrastructure domestically and abroad to dominate standard-setting, technological development, and the global supply chain. The U.S. must promote private and public cooperation on rapid 5G deployment by private industry for consumer services and innovation, economic growth, and national security.

5G will be a primary driver of U.S. prosperity and security in the 21st century. This new advanced communications technology will provide consumers, businesses, and governments with faster network connections that will transform the way we live, work, learn, and communicate. However, the development and deployment of 5G also brings new risks and vulnerabilities. While U.S. **5G** deployment is driven entirely by the private sector, the CCP's **5G** aspirations are driven by the government, including through its BRI. The PRC telecommunications company Huawei is one of the global leaders in 5G equipment deployment. The U.S. intelligence community has warned for over a decade of the threat posed by PRC companies infiltrating U.S. networks, as Huawei has provided communications hardware to U.S. providers at a low cost. The PRC's National Intelligence Law of 2017 requires that all companies in the PRC comply with CCP demands to turn over data.

In response to this growing threat, Congress and the Administration have taken bipartisan action against Huawei and other suspect companies to secure U.S. networks and incentivize U.S. development and deployment of telecommunications gear to decrease reliance on untrusted, foreign equipment. Congress passed laws to secure networks from bad actors, including the bipartisan Secure and Trusted Communications Networks Act (P. L. 116-124), to help secure the U.S.' communications supply chain by incentivizing smaller, rural providers to rip and replace suspect equipment from companies like Huawei and ZTE.¹⁹⁷

The Administration is also taking prudent action again Huawei and its affiliates in the CCP by restricting Huawei's access to U.S. technology and software. ¹⁹⁸ The DoC's Bureau of Industry and Security (BIS) added 38 more Huawei affiliates to its Entity List in 2020, which will prevent Huawei from circumventing its blacklisted status. This action follows BIS's May 2020 effort to target Huawei's ability to obtain U.S. semiconductors. Additionally, the Federal Communications Commission (FCC) recently designated Huawei and ZTE as National Security Threats.¹⁹⁹

The Administration has succeeded in helping other key nations become better informed of the various risks. The United Kingdom and France both have recently announced plans to phase out and ban Huawei from their networks. **Securing U.S. networks and ensuring our allies take similar action are crucial components to maintain U.S. leadership in technology and protect the privacy of all Americans.** Domestically, DoS has instituted the Clean Network program to use internationally accepted standards to protect American assets—including citizens' data and companies' valuable information—from bad actors like the CCP.

The U.S. must also support a strong U.S. telecommunications industry. FCC Chairman Ajit Pai has been executing a 5G FAST Plan to free up spectrum for 5G, releasing significant swaths of spectrum in the high-, mid-, and low-bands, for both licensed and unlicensed services. In August 2020, the Administration announced an additional 100 MHz of mid-band spectrum that can be used for commercial, domestic 5G networks.²⁰⁰ This is possible through the collaborative work between the DoC's National Telecommunications and Information Administration (NTIA), the FCC, DoD, and other federal agencies. Spectrum is a valuable resource that will make nationwide 5G a reality, and the U.S. commercial sector partners can ensure that the U.S. remains innovative in advanced wireless communications.

The U.S. has a competitive communications marketplace, due to effective incentives that increase competition among private companies and ensure that all Americans are connected. Reducing red tape and making the U.S. a more attractive place to build, create, and develop helps the U.S. maintain its leadership against the CCP. The cycle is never-ending; there will always be new technologies, new generations of equipment, and new upgrades. By taking steps now to secure networks, encourage private sector competition, and make necessary spectrum resources available, we are providing the building blocks for the U.S. to continue to lead.

Recommendation: The Administration, through the NTIA, should continue to implement the "National Strategy to Secure 5G" as directed by the bipartisan Secure 5G and Beyond Act of 2020 (P.L. 116-184). The strategy seeks to facilitate the rollout of 5G domestically; assess the cybersecurity risks and identify core security principles of 5G capabilities and infrastructure, address risks to U.S. economic and national security during development and deployment of 5G infrastructure worldwide; and promote responsible global development and deployment of secure and reliable 5G infrastructure.

Recommendation: Congress should pass legislation to streamline fixed and wireless communications network permitting processes at the federal, state, and local level to ensure all Americans are connected. Reducing U.S. regulatory barriers will speed up deployment of broadband and 5G communications infrastructure, and that will promote a market for secure solutions not made in China. More than two dozen bills have been introduced to address such impediments:

- H.R. 292, the "Rural Broadband Permitting Efficiency Act of 2019"
- H.R. 4741, the "Connecting Communities Post Disasters"
- H.R. 7355, the "Federal Broadband Deployment Tracking Act"
- · H.R. 7367, the Facilitating DIGITAL Applications" Act
- H.R. 7377, the "Deploying Infrastructure with Greater Internet Transactions And Legacy Applications" or "DIGITAL Applications"
- H.R. 7344, the "Federal Broadband Deployment in Unserved Areas Act"
- H.R. 7421, the "Expediting Federal Broadband Deployment Reviews Act"
- H.R. 7349, the "Enhancing Administrative Reviews for Broadband Deployment Act"
- H.R. 7334, the "Broadband Deployment Streamlining Act"
- H.R. 7350, the "Standard Fees to Expedite Evaluation and Streamlining" or "Standard FEES" Act
- H.R. 7373, the "Wildfire Wireless Resiliency Act"
- H.R. 7337, the "Proportional Reviews for Broadband Deployment Act"
- H.R. 7353, the "Timely Replacement Under Secure and Trusted for Early and Dependable Broadband Networks" or "TRUSTED Broadband Networks" Act
- H.R. 7333, the "Coastal Broadband Deployment Act"
- H.R. 7378, the "Brownfields Broadband Deployment Act"
- H.R. 7374, the "Reducing Antiquated Permitting for Infrastructure Deployment" or "RAPID" Act
- H.R. 7335, the "Protecting Critical Infrastructure Act"
- H.R. 7369, the "Cable Transparency Act"
- H.R. 7364, the "Consumer Access to Broadband for Local Economies and Competition" or "CABLE Competition" Act
- H.R. 7360, the "Wireless Resiliency and Flexible Investment Act"
- H.R. 7357, the "Wireless Broadband Competition and Efficient Deployment Act"
- H.R. 6488, the "Streamlining Permitting to Enable Efficient Deployment of Broadband Infrastructure" or "SPEED" Act
- H.R. 7363, the "Communities Overregulating Networks Need Economic Competition Today" or "CONNECT" Act

- H.R. 7364, the "Cable Access for Broadband and Local Economic Leadership" or "CABLE Leadership" Act
- H.R. 7352, the "Barriers and Regulatory Obstacles Avoids Deployment of Broadband Access and Needs Deregulatory Leadership" or "BROADBAND Leadership" Act
- H.R. 7362, the "Winning the International Race for Economic Leadership and Expanding Service to Support Leadership" or "WIRELESS Leadership" Act

Recommendation: The NTIA should continue working with all federal agencies that have spectrum licenses on ways to increase commercial access to spectrum. Private companies invest billions of dollars to upgrade and expand communications infrastructure, and spectrum is a crucial resource that leads to higher speeds and better connections. Releasing a long-term spectrum strategy, as directed by the Presidential Memorandum on Developing a Sustainable Spectrum Strategy for America's Future, should provide a roadmap of actions that can be taken by federal agencies to increase access to valuable spectrum resources through repurposing or sharing arrangements.

Recommendation: Congress should fund H.R. 4998, the bipartisan Secure and Trusted Communications Networks Act of 2020 (P.L. 116-124), so the FCC can establish a reimbursement program for companies to remove suspect equipment from their communications networks that pose a national security risk.

Recommendation: Congress should pass H.R. 6624, the bipartisan Utilizing Strategic Allied (USA) Telecommunications Act of 2020, which would promote and speed up the deployment and use of secure Open Radio Access Networks (O-RAN) 5G software and equipment. Growing the domestic wireless supply chain is crucial to secure U.S. networks.

Recommendation: Congress should pass H.R.6235, the NETWORKS Act, a bipartisan measure to sanction PRC telecommunications companies engaged in economic or industrial espionage.

Recommendation: DoC should fully and strictly implement all recent updates to the Export Administration Regulation (EAR) — including the Foreign Direct Product Rule, Military End-Use End-User rule, Civilian Exemption, and License Exemption for Additional Permissive Reexports — to restrict the sale or diversion of sensitive U.S. technologies, including those for 5G, to companies on the Entity List, such as Huawei and its affiliates, as well as participants in the CCP Military-Civil Fusion strategy.

Recommendation: The U.S. should fully implement the prohibition on using or procuring certain telecommunications and video surveillance equipment from Huawei and ZTE as required by the bipartisan FY2019 NDAA. (P.L. 115-232).

Key Finding: Quantum information science and technology is poised to redefine the next generation of scientific and technological breakthroughs. The U.S. must accelerate efforts to secure leadership in the quantum sector as the CCP invests heavily in quantum technologies and threatens to shift the balance of global power through the next quantum revolution.

Quantum is poised to redefine the next generation of scientific breakthroughs. Quantum Information Science (QIS) is based on exploiting subtle aspects of quantum physics, such as "quantum superposition" and "entanglement" for valuable, real-world technologies. These technologies can handle computationally complex problems, provide communication security and enhance navigation, imaging, and other sensing technologies in ways that are impossible using conventional hardware.

Harnessing QIS for new technologies brings opportunities for innovation, as well as new industries and jobs, but there are significant implications for national security, particularly for cryptography. **One key quantum algorithm could break public-key cryptography, which secures transactions over the internet.** While employing this algorithm is far beyond the current level of technology, the need to protect sensitive data and provide a reliable infrastructure over the long-term requires moving to "post-quantum" or "quantum-resistant" forms of cryptography.

The CCP named quantum informatics a key priority in its 13th Five-Year Plan and Made in China 2025 plan.²⁰¹ According to a report by the Center for a New American Security, CCP defense professionals believe that "quantum hegemony" may determine the future of international politics.²⁰² The CCP has touted its achievements in quantum, including the first quantum science satellite and a quantum network connecting Beijing and Shanghai. Although there is only limited authoritative information available on total levels of the CCP's funding on quantum, it appears that the recent and current levels of funding amount to billions of dollars.²⁰³

In 2018, the President signed into law the National Quantum Initiative (NQI) Act, which leverages the resources and expertise of U.S. government, industry, and academia to create a unified national quantum strategy that ensures the U.S. continues breakthroughs in QIS. The bill authorized \$1.2 billion in federal R&D spending over five years. The Administration also released the National Strategic Overview for Quantum Information Science to guide federal QIS actions, including the establishment of a Quantum Economic Development Consortium to build the QIS industrial ecosystem in the U.S.²⁰⁴ The Administration has also proposed doubling QIS R&D funding by FY2022, with a request of \$699 million in FY2021.

U.S. government and industry investments in QIS and quantum technologies have yielded significant advances over the last two years. In September 2019, scientists at Google and the University of California at Santa Barbara achieved a milestone known as "quantum supremacy." Their experimental quantum machine ran an algorithm much faster than the world's fastest supercomputer could simulate. In 2020, researchers at the University of Chicago developed a technique that can help increase the stability of quantum systems by allowing quantum states to work 10,000 times longer than before.

The nation that harnesses the power of quantum technology will have a significant security and economic advantage. The U.S. must continue to commit resources to spurring private sector innovation in QIS and quantum technologies and support the development of quantum technologies for national security purposes.

Recommendation: The Administration and Congress should continue to support full funding and implementation of the NQI Act (P.L.115-368). The bipartisan legislation established a 10-year National Quantum Initiative Program to accelerate progress in QIS and technology development through an interagency coordination office, the establishment of quantum research institutes by the Department of Energy (DoE) and the National Science Foundation, the direction of research for the development of quantum standards by the National Institute of Standards and Development, and the creation of the Quantum Economic Development Consortium (Q-EDC) for industry and government collaboration on quantum technology challenges. Congress should support the Administration's FY2021 proposal to double funding for NQI activities over the next two years.

Recommendation: Congress should support and fund the Quantum User Expansion for Science and Technology ("QUEST") Program, as proposed in H.R. 8303, the QUEST Act of 2020. This competitive, merit-based initiative would encourage and support access to U.S. quantum computing resources for research purposes, to secure a strong domestic quantum computing industry sector, and to develop the next generation of quantum workforce.

Recommendation: Congress should pass H.R. 6919, the Advancing Quantum Computing Act, to further identify how quantum computing can benefit U.S. commercial sectors, as well as identify and mitigate risks.

Recommendation: Congress should pass HR. 8279, the Quantum Network Infrastructure Act of 2020, to establish and support a quantum network infrastructure research and development program at DoE. This program will lay the groundwork for a quantum internet, which will rely on the laws of quantum mechanics to control and transmit information more securely than ever before. Currently in its initial stages of development, the quantum internet could become a secure communications network and have a profound impact on areas critical to science, industry, and national security.

Recommendation: The Administration should assess and address the risk to National Security Systems posed by quantum computing. As part of this process, the Secretary of Defense should complete a comprehensive assessment of the current and potential threats and risks posed by quantum computing to National Security Systems as directed in section 1614, a bipartisan provision of H.R. 6395 in the FY2021 NDAA.

Recommendation: DoD should establish additional Quantum Innovation centers within each service — such as the center established at the Air Force Research Lab in Rome, New York — to identify technical problems and research challenges that are likely to be addressable by quantum computers within the next three to five years, to complement the eight civilian institutes and centers established by DoE and NSF. DoD should also establish additional partnerships with academia and industry with functional quantum computing capability to accelerate the national security application of quantum computing advantages over traditional computing systems.

Key Finding: The U.S. must continue to lead in the development of autonomous vehicles (AV). The CCP is using knowledge it is gaining by on-road testing in the U.S. to plan how to dominate the autonomous transportation sector in the decades ahead. U.S. leadership in the growing AV ecosystem is critical to domestic job creation and retention and the long-term health of our economy.

The CCP, through state-supported companies like Huawei, is positioning itself to be a world leader in AV technology. Using a similar strategy as their desired telecommunication provider, the CCP is attempting to lay the groundwork for controlling the market for AVs and the CCP's interest and capability is only growing in this sector.²⁰⁵ It would be a catastrophic loss for the U.S.' already challenged automotive sector to lose this market, particularly because U.S. government inaction is the main hurdle to deployment.

U.S. AV companies are the most advanced in the world, but the U.S. must create a national strategy to unleash American ingenuity to maintain its global dominance. Leadership in automotive technology has long been a pillar of U.S. economic success, **supporting 10 million jobs and contributing nearly 3.5 percent to U.S. national gross domestic product (GDP).** The future of the industry is deeply tied to the development of AVs, a **potential \$8 trillion global industry opportunity.**²⁰⁶ Just as important, the COVID-19 crisis has significantly highlighted an even greater need for AVs. AVs can help seniors and those with disabilities become more self-sufficient and deliver tests and medical supplies, all while drastically improving roadway safety and congestion.²⁰⁷

Meanwhile, PRC companies are taking advantage of the U.S. innovation system, conducting research and testing AVs on U.S. soil. PRC AV companies are second only to the U.S. in testing AVs on California roads, one of the world's foremost testbeds. These companies take what they learn here, and then manufacture and deploy them elsewhere. Regulatory uncertainty and frivolous litigation handicaps U.S. automotive and technology companies from widely deploying the technology in the U.S. Given that the CCP centrally plans its regulations and provides financial support to its own companies, the U.S. is in need of its own federal framework for AVs to maintain its global leadership and ensure Americans enjoy the vast mobility and safety benefits that come with this lifesaving and life-changing technology. As we have already seen in the telecommunications sector, permitting the CCP to set the rules for standards, innovation, manufacturing, and deployment compromise both the U.S. economy and security.

Recommendation: Congress should pass H.R. 8350, the SELF-DRIVE Act, a measure to ensure the U.S. leads on AVs. Although the U.S. is home to the world's most advanced AV companies, the U.S. continues to trail other countries because there is no national approach. A national strategy is needed to provide certainty around federal and state roles, establish a clear path to deployment in the U.S., and create a level playing field for innovators. If Congress fails to act, Americans will miss out on the vast safety and mobility benefits that come with AVs and the U.S. will cede leadership to the CCP – who will dictate terms to the rest of the world on this transformational technology.

Recommendation: Congress should pass H.R. 7972, the bipartisan Advanced Unmanned Delivery Services Act, which would study the benefits that autonomous delivery has for various segments and sectors of U.S. society, including health care and food services, amongst others.

Recommendation: Congress should pass H.R. 7214, the bipartisan Surface Transportation Research and Development Act, which would support fundamental research for autonomous transportation systems, including the creation of a testbed for developing and testing autonomous trucking, which could improve U.S. goods movement for the food supply and other critical supplies.

Key Finding: The U.S. must continue to develop and deploy enabling technologies for cybersecurity and grow the cyber workforce to support those technologies as the CCP presents a persistent cyber threat to the U.S.

Cybersecurity is one of the defining national and economic security challenges of the 21st century. The federal government, critical infrastructure sectors, and all Americans are increasingly dependent on cyberspace while new technologies are increasing both the kinds of sensitive information that can be stolen and the complexity of the threat landscape. The security challenges for the U.S. and the cyber threats presented by the CCP are well covered previously in this report.

Congress should support the development and deployment of enabling technologies for cybersecurity, as well as developing the workforce to support these technologies. Fundamental research is also needed to address key questions relating to improving the privacy, security, and vulnerability of software tools and communication networks.

Recommendation: Congress should pass key legislative recommendations made by the Cyberspace Solarium Commission, such as the development of an information and communications technology industrial policy to better safeguard critical supply chains against CCP interference and to ensure the U.S. government has the human capital it needs by enhancing its ability to recruit, develop, and retain its cyber workforce.

Recommendation: Congress should pass S. 2775, the Harvesting American Cybersecurity Knowledge through Education (HACKED) Act, a bipartisan provision in S. 4049 in the FY2021 NDAA, which would strengthen the U.S.' cybersecurity workforce in both the public and private sectors by bolstering existing science education and cybersecurity programs within the National Institute of Standards and Technology, National Science Foundation, NASA, and the Department of Transportation. The bill would incentivize recruitment of cybersecurity educators, align education and training with the cybersecurity workforce needs of industry, and design clear paths in the cybersecurity workforce for cybersecurity professionals to advance their careers.

Recommendation: Congress should pass H.R. 3255, the TOWER Infrastructure Deployment Act, a bipartisan measure which would establish a Telecommunications Workforce Development Advisory Council to develop recommendations on how to increase the workforce in the communications industry, promote deployment of communications infrastructure, encourage participation in industry-led workforce development programs, and improve workforce development in the communications industry.

Recommendation: The Administration should continue to promote the adoption of the NIST cybersecurity framework for the protection of public and private systems and support the measurement science that informs standards development to enable new cyber technologies and the internet of things (IoT), as authorized by the bipartisan Cybersecurity Enhancement Act (P.L. 113-274) and subsequent amendments to the law.

Recommendation: The Administration should continue to work through the NTIA's multistakeholder process and CISA's binding operational directive process to support collaboration between the private sector and the government on information sharing related to vulnerability disclosures and coordinating response.

Recommendation: The Administration should promote adoption of recommended actions in "A Road Map Toward Resilience Against Botnets," released by DoC and DHS. This road map was a result of recommendations put forth in the original report, "Enhancing the Resilience of the Internet and Communications Ecosystem Against Botnets and Other Automated, Distributed Threats."

Recommendation: Congress should pass the H.R. 8132, the American COMPETE Act, a bipartisan measure that includes provisions of the SMART IoT Act that promotes an IoT strategy at the federal level that streamlines development and adoption of these technologies. The provisions included can help counter the CCP as it continues to make inroads in the IoT market. This legislation also includes provisions on promoting the use of blockchain technology by the private sector to further advance the U.S. economy and add another layer of security.

Key Finding: The CCP's biotechnology industry has been growing rapidly in the past decade as part of a CCP strategy to challenge the U.S.' global dominance in the bioeconomy. The U.S. must lead the safe development of new and emerging technologies in the biological sciences to drive economic growth, improve public health, protect the food supply, and prevent new biological threats.

The biotechnology industry is a large and growing sector of the U.S. economy, employing over **1.4 million Americans across more than 85,000 companies**. The bioscience industry's total economic impact on the U.S. economy totaled \$2 trillion in 2016. ²¹⁰ New gene editing techniques like CRISPR and the advancement of rapid genetic sequencing are driving innovations in agriculture, medicine, energy, and manufacturing. Since we first began cultivating crops and breeding livestock, humans have been trying to improve plant and animal genetics. We are now developing the tools to do it with a precision, speed, and scale our ancestors could not have imagined.

The CCP considers biology and biotechnology as one of its new domains of warfare.²¹¹ The CCP's domination in gene editing, genetic testing and data collection, and monopoly on biopharmaceutical products could continue to impact all sectors of the U.S. economy, including energy production, food supply and agriculture, and healthcare, and could increase the risk to military force protection and mission.

The proliferation of biotechnology for military applications could see the altering of genetic code to modify plants, animals, and humans and could be used to enhance performance of military personnel.²¹² For example, the CCP's use of DNA to enhance facial recognition and track minority populations has national security consequences. In 2019, DoD issued a memo to service members noting that there are security risks, to include mass surveillance and potential tracking, associated with using consumer DNA kits. Additionally, the CCP is starting to sequence non-human DNA resources like microbes in U.S. crops for free to retain commercial rights and to have access to the genetic code, which is very valuable.

The CCP's research on biotechnology and acquisition of large quantities of biodata could also give the CCP and the PLA the ability to intersect Al and biotech, which could have many military and civilian applications.²¹³

The U.S. must not cede leadership in the bioeconomy to the CCP and must establish a research and regulatory framework that supports innovation and a marketplace for new products, while setting the biological safety, ethics, and privacy standards for the world to follow.

In 2019, a massive espionage campaign to steal advanced biomedical research was exposed at MD Anderson's Cancer Center, a prominent and cutting edge research facility in Houston, Texas. Multiple scientists were caught sending research back to the CCP's government or plotting to do so. In an e-mail back to China, one scientist wrote, "I should be able to bring the whole set of primers to you, if I can figure out how to get a dozen tubes of frozen DNA onto an airplane." This brazen act is just the tip of the iceberg of the CCP's widescale espionage efforts in the United States, especially through

their Thousand Talents Program.

Recommendation: Congress should ensure final passage of H.R. 4373, the Engineering Biology Research and Development Act of 2019 (introduced in the Senate as S. 3734, the Bioeconomy Research and Development Act of 2020), bipartisan legislation which would support a coordinated federal research "National Engineering Biology Initiative." The legislation would ensure continued U.S. leadership in the development of new biotechnologies including synthetic biology, biomanufacturing, and non-

human gene editing. The bill would establish a framework for greater interagency coordination and strategy for federal investments in engineering biology while expanding public-private partnerships and supporting education and training for the next generation of engineering biology researchers.

Congress Recommendation: and the Administration should work together to modernize the regulatory framework for agriculture biotechnology products, including the consideration of recommendations to be made by the Task Force established in Executive Order 13874, "Modernizing the Regulatory Framework for Agricultural Biotechnology Products." The Executive Order called for regulatory streamlining in order to facilitate bringing innovations of agricultural biotechnology to the market efficiently, consistently, and safely under a predictable, consistent, transparent, and science-based regulatory framework.

Key Finding: U.S. leadership in advanced manufacturing across industrial sectors is imperative to put the U.S. on the leading edge of new products, processes, and services, as the CCP seeks to move up the value chain away from its traditional reliance on mass production of low-end goods to more high-tech manufacturing.

Advanced manufacturing technologies fundamentally alter and transform manufacturing capabilities, methods, and practices. These new manufacturing technologies drive U.S. competitiveness by enabling improved productivity and the development of superior products, leading to the formation of entirely new industries.

Manufacturing accounts for about 12 percent of the U.S.'s GDP and employs approximately 12 million U.S. workers. Manufacturers also fund about two-thirds of the nation's industrial R&D, providing a foundation for technological innovation and continued U.S. technological leadership.

The Administration has recognized the growing concern that U.S. manufacturing competitiveness might be declining relative to the PRC and other countries. While rapid innovation has long been a defining attribute of the U.S. industry, private investments in manufacturing-based technologies have dramatically shrunk in recent years. Manufacturing leadership in emerging markets, exports, and trade not only requires investment in advanced technologies, but the ability to effectively leverage new technologies and platforms across industrial sectors. To this end, in 2018 the Administration released a "Strategy for American Leadership in Advanced Manufacturing," 214 which focuses on the development of new technology and the training of the future workforce.

The federal government provides technical assistance to U.S. manufacturers through two primary programs, the Manufacturing Extension Partnership (MEP) and Manufacturing USA institutes. The MEP program is a public-private partnership with centers in all 50 states and Puerto Rico dedicated to serving small and medium-

sized manufacturers.²¹⁵ MEP centers work with manufacturers to develop new products and customers, expand and diversify markets, adopt new technology, and enhance value within supply chains. Manufacturing USA is a network of regional research institutes in the U.S. that focuses on developing manufacturing technologies through public-private partnerships, including additive manufacturing, 3-D printing, and biopharmaceuticals.²¹⁶

As has been well covered in other sections of this report, the Made in China 2025 initiative seeks to transform the PRC from a low-end manufacturer to a high-end producer of goods through a top-down government controlled industrial policy. The U.S. can continue to lead in advanced manufacturing through policies that support R&D, programs that develop the workforce for the manufacturing jobs of the future, promotion of free and fair trade, and the creation of a regulatory and tax system that unleashes the private sector.

Recommendation: The Administration and Congress should continue to support implementation of the "Strategy for American Leadership in Advanced Manufacturing," which articulates a plan for U.S. leadership in manufacturing through the development and transition of new manufacturing technologies, education and reskilling of the manufacturing workforce, and expansion of the capabilities of the domestic manufacturing supply chain.²¹⁷

Recommendation: The Administration should leverage the Manufacturing USA institutes and the MEP program to assist small and medium manufactures with retooling and reskilling for supply chain diversity and to promote geographic diversity of U.S. advanced manufacturing, as directed in the bipartisan American Manufacturing Leadership Act (P.L. 116-92).

Recommendation: Congress should pass H.R. 8132, the American COMPETE Act, a bipartisan measure that promotes strategies for the U.S. to lead in manufacturing goods that the U.S. will depend on in the future. This measure includes provisions promoting advanced manufacturing techniques for IoT, incentivizing states to adopt model codes for the manufacturing of IoT devices, advances 3D printing capabilities for manufacturing, and requires a national strategy for encouraging more tech-focused startups and small businesses in all parts of the U.S. The provisions included will assist businesses of all sizes to compete in the global marketplace with a focus on innovation, investment and geographic diversification.

Key Finding: The U.S., in coordination with its allies, must bring like-minded nations into a multilateral consortium for enabling the private sector to develop alternatives to PRC companies, like Huawei, and build a trusted allied network for sharing critical R&D as well as IP.



The CCP's mishandling of the initial COVID-19 outbreak and its lack of transparency, as well as its disinformation campaigns against the U.S. and its allies and partners, is drawing new attention to the risks associated with relying on PRC-produced 5G infrastructure and critical supply chains.

British Prime Minister Boris Johnson has proposed consolidating a new D-10 group of leading democracies (the current G-7 members, plus South Korea, India, and Australia) for addressing both 5G mobile communications and vulnerable supply chains.²¹⁸

Recommendation: The U.S. should work with the United Kingdom and other nations to form a new D-10 group of leading democracies focused on developing and deploying 5G and subsequent generations, addressing 5G mobile communications and vulnerable supply chains, and leveraging technical expertise of each nation in emerging technologies for the benefit of democratic nations.

Key Finding: The Administration should work with its allies and private industry to continue shaping the standards and the future international governance of emerging e-technologies, to counter the CCP's efforts to dominate and manipulate international standards setting bodies.

An explicit goal of the Made in China 2025 initiative is to dominate international standards development. Standards enable everything from communication technologies to GPS, and ensure the safety of devices such as pacemakers, while promoting confidence in the performance of products. In 2016, a DoC study found that 92 percent of U.S. exports were affected by consensus standards. The urgency of securing standards leadership is heightened by the potential impact of key emerging technologies like Al and 5G.



The CCP views standards setting as an opportunity to promote PRC technologies and make them the global standard. For example, the CCP has focused particular

attention on the International Telecommunication Union (ITU) which is working to set global 5G standards, by placing a PRC-national as the head of the organization.

While U.S. experts have historically been leaders in international standards development, particularly for emerging technologies, there is a concern the U.S. is losing its edge. Strengthening the unique U.S. public-private partnership approach to industry-led standards development is critical to U.S. economic competitiveness.

Recommendation: Congress should pass section 1705 of H.R. 6395 in the FY2021 NDAA, a bipartisan provision which would direct the National Institute of Standards and Technology (NIST) to commission an independent study on the impact of the policies of the PRC and coordination among industrial entities within the PRC on engagement in international standards bodies for emerging technologies, and how to improve U.S. government and industry engagement in international standards.

Recommendation: Congress should ensure final passage of H.R. 4500, the Promoting U.S. Wireless Leadership Act of 2019, a bipartisan measure which would enhance the representation of the U.S. in international standards-setting bodies by both the private and public sector and promote U.S. leadership in communications policy internationally.

Recommendation: Congress should ensure final passage of H.R. 3763, the Promoting U.S. International Leadership in 5G Act of 2019, a bipartisan measure which would increase U.S. leadership and participation at international standards-setting bodies, and engender diplomatic engagement with allies and partners to increase cooperation at these bodies, as well as share information and methods to identify ricks.

Recommendation: Congress should ensure final passage of H.R. 5698, the Promoting Secure 5G Act, which would require the U.S. to support IFI assistance for 5G wireless technologies only if they provide appropriate security for beneficiaries. This bill is designed to prevent the PRC from using the IFIs for loans that could facilitate procurement or infrastructure development leading to unsafe 5G networks abroad.

Recommendation: The Administration should continue to promote robust participation by U.S. industry in international standards bodies and conferences. The Administration's June 2020 rule clarified that technology that would not have required a license to be disclosed to Huawei before the company's placement on the Entity List can be disclosed for the purpose of standards development in a standards-development body without the need for an export license. Such guidance ensures that

appropriate actions against state-sponsored PRC companies do not prevent U.S. companies from contributing to important standards-developing activities, despite Huawei's pervasive participation in standards-development organizations, and is important to ensuring U.S. engagement in setting international standards.

Space Exploration and Technologies

The U.S. has renewed its commitment to space exploration and is building a thriving commercial space industry. The Administration set a bold goal to return Americans to the lunar surface by 2024, and then venture on to Mars. This is not a symbolic effort. The Artemis mission to return to the Moon will keep the U.S. on the leading edge of technological development, help us identify and manage lunar resources, and prevent the CCP from gaining leadership in space exploration and utilization. Together with commercial and international partners, NASA will establish a sustainable presence on the Moon to prepare for missions to Mars.

The successful May 2020 launch of the Crew Dragon Capsule on the Demo-2 mission to the International Space Station (ISS) by NASA and SpaceX marked a new era in space exploration. The first launch of American astronauts, on an American rocket, on American soil in nearly a decade was not just successful, but inspiring. It demonstrated the success that is possible with a continuity of commitment to U.S. space programs and an investment in public-private partnerships. The U.S. has a flourishing private space sector, and it is in U.S. commercial and national interests to foster this industry, eliminate regulatory barriers to its growth, and make use of its innovations.

While the U.S. views space exploration as a way to expand human knowledge, create new technologies, and discover new phenomena, the CCP seeks to establish leadership in space for the purpose of keeping the CCP in power and as a show of economic and national security strength. Unlike the U.S., which has a civilian agency (NASA) overseeing space exploration, the PLA manages the PRC's space program. The CCP dedicates high-level attention and funding for space while also aggressively attempting to acquire U.S. space startup companies and technology, both through legitimate means and coercion and theft.²¹⁹

If the PRC succeeds in its efforts to launch its first long-term space station module in 2022, it will have **matched** the U.S.' nearly 40-year progression from first human spaceflight to first space station module **in less than 20 years**. The CCP is vocal about plans to establish a human base on the Moon. The U.S. should be concerned about the technological innovations and leadership role for the CCP that could come from missions crewed by PRC-nationals to the Moon.

While the National Security chapter of this report covers the importance of space as a warfare domain, space exploration should continue to be for the benefit of humanity.

In his 1958 message to Congress on the creation of a new civilian space agency, President Eisenhower wrote:

I recommended that we have a civilian agency because of the clear evidence that space exploration holds promise of adding importantly to our knowledge of the earth, the solar system and the universe, and because it is of great importance to have the fullest cooperation of the scientific community at home and abroad in moving forward in these fields. Moreover, a civilian setting for the administration of space science and exploration will, in my judgment, emphasize the concern of our nation that outer space be devoted to peaceful and scientific purposes."

This is just as important today. The Moon, and all the cosmos, should be explored with the principles of freedom and liberty.

Key Finding: As the CCP seeks to attract international partners to support its own space exploration goals and expand its influence, the U.S. must maintain its presence in low-Earth orbit, return U.S. astronauts to the Moon, chart a future path for human exploration of Mars, and maintain a steady commitment to space science missions. U.S. civilian space exploration efforts impact and aid multiple national interests, including the economy, national security, scientific advances, and diplomacy.

Recommendation: Congress should pass a reauthorization of NASA and fund annual appropriations that supports the return of U.S. astronauts to the lunar surface and on to the surface of Mars, ensures continuity of purpose for space exploration efforts, and fully supports the development of the Space Launch System, Orion Spacecraft, Exploration Ground Systems, and Human Landing System. H.R.

5666, the NASA Authorization Act of 2020, is bipartisan legislation that takes important first steps towards supporting these goals and should continue to be refined through the legislative process.

Recommendation: The Administration and Congress should work together to maintain presence in low-Earth orbit for strategic purposes, including continued operations of the ISS and transition to commercial platforms as soon as possible. The U.S. should preserve assured access to the ISS and low-Earth orbit using commercial crew and cargo services.

Recommendation: The U.S. should seek international participation in space exploration through bilateral agreements. The U.S. should embrace the Administration's "Artemis Accords" for lunar exploration and reinforce the ISS Intergovernmental Agreement for future low-Earth orbit activities to make the U.S. a more attractive partnership option than the PRC.

Recommendation: Congress and the Administration should support a balanced, robust, and stable science enterprise that counters the CCP's attempts to eclipse U.S. leadership in the fields of Earth science, astronomy, astrophysics, heliophysics, planetary science, and life and physical sciences. This includes the development of small, medium, and large missions, as well as the research and analysis funding necessary to support the mission scientists, post-doctoral researchers, and other elements of the academic pipeline.

Recommendation: The U.S. should carry out its space exploration goals by leveraging private sector investments. Private infrastructure, both in space and on Earth, can support U.S. government space activities at lower cost than if the government were the sole owner and operator. Regular flight opportunities and innovative contracting mechanisms can support the development of platforms and other infrastructure to serve multiple purposes, thus sharing fixed costs across a variety of government and private customers.

Recommendation: Congress should review the Wolf Amendment to annual appropriations laws that has been in place for nine years, which prohibits bilateral cooperation between NASA and the PRC unless the government certifies 30 days in advance that the interaction will not result in the transfer of technology, data, or other information with national security or economic security implications to the PRC or a PRC-owned company and will not involve knowing interactions with officials who have been determined by the U.S. to have direct involvement with violations of human rights. Congress should evaluate, through considered analysis and debate, whether this limitation should be modified or strengthened.

Key Finding: As the PRC seeks to foster a new domestic commercial space industry under the influence and control of the CCP, the U.S. must maintain free-market principles and streamline regulations to provide a stable and attractive environment for private investment and operations. The U.S. must also protect private sector interests against the theft of IP, the exploitation of space science collaborations, and the manipulation of PRC investment to ensure the viability of this nascent and promising domestic industry.

Recommendation: Congress should pass H.R. 3610, the American Space Commerce Free Enterprise Act, which would streamline existing regulations for the licensing of commercial remote sensing systems and provide a licensing system for other commercial space activities not already regulated by other agencies in order to strengthen compliance with the "authorization and continuing supervision" requirements of the Outer Space Treaty.

Recommendation: Congress should pass H.R. 6208, the Protecting American Space Assets Act, which would direct the President to develop a comprehensive strategy to protect the U.S. aerospace industry from CCP interference by strengthening U.S. military and commercial capabilities in space, promoting freedom of navigation for space assets, and increasing protections for space manufacturing programs and supply chains.

Recommendation: Congress should pass the Space Technology Advancement Report Act, included in H.R. 6395 of the FY2021 NDAA. The provision would direct the National Space Council to develop a strategy to ensure the U.S. remains the preeminent space power in the face of growing global competition from the CCP.

Key Finding: The growth of orbital debris in Earth's orbit from defunct satellites, spent rockets, and other human-made debris threatens civilian, commercial, and military activity in outer space.

Recommendation: The U.S. should engage with the PRC and other space competitors on shared goals of space sustainability and safety issues, through bilateral diplomatic dialogue as well as forums for multilateral discussions on establishing norms, best practices, and transparency and confidence building mechanisms for managing space debris.

Recommendation: Congress should pass legislation that creates an American Space Situational Awareness and Framework for Identity Management, similar to the framework proposed last Congress in the bipartisan measure H.R. 6226, that would provide information to the private sector and international partners to ensure safe operations in space without burdensome regulations that would stifle industry and push companies overseas.

Privacy Risk and Consumer Protection

Key Finding: The CCP does not share the same set of values, including a respect for the privacy of its own citizens, as the U.S. and other nations. The CCP has a record of using official government resources and companies with CCP affiliations to compromise the data of people around the world. The U.S., not the CCP, should lead the world in developing practices and technologies that impact consumer privacy and establish new norms for the protection of data and digital commerce.

The CCP's bungled response and subsequent cover up of COVID-19 allowed it to become a pandemic, and both instances demonstrate the complete control they can exert over their own people and their media. At the same time, the CCP uses the enormous amount of data collected on their citizens as the fuel for their own state-sponsored pipeline of innovation. This is enabled by the PRC's National Intelligence Law of 2017 that requires organizations and citizens to support, assist, and cooperate with state intelligence work. The law compromises the privacy of the PRC's own citizens as well as people around the world as PRC companies are hard pressed to explain safeguards that govern data they collect. In response, there has been increased scrutiny of PRC companies like ByteDance (owner of TikTok), and other PRC companies with direct or indirect ties to the CCP. The U.S. needs its allies and partners in government and industry around the world to join the growing effort to secure data from the CCP's surveillance state and other malign entities. **Building a Clean fortress around citizens' data will ensure security for all nations.**²²⁰ At the same time, the U.S. has struggled to establish its own uniform data protection framework, endangering its own global standing as other countries or blocs establish their own frameworks that may protect parochial interests and serve as de facto standards for U.S. companies operating abroad.

Recommendation: Congress should pass legislation that: 1) establishes one national data protection standard to ensure protections do not vary state to state; 2) increases transparency so consumers and regulators know what information is being collected, how it is being collected, and who it is being shared with; 3) increases FTC authority to sufficiently hold bad actors accountable; 4) provides flexibility to protect the U.S. innovation advantage and allow small businesses to compete with large tech companies; and 5) enhances data security to require reasonable practices that comport with companies' size, nature and scope of activities, the sensitivity of information collected, the current state of art in technological means for protecting such information, and the cost of implementing such safeguards.

Recommendation: Congress should pass H.R. 6969, the U.S. TELL Act, which would require companies to disclose whether China has access to data transmissions, and H.R. 6942, the Internet Application I.D. Act, that requires app-makers to disclose applications originating from the PRC. U.S. consumers should have clear knowledge of where downloaded applications are sourced and where their data may travel.

Recommendation: Congress should pass H.R. 6929, the Advancing Facial Recognition Act, which would help identify harms to individuals of facial recognition technology, while also promoting public-private partnerships on its ethical use and identifying appropriate federal oversight over the technology. This will assist in assessing risks and trends in the marketplace, with the U.S. driving design and use.

Recommendation: NIST should continue to develop and promote adoption of the NIST Privacy Framework, a voluntary tool developed in collaboration with stakeholders intended to help organizations identify and manage privacy risk to build innovative products and services while protecting individuals' privacy.

Recommendation: Congress should pass H.R. 7005, the SHIELD Act, which would promote cross-border data flows with our allies. The Administration should enact H.R. 4779, the SAFEWEB, Act, a bipartisan measure to extend FTC's international cooperation efforts to counter spam, spyware, and other malicious attempts on scams and fraud originating abroad. The U.S. should continue to support the free flow of internet and voice traffic with countries that respect U.S. laws and interests.

Key Finding: The Administration's "Clean Network" initiative is further safeguarding the nation's assets by shining a light on threats to citizens' privacy and companies' most sensitive information that may be vulnerable to intrusion by the CCP. By promoting internationally accepted digital trust standards, the program can continue to expand the coalition of trusted partners, and in doing so adjust to the rapidly changing technology and economics of global markets.

Recommendation: The Administration should complete implementation of the "Clean Path" initiative contained in the FY2019 NDAA. This will ensure that voice and data traffic entering and exiting U.S. diplomatic facilities abroad are not traversing Huawei equipment. No untrusted vendors should have access to DoS systems.

Recommendation: The Administration should direct the NTIA, as part of the "Clean Cable" initiative, to strengthen interagency coordination of the Executive Branch review of international undersea cable landings and applications for new licenses or transfers of licenses for authorization to provide telecommunications or radio services. Without such coordination, Huawei Marine Systems and PRC state-owned telecommunications companies may expand networks throughout the world to dominate the market for submarine cables that carry voice and data traffic and subvert infrastructure for intelligence gathering by the CCP.

CHAPTER V: ECONOMICS AND ENERGY

Introduction

The CCP is solidifying and expanding its authoritarian power through commercial linkages with the international trading system. In so doing, the CCP is distorting the rules of the international trading system for its own ends by, among other things, using massive subsidies to favor its state-owned or controlled enterprises, stealing IP and requiring technology transfer as a cost of doing business, and forcing open markets for PRC exports while protecting its market and industries through localization requirements and other trade barriers.

The CCP's economic system is threatening U.S. national security and foreign policy interests. The proceeds of its economic growth are financing the buildup of the CCP's military and the continuation of a surveillance state to oppress ethnic and religious minorities. The acquisition and development of cutting-edge and foundational technologies by whatever means necessary is existential to the CCP's economic and political system. Consequently, American ingenuity and research is under assault by CCP attempts to achieve economic and military superiority over the U.S.

Undergirding the CCP's industrial policies and **Military-Civil Fusion** strategy is an ideology that demands preeminence. In a seminal speech on ideology after being named the General Secretary of the CCP, **Xi Jinping tasked the Party with** "building a socialism that is superior to capitalism" whose economic and technological prowess will give it "the dominant position" in world affairs.²²² Months later, the CCP circulated an authoritative, internal memo on ideology – Document Number 9 – denouncing core tenets of the international system, such as economic liberalism, privatization, and the free flow of information, as threats to the regime's survival.

This ideological orthodoxy is shaping a legal framework in the PRC to compel all individuals and organizations to work with and protect the CCP. The PRC's National Security Law of 2015, for example, goes so far as to codify an unprecedented definition of security that requires the absence of domestic and international threats. These principles form a strategic logic for the CCP, a regime paranoid about the maintenance of its unchallenged power, that it cannot be safe in the current international order.

Taken together, General Secretary Xi is mobilizing his 90-million-person party, 200-million-person military, and nearly one-fifth of the world's economy to wage a global war of systems and ideas. The incompatibility of CCP and liberal, democratic values results in a dangerous dynamic in which the CCP seeks the elimination or capitulation of values that underpin democratic countries, such as the U.S. to achieve its own security.

This dynamic marks the emergence of a revisionist power that is trying to upend the existing liberal international order. The CCP strategy—marked by the rampant theft of hundreds of billions of dollars in U.S. IP, systemic distortion across a broad spectrum of critical industries and technologies caused by hundreds of billions of dollars in industrial subsidies, fusing of its military into its industrial and innovation base, and thousands of cases of economic espionage—amounts to an urgent challenge for the U.S. that demands the appropriate use of existing authorities (see Appendix III).

Success for the U.S. and supporters of a liberal, rules-based economic system requires immediate and forceful action. The U.S. and its allies must defend and bolster their economies, separately and collectively, as well as the rules that undergird the international economic order. These nations must also recommit themselves to an economic system that spurs innovation, free enterprise, and growth. They must ensure their diplomacy on trade as well as export control and investment review harmonization, work in concert to forge closer bonds with their allies and partners in the competition with the CCP and its Military-Civil Fusion strategy.

A fuller understanding of the extent of the U.S.-PRC commercial, technological, and financial relationship and how it affects long-term U.S. economic and national security is critical. Data and information from the private sector—including supply chain dependencies, technology licensing, and capital flows—are critical for policymakers to understand the complexity of these challenging choices and to educate the public of their necessity.

Offensive Tools: Setting a Positive Agenda and Advancing U.S. Trade and Commercial Interests

China's growth over the years has been remarkable, but in many ways it is fueled by theft, coercion, and exploitation of free market economies, private companies, and colleges and universities."

- Sec. Esper, Munich Conference, 2/15/2020

Key Finding: The PRC's trade and economic policies are based on flouting international norms and aggressively seeking an advantage, particularly where there are no rules. Its unfair trade practices pose particular challenges because they systematically undermine fair competition and create damaging global overcapacity through grossly distorting subsidization, IP theft, forced technology transfer, localization policies, and the use of state-owned enterprises to outcompete U.S. companies and their workers.

As the U.S. Trade Representative documented after an extensive investigation, over the past decade the PRC has reversed many of its economic reforms and refused to comply with its WTO obligations, and that trend is accelerating.²²³ The PRC is aggressively using all means at its disposal to compel the transfer of control and technology to its state-owned and nominally private enterprises as a requirement for market entry, block or restrict the sale of foreign products and services in the PRC, and provide preferential treatment to its own industry players, particularly in the information and communications technology (ICT) sector.²²⁴ In concert with the 13th Five-Year Plan, Internet Plus Action Plan, and other state-led development plans, Made in China 2025 constitutes a broad strategy to use state resources and state control to distort the global marketplace and create comparative advantage for the PRC's state-owned and nominally private players in critical sectors of the 21st century economy on a global scale.225 PRC theft of U.S. IP is rampant, costing between \$225 billion and \$600 billion annually.²²⁶ The PRC's onerous constraints on foreign investment and severe limitations on access to its market make it one of the world's most restrictive regimes, as measured by the OECD.²²⁷ Even when its measures blatantly violate its WTO obligations, the PRC's lack of transparency often makes it enormously difficult to document and prove this is the case in a timely way.

At the same time, exports of U.S. goods, agriculture, and services are important for U.S. macro- and microeconomic growth, as well as U.S. job creation; the PRC is the U.S. third largest export market. Complete decoupling from trade relationship with the PRC is not advisable because other countries will simply take the U.S. place in the market, leaving the PRC's distortions intact. Instead,

the U.S. must be strategic and selective in its approach and strike the right balance to do all it can to compel the PRC to end its unfair trade practices and preserve U.S. competitiveness, or at least insulate the U.S. from the harmful effects of those practices.

The Phase One agreement with the PRC is an excellent first step in achieving that balance and tackling the PRC's extensive and embedded trade barriers, successfully addressing key barriers created by the PRC's lack of respect for IP rights, discriminatory agriculture standards, and certain foreign ownership restrictions. Full enforcement of all aspects of this agreement, using the unique and innovative consultation and dispute resolution mechanism in the agreement, is imperative. In addition, the PRC must agree to additional, enduring disciplines to address remaining barriers and practices. The Administration's commitment to addressing remaining distortions, such as subsidies, state-owned enterprises, cloud computing, and data localization, in a Phase Two negotiation is welcome.

Recommendation: Congress must work closely with the Administration to aggressively use the new and unprecedented consultation, monitoring, and enforcement mechanisms in the Phase One agreement to strictly enforce that agreement, particularly relating to protecting U.S. IP, removing agriculture barriers, disciplining forced technology transfer, and ending ownership and control requirements.

Recommendation: Congress should intensify its engagement with the Administration to develop a strategic plan for Phase Two negotiations with the PRC based on a unified U.S. approach that will convey the message that the cost will be high if it refuses to engage in good faith Phase Two negotiations. This strategic plan should address the full range of remaining PRC trade barriers that undermine American competition, including the use of subsidies to grossly distort global markets and create overcapacity; dominance of state-owned enterprises to dictate the terms of trade, data, and other localization requirements that mandate use of PRC servers and products; and remaining forced technology transfer and joint venture requirements that seize the crown jewels of American innovation as a cost of doing business in the PRC.

Key Finding: The CCP's survival depends on accelerating and deepening the PRC's economic integration with the rest of the world. The PRC seeks to shift the global center of economic and investment activity to Beijing by dominating global markets through unfair advantage and outright theft of technology and IP while protecting its own market from competition. Working with allies to address the PRC's barriers and strengthening economic ties and the economic rule of law with U.S. allies will provide a crucial counterweight to the PRC.

The European Union (EU) and Japan, as well as many other trading partners, have often been less willing than the U.S. to confront the PRC directly, preferring to hide

behind the U.S. The Administration's engagement with the EU and Japan over the last two years has resulted in progress with a trilateral effort to publicly identify and address some of the PRC's barriers and unfair practices, but more effort and commitment by U.S. trading partners is necessary and is in their interest.

In addition, establishing close economic ties with allies is essential in addressing PRC barriers because shifting PRC trade flows from the U.S. to other democracies will harm U.S. competitiveness without changing the PRC's behavior. Unified, bipartisan U.S. government engagement with its allies, both at their embassies in the U.S. and in their own respective capitals, as well as through international institutions, is necessary to effectively counter the PRC.

The Administration has negotiated ambitious new trade agreements based on U.S. law and standards as well as new market access for U.S. exports, such as the U.S.-Mexico-Canada Agreement (USMCA), the Phase One agreement with Japan, and amendments to the Korea-U.S. Free Trade Agreement. Expanding the U.S. network of groundbreaking trade agreements and other trade relationships will set high-standard rules in Asia and around the globe, create more opportunities for U.S. exporters to sell American-made products and services, and provide a meaningful alternative to the PRC for other countries. These agreements are negotiated and implemented under the Bipartisan Congressional Trade Priorities and Accountability Act (TPA) of 2015 (P.L. 114-26), which sets out detailed negotiating objectives for the Administration to follow as well as intensive consultation requirements for the Administration to meet with both Congress and the public.

U.S. free trade agreements (FTAs) account for only 6% of the global population, but cover 46% of U.S. goods exports

The U.S. has high-quality free trade agreements (FTAs) with 20 countries. They account for only 6 percent of the world's population, ²²⁸ but cover 46 percent of U.S. goods exports. ²²⁹ Other economies like the EU are negotiating many more trade agreements than the U.S., and the U.S. will be at a disadvantage if it does not stay proactive in negotiating new agreements.

Even if some countries are not ready to negotiate a trade agreement, the U.S. has an arsenal of trade tools created by Congress over the years to enhance economic relationships, establish rules using U.S. standards, create strong investment bonds that pay dividends through increased trade, and open markets for U.S. goods and services.

Recommendation: On a bipartisan basis, Members of Congress should work with their counterparts across the globe to continue to build bilateral and plurilateral relationships to address the challenges posed by the CCP.

Recommendation: Congress should engage in close consultations with the Administration under the Bipartisan Congressional Trade Priorities and Accountability Act (TPA) rules and procedures to negotiate new trade agreements and other arrangements to counter CCP directed influence by strengthening economic and geostrategic ties, establishing strong and ambitious rules and standards globally based on U.S. law, and creating new export opportunities for U.S. manufacturers, farmers, and service providers. Specific actions include:

- Continue ongoing trade agreement negotiations with the UK for a comprehensive, high-standard agreement;
- Commence Phase Two comprehensive trade agreement negotiations with Japan;
- Continue ongoing trade agreement negotiations with Kenya for a comprehensive, high-standard agreement and send a strong signal to other sub-Saharan African countries that the U.S. is eager to deepen its trade relationship with all countries that are ready to do so;
- Continue ongoing discussions with India to address its trade barriers;
- Continue bilateral discussions with the EU when it is ready;
- Identify additional partners for trade agreement negotiations if they demonstrate a willingness and ability to take on ambitious, enforceable, and comprehensive obligations;
- Include a provision in all U.S. trade agreements to require parties to our agreements to inform us and consult with us if they are considering negotiations with a non-market economy, as is contained in USMCA; and
- Include ambitious provisions in U.S. trade agreements with the aim of setting international rules aimed at addressing the PRC's barriers, such as risk- and science-based standards, disciplines on state-owned enterprises, IP protection, and cross-border data flows, as were included in USMCA.

Recommendation: Congress should continue its action and oversight, and the Administration should continue its implementation, of other statutory trade tools to strengthen economic and geostrategic ties with developing countries in Africa, Asia, and Latin America:

 Extend the bipartisan Generalized System of Preferences, set to expire at the end of 2020, to provide preferential access for developing countries to the U.S. market if they comply with strict eligibility criteria based on the economic rule of law and non-discrimination against U.S. exports;

- Extend the bipartisan Caribbean Basin Trade Partnership Act, set to expire September 30, 2020, which provides preferential access to the Caribbean Basin and Haiti (based in part on H.R. 991, Extension of the Caribbean Basin Economic Recovery Act); and
- · Use the bipartisan Africa Growth & Opportunity Act to strengthen ties with sub-Saharan Africa.

Recommendation: The Administration should enhance our relationship with Taiwan by supporting the full and timely implementation of the bipartisan Taiwan Allies International Protection and Enhancement Initiative (TAIPEI) Act of 2019 (P.L. 116-135).

Recommendation: The Administration should work to deepen trade ties with Taiwan and resolve specific outstanding trade issues, taking the steps to launch trade agreement negotiations once those issues are addressed.

Key Finding: The PRC has abused its membership in the WTO to its advantage, meeting obligations only on its own terms, blocking consensus on new disciplines, claiming developing country status with entitlement to "special and differential treatment" even though it meets objective tests to be considered a developed country, and disregarding transparency requirements to shroud its barriers.

The CCP has **refused to internalize the norms and practices of competition-based trade and investment,** instead exploiting the benefits of WTO membership to become the world's largest exporter, while systematically protecting its own markets from foreign competition.²³⁰ The CCP has cynically used the benefits of WTO membership, including its guarantee of open, non-discriminatory access to the markets of other WTO Members, to exponentially increase its exports while resisting liberalization of its trade regime by claiming to be a "developing" country entitled to "special and differential treatment"²³¹ and continuing to discriminate against U.S. and other non-PRC companies that attempt to export to or invest in the PRC.

While the WTO has had tremendous value for the U.S., WTO rules, most of which were written in the mid-1990s, are not equipped to handle the full range of economic problems associated with the PRC's rise and the distortions created by the CCP economic model.²³² Significant reform is needed, and other WTO members can be important allies to push back against CCP aggression.

Congress, which passed legislation in 1994 to implement U.S. participation in the WTO, has an important statutory oversight role over the Administration's participation in WTO activities, including negotiations and dispute settlement.

Recommendation: Congress should pass H. Res. 746, a bipartisan resolution supporting the WTO and calling on other WTO members to join the U.S. in reforming the organization.

Recommendation: Congress should work through the WTO, together with the Administration and allies, on developing reforms and new rules and disciplines to address the threats the CCP poses; advance U.S. policy positions, rules and standards and build alliances with other member countries to counter the CCP's influence and best address the CCP's economic aggression. In particular:

- Negotiate an ambitious agreement on e-commerce that prohibits localization barriers and allows cross-border data flows;
- Reform the WTO Appellate Body to prevent it from imputing new obligations to the U.S. that prevent enforcing U.S. rights under WTO agreements with respect to state subsidies;
- Reform the WTO to require countries to meet their transparency and notification obligations so that we can use dispute settlement more effectively;
- Discipline the designation of "developing country" using objective standards so that special and differential treatment is reserved for truly developing countries and not the PRC and similarly situated economies; and
- · Negotiate new disciplines on subsidies, state-owned enterprises, and IP.

Recommendation: Congress should work with the Administration to develop a U.S. government strategy to select a new Director-General of the WTO this fall who understands the scope of the CCP threat to the system and is equipped to challenge their efforts to undermine the system, using both dispute settlement and negotiations.

Key Finding: The CCP is attempting to reshape international norms, standards, and trade networks through BRI. It is leveraging these predatory loans and economic dependencies to give its companies an unfair advantage in third countries, create leverage for future political concessions and military access to infrastructure, and co-opt countries for their votes at international bodies.

BRI is giving rise to a world diametrically opposed to the existing one.²³³ Through debt-trap diplomacy, no-bid contracts, and opaque lending practices, the CCP is securing strategic land and resources around the world. The CCP now controls strategic ports in Sri Lanka, Djibouti, and at both ends of the Panama Canal.²³⁴ More concerning, the BRI is attempting to set rule and technological standards to give PRC firms an advantage over competitors and increase the PRC's leverage over these countries' domestic politics. The Digital Silk Road aims for key digital sectors like telecommunications, IoT infrastructure, and smart city and other artificial intelligence surveillance technology to be built on PRC proprietary technology from its national champions, including Huawei and ZTE. These countries will all be linked together by Beijing's Beidou navigational system, its version of "GPS," which will serve as the "digital glue for roads, railways, ports, and industrial parks."²³⁵



Congress has taken important steps to counter the CCP's ambitions and better support U.S. businesses competing for contracts across the globe. This includes the enactment of the bipartisan, Championing American Business through Diplomacy Act (P.L. 116-94), which mandates a more focused approach from DoS and DoC overseas and significant reforms in the Export-Import Bank's (Ex-Im) reauthorization. Specially, Congress created the Program on China and Transformational Exports ("the Program"), which Ex-Im Chairman Kimberly Reed has described as "one of the most significant initiatives in Ex-Im's 86-year history." Under the program, Ex-Im is to devote no less than 20 percent of its \$135 billion in financing authority to neutralize PRC export credit and advance America's competitive edge in technologies such as 5G and semiconductors.

The Program will help enable Ex-Im to challenge the CCP using competitive financing terms and maintain pressure on the PRC government through aggressive financing of U.S. exports so that the CCP is incentivized to comply with multilateral credit standards.

Recommendation: Congress should ensure effective implementation and resourcing of the Ex-Im Bank's new bipartisan Program on China and Transformational Exports (P.L. 116-94). As Ex-Im's new initiative develops, Congress should pass H.R. 8163, the Countering China Through American Export Competitiveness Act, in order to raise the minimum level of Program resources from 20 percent to 33 percent of the Bank's authority. Congress should also bolster the Program's effectiveness through appropriate funding increases for administrative costs.

Recommendation: As Ex-Im seeks to counteract the CCP's malign designs, it should not finance the PRC in any way. In previous years, PRC state-owned enterprises (SOEs) have benefitted from billions of dollars in Ex-Im Ioan guarantees backed by the U.S. taxpayer, even as Beijing sits on more than \$3 trillion in foreign exchange reserves and seeks to use its SOEs for strategic ends inconsistent with our national interest. For these reasons, in 2019's bipartisan reauthorization of Ex-Im, the House established a national interest review for all large Ex-Im Bank transactions involving PRC governmentcontrolled entities. It is critical for Ex-Im to denv this support: the Bank should refuse to put taxpayers on the hook as long as SOEs continue to implement the priorities of the CCP.

Recommendation: The Administration should direct the DFC and related agencies, such as the Millennium Challenge Corporation, the U.S. Export Import Bank, and USAID, to partner together to establish deal team coordination centers and one-stop-shops in critical regions, such as South America, Southeast Asia, and Africa, and work actively with DoS personnel to better identify strategic projects. A more coordinated effort is needed to best challenge the CCP's BRI. Face-to-face interagency coordination in one office would enhance the agencies' ability to monitor and evaluate current projects, grow the pipeline of potential future projects, scale up investments in these key regions, and work more closely with host governments and U.S. companies on the front lines of foreign markets.

Recommendation: Congress should pass H.R. 7570, a bipartisan measure which provides a budget treatment for equity investments made by the DFC that does not require dollar-fordollar funding or expose U.S. taxpayers to any significant new risks. This will ensure taxpayer dollars can be better stretched to counter the

Recommendation: The DFC, working with the Ex-Im Bank, should sign a Memorandum of Understanding with the Office of the Director of National Intelligence to receive and analyze classified economic data related to corporations and countries in order to best direct investments.

Recommendation: The Administration should fully implement the bipartisan Championing American Business through Diplomacy Act (P.L.116-94), which promotes American economic interests abroad and counters the CCP's predatory BRI in developing nations. The law requires the DoS to report on strategic investment by foreign governments abroad, designate a point of contact for U.S. businesses at each mission, update training on U.S. business promotion for chiefs of mission and Foreign

Service Officers, and coordinate with DoC to promote tools available to U.S. businesses seeking foreign market penetration. It also explicitly places the duty of foreign business promotion on each chief of mission.

Recommendation: The Administration should continue its multilateral efforts to provide a credible alternative to the BRI. DoS' infrastructure-oriented Blue Dot Network, and its Economic Prosperity Network for broader economic ties, are key initiatives to promote high financial transparency and accountability standards and to draw a contrast to CCP corruption.

Recommendation: The Administration should coordinate its diplomacy on trade as well as export control and investment review harmonization to forge closer bonds with U.S. allies and partners in its competition with the CCP and its Military-Civil Fusion strategy to extract assets and technology for military and commercial preeminence.

Key Finding: The CCP is acting against the fundamental goals of IFIs through its disregard for the rule of law, human rights, and international norms. These behaviors, combined with Beijing's establishment of alternative lending institutions, undermine a rules-based financial system and disadvantage countries that need special financial support.

The PRC has risen to become the third largest shareholder in both the IMF and World Bank, yet its governance is at odds with the core principles of these institutions.

Beijing's history of questionable economic data, secretive lending practices, and persistent state intervention in its financial system are inconsistent with IMF members' obligations and put the Fund's ability to monitor the global economy at risk. Of particular concern is the PRC's emergence as the world's largest official creditor, since the opacity of much of its lending poses a threat to financial stability and the IFIs' ability to respond. Researchers have estimated that up to \$200 billion in PRC official credit to developing countries has gone unreported, jeopardizing the ability of the IFIs and private creditors alike to assess risk.²³⁷

In addition, despite being an upper middle-income country, the PRC has continued to receive World Bank assistance even though it exceeds the Bank's threshold for lending, benefitting from more than \$9 billion in commitments from 2015 to 2019.²³⁸ These resources would be better deployed to combat poverty elsewhere, and the fungibility of money raises particular concerns for Bank projects at a time when Beijing has forced more than a million Uyghurs and other ethnic minorities into internment camps and is creating a dystopian surveillance state in Xinjiang and across the PRC, actions which make a mockery of the World Bank's mission to "reduce poverty and build shared prosperity."

As the largest or second-largest shareholder of each international financial institution, U.S. leadership is critical to ensure that the IFIs pursue poverty alleviation, good governance, and financial stability for the global good. The CCP's exploitative development model and creation of rival institutions underscores how Beijing is not committed to these priorities. U.S. stewardship of the IFIs, in cooperation with like-minded member countries, should rejuvenate these institutions as an alternative to the CCP's self-interested approach to foreign assistance and trade.

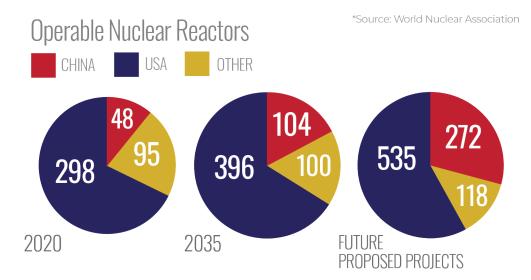
Recommendation: Congress should pass section 1779 of H.R. 6395, the FY2021 NDAA, which includes the provisions of H.R. 5932, the Ensuring Chinese Debt Transparency Act, a bipartisan measure which would establish as policy the use of the voice and vote of the U.S. at IFIs to secure greater transparency for PRC loans to IFI beneficiaries, consistent with the standards of the Paris Club. The bill would also require the Treasury Secretary to report on efforts and recommendations on heightening transparency for credit that may be channeled through the PRC's SOEs or other government-controlled entities.

Recommendation: Congress should pass H.R. 5846, the Neutralizing Unfair Chinese Subsidies Act, which would require the Treasury Secretary to submit to Congress a strategy and timeline to ensure, in cooperation with U.S. allies, the PRC's compliance with the financial terms and conditions of the OECD Arrangement on Official Supported Export Subsidies. This bill emphasizes the importance of U.S. leadership in mobilizing international support behind a transparent, rules-based financial order, highlighting how the Arrangement and other agreements can serve as a framework for the U.S. and its partners to come together against the CCP's cynicism.

Recommendation: Congress should pass H.R. 6086, the IMF Reform and Integrity Act, which would prevent any shareholding increase at the IMF for a country, such as the PRC, that does not meet basic obligations codified in the organization's Articles of Agreement. The legislation would also require the U.S. to oppose an increase for the PRC if the CCP has not demonstrated a commitment to the rules and principles of the Paris Club. H.R. 6086 would bolster U.S. leadership in the Fund, including by holding the CCP accountable to the Fund's basic principles and securing a rules-based financial system. Congress should insist on progress toward these goals through oversight of DoT's advocacy on the IMF's board of directors and pursue similar aims at other IFIs through future legislation that authorizes and appropriates new funding.

Recommendation: Congress should pass section 1843 of H.R. 6395, the FY2021 NDAA, which includes provisions of H.R. 5051, the Accountability for World Bank Loans to China Act, a bipartisan measure which would establish as policy the use of the voice and vote of the U.S. at the World Bank to graduate the PRC from assistance, and require an action plan to achieve this graduation within two years. The bill would also require the Treasury Secretary to report to Congress on debt management assistance provided by the U.S. to BRI borrowing countries and other U.S. efforts at international financial institutions to promote PRC debt transparency.

Key Finding: The CCP's aggressive efforts to develop, expand, and dominate long-term nuclear energy relationships with other nations is a geostrategic and economic threat to the U.S. Without a robust and comprehensive approach to nuclear energy, the U.S. risks ceding global competitiveness to the PRC's state-owned enterprises that will undermine its national security interests and decrease its own technological and industrial capabilities in the long term while resulting in an increase to proliferation and safety risks.



U.S. global leadership on nuclear energy is losing ground on several fronts: decades of domestic policy choices have eroded the nation's nuclear industrial base, domestic energy competition and policies have led to the premature shuttering of high-performing generating stations, and competition from Russian and PRC state-owned enterprises has put U.S. companies at a disadvantage when engaging with other nations to supply services and build new reactors in those nations. For the past 20 years, two of every three new reactors that have been built around the world have been built by Russia or the PRC—including in critical emerging economies.

The PRC, using its predatory economics, is currently building or planning to build 20 reactors across multiple countries and is projected to surpass the U.S. in nuclear power generation in ten years. Meanwhile, as a recent analysis released by DoE observed, "the U.S. is entirely absent from the global new build nuclear reactor market with no foreign orders."

The U.S. is ceding the strategic energy and diplomatic partnerships forged through nuclear commerce to the PRC. The net effect of this dynamic, if it is not reversed, will undermine 70 years of U.S. nuclear energy strategy, which recognized that U.S. promotion and engagement on peaceful uses of nuclear energy would serve not only the welfare of nations but the strategic security interests of the U.S.

The current Administration recognizes the importance of civilian nuclear relationships and their role in its strategic competition with the CCP, as indicated in its "Restoring America's Competitive Nuclear Energy Advantage: A Strategy to Assure U.S. National Security," but more must be done to restore civilian nuclear policy to its rightful place in U.S. security and energy policy decision-making.²³⁹

Recommendation: Congress should elevate nuclear energy, and related engineering, technological, and industrial capacity, as a national security imperative, with the requisite attention of the White House in coordination with the DoS, DoE, DoC, and DoD. The President should do this through Presidential memorandum, which would lead to appropriately valuing and accounting for nuclear energy's national security attributes that transcend conventional domestic energy supply issues.

Recommendation: Congress should strengthen the U.S.' competitive position in global nuclear markets through the expanded export of nuclear technology, which will require strengthening financing mechanisms and developing collaborative relationships with U.S. allies to support private industry exports of nuclear technology to compete with PRC state-owned enterprises. The Administration's recommendation to designate a senior Administration position dedicated to leading nuclear export coordination among relevant agencies should be implemented by the President or Congress.²⁴⁰ Enhancing, supporting,

and developing the U.S. domestic civilian nuclear energy industry and its supply chain and increasing U.S. governmental engagement on international nuclear safety, safeguards, and licensing will support restored U.S. leadership.

Recommendation: Congress should pass H.R. 7405, the Strengthening American Nuclear Competitiveness Act, which would improve nuclear competitiveness and commerce by identifying regulatory, commercial, and liability barriers to domestic and foreign competition and by updating Atomic Energy Act procedures to expedite DoE decisions and approvals for certain nuclear technology exports.

Recommendation: Congress should pass H.R. 7406, the Nuclear Licensing Efficiency Act, which would remove regulatory barriers to the commercial licensing and deployment of nuclear technologies, including advanced nuclear technologies, which is necessary to restore a robust, globally competitive domestic industry.

Recommendation: Congress should pass H.R. 7814, the Nuclear Prosperity and Security Act, which would direct the Secretary of Energy to create a uranium reserve to build domestic fuel supply chain and ensure the U.S. maintains a domestic supply in the event of market disruption.

Key Finding: The CCP is looking for alternatives to a U.S.-driven Liquified Natural Gas (LNG) market. The U.S. should continue to lead in the investment and innovation in this sector and drive the international market for this resource.

U.S. innovation and technological developments have allowed the U.S. to become the world's number one producer of oil and gas, and to reap significant economic benefits. The shale revolution has created hundreds of thousands of jobs, and billions of dollars of development.

In the last decade, U.S. energy imports have plummeted, dramatically improving the U.S.' energy security. Today, as an emerging energy superpower, the U.S. stands as a beacon of hope for its allies who are forced to rely on the Middle East and Russia for their energy supplies. For 60 years, the U.S. has been a natural gas importer—now it has more than it can use and continues to be growing exporter. This is good for the U.S.' economy, national security, and allies around the world.

Until the shale revolution, U.S. supplies were dwindling, and the U.S. was importing natural gas. As you would expect, U.S. laws reflected that reality. However, the U.S. is in a completely different situation today as for the first time ever, the U.S. is a net exporter of natural gas. Now, in order to capitalize on this incredible opportunity, the U.S. needs to update its laws to remove unnecessary barriers to innovation and growth.

As dozens of studies have shown, including those sponsored by DoE, LNG exports provide wide-ranging net benefits to consumers and the economy. Removing unnecessary restrictions on these exports would help

create more open, transparent, and competitive markets for natural gas, which would, in turn, encourage more production in the U.S., create thousands of jobs, and spur further economic development that would benefit the nation as a whole. Critically, LNG exports also strengthen U.S. energy diplomacy to confront and respond to nation states, especially the PRC, that use energy as a weapon.

Recommendation: Congress should pass H.R. 7404, the Unlocking our Domestic LNG Potential Act of 2020, which would remove regulatory barriers to exporting and importing natural gas while maintaining Federal Energy Regulatory Commission (FERC) and Pipeline and Hazardous Materials Safety Administration regulations for LNG facilities. These changes will help ensure U.S. global energy leadership and competitiveness, in part because LNG exports will provide considerable security and economic benefits for the U.S. and U.S. partners in Asia and elsewhere.

Key Finding: The U.S. must maintain its energy independence and security as a net exporter of oil and gas for national security and economic prosperity, particularly in terms of pushing back on the CCP's BRI. The U.S. must also ensure supply chains associated with domestic oil and gas companies are secure and protected.

Today, the U.S. is the world's number one producer of petroleum and natural gas. Its markets are more open, transparent, and competitive than ever before. The U.S. has cut its imports by about seventy-five percent since they peaked in 2005.

The U.S. achieved this by repealing Carter-era supply and price controls to encourage a free market for energy commodities. The U.S. has taken steps to improve its regulatory policies, though there is more that can be done. Piece-by-piece, the U.S. has removed restrictions on energy trade to allow U.S. energy to compete in the global marketplace. Most recently, the U.S. repealed a 40-year ban on crude oil exports. Now, just two years later, the U.S. is exporting more than one-and-a-half million barrels per day of crude oil to countries around the world.

The shale revolution, now ten years in the making, has had an enormously positive impact on the U.S. economy. It also has had a big impact on the U.S. power sector, and with the shift to abundant and cheap natural gas, the country has seen a huge reduction in its carbon emissions. In fact, the U.S. is leading the world in reducing carbon emissions, with 2019 international reporting showing "the largest absolute decline among all countries since 2000."²⁴¹ Since peaking in 2005, U.S. carbon emissions have declined steadily, and this trend looks likely to continue.

The U.S. is seeing these benefits today—and as the U.S. emerges as a world leading LNG exporter—our trading partners will share in this good fortune. Stronger oil and gas industries domestically and the energy policies to match translate into additional opportunities to help U.S. allies abroad who are in need of reliable and affordable supplies of energy.

Recommendation: Congress should pass H.R. 7429, the Promoting Cross-border Energy Infrastructure Act, which would remove regulatory barriers to permitting cross-border pipelines and electricity transmission, which would strengthen North American energy security, a prerequisite for competing with PRC energy interests in the Western Hemisphere.

Recommendation: Congress should pass H.R. 3983, the Promoting Interagency Coordination for Review of Natural Gas Pipelines Act, which would streamline the natural gas pipeline permitting process at FERC, enabling a more efficient supply of U.S. energy production to domestic and global markets.

Key Finding: It is critical that the U.S. continue to enhance the security of its energy grid, particularly its bulk-power system (BPS). The U.S. should ensure that BPS equipment from foreign adversaries that pose security risks is not acquired, transferred or installed here in the U.S.

Over the past decade, as the U.S. has monitored the increased security threats its adversaries pose to the U.S.' electricity system, we have worked to ensure DoE has the authorities and tools necessary to detect and address threats to critical electric infrastructure, which is essential for the health and safety of all Americans. In May 2020, the President signed Executive Order 13920, "Securing the United States Bulk-Power System."

The BPS is vital to the reliable, secure delivery of electricity, supporting every aspect of our daily lives, work, and health, as well as the operations of various critical infrastructure, emergency services, and national defense. Current procurement practices by both the federal and private sectors may be exploited by our near-peer foreign adversaries, namely Russia and the PRC, with malicious intent. As such, Executive Order 13920 declared that threats by foreign adversaries, including the PRC, to the BPS constitute a national emergency.²⁴²

The Bulk-Power System Executive Order directs the Secretary of Energy to take additional steps to enhance the security of the U.S.' electric grid. Among other things, it prohibits federal agencies and U.S. persons from acquiring, transferring, or installing BPS equipment in which foreign adversaries have any interest and where the transaction poses an unacceptable risk to national security or the security and safety of American citizens. Additionally, it requires DoE to develop recommendations for the electric industry to isolate, manage, or replace equipment identified as posing a national security risk to the bulk power system. The Executive Order also creates a task force, led by the Secretary of Energy, to develop energy infrastructure procurement policies to ensure national security considerations are fully integrated into government energy security and cybersecurity policymaking.

Recommendation: Congress should strengthen DoE's existing authorities over the BPS and Critical Defense Electric Infrastructure. Given the critical role of electrical power across lifeline

sectors, the PRC could seek to disrupt the reliable supply and delivery of electrical power to protect public health, safety, and the common defense.

Defensive Tools: Protecting U.S. Industries and Technology from Malign Influence

Key Finding: Existing multilateral export control regimes, such as the Wassenaar Arrangement for conventional arms and dual-use goods and technologies, are too cumbersome to keep pace with rapidly evolving technological innovations. The CCP is exploiting weaknesses in the international system, including inconsistent licensing policies among Wassenaar members, to gain access to cutting-edge technology that strengthens its military and surveillance state to the detriment of U.S. national security and foreign policy interests.

Protecting critical technologies is vital to U.S. national security and economic competitiveness. However, in cutting-edge areas, like semiconductors, aerospace and aviation, quantum computing, and artificial intelligence, the U.S. adversaries are systematically diverting technology and evading export control laws to achieve military and economic superiority. These diverted technologies can be used in ways that threaten U.S. national security and foreign policy interests, including by supporting adversarial countries' weapons systems, hollowing out the U.S. industrial base, and facilitating massive human rights abuses.

Unfortunately, existing multilateral export control regimes, such as the Wassenaar Arrangement, are ill-equipped to prevent critical technologies from being acquired by arms embargoed countries, such as the PRC. With more than 40 members, including Russia, that make decisions based on consensus and have national discretion on licensing restrictions of controlled items, Wassenaar is slow-moving and its licensing standards are inconsistent. As a result, the U.S. may apply a rigid control on a technology, only to have other Wassenaar members fail to constrain their exporters in any meaningful way.²⁴³

Recommendation: Congress should pass HR 8329, To eliminate or substantially reduce the global availability of critical technologies to United States arms embargoed countries, and for other purposes, to direct the Administration to develop a strategy for export control diplomacy to focus on swift, agile agreements with key partners and allies who possess critical technologies, including semiconductor manufacturing equipment, that enhances the effectiveness of export controls and maintains U.S. leadership in innovation.

Key Finding: Because technology is central to achieving the CCP's goal of global preeminence, it will stop at nothing to gain access to it. Policies such as Military-Civil Fusion, Internet Sovereignty, and Made in China 2025 amount to an unprecedented attack on the global trade of technology and the U.S. export control regime. Industrial policies, including Made in China 2025, aim to hollow out the technological and manufacturing capabilities of the PRC's main trading partners with a concentrated focus on those that have leading capabilities such as the U.S. Through its Military-Civil Fusion strategy, the CCP is intertwining its military into its industrial and innovation base to extract technology obtained through commercial and civil licensing. partnerships, and trade interaction to achieve military superiority over its adversaries. Moreover, proliferating policies on cyber and national security give PRC officials - whose agencies typically have a dual enforcement and industrial policy mission - expansive authority to gain in-person and remote access to corporate information technology systems. Consequently, even companies in the PRC acting in good faith have no credible ability to safeguard licensed technology, wreaking havoc on any end-use and end-user agreement.

Policy updates to DoC rules on military end-use and end-user and civilian exemption, as well as the Foreign Direct Product Rule (FDPR) in the Export Administration Regulations (EAR) are necessary responses to PRC policies that intentionally attempt to evade or violate the Export Control Reform Act and the EAR. These rules give the U.S. government greater visibility into how dual-use technology is being sought by an opaque and amorphous PRC industrial complex that integrates the party, state, private sector, academia, and military to achieve global preeminence.

Recommendation: DoC must fully implement key aspects of the Export Control Reform Act of 2018 (ECRA), specifically the Emerging and Foundational technology control list. The absence of this control list impedes not only implementation of ECRA but also affects the authority of the Committee on Foreign Investment in the U.S. (CFIUS) to review PRC and other foreign investments in critical and emerging technology below a traditional threshold of foreign control.²⁴⁴ If DoC's Bureau of Industry and Security is unable to make substantial and measurable progress in fulfilling this requirement, Congress should consider whether a different bureau or department can better fulfill this statutory obligation.

Recommendation: The Administration should designate all entities on the June 2020 DoD list of PRC entities that are operating in the U.S. and are tied to the CCP military to the DoC Entity List, under a licensing policy of a presumption of denial. DoD and DoC should create a mechanism to ensure all future iterations of this DoD list and other lists that identify known military-linked entities are designated on the DoC Entity List.

Recommendation: The Administration should update its policy on end-use and end-user agreements in the PRC to recognize that the recipient of any technology will have no ability to refuse diversion to the PRC's military industrial complex no matter what it has promised its business partner. In other words, the U.S.

government should presume that any dual-use item that is exported to the PRC can and will be diverted to the PLA.

Recommendation: The Administration should aggressively expand end-use and end-user controls on PRC entities involved in or supporting the Social Credit system and other mass surveillance systems. The Administration should also reevaluate current technology controls and licensing policies on products and services that could be used for surveillance and are destined to the PRC to ensure U.S.-origin technology is not facilitating human rights and civil liberties abuses.

Key Finding: The PRC's investment regime – one of the most restrictive in the G-20 – blocks investment across large swaths of its economy, including key industries. This asymmetry in investment access creates an uneven playing field that disadvantages U.S. companies.

The PRC's Foreign Investment National Negative List expressly prohibits or restricts investment access in at least 40 industries, including cloud computing, telecommunications, and internet-related services. In addition, other regulatory tools – including licensing and approval regimes, antitrust, procurement, and standard-setting – often forestall or deny access, even in nominally open sectors. Consequently, U.S. companies are denied meaningful investment access to the PRC economy.

PRC companies, on the other hand, enjoy relatively few, if any, restrictions on investment in the U.S. For instance, Alibaba independently operates at least two cloud computing centers in the U.S. By comparison, U.S. cloud computing providers, such as Amazon Web Services and Microsoft, cannot independently obtain requisite licenses in the PRC, and are essentially required to transfer all ownership and operations to a PRC company, forcing the transfer of valuable IP as the cost of accessing the PRC market. These asymmetries in investment access persist despite years of bilateral and multilateral engagement to create investment regimes with reciprocal access.

Recommendation: The Administration, in coordination with U.S. trading partners, should enforce reciprocal treatment of PRC investment into the U.S. as a means to restore balance and open up the PRC economy to investment, if the PRC continues to restrict meaningful investment access to its market, including through joint venture requirements, discriminatory licensing, antitrust, standards setting, and procurement practices.

Key Finding: Investment and acquisition of U.S. and international companies is part of a multi-decade CCP strategy to control the commanding heights of critical technologies by making inroads with companies that possess emerging and foundational technologies and know-how in vital sectors, including life sciences and information technology.

Through CFIUS, the U.S. reviews and, if necessary, may recommend that the President prohibit investments by foreign persons that threaten our national security. CFIUS has enjoyed strong bipartisan support precisely for its narrow focus on resolving national security risks while otherwise maintaining America's open investment climate. This climate contributes to national security by spurring innovation, generating jobs, and sustaining economic growth.

In response to an increase in PRC acquisitions of U.S. businesses, Congress modernized CFIUS in 2018 through the Foreign Investment Risk Review Modernization Act (FIRRMA). While CFIUS could previously review investments conferring control of a U.S. business to a foreign person, FIRRMA expanded this jurisdiction to include certain non-controlling investments involving critical technologies, critical infrastructure, sensitive personal data, and real estate near national security-related sites. FIRRMA also brought with it a permanent reauthorization of export controls, which, in cooperation with U.S. partners, aims to protect the release of technologies essential for national security.

As of 2019, the PRC is the largest source of covered transactions for CFIUS, and PRC deals continue to run afoul of national security reviews. As recently as March of this year, the President prohibited the acquisition of StayNTouch, Inc. by a PRC firm following CFIUS' review. CFIUS also reviewed the national security implications of PRC ownership of TikTok, the popular video-sharing app, which led to an Executive Order on August 14, 2020 requiring divestment of TikTok by its PRC parent company, ByteDance Ltd.

While the U.S. has taken important steps to defend against malign investment, PRC acquisitions of critical assets in other advanced economies remains worrying. In order to confront Beijing's ambitions, a coordinated strategy on investment screening by the U.S. and its partners is essential.

Recommendation: Congress should fully fund DoT's CFIUS operations to enable outreach to U.S. allies and partners for the development of targeted investment screening regimes that protect against CCP's influence over critical technologies, critical infrastructure, and sensitive personal data, while also safeguarding an open investment climate conducive to global growth and the flow of capital. This is particularly important as the CCP's corrosive BRI is making inroads across the world.²⁴⁵

Recommendation: Congress should ensure that DoD and other CFIUS member agencies are executing section 1721(b) of FIRRMA by fully assessing their resource needs and procedures to effectively address investment risks, pursuant to the requirements of FIRRMA and recommendations by GAO.²⁴⁶

Recommendation: The Administration and Congress should regularly assess whether CFIUS is effectively addressing ever-changing and persistent CCP efforts to acquire U.S. technology through foreign investment, while

ensuring that robust export controls complement CFIUS's efforts and prevent the acquisition or use of critical technology and IP to end-users of concern.

Recommendation: The Administration should institute a CFIUS "blacklist" in its regulations to implement Section 721(a)(4)(E) of the Defense Production Act, which would focus on the PRC and other countries of concern that require heightened scrutiny for investments.

Key Finding: PRC officials, as well as their companies and supporters, are taking actions that threaten U.S. national security and foreign policy interests, including the facilitation of U.S. sanctions evasion.

DoJ and the UN have both described in detail how the PRC banking sector has, for years, facilitated the propping up of the regime in North Korea with financing that runs afoul of U.S. sanctions. However, the U.S. has not sufficiently targeted these PRC institutions for their malign activity. These financial institutions need access to the dollar to remain fully operational in international markets and the U.S. should use that leverage to minimize sanctions evasion activities and bring about behavioral change in Pyongyang.

While the case for imposing additional sanctions on the PRC is overwhelming, it is also essential to link those sanctions to clear objectives with respect to the CCP's behavior. Congress has become increasingly vocal on the need to hold sanctions accountable for achieving policy goals, particularly since these tools may lead to foreign countries diverting transactions away from the U.S. dollar. The dollar's centrality in the global financial system benefits the U.S., but for that very reason, the CCP has sought to increase international use of its currency in order to free itself from exposure to the dollar and U.S. sanctions. Responding to CCP directed efforts requires thoughtful and strategic use of sanctions, rigorous oversight from Congress to ensure results, and continued innovation in financial technologies to appropriately facilitate payments and trade connected to the U.S. dollar.

Recommendation: Congress should require the DoT, as it has teams dedicated to the North Korea and Iran threats respectively, to establish a dedicated team focused on the PRC. The team should include personnel with expertise in policy, enforcement and compliance, licensing, and regulations, and have a sufficient number of Mandarin speakers to implement existing authorized financial sanctions regimes against the CCP threat.

Recommendation: The Administration should carry out enforcement actions and sanction PRC banks responsible for North Korea sanctions evasion, including through more rigorous implementation of the bipartisan Otto Warmbier North Korea Nuclear Sanctions and Enforcement Act (P.L. 116-92).

Key Finding: As a result of the U.S.' openness to business and entrepreneurship, PRC companies have access to U.S. capital and investment markets. All these companies are connected to the CCP in some manner and many are complicit in human rights abuses. One of the CCP's aims is to hollow out U.S. manufacturing.

Our federal workforce, investors, and capital markets have become increasingly exposed to companies that are based in or have significant operations in the PRC. The inability to monitor compliance or enforce certain regulatory standards for these issuers is concerning. To that end, the U.S. should ensure that PRC-based companies adhere to its regulatory standards.

At the core of the Securities and Exchange Commission's (SEC's) efforts to protect investors, preserve market integrity, and facilitate capital formation is the U.S.' principles-based disclosure framework. This framework, together with oversight and enforcement, allows the SEC to perform its mission. There are certain obstacles related to our inability to ensure key elements of the U.S. regulatory framework are adhered to in the PRC.

The Sarbanes-Oxley Act and the Public Company Accounting and Oversight Board's (PCAOB's) rules impose requirements on PCAOB-registered firms that perform audit work for public companies, including providing complete and timely access for PCAOB inspections. The PCAOB works with audit regulators in other jurisdictions on specific legal requirements of individual jurisdiction, while continuing to adhere to their statutory mandate. However, the PCAOB is unable to conduct inspections of the audits of public companies with PRC-based auditors – which includes most public companies with significant PRC-based operations.

According to the SEC and the PCAOB, as of December 2018, there were 224 U.S.-listed companies where the PCAOB faced obstacles in inspecting the company's principal auditor's work.²⁴⁷

On June 4, 2020, the President issued a Presidential Memoranda on Protecting U.S. Investors from Significant Risks from Chinese Companies to direct the Presidential Working Group (PWG) on Financial Markets to suggest actions the Executive Branch could take to protect U.S. investors from the failure of the PRC government to allow PCAOB-registered audit firms to comply with U.S. securities laws.²⁴⁸ The PWG on Financial Markets Report included a number of recommendations to address: (1) PCAOB's inability to inspect the audit work and practices of PCAOB-registered auditing firms in the PRC, (2) a lack of high-quality issuer and fund disclosure around the risks of investing in companies that are based in or have significant operations in the PRC, (3) due diligence standards of index providers regarding the implications of different standards when considering issuers to include in an index, and (4) fiduciary obligations of investment advisers that are recommending investments in emerging markets.²⁴⁹ The SEC is preparing proposals in response to the PWG on Financial Markets recommendations for consideration by the Commission.

Recommendation: Congress should pass legislation to address concerns that the SEC and the PCAOB are unable to inspect audit work and practices of PCAOB-registered auditing firms in the PRC, such as H.R. 7000, the Holding Foreign Companies Accountable Act. H.R. 6395 in the FY2021 NDAA included substantially similar provisions, and Congress should maintain those provisions in NDAA. In addition, Congress should support the SEC as it promulgates rules relating to the PCAOB's inability to inspect the audit work and practices of PCAOB-registered auditing firms in the PRC.

Recommendation: Congress should support SEC reforms to improve disclosures relating to emerging market investment risk, including the risks of investing in the PRC, and other PWG recommendations. Where appropriate, Congress should supplement the SEC's forthcoming reforms with legislation.

Recommendation: Congress should consider additional legislation regarding disclosures relating to PRC-related investment risk, such as H.R. 8197, the Transparency in Chinese Government Investment Act, which would require the SEC to assess whether it is appropriate for PRC issuers to disclose information regarding certain support provided to, or received by, the government of the PRC, as well as senior positions held at the issuer by members of the PRC government or the CCP.

Recommendation: Congress should consider legislative proposals regarding the risks of investing in PRC companies in retirement accounts. H.R. 6614, the Taxpayers and Savers Protection Act, a bipartisan measure would prevent the federal Thrift Savings Plan from investing in any security that is listed on exchanges located in jurisdictions where the PCAOB is unable to inspect registered accounting firms – which would include companies listed on PRC exchanges. Congress should ensure that retirement account investments are fair to all investors and provide appropriate investor protections without unduly restricting investment opportunities.

Recommendation: Congress should consider legislative proposals to examine capital flows to PRC entities that threaten U.S. national security. For instance, H.R. 8407, the Protecting National Security in Financial Investments Act, which would require the SEC to assess whether it is appropriate to require the disclosure of information related to investments in entities on the Bureau of Industry and Security of the DoC Entity List. Additionally, this bill requires the creation of a DoS list of Entities of the PRC that Threaten United States National Security List. Under current law, all companies and individuals designated on the Entity List are threats to U.S. national security and foreign policy interests and are subject to certain licensing requirements—typically under a presumption of denial—for technology items. It is critical that Congress and the Administration address capital flows to entities that threaten U.S. national security and foreign policy goals.

CHAPTER VI: COMPETITIVENESS

Introduction

For more than a century, the U.S. has led the world in innovation and economic competitiveness. American ingenuity has produced breakthrough technologies that improve our quality of life, produce high-paying jobs for U.S. workers, and give the U.S. a strategic advantage over global competitors.

But today U.S. leadership in innovation is under threat. The CCP aims to replace the U.S. as the economic, military, and political leader of the world by 2049. As part of that plan, the CCP has increasingly tried to copy the U.S. innovation playbook.²⁴⁹ To achieve its goal, the CCP is pursuing an agenda to overtake the U.S. in innovation through massive subsidies, state-directed industrial policy, and theft of U.S. knowledge and research. Since WWII, the U.S. partnership between government, universities, and industry for driving innovation has been the most successful model in the world. This system must be preserved and renewed. The U.S. needs a proactive, offensive agenda to increase its competitiveness and secure its leadership on the world stage.

"We assess that China's intelligence services will exploit the openness of American society, especially academia and the scientific community, using a variety of means. For 2019 and beyond, the innovations that drive military and economic competitiveness will increasingly originate outside the U.S., as the overall U.S. lead in science and technology (S&T) shrinks; the capability gap between commercial and military technologies evaporates; and foreign actors increase their efforts to acquire top talent, companies, data, and intellectual property via licit and illicit means...Chinese President Xi Jinping and Russian President Vladimir Putin, view strong indigenous science and technology capabilities as key to their country's sovereignty, economic outlook, and national power."

- Director of National Intelligence Daniel Coats 250

The U.S. maintains an innovation edge over the PRC and other international competitors, but there are three areas that the Administration and Congress should focus on to ensure future U.S. competitiveness: supporting macrolevel policies and investments that drive innovation, developing an American workforce to compete, and protecting the integrity of U.S. research and innovation.

Supporting U.S. Innovation through Macro-Level Competitiveness Measures

The U.S. must drive innovation through macro-level policies that promote pro-growth tax rates, incentivize private sector investment in R&D, invest in federal basic research, reform regulations, and ensure patent rights.

Key Finding: The CCP is attempting to use massive subsidies and state-directed industrial plans to overtake U.S. leadership in innovation and advanced manufacturing, seeking to undermine the U.S. ability to attract domestic manufacturing and spur cutting-edge innovation.

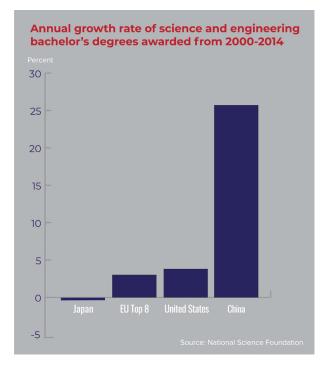
The Tax Cuts and Jobs Act (TCJA) reduced the U.S. corporate tax rate to a globally competitive level (21 percent). This change triggered a global response, with six other countries subsequently lowering their corporate tax rates. In the coming years, other countries will likely seek to attract business investment by undercutting the U.S. rate.²⁵¹ TCJA spurred long-term U.S. investments in machinery and equipment by allowing businesses to fully deduct the cost of those investments in the tax year in which they occur, but this provision is set to begin phasing out in 2023.

Recommendation: Congress and the Administration should keep tax rates globally competitive and remain vigilant if the PRC or other foreign competitors seek to undercut U.S. rates

Recommendation: Congress should pass H.R. 7749, the Bringing Back American Jobs Through Intellectual Property Repatriation Act, which would support innovation and high-paying jobs in the U.S. by allowing U.S. companies to bring back to the U.S. IP that is held offshore without immediate U.S. tax consequences.

Recommendation: Congress should pass H.R. 6802, the Accelerate Long-term Investment Growth Now Act, which would incentivize long-term investments by making permanent the opportunity for businesses to fully deduct investments in business machinery and equipment in the tax year in which they occur.

Key Finding: The PRC has likely surpassed the U.S. for the first time in aggregate spending on R&D. To remain competitive, the U.S. must prioritize federal investment in basic research and incentivize private sector investment in R&D in the U.S. through a whole-of-government effort.



The National Science Board estimates that the PRC surpassed the U.S. in total R&D spending for the first time in 2019, making it the global leader in funding R&D.²⁵² While U.S. spending on R&D grew modestly between 2000 and 2017, driven mainly by the business sector, the U.S. global share of R&D has declined from 37 percent to 25 percent as other nations accelerate their investments.

In the PRC, the government is the primary driver of R&D spending. The PRC increased public R&D spending by 56 percent between 2011 and 2016, while U.S. government investment declined 12 percent. The federal government plays an important role in funding basic research that industry does not have a strong incentive to invest in, as well as areas of critical importance to national and economic security. In 2017, the U.S. invested \$92 billion in basic research, while the PRC came in a distant second, investing \$27 billion. The majority of the PRC's R&D expenditures have been in experimental development.²⁵³ U.S. public and private investment in basic research remains a strategic advantage and is a primary driver of U.S. innovation.

In the U.S., the business sector is now the largest funder of research. Industry's commitment to R&D is a strength of the U.S. innovation ecosystem. Robust R&D tax credits are highly effective in spurring private sector innovation. However, the PRC and other countries offer much more generous R&D tax credits than the U.S. does.²⁵⁴

In particular, while U.S. law currently allows businesses to fully deduct R&D costs in the year in which they occur, this provision is set to expire after 2021.

Recommendation: Congress should pass and support funding for H.R. 5685, the Securing American Leadership in Science and Technology Act, a bipartisan measure that establishes a national science and technology (S&T) strategy and quadrennial review process to establish a whole-of-government S&T plan to guide priorities: authorizes a doubling of basic research funding over the next ten years at DoE, the National Science Foundation, NIST, and the National Oceanic and Atmospheric Administration; invests in U.S. research facilities: prioritizes Science, Technology, Engineering, and Mathematics (STEM) education programs that will grow the U.S. workforce; and reforms government regulations to improve technology transfer and promote better collaboration between the federal government and private industry.

Recommendation: The Administration and Congress should work together to prioritize federal funding for basic research and accelerate investments in research for advancing the industries of the future. Congress should also evaluate new mechanisms for funding the transition of federally funded basic research to private sector commercialization in key technology areas.

Recommendation: Congress should pass H.R. 7766, which would improve tax incentives to conduct R&D in the U.S. by doubling the current R&D tax credit and increasing the small business portion allowed against payroll taxes to help maintain U.S. leadership on innovation.

Recommendation: Congress should pass H.R. 4549, the American Innovation and Competitiveness Act, a bipartisan measure which would eliminate the R&D amortization provision that begins in 2022, so that businesses may deduct R&D costs immediately instead of slowly over a five-year period.

Recommendation: The Administration should continue to expand public-private partnerships between the federal government, universities, national laboratories, and industry to leverage resources and accelerate the movement of early stage research to commercialization.

Recommendation: The Administration should continue to pursue bilateral agreements for international cooperation on science and technology projects and research with allies and likeminded nations, to advance the progress of science and U.S. competitiveness.

Recommendation: The Administration should leverage existing programs to improve regional innovation across all geographic areas of the U.S. such as the Regional Innovation Strategies program at DoC and the Established Program to Stimulate Competitive Research (EPSCoR), to ensure that the U.S. capitalizes on all S&T talent from across the nation and that all communities have the opportunities to develop and benefit from the industries of the future.

Key Finding: Federal regulations must be updated to maximize return on investment from taxpayer funded research. Current laws and regulations are outdated and lack clarity, creating barriers for U.S. entrepreneurs moving research from lab to market, while the CCP remains singularly focused on achieving a technological advantage over the U.S.

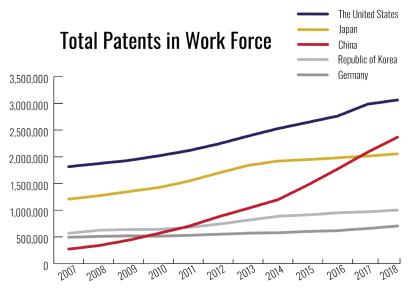
The Bayh-Dole Act of 1980 was landmark legislation for U.S. innovation, enabling universities to retain titles to inventions and take the lead in patenting and licensing groundbreaking discoveries, which spurred inventions out of the lab and into commercialization by the private sector. While that system must be preserved, federal technology transfer laws, such as Stevenson-Wydler and the Federal Technology Transfer Act, were largely written prior to the internet and the emergence of the digital economy.

NIST and the White House Office of Science and Technology Policy undertook a more than year-long effort consulting with several hundred experts and organizations representing thousands of companies, universities, and institutions, to address how to update federal laws and regulations to maximize innovation from taxpayer funded research. The result was a green paper, "Return on Investment Initiative for Unleashing American Innovation." ²⁵⁵

Recommendation: The Administration and Congress should address all 15 key findings in the green paper released by NIST, "Return on Investment Initiative for Unleashing American Innovation," including streamlining federal regulations to enhance technology transfer from lab to market, creating greater flexibility for public-private partnerships, and making it easier for joint public-private funding opportunities for research.²⁵⁶ H.R. 5685, the Securing American Leadership in Science and Technology Act, which is previously mentioned, proposes modifications to the Stevenson-Wydler Technology Innovation Act to address several of these findings that require statutory changes.

Key Finding: The CCP has taken steps over the past decade to rapidly modernize and strengthen its patent system to better compete with the U.S. The CCP has realized that a robust patent system creates powerful incentives for innovation, technological development, and economic growth. Continuing to improve the U.S. patent system is vital to maintaining our technological leadership and the competitiveness of the U.S. innovation economy. Therefore, it is critical to ensure that the U.S. Patent and Trademark Office (USPTO) is operating effectively and has the resources necessary to accomplish its mission.

The U.S. patent system has helped foster U.S. leadership in technology for over a century, and the CCP seeks to replicate that success in the PRC. For example, more international patent applications under the Patent Cooperation Treaty (PCT) have come from the U.S. than any other nation each year since the PCT entered into force in 1978, until the PRC overtook the U.S. for the first time in 2019.²⁵⁷ This recent lead in the annual rate of new patent application filings does not yet indicate that the PRC's patent system has surpassed the U.S. patent system, particularly given the PRC patent system was moribund for decades. When considered with other available information on the impact of the CCP's technology policies, however, it appears it is quickly catching up to the U.S.



Source: WIPO Statistics Database

Recommendation: The Administration should continue to prioritize reducing the time required for the USPTO to complete examination of patent applications; average pendency in 2018 was 23.8 months, which was longer than that of the PRC patent office (Chinese National Intellectual Property Administration (CNIPA) as well as the patent offices of Japan and South Korea.²⁵⁸,²⁵⁹

Recommendation: The Administration should continue to prioritize modernizing and upgrading the IT systems of the USPTO to facilitate the work of patent examiners. Congress and the Administration should work together to ensure that the USPTO, which is fully fee-funded, has full access to its fee collections for its operations, including its IT modernization efforts, and that fees are not diverted and remain entirely dedicated to the USPTO.

Recommendation: Congress and the Administration should monitor whether CNIPA or other elements of the PRC government provide any unfair advantages or preference to PRC patent applicants over foreign applicants, including U.S. applicants, in violation of international agreements.

Developing an American Workforce to Compete

The U.S. needs flexible STEM-capable workers at every education level to spur innovation and meet the demands of U.S. companies and the industries of the future. A competitive U.S. workforce also requires an education system responsive to the needs of workers pursuing upskilling opportunities throughout their life. Middle-skill jobs, or positions that require education beyond high school but not a baccalaureate degree, will be the plurality of job openings (48 percent) through 2024.260 Advances in technology and automation will require workers to learn new skills and adapt to different occupations. A report by the McKinsey Global Institute estimates that 166 million U.S. workers, or up to 32 percent of the workforce, may need to switch occupational categories between 2016 and 2030.261 The effects of the COVID-19 pandemic increase the urgency of those projections.

The U.S. needs to improve federal investments in education to meet the demands of the 21st century and provide opportunities to all Americans. Federal subsidies of the education and workforce systems need to be reformed to encourage lifelong learning and keep skills education accessible and affordable. The U.S. also needs to continue to attract the best and brightest STEM talent from around the world, or risk falling behind in the global race for talent and losing its competitive advantage in innovation.

Key Finding: The U.S. must harness its domestic talent by creating a STEM-capable, skilled workforce to remain competitive in the global economy, foster innovation, and provide a foundation for shared prosperity. Because the CCP is ensuring a whole-of-society approach to gain an economic edge, the U.S. must produce a strong, adaptable domestic workforce capable of sustaining its pro-growth innovative and technological advantage.

STEM employment in the U.S. – made up of occupations like software developers, computer system analysts, chemists, mathematicians, economists, psychologists, and engineers – has grown more rapidly than the workforce overall and now represents five percent of all U.S. jobs. According to the most recent estimates, the U.S. awarded nearly 800,000 science and engineering bachelor's degrees in 2016. The PRC produced 1.7 million equivalent degrees. PRC students earning U.S. science and engineering doctoral degrees has increased by more than seven times in the last 20 years. The number of such degrees in the PRC has doubled over the past 10 years, with engineering accounting for nearly 70 percent of those degree awards.

While annual U.S. federal expenditures on STEM initiatives exceed \$3 billion across over 160 different programs, the number of U.S. students prepared for STEM degrees, pursuing STEM degrees, and staying in STEM careers continues to lag. College costs are also rising faster than inflation and have for decades, thereby increasing the risk associated with taking on debt and trying to earn a degree. Even after successfully completing a degree program many students find themselves underemployed.

A 2018 GAO report found that federal STEM education efforts were not meeting goals set by Congress. GAO found duplication of effort and that the interagency Committee on STEM Education had not fully met its responsibilities to assess the federal STEM education portfolio, including reviewing programs' performance assessments. It also found that there was a need to encourage the use of evidenced-based practices across the portfolio.

The Administration has made significant progress in addressing these deficiencies. In 2018, the Administration released a five-year STEM Strategic Plan. The plan strengthens the federal commitment to equity and diversity, to evidence-based practice, and to engagement with the national STEM community through a nationwide collaboration with learners, families, educators, communities, and employers. However, Congress and the Administration still have work to do to implement this strategic vision.

A postsecondary education system that does not prepare students for careers has real consequences for employers and society. Just 13 percent of the country believes college graduates are well prepared for success in the workplace.²⁶² This is especially concerning as the PRC now produces twice as many college graduates per year as the U.S., and a substantial portion of those graduates are a result of the CCP's push to develop a technical workforce to drive innovation.²⁶³ The U.S.' educational system cannot afford to lag behind. Experts project changes in educational settings will be necessary to help people stay employable in the workforce of the future. The National Academies of Sciences declared that the "education system will need to adapt to prepare individuals for the changing labor market,"264 and it is clear that U.S. workers have internalized this insight. A

2016 Pew Research Center survey found that 87 percent of workers believe it will be important or essential for them to get additional education and develop new job skills throughout their work life in order to keep up with changes in the workplace.²⁶⁵ Instead of going to college, getting an associate or baccalaureate degree, and not pursuing further education, many Americans now understand they must adopt a mindset of lifelong learning in order to get a job and stay employed.

Many employers recognize there is a disconnect between educational programs and in-demand skills, and they are making investments to benefit their employees and the national economy. **Walmart, FedEx, Starbucks**, and **Disney** all offer free tuition to their lower-wage employees.²⁶⁶ Countless other high-profile employers offer some form of tuition reimbursement benefit program to dedicated employees including Amazon, Best Buy, Chick-fil-A, Deloitte, Home Depot, McDonalds, Oracle, Target, and Verizon.²⁶⁷ According to the Society for Human Resource Management's 2019 Employee Benefits Survey, more than half of U.S. employers provide education assistance to their workers.²⁶⁸

Companies are doing more than simply paying for continuing education. Employers are also working to make sure the education provided is a valuable pathway to a sustainable career. IBM's Pathways in Technology Early College High Schools provide their public-school students with skills education. The Business Roundtable's Workforce Partnership Initiative is working with colleges and universities to increase STEM skills, fill high-demand jobs, and assist underrepresented populations in STEM fields.²⁶⁹ The Manufacturing Institute and the National Association of Manufacturers are leading the Creators Wanted campaign to reduce the skills gap in the U.S.²⁷⁰ Other efforts, like the Kentucky Federation of Advanced Manufacturing Education program, implement earn-and-learn programs to create a pipeline of highly skilled workers.²⁷¹ The private sector recognizes a college degree is not a perfect proxy for occupational competence. Not all family-sustaining jobs require a postsecondary degree. Congress should encourage the transition to skills-based hiring, which prominent entities like the federal government, Apple, and Alphabet are embracing.

Private sector investment and instruction plays a crucial role in building a strong domestic workforce, but federal laws governing higher education and workforce development programs must catch up to these innovations if the nation wants to maintain its competitive edge over the PRC.

Recommendation: Congress should evaluate, consolidate, coordinate, and fund federal STEM efforts to empower local entities and families, particularly at the elementary through secondary school levels, with the tools they need to meet the STEM educational needs of their communities and the industries of the future.

Recommendation: Congress should update the COMPETES Act of 2010, directing the National Science and Technology Council's (NSTC) Committee on STEM Education (CoSTEM) to address the fractured STEM financing mechanism with a unified approach that develops strategic partnerships with states and employers, engages students across different platforms, and uses common metrics to measure progress and inform the public on STEM.

Recommendation: Congress should reform the Higher Education Act of 1965 (HEA) to create the framework necessary to transition from a degree-based economy to a skills-based workforce, which will feature earn-and-learn programs and a lifelong learning flexibility. Reforming the HEA by allowing for growth in dual enrollment, shorter-term program Pell Grant eligibility and stackable credentials and apprenticeships will make college more affordable and less risky for students and help future generations fill high-skill, in-demand jobs.

Recommendation: Congress should pass H.R. 7321 the Elevating America's Workforce Act, a bipartisan measure that would amend the Workforce Innovation and Opportunity Act to include personal reemployment accounts instead of pushing workers through the unemployment insurance system. Congress should update the Workforce Innovation and Opportunity Act to support incumbent and unemployed worker upskilling efforts. Congress must increase funding flexibility by including larger set-asides for incumbent worker training and by increasing reimbursement for on-the-job education. More funds can be directed through the governor's reserve to improve local employment needs. These policies will help the American workforce compete with the PRC over the next decade in a post-pandemic economy.

Recommendation: Congress should ensure final passage of H.R. 4372, the MSI STEM Achievement Act; H.R. 4979, The Rural STEM Education Act; and H.R. 2528, The STEM Opportunities Act, all bipartisan measures that increase diversity, equity, and inclusion in STEM and promote access for all Americans with access to high-quality STEM education.

Recommendation: Congress and the Administration should work together to expand the U.S.' successful STEM talent programs, including growing the National Science Foundation's Graduate Research Fellowships program to 2,500 students a year and increasing the number of qualified K-12 STEM educators by doubling the number of Noyce Teachers Scholarships over 10 years, as proposed

in previously recommended H.R. 5685, the bipartisan Securing American Leadership in Science and Technology Act.

Key Finding: The U.S. must compete in the global race for talent by working to attract and retain the best and brightest minds to contribute to the U.S. economy and drive U.S. productivity.

The U.S. has long relied on attracting foreign talent to fill STEM jobs, where the demand is greater than the domestic supply of highly skilled workers. As of 2017, over 40 percent of the U.S. doctoral-level workforce was foreign-born. In computer sciences, mathematics, and engineering, nearly 60 percent of PhD holders in the U.S. workforce are foreign-born. At the same time, the U.S. share of international students has declined slightly, as have "stay rates" for foreign students after receiving their degree.

The U.S. was long the top destination for the best and brightest students in the world, but more countries than ever are now competing for this talent. The CCP has a two-pronged approach for attracting STEM talent: a United Front effort to return PRC-born students and workers abroad back to the PRC through incentives and coercion and attracting non-PRC STEM students and researchers through immigration reforms and incentives. The PRC announced in 2017 that it was expanding its foreign talents work visa beyond "urgently needed talents" to include "scientists, entrepreneurs, and leading experts in science and technology industries." These reforms were followed in 2018 by the liberalization of permanent residency requirements.²⁷² However, the PRC has not yet supplanted the U.S. as the primary destination of choice for STEM talent.

The U.S. cannot afford to take for granted that it will remain the destination of choice for STEM students. While developing a domestic STEM workforce should remain a priority, in the near and medium term the U.S. will remain reliant on foreign talent.

The number of PRC students earning U.S. science and engineering doctoral degrees has increased by more than 7 times in the last 20 years

Recommendation: The United States remains the most sought after destination for high skilled foreign-born workers from around the world. The global race for talent is in full swing and the U.S. cannot afford to lose its competitive edge.

The U.S. immigration system is a generous one that must be updated to meet the needs of the modern economy. This means making a shift towards a more "merit-based" immigration system that remains mindful not to harm the employment prospects of qualified American workers, particularly as the economy reopens in the aftermath of COVID-19.

Protecting the Integrity of American Research and Innovation

The foundation of U.S. competitiveness is the integrity of the innovation system. The core principles and values of science are openness and transparency, accountability and honesty, impartiality and objectivity, respect, freedom of inquiry, reciprocity, and merit-based competition. While international collaboration and foreign contributions are critical to the success of U.S. competitiveness, the U.S. must take steps to protect the integrity of its research.

The full scope of the CCP's influence and presence in the U.S. is not entirely known by the public, but in remarks before the Hudson Institute in July 2020, FBI Director Christopher Wray disclosed that the FBI is opening a new PRC-related counterintelligence case about every 10 hours and that of the nearly 5,000 active FBI counterintelligence cases currently underway across the country, almost half are related to PRC.²⁷³

[T]he use of nontraditional collectors, especially in the academic setting, whether it's professors, scientists, students, we see in almost every field office that the FBI has around the country. It's not just in major cities. It's in small ones as well. It's across basically every discipline. I think the level of naiveté on the part of the academic sector about this creates its own issues. They're exploiting the very open research and development environment that we have, which we all revere, but they're taking advantage of it."

- FBI Director Christopher Wray 274

Key Finding: The CCP seeks to exploit the openness of the U.S. academic and research system to accelerate its technological capabilities at the U.S. taxpayer's expense. The U.S. must strengthen transparency, disclosure, and accountability of foreign funding and conflicts of interest to protect the integrity of the research enterprise and ensure academic freedom.

Transparency and more disclosure are needed to properly assess the risks of foreign relationships and partnerships

to the U.S. research enterprise. A study commissioned by the National Science Foundation and carried out by JASON, the independent science advisory group, found the actions of the PRC government and its institutions are not in accord with U.S. values of science. The study states, "JASON reviewed classified and open-source evidence suggesting that there are problems with respect to research transparency, lack of reciprocity in collaborations and consortia, and reporting of commitments and potential conflicts of interest, related to these actions." ²⁷⁵

Of particular concern are PRC military-affiliated researchers studying and working in the U.S. who are not disclosing that relationship. Although these researchers represent a small fraction of the approximately 370,000 PRC citizens who study in the U.S. as part of international academic exchanges, recent actions by the PRC in the face of an order by the DoS to close the consulate in Houston suggests there are significantly more PRC military-affiliated researchers than previously reported who have evaded government detection.²⁷⁶

On May 6, 2019, the White House Office of Science and Technology Policy established the Joint Committee on the Research Environment (JCORE) through the National Science Technology Council, with a Subcommittee on Research Security. At the direction of Congress in the bipartisan Securing American Science and Technology Act (P.L. 116-92), the Subcommittee is developing recommendations for appropriate and effective risk management; developing consistent, coordinated, and effective outreach to and engagement with academic and research institutions; coordinating guidance for federal agencies; and issuing recommendations for academic and research institutions. The Subcommittee is also working with the Science and Security Roundtable, established by the National Academies of Sciences, Engineering, and Medicine at the direction of the FY2019 NDAA. The Roundtable was established as an ongoing forum for academia, federal research agencies, law enforcement, and the national security agencies to collaborate and share information.

Recommendation: The Administration should issue uniform and coordinated requirements for researchers and universities across all federal agencies to protect federally funded R&D from foreign interference, through the process established in the bipartisan Securing American Science and Technology Act (P.L 116-92). These guidelines should include rules for disclosures of foreign sources of funding, conflict of interest, and clarification of penalties for noncompliance.

Recommendation: Congress should pass section 229 of H.R. 6395 in the FY2021 NDAA, which would require all federally funded researchers to disclose foreign sources of funding and enhances enforcement of disclosure requirements.

Recommendation: Congress and the Administration should work together to provide sufficient resources to federal research agencies and the Offices of Inspectors General to investigate cases of foreign espionage and research misconduct in federally funded research projects.

Recommendation: The Administration should continue to work with allied nations like the United Kingdom, Australia, Japan, Canada, and other key allies like the EU, to share best practices for deterring CCP influence in academia and the research enterprise that are contrary to the values and norms of the democratic international scientific community.

Key Finding: Foreign direct investment and influence in the U.S. higher education system is on the rise. Many U.S. institutes of higher education (IHE) receive large sums of so-called "anonymous" donations from U.S. foreign adversaries, including the PRC. Since July 2019, the Department of Education (DoEd) has uncovered over \$6.5 billion of previously unreported foreign donations to IHEs which have anonymized identities of donors, including at least \$1.14 billion in funds from foreign countries such as the PRC. It is concerning that IHEs have an apparently large dependency on foreign funding from adversarial states, which pose significant concerns to academic freedom and U.S. national security. Specifically, the PRC has spent approximately \$1.17 billion in gifts and contracts to IHEs between 2014 and 2019.

The Administration has sought to improve transparency and reduce reliance on foreign investment by actively enforcing Section 117 of the Higher Education Act of 1965, which requires colleges and universities to disclose contracts with, and gifts from, any foreign source of over \$250,000 to the DoEd.²⁷⁷ The DoEd has recently found multiple university contracts with CCP-subsidized firms, to include at least one institution with several contracts with the CCP.²⁷⁸

Recommendation: Congress should amend Section 117 of the Higher Education Act of 1965 to require colleges and universities to report annually all foreign donations received from foreign adversarial sources, including the PRC. Donations received from entities from adversarial nations should have the donor's name, employer, and reason for the donation publicly disclosed on a federal website. DoEd must work with federal agencies to vet potential security threats. All IHEs should also be required to report on how they used the gift.

Recommendation: Congress should pass H.R.7842, the Intelligence on Nefarious Foreign Leaders Using Education Networks for Corrupt Enrichment (INFLUENCE) Act, which would amend the Higher Education Act of 1965 to lower the reporting threshold triggering universities responsibility to report to DoEd any foreign gift to \$50,000, require schools to report to DoEd on the nature of any contracts

with foreign nationals on sensitive projects, and establish interagency coordination on the enforcement of any violations exposing U.S. national security projects.

Key Finding: The CCP has a coordinated global campaign to recruit overseas S&T experts through talent programs like "Thousand Talents" and other efforts, to obtain knowledge and IP through coercive or fraudulent means

The CCP operates more than 200 foreign talent recruitment plans, such as the "Thousand Talents" program, as part of a strategy to obtain expertise, knowledge, and IP from abroad. Many countries, including the U.S., use legitimate talent programs to develop early-career STEM researchers. The CCP's talent programs are not legitimate programs for developing STEM talent, but rather require participants to operate in secrecy and in some cases contractually obligate participants to illegally transfer information and property. The threat of the "Thousand Talents" program was well documented in a 2019 staff report by the bipartisan Permanent Subcommittee on Investigations of the Senate Homeland Security and Governmental Affairs Committee, "Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans,"279

> Case Study: In January 2020, Dr. Charles Lieber, chair of Harvard's Department of Chemistry and Chemical Biology, was indicted for making false statements to federal authorities about participation. The U.S. has alleged that Lieber concealed from both Harvard and the NIH his position as a scientist at a Chinese university, and the fact that the Chinese government was paying him, through the Wuhan University of Technology (WUT). Under the terms of Lieber's three-year Thousand Talents contract, WUT paid Lieber \$50,000 USD per month, living expenses of up to 1.000.000 Chinese Yuan (approximately \$158,000 USD at the time) and awarded him more than \$1.5 million to establish a research lab at WUT. In return, Lieber was obligated to work for WUT "not less than nine months a year" by "declaring international cooperation projects, cultivating voung teachers and Ph.D. students, organizing international conference[s], applying for patents and publishing articles in the name of" WUT. At the same time Lieber was receiving federal grants from NIH and DOD. It is also alleged that in 2018 and 2019. Lieber lied to federal authorities about his involvement in the Thousand Talents Plan and his affiliation with WUT.

Recommendation: The Administration should restrict all federal employees and federal contractors from participating in foreign talent programs, similar to the restriction implemented by DoE, which defines a talent recruitment program as "any foreign-state-sponsored attempt to acquire U.S. scientific-funded research or technology through foreign government-run or funded recruitment programs that target scientists, engineers, academics, researchers, and entrepreneurs of all nationalities working or educated in the U.S."

Key Finding: The CCP has targeted U.S. research through cyber intrusions and cyber-theft, including COVID-19 related research. The U.S. must ensure strong cyber protections and penalties for cyber theft of U.S. IP and research.

Cyber intrusions and cyber-theft are another tool the CCP uses to obtain U.S. research, personal information, and IP by illicit means.

In May 2020, the FBI and DHS issued an alert regarding the PRC targeting of organizations conducting COVID-19 research. The warning stated,

The FBI is investigating the targeting and compromise of U.S. organizations conducting COVID-19-related research by PRC affiliated cyber actors and nontraditional collectors. These actors have been observed attempting to identify and illicitly obtain valuable IP and public health data related to vaccines, treatments, and testing from networks and personnel affiliated with COVID-19-related research. The potential theft of this information jeopardizes the delivery of secure, effective, and efficient treatment options.²⁸⁰

As has been previously mentioned in this report, in July 2020, the DoJ indicted two hackers, both nationals and residents of the PRC, with hacking into the computer systems of hundreds of victim companies, including those developing COVID-19 vaccines, testing technology, and treatments. According to the indictment, the defendants in some instances acted for their own personal financial gain, and in others for the benefit of the PRC Ministry of State Security or other PRC government agencies. The hackers stole terabytes of data which comprised a sophisticated and prolific threat to U.S. networks.²⁸¹

Recommendation: Congress should pass H.R. 7708, the Defend COVID Research from Hackers Act, which would authorize the President to impose sanctions on any foreign person that engages in cyber-related activity that threatens the U.S.' national security or economic health, including hacking researchers who are developing a vaccine to COVID-19, and gives the President certain power to block the property of such foreign actors and ban them from traveling to the U.S.

Recommendation: Congress should pass H.R. 7998, the NIST COVID-19 Cyber-Security Act, which would require the Director of NIST to issue resources and guidance to universities and research institutions to protect research, including COVID-19 research, based on the NIST Cybersecurity Framework.

Recommendation: Congress should pass section 1256 of H.R. 6395 in the FY2021 NDAA, which would require the President to produce a whole-of-government strategy to impose costs on, and achieve deterrence toward, the CCP for cyber-enabled corporate espionage and personal data theft.

Recommendation: Congress should pass H.R. 3611, the Securing American Research from Cyber Theft Act, which would create a pilot project for a nationwide network of secure computing enclaves for sensitive federally funded research in universities.

Key Finding: The CCP seeks to influence universities and intellectual freedom through programs such as Confucius Institutes, Chinese Students and Scholars Associations, and other campus entities. The CCP has used these institutes to promote an idyllic image while actively working to steal U.S. research and innovation and coerce colleges and universities.

The CCP funds Confucius Institutes and other cultural and language programs abroad as part of an efforts to influence public opinion, recruit "influence agents" on U.S. campuses, and engage in cyber espionage and IP theft. A staff report by the Permanent Subcommittee on Investigations of the Senate Homeland Security and Governmental Affairs Committee, "China's Impact on the U.S. Education System," details these efforts. According to the report, the CCP has spent over \$158 million in the U.S. on this effort. At the height of the program, there were approximately 100 U.S. educational institutions with Confucius Institutes and 519 Confucius Classrooms based in primary and secondary schools in the U.S. As the purpose of these institutes has become better understood, many universities have begun to divest themselves from the institutes. Today it is believed there are 75 Confucius Institutes operating in the U.S., 65 of which are active on U.S. university campuses, with the rest functioning as standalone organizations.

On August 13, 2020, DoS designated the Confucius Institute U.S. Center (CIUS), which serves as the Washington D.C. based, de facto headquarters of the Confucius Institute network, as a foreign mission of the PRC. The designation will require the CIUS to regularly provide information to DoS about PRC citizen personnel, recruiting, funding, and operations in the U.S.²⁸³ The Administration should maintain DoS designation of the CIUS as a foreign mission of the PRC. The U.S. must continue to root out these efforts on American campuses, which are a threat to the democratic principle of freedom of thought.

Recommendation: Congress should ensure final passage of H.R. 7601/S. 939 the Concerns Over Nations Funding University Campus Institutes in the United States Act, (CONFUCIUS Act), a bipartisan proposal to address concerns about the CCP's influence on college campuses. The bill limits the influence of Confucius Institutes by barring certain DoEd funds from going to the university until its contract or agreement with the Confucius Institute protects the academic freedom of the college, prohibits the application of foreign law on the institution's campuses, and grants full managerial authority of the Confucius Institute to the university including teaching plans, research grants, and employment decisions.

APPENDIX I: SUMMARY OF RECOMMENDATIONS AND FURTHER INVESTIGATION

The Task Force makes **82 key findings** and **430 associated recommendations** to support a comprehensive U.S. approach to countering the threat of the Chinese Communist Party (CCP). Below is an abbreviated summary with references to the appropriate sections where complete descriptions of each recommendation can be found.

I: Ideological Competition

Recommendation: The Administration should clearly and publicly state an intention to break the CCP's totalitarianism. America's goal must not be indefinite coexistence with a hostile Communist state, but rather, the end of the Party's monopoly on power. *p.* 9

Recommendation: The Administration should revise and reissue the 2020 "U.S. Strategic Approach to the People's Republic of China" to incorporate the principle above. **p. 9**

Recommendation: The Administration should continue directly attacking the legitimacy of socialism with Chinese Characteristics. *p.* 9

Recommendation: The Administration should continue reasserting that democratic freedoms are the right of every human being. ρ . 10

Recommendation: Congress should continue developing comprehensive, omnibus legislation for competition with the CCP which recognizes that the CCP is a threat across the full range of U.S. interests. *p. 10*

Recommendation: The Administration should continue its use of diplomatic authorities to pressure the CCP for its restrictions on U.S. diplomats, properly identify CCP propagandists operating in the U.S., and highlight the CCP's malign ideology. *p. 10*

Recommendation: The Administration and Congress should prioritize competition with the CCP as a deciding factor for federal resource decisions, including for foreign assistance and foreign service personnel allocations for the Indo-Pacific. *p. 11*

Recommendation: Congress should pass H.R. 7937, the Countering CCP Malign Influence Act. p. 11

Recommendation: Congress should pass H.R. 8058, the Chinese Research Funds Accounting Act. p. 11

Recommendation: Congress should ensure final passage of Titles V, VI and VII of the bipartisan Eliot L. Engel Department of State Authorization Act of 2020, which is included in H.R. 6395 in the FY2021 National Defense Authorization Act (NDAA). **p. 11**

Recommendation: Congress should create a new sanctions mechanism specifically tailored for the UFWD, which can be used to apply visa and asset blocking sanctions on UFWD officials and affiliates who are responsible for CCP malign influence operations which threaten U.S. national security. **p. 11**

Recommendation: The Administration should prioritize counter-United Front programming through the Indo-Pacific Transparency Initiative. The Administration should develop and fund specific counter-UFWD programs under the Initiative, and DoS should update and reissue its factsheet on the Initiative to publicize these efforts. *p. 11*

Recommendation: Congress and the Administration should prioritize legal assistance for foreign influence transparency, foreign agent registration, and political donations using the Transparency Initiative and other existing foreign assistance programming. **p. 12**

Recommendation: Congress and the Administration should commission and fund country-specific, open-source, and unclassified studies of CCP malign influence, including United Front work. *p.* 12

Recommendation: The Administration should explore options for making the U.S.-funded International Law Enforcement Academy (ILEA) in Bangkok a regional hub for law enforcement cooperation and training regarding CCP United Front activity. **p. 12**

Recommendation: DoS should use existing diplomatic and foreign assistance resources to counter the UFWD. Congress should conduct oversight of these efforts and if necessary, legislate further reporting requirements to drive Administration action. *p. 12*

Recommendation: The Administration should continue and expand enforcement actions in line with its "Xinjiang Supply Chain Business Advisory." The Administration should regularly update the Business Advisory and issue further such advisories when appropriate. *p. 12*

Recommendation: The Administration should reexamine all export licenses issued pursuant to DoS' International Traffic in Arms Regulations and DoC's Export Administration Regulations to entities in Hong Kong prior to July 2020. *p. 13*

Recommendation: The Administration should fully implement recent bipartisan sanctions laws to respond to CCP human rights violations, including the Reciprocal Access to Tibet Act (P.L. 115-330), the Hong Kong Human Rights and Democracy Act of 2019 (P.L. 116-76), the Uyghur Human Rights Policy Act of 2020 (P.L. 116-145), and the Hong Kong Autonomy Act (P.L. 116-149). *p. 13*

Recommendation: The U.S. should evaluate whether to modify, strengthen, or make permanent a limitation in the current appropriations law that prohibits certain types of bilateral cooperation between the U.S. and the PRC without a government certification. **p. 13**

Recommendation: Congress should secure final passage of H.R. 6210, the Uyghur Forced Labor Prevention Act. p. 13

Recommendation: Congress should ensure final passage of H.R. 4331, the Tibetan Policy and Support Act. p. 13

Recommendation: Congress should pass H.R. 7805, the Stop Predatory Organ Trafficking Act. Congress should require an interagency assessment of forced organ harvesting specific to the PRC, and if necessary, single out and sanction the officials who run the PRC's organ transplant system. **p. 13**

Recommendation: The Administration should levy Global Magnitsky sanctions on officials from the United Front's Religious Work Bureau, as appropriate, to apply consequences for the oppression of Christianity. *p. 13*

Recommendation: DoS should consider issuing a determination that the CCP's crimes against Uyghurs amount to genocide. *p. 13*

Recommendation: Congress should pass legislation calling on companies to disclose to American audiences that entertainment productions, such as films or sporting events, that are distributed or intended to be distributed in the PRC, have had their content approved by CCP censors. *p. 13*

Recommendation: Congress should pass H.R. 5725, the Hong Kong Be Water Act. p. 13

Recommendation: Congress should support the Administration in its pledge to "reallocate admissions within the refugee ceiling set by the annual Presidential Determination to residents of Hong Kong based on humanitarian concerns, to the extent feasible and consistent with applicable law..." as stated in The President's Executive Order on Hong Kong Normalization, issued on July 14, 2020. *p. 14*

Recommendation: Congress should pass Section 1284 of H.R. 6395 in the FY2021 NDAA, a bipartisan provision reflecting the text of H.R. 7307, the Foreign Advanced Technology Surveillance Accountability Act. *p. 14*

Recommendation: Congress should pass the following pieces of bipartisan legislation: H.R. 3843, the CROOK Act; H.R. 3441, the Kleptocrat Exposure Act; H.R. 4140, the Foreign Extortion Prevention Act; H.R. 4361, the Justice for Victims of Kleptocracy Act; and H.R. 2167, Protecting United States Businesses Abroad Act. *p. 14*

Recommendation: Congress should pass H.R. 2514, the bipartisan Coordinating Oversight, Upgrading and Innovating Technology, and Examiner Reform Act. *p. 14*

Recommendation: The Administration should establish a program to highlight the CCP's environmental hypocrisy, along with the millions of dollars the U.S. continues to spend each year to promote environmental conservation globally through U.S. foreign assistance programming. *p. 15*

Recommendation: The Administration should issue a plan to respond to the CCP's perpetuation of global climate change as the world's largest carbon emitter by a massive margin. *p. 15*

Recommendation: The Administration should continue its efforts to counter and expose CCP attempts to perpetuate and whitewash its environmental malfeasance through the UN system and International Financial Institutions (IFIs). **p. 15**

Recommendation: Congress should pass H.R. 4636, the bipartisan Partnering and Leveraging Assistance to Stop Trash for International Cleaner Seas Act. *p. 15*

Recommendation: Congress should pass H.R. 5859, the bipartisan Trillion Trees Act. p. 15

Recommendation: Congress should pass H.R. 7939, the United Nations Transparency and Accountability Act (UNTAA). p. 16

Recommendation: Congress and the Administration should work together to place more American personnel in the UN system. The Administration should ensure that the presence of U.S. personnel is appropriately prioritized and coordinated, while Congress should ensure that these efforts are appropriately funded. *p. 16*

Recommendation: Congress should authorize the Administration's recently created position of Special Envoy for UN Integrity. *p. 16*

Recommendation: Congress should pass H.R. 7733, the Li Wenliang Global Public Health Accountability Act. p. 17

Recommendation: Congress should pass H.R. 7938, the USIA for Strategic Competition Act. p. 17

Recommendation: The Administration and Congress should continue fully funding DoS' Global Engagement Center (GEC) and ensuring the GEC is not budgetarily reliant on the Department of Defense (DoD). **p. 17**

Recommendation: Congress should pass H.R. 6621, the bipartisan Open Technology Fund Authorization Act. The Administration should fully fund the Open Technology Fund in accordance with the most recent Congressionally approved spend plan, and sources of funding for the development and innovation of such tools should be expanded to include foreign governments, foundations, and the private sector. *p. 17*

Recommendation: Congress should pass legislation calling on social media companies to disclose when CCP and other state propaganda is disseminated on social media platforms. *p.* 17

Recommendation: Congress should pass legislation calling on U.S. media organizations to disclose when they receive payments for advertisements from companies or news outlets with strong ties to adversarial governments, such as the CCP. **p. 17**

Recommendation: The Administration should increase existing foreign assistance programming to expand investment mechanisms for investigative, unbiased media in capital-poor countries where the CCP saturates the media landscape. *p.* 17

Recommendation: Congress should pass H.R. 6570, the Online Consumer Protection Act. p. 18

Recommendation: The Administration should continue its efforts to issue multilateral or coordinated statements with likeminded allies on malign CCP activities. *p. 18*

Recommendation: The Administration should issue further definitive statements on CCP activities which are illegal under international law. *p. 18*

Recommendation: The Administration should allow Taiwan to change the name of its diplomatic office to the "Taiwan Representative Office" or a similar title. *p. 18*

Recommendation: Congress should pass H.R. 2002, the bipartisan Taiwan Assurance Act. p. 19

Recommendation: Congress should ensure final passage of H.R. 353/S. 249, a bipartisan bill which would direct the Secretary of State to develop a strategy to regain observer status for Taiwan in the WHO. **p. 19**

Recommendation: Congress should pass H.R. 6287, the bipartisan Taiwan Symbols of Sovereignty (SOS) Act. p. 19

Recommendation: Congress should pass H.R. 7414, the bipartisan Taiwan Fellowship Act. p. 19

Recommendation: Congress should pass H.R. 6974, the Taiwan Non-Discrimination Act of 2020. p. 19

Recommendation: Congress should pass Section 1851 of H.R. 6395 in the FY2021 NDAA, a bipartisan provision reflecting the text of H.R. 6014, the Employment Fairness for Taiwan Act of 2020. **p. 19**

II: Supply Chain Security

Recommendation: Congress should pass section 845 of H.R. 6395 in the House passed FY2021 NDAA, which would limit funds until DoD develops a national security strategy for the defense industrial base in order to assess gaps and vulnerabilities to the national technology and industrial base. **p. 21**

Recommendation: Congress should pass section 1254 of H.R. 6395 in the House passed FY2021 NDAA, which would extend the requirement for public reporting of CCP military companies operating in the U.S. **p. 21**

Recommendation: Congress should pass section 1255 of H.R. 6395 in the House passed FY2021 NDAA, which would direct a federally funded R&D center to conduct a study on the defense industrial base of the CCP. **p. 21**

Recommendation: Congress should encourage companies that make up the defense industrial base, as part of the terms of their contract with DoD, to participate in a threat intelligence sharing program that would be housed at DoD component level. *p. 21*

Recommendation: Congress should support DoD's Cybersecurity Maturity Model Certification program to seek and identify cybersecurity threats and vulnerabilities within the information systems of defense industrial base companies. **p. 21**

Recommendation: Congress should consider legislative proposals to effectively cut off material support for CCP military industrial base companies. For instance, H.R. 7064, the Stop Funding the People's Liberation Army Act, would require divestment from certain companies with ties to the CCP military. *p. 21*

Recommendation: The U.S. should pass section 824 of H.R. 6395 in the FY2021 NDAA, which would mandate a preference for sourcing rare strategic and critical materials, including rare earth materials, from the National Technology and Industrial Base. *p. 23*

Recommendation: Congress should pass section 823 of H.R. 6395 in the FY2021 NDAA, which would expand the prohibition on acquiring certain sensitive materials from the PRC. *p.* 23

Recommendation: Congress should pass section 826 of H.R. 6395 in the FY2021 NDAA, which would mandate where printed circuit boards can be manufactured and assembled. *p.* 23

Recommendation: Congress should pass section 835 of H.R. 6395 in the FY2021 NDAA, which would expand the prohibition on government procurement or use of any commercial off-the-shelf drone or certain unmanned aircraft systems from foreign entities subject to influence or control by the PRC. *p.* 23

Recommendation: Congress should pass sections 829 and 830 of H.R. 6395 in the FY2021 NDAA, which address aluminum production in the U.S. as a critical national security issue. *p.* 23

Recommendation: Congress and the Administration must remove regulatory barriers to domestic mining. p. 23

Recommendation: Congress should pass H.R. 7061, the American Critical Mineral Exploration and Innovation Act. p. 23

Recommendation: Congress should pass H.R. 8198, the National Security Through America's Resources and Permitting Reform Act of 2020. *p. 23*

Recommendation: The Administration should continue to prioritize initiatives that strengthen cooperation with allied countries in the mining and energy sector with a specific focus on mining sector governance, strengthening private investment, and securing supply chains. *p.* 23

Recommendation: Congress should pass certain advanced semiconductor manufacturing incentives found in the provisions of the bipartisan H.R. 7178, the CHIPS for America Act, including relevant sections included in the House and Senate passed FY2021 NDAA. *p. 24*

Recommendation: Congress should design and pass tax incentives to encourage more domestic production of advanced semiconductors. *p. 24*

Recommendation: The Administration and Congress should seek to make substantial direct and indirect investment in semiconductor and electronic component assembly in the U.S. sufficient to meet the needs of defense and critical infrastructure systems. *p. 24*

Recommendation: The Administration should establish a threat-specific supply chain strategy and expand partnerships with allies, like-minded nations, and the private sector to shift supply chains to affordable and more secure locations. **p. 24**

Recommendation: Congress and the Administration should make securing the supply chains of the most strategic products for national security and health requirements a top priority in bilateral, plurilateral, and multilateral trade and economic discussions with allies and other trusted trading partners. *p. 24*

Recommendation: Congress should pass section 712, a bipartisan provision of H.R. 6395 in the FY2021 NDAA, which would require the next National Security Strategy to include the provision of drugs, biologics, vaccines, and critical medical equipment. It would also require a classified report on the vulnerabilities to the medical supply chain of the U.S. from foreign countries like the PRC. **p. 26**

Recommendation: Congress should pass Section 1808(f) of H.R. 6395 in the FY2021 NDAA, a bipartisan provision reflecting the text of H.R. 6399, the Securing America's Vaccines for Emergencies (SAVE) Act. *p.* 26

Recommendation: Congress should pass section 750L, a bipartisan provision of H.R. 6395 in the FY2021 NDAA, which would require DoD to submit a classified report to Congress on DoD's Joint Development Formulary (JDF), which would include a core list of pharmaceutical items that are required for contingency operations, identify barriers that may limit DoD from procuring necessary items, and identify international military partners who can help manufacture them. *p. 26*

Recommendation: The Administration should quickly implement section 3112 of the CARES Act. Additionally, the National Academies of Sciences, Engineering, and Medicine should act swiftly to begin the study required under section 3101 of the CARES Act. *p. 26*

Recommendation: Congress should pass H.R. 6670, the Prescription for American Drug Independence Act. p. 26

Recommendation: Congress should pass legislation to require the National Academies of Science, Engineering, and Medicine to conduct a study on why pharmaceutical manufacturing has moved off-shore, what products (such as APIs) were or were not historically manufactured in the U.S., and what market incentives would need to change to increase domestic drug manufacturing. **p. 26**

Recommendation: Congress should pass H.R. 4866, the bipartisan National Centers of Excellence in Continuous Pharmaceutical Manufacturing Act. *p. 27*

Recommendation: The Administration should promote the use of the Centers for Innovation in Advanced Development and Manufacturing (CIADMs) Program. *p. 27*

Recommendation: Congress should pass H.R. 6531, the bipartisan Medical Supplies for Pandemics Act. p. 27

Recommendation: Congress should pass legislation to continue to promote policies intended to prevent and mitigate drug shortages, such as legislation that would allow the government to enter contracts with pharmaceutical distributors in which the distributors would secure, manage, and replenish a supply of drugs that are at high-risk of shortage. *p. 27*

Recommendation: Congress should pass provisions of H.R. 6930, the bipartisan Manufacturing API, Drugs, and Excipients (MADE) in America Act. *p.* 27

Recommendation: Congress should pass H.R. 7767, the Domestic Medical and Drug Manufacturing Tax Credit Act. p. 27

Recommendation: Congress should pass H.R. 7555, the More Cures Act, and H.R. 7556, the Start-ups for Cures Act. p. 27

Recommendation: Congress should pass H.R. 7537, the Infectious Disease Therapies Research and Innovation Act of 2020. *p. 27*

Recommendation: Congress should pass H.R. 7505, the American Innovation Act of 2020. p. 27

III: National Security

Recommendation: The U.S. must close capability gaps with the PLA in certain areas and maintain its competitive advantage in others by making steady investments in the capabilities required for a joint campaign and joint warfighting operations along with their supporting infrastructure. **p. 30**

Recommendation: The U.S. must prioritize sustainment activities, including training, maintenance, mechanical upgrades, and procurement. Both the House-passed and Senate-passed FY2021 NDAAs include many of these activities and enhancements, and Congress should ensure its final passage. *p. 30*

Recommendation: Congress should cease all limitations on DoD's ability to develop and field conventional ground-launched cruise and ballistic missiles and should support Administration efforts to work with Indo-Pacific allies to regionally base U.S. intermediate-range missiles. Congress should fully fund the Long-Range Precision Fires requirement described by Indo-Pacific Command (INDOPACOM). *p. 30*

Recommendation: Nuclear modernization must be fully funded to ensure the nuclear triad and other capabilities are effective, safe, and credible. **p. 31**

Recommendation: The U.S. should continue pressing to bring the PRC into arms control negotiations. p. 31

Recommendation: The U.S. must prioritize the development of emerging technologies while also increasing its ability to defend against them, which includes substantial investments to maintain anti-access/area denial capabilities and investment in AI, lethal autonomous weapons, long-range strike weapons, directed energy weapons, biotechnology, and quantum technology. **p. 31**

Recommendation: Congress should evaluate whether DoD has the appropriate authorities and flexibility to make changes to its budget and fund experimentation of emerging technologies for DoD use. **p. 31**

Recommendation: Congress must pass a stable, strategy-based defense budget that is on time to allow the military to make deliberate funding choices and plan programmatically. **p. 32**

Recommendation: Congress should require DoD to provide a classified budget exhibit that demonstrates how the defense budget is aligned with and supports the NDS, with emphasis on competing with and deterring the PRC. Congress should also require the Secretary of Defense to conduct an independent assessment along with an outside assessment to examine whether there is proper alignment and delegated decision-making authority within DoD's current processes and organizational structure. **p. 32**

Recommendation: Congress should exercise greater oversight of DoD's investments to ensure capabilities align with operational challenges. The Joint Force must develop joint, modernized operating concepts to overcome the challenges posed by the CCP. Logistics should be a core element of military strategy and operational concept development. *p. 32*

Recommendation: Congress should require DoD to report on operational concepts that address scenarios involving highly escalatory approaches from the PLA against a defense partner like Taiwan or against a treaty ally like Japan and to describe how it plans to perform multiple missions in different theaters on a near-simultaneous basis, any gaps and vulnerabilities within that plan, and resources or authorities required for mitigation. **p. 32**

Recommendation: The Secretary of Defense and the Joint Chiefs of Staff should provide to Congress a detailed and consolidated plan to integrate joint training range exercises and the specific infrastructure and logistic priorities for the Indo-Pacific region as required in section 1704 of H.R. 6395 in the bipartisan FY2021 NDAA. *p.* 33

Recommendation: Congress should pass the "Indo-Pacific Deterrence Initiative" as proposed in H.R. 6613 and the contents for the initiative, which are included in the FY2021 House and Senate NDAA and both authorize and appropriate funds to support this Initiative. *p. 35*

Recommendation: The Administration should continue to publicly identify the CCP's actions in Indo-Pacific waters as unlawful and should continue to promote frequent and sustained U.S. freedom of navigation operations in the region. Congress should affirm that it is the policy of the U.S. to support lawful commercial interests and activities in the South China Sea and East China Sea, and support in international fora the legitimate cases and grievances brought against the PRC by regional states and stakeholders. **p. 35**

Recommendation: Congress should pass H.R. 3508, the bipartisan South China Sea and East China Sea Sanctions Act of 2019. *p. 35*

Recommendation: Congress should pass H.R. 7423, the Taiwan Defense Act. p. 35

Recommendation: Congress should continue to encourage and approve arms sales to Taiwan. Congress should support S. 878, the "Taiwan Assurance Act of 2019," and language included in the House and Senate FY2021 NDAA that supports Taiwan's continued pursuit of asymmetric capabilities and concepts, as well as regular U.S. sales and transfers of defense articles to Taiwan, including undersea warfare and air defense capabilities. *p.* 35

Recommendation: Congress should ensure DoD and the inter-agency takes steps to expand defense and security cooperation with Taiwan. H.R. 6395 in the FY2021 NDAA, requires DoD to brief Congress on its policies with respect to commencing bilateral military exercises with Taiwan, including naval and air exercises that seek to enhance cross-strait deterrence, utilizing ship visits, and any other matters that would deepen and expand defense cooperation with Taiwan. **p. 35**

Recommendation: The Administration should continue its efforts to clarify and reassert the U.S.' longstanding security commitments to Taiwan. *p. 35*

Recommendation: Congress should require DoD to biannually update the report mandated in the FY2018 NDAA to assess the foreign and non-military activities of the PRC that could affect regional and global U.S. national security and defense interests. *p. 36*

Recommendation: Congress should encourage the NATO Parliamentary Assembly and other parliamentary assemblies around the world to collaborate and examine how CCP investments in critical infrastructure, information, and technology could impact their defense and national security, allied and partner military operations and capabilities, and secure communications. *p. 36*

Recommendation: The Administration should build a coalition of partners and allies around the world to share knowledge on key strategic locations where the CCP is seeking to secure military footholds, and direct the Secretary of Defense and Secretary of State to work with this coalition to provide alternative options to host nations that may be considering CCP military infrastructure projects such as naval ports and airfields that may be sovereign debt traps. **p. 36**

Recommendation: The U.S. must continue to uphold its alliances and partnerships in the Indo-Pacific through close dialogue and military cooperation in order to ensure effective deterrence. *p. 36*

Recommendation: Congress and the Administration must ensure commitments with the Freely Associated States are extended beyond 2023. The U.S. should also seek new opportunities for security agreements with non-traditional partners to allow for a more distributed footprint. *p. 36*

Recommendation: Congress should fully fund efforts in the House-passed and Senate-passed NDAAs to build partnership capacity through security cooperation programs and the Indo-Pacific Maritime Security Initiative. *p. 36*

Recommendation: The U.S. should improve predictability of arms sales with allies and partners and expand military training with allied and partner nations. Congress should continue to support professional military education for foreign partners carried out by DoD, including an increase in funding for the Department of State International Military Education and Training (IMET) program. **p. 37**

Recommendation: The U.S. should expand forward presence and improve interoperability with allies and partner nations through the use of joint training and exercises. p.37

Recommendation: Congress should pass sections 1610, 1604, and 1605 of H.R. 6395 in the FY2021 NDAA to support development of capabilities to respond to CCP activities in space that are rapid, scalable and require an operational plan for unpredictability. Congress should give DoD acquisition authorities similar to the National Aeronautics and Space Administration (NASA) to incubate space technology across the domestic and international landscape. **p. 37**

Recommendation: DoD must normalize space warfare as a key joint competency and develop operational intelligence to support space operations. Congress should provide DoD with appropriate and rapid acquisition authorities for space, encourage DoD to develop budget structures that accurately capture space investments in a transparent manner, pass section 1603 of H.R. 6395 in the FY2021 NDAA, and require DoD to develop Foundational Military Intelligence for space. The U.S. should develop policies to determine DoD's role in defending all U.S. space capabilities during peace and all phases of conflict. **p. 38**

Recommendation: Congress should direct DoD to perform a Cyber Mission Force (CMF) structure assessment and define authorities for cyber operations. *p. 38*

Recommendation: Congress should pass section 1621 of H.R. 6395 in the FY2021 NDAA, which would direct DoD to create a Major Force Program category for the training, manning, and equipping of U.S. Cyber Command. *p. 38*

Recommendation: Congress should pass section 1628 of S. 4049 in the FY2021 NDAA, which would require DoD to assess the need for, and requirements of, a military cyber reserve. *p. 38*

Recommendation: Congress should pass section 1629 of S. 4049 in the FY2021 NDAA, which would require DoD to conduct an annual cybersecurity vulnerability assessment of all segments of the nuclear command and control system. **p. 39**

Recommendation: Congress should pass section 1630 of S. 4049 in the FY2021 NDAA, which would require DoD to annually present a plan to assess major weapons system cyber vulnerabilities. **p. 39**

Recommendation: Congress should require DHS and the FBI, in coordination with other appropriate federal departments and agencies, to conduct a study mapping CCP investment and contracts with critical infrastructure sectors in the U.S. DHS and FBI should partner with the private sector to build a thorough understanding of CCP's connections to critical infrastructure while protecting U.S. security. **p. 39**

Recommendation: The National Telecommunications and Information Administration, in coordination with CISA and the NSA, should undertake a comprehensive review of core internet vulnerabilities to begin the remediation and removal of technologies and entities compromised by CCP security services. *p.* 39

Recommendation: Congress should codify the recommendations of the Cyberspace Solarium Commission reflected in H.R. 6395 in the FY2021 NDAA to strengthen the federal government's ability to secure critical infrastructure and respond to 21st century threats. *p.* 39

Recommendation: Congress should direct CISA, in coordination with the National Telecommunications and Information Administration, to report to Congress on any additional resources, facilities, and authorities required to threat hunt across the .gov domain. **p. 40**

Recommendation: Congress should establish a Bureau of Cyber Statistics within DoC. p. 40

Recommendation: Congress should codify into law the concept of "systemically important critical infrastructure." Congress should direct DHS, in coordination with other appropriate federal agencies and departments, to develop a process to identify key systems and assets underpinning critical functions. **p. 40**

Recommendation: The Administration should develop and maintain, in consultation with the private sector, a continuity of the economy plan, to ensure the continuous operation of critical functions of the economy in the event of a significant cyber disruption. **p. 40**

Recommendation: Congress should codify a "Cyber State of Distress" in the event of a significant cyber incident or series of incidents to enable the Secretary of Homeland Security to coordinate asset preparation, response, and recovery operations. *p. 40*

Recommendation: Congress should amend the Homeland Security Act of 2002 to protect U.S. critical infrastructure by authorizing CISA to notify U.S. private and public sector entities put at risk by cybersecurity vulnerabilities in the networks and systems that control critical assets. **p. 40**

Recommendation: Congress should ensure that the DoJ's China Initiative has the necessary resources and tools to confront the CCP's malign behaviors. *p. 41*

Recommendation: The FBI should develop more tailored or sector-specific unclassified training and other education resources to enable more effective security measures against CCP-directed espionage, establish a secure online portal to enable dissemination of training materials, and provide local field offices additional funding and personnel to conduct the necessary outreach to improve awareness of CCP threats. Congress should examine measures to codify a Higher Education Initiative in the FBI's Office of Private Sector. **p. 41**

Recommendation: Congress should pass legislation that provides additional support for Mandarin language and other major Chinese dialects at DoJ, including mid-career courses to maintain or enhance language proficiency, so that it can better investigate and prosecute cases implicating the CCP. **p. 41**

Recommendation: Congress should support the study of the CCP throughout academia, including by improving the teaching of China's history and culture to counteract CCP propaganda. Some National Resource Centers authorized in the Higher Education Act should shift their focus onto Chinese history, language and culture to strengthen our understanding of China and counteract CCP machinations. *p. 41*

Recommendation: The Administration should ensure that the federal government's PRC-focused open source publications are best addressing their customers' needs regarding this growing multifaceted threat. *p. 42*

Recommendation: Congress should authorize military counterintelligence organizations within the services and DoD counterintelligence entities to support the FBI in investigations of CCP espionage against DoD and the Defense Industrial Base. *p. 42*

Recommendation: The Director of National Intelligence (DNI) should establish small counterintelligence cells composed of IC professionals at federal agencies and elements targeted by the CCP. *p. 42*

Recommendation: DNI and DoD should examine the CCP's intent and the threat to U.S. research and produce an annual report on sensitive research targeted by the CCP. This classified document should be disseminated appropriately to inform FBI and whole of government efforts to protect U.S. innovations. *p. 42*

Recommendation: Congress should pass H.R. 3997, Safe Career Transitions for Intelligence and National Security Professionals. *p. 42*

Recommendation: The Administration should seek greater collaboration with Five Eyes allies in sharing and releasing information of CCP sponsored counterintelligence activities and coordinate with other partners to ensure that their own critical infrastructure and technology remains free from CCP influence. **p. 42**

Recommendation: Congress should build the federal government's capacity to quickly identify and, when appropriate, disrupt efforts by the CCP to exploit legitimate mobile applications and internet platforms for malign activities against not only government employees and officials, but also the American public. **p. 42**

Recommendation: Congress should pass H.R. 6896/S. 3455, the bipartisan No Tik Tok on Government Devices Act. p. 42

Recommendation: Congress should pass section 1256 of H.R. 6395 in the FY2021 NDAA that requires the President to produce a whole-of-government strategy to impose costs on and deter CCP cyber-enabled corporate espionage and personal data theft. *p. 44*

Recommendation: The Administration should strictly enforce its October 2019 export licensing requirements on PRC-surveillance firms. The Administration should also encourage other allies and partners to take similar actions. **p. 44**

Recommendation: Congress should require federal law enforcement entities to share information with state and local law enforcement agencies regarding security concerns surrounding drones with a nexus to the CCP. Congress should further encourage states and local governments to consider banning or limiting the use of drones produced by, funded by, or linked to the CCP. **p. 44**

Recommendation: The Administration should rigorously enforce all of the IP provisions of the Phase 1 trade agreement with the PRC. *p.* 45

Recommendation: The Administration should continue to vigorously investigate and identify PRC entities and individuals engaged in IP theft and industrial espionage. The Administration should expand the use of strong penalties for IP theft and industrial espionage, and work more closely with U.S. businesses to improve the detection of IP theft and obtain more information about the scope and nature of such activities. Congress should reinforce the Administration's authority in these areas and/or supplement existing resources, if necessary. **p. 45**

Recommendation: The Administration should exercise the powers outlined in Executive Order 13694 "Blocking the Property of Certain Persons Engaging in Significant Malicious Cyber-Enabled Activities." *p. 45*

Recommendation: Congress should require the Administration to provide an annual report to Congress identifying PRC businesses and organizations that have engaged in pervasive or repeated acts of IP theft or industrial espionage against the U.S. For each entity identified in the report, Congress and the Administration should work together to ensure that proportionately severe sanctions are imposed and other appropriate actions are taken. **p. 45**

Recommendation: Congress should increase funding and support for federal departments and agencies to step up investigations, criminal prosecutions, and other actions against PRC entities/individuals for violations of relevant U.S. laws regarding IP theft. Congress and the Administration should also pursue trade policies that deter and protect against IP theft, and provide more protection for U.S. companies operating abroad. **p. 45**

Recommendation: Congress should continue to support measures and programs that provide U.S. companies with tools to protect their technology and IP from CCP activities. Congress should amend the Defend Trade Secrets Act (DTSA) to clarify that its reach encompasses individuals and conduct outside of the U.S. when an appropriate nexus with the U.S. is found. Congress should also amend the Foreign Sovereign Immunities Act to prevent PRC companies working with the CCP from abusing its provisions to avoid accountability in U.S. courts for IP infringement and theft. **p. 45**

Recommendation: Congress should ensure that relevant laws provide all necessary authority to empower the Administration to effectively address the CCP's increasingly sophisticated cyber activities and combat the CCP's continued use of cyber-attacks against U.S. businesses to steal their IP and technology. Congress and the Administration should work together to ensure sufficient resources and incentives are made available to both government and private entities for the development and deployment of improved defenses to cyber-attacks. **p. 45**

Recommendation: The Administration should promote greater cooperation and coordination among federal departments and agencies to detect and prevent acts of IP theft and industrial espionage. *p. 45*

Recommendation: Congress should strengthen the ability of relevant agencies and departments of the U.S. government to detect and prevent the importation of counterfeit or infringing goods from the PRC. **p. 46**

Recommendation: The Administration should coordinate with the governments of other nations to enhance anticounterfeiting efforts and protection of IP rights, and hold the CCP accountable for facilitating counterfeiting activities and failing to take reasonable measures to prevent them. The Administration should also continue to maintain pressure on the CCP to take meaningful steps to curb the activity of PRC entities producing or trafficking in counterfeit goods. **p. 46**

Recommendation: Congress should pass H.R. 6196, the bipartisan Trademark Modernization Act, and work with the Administration to provide resources and any additional authority necessary to the USPTO to address the CCP's campaign against the U.S. trademark system. The Administration should ensure that the next potential phase of trade negotiations with the PRC government includes an agreement by the PRC to end its practice of providing incentives for PRC entities and individuals to fraudulently obtain U.S. trademark registrations. **p. 46**

Recommendation: The Administration should act to limit the CCP's influence over international IP policy at WIPO and ensure U.S. interests are protected. **p. 46**

Recommendation: Congress should pass legislation building on reforms to the EB-5 Immigrant Investor Program implemented by the Administration in its November 2019 regulation. *p.* 47

Recommendation: Congress should pass H.R. 7224, the End Communist Chinese Citizenship Act. p. 47

Recommendation: The Administration must continue to encourage diplomatic and law enforcement cooperation with the PRC to hold illicit fentanyl and other drug traffickers accountable for circumventing important U.S. and PRC regulations and enforcement protocols. *p. 48*

Recommendation: Congress must ensure effective implementation by the USPS and DHS of the bipartisan Synthetics Trafficking and Overdose Prevention Act (P. L. 115-271). *p. 48*

Recommendation: Congress should pass section 6284 of S. 4049 in the FY2021 NDAA, Blocking Deadly Fentanyl Imports, a bipartisan measure which would expand reporting requirements related to foreign nations that produce illicit fentanyl. *p.* 48

Recommendation: Congress should pass H.R. 4963/S. 2764, the bipartisan Stop the Importation and Manufacturing of Synthetic Analogues Act. *p. 48*

Recommendation: Congress should pass H.R. 2935/S. 3148, the Stopping Overdoses of Fentanyl Analogues Act. p. 48

Recommendation: Congress should ensure that DHS and DoS have the authorities necessary to improve visa security programs and processes, and to prevent entry of foreign nationals with known ties to CCP defense and intelligence services traveling to the U.S. from the PRC to engage in sensitive technology research. **p. 48**

Recommendation: Congress should require institutions of higher education to disclose appropriate information on individuals participating in research on sensitive technologies after entering the U.S. to identify individuals who may have circumvented initial visa security screening. **p. 48**

Recommendation: DHS and DoJ must use additional investigative tools and coordination with companies and research institutions to identify individuals located within the U.S. who are national security threats with known ties to CCP defense and intelligence services and who are engaged in sensitive technology research and technology transfer.

Recommendation: Congress should limit all federal funds to institutions of higher education with Confucius Institutes unless such institutions impose policies to protect academic freedom, prohibit the application of any foreign law on campus, and grant full managerial authority of the Confucius Institute to the institution. *p. 49*

Recommendation: Congress should address the CCP's use of various nontraditional intelligence collection platforms in the U.S. to collect information on research. *p.* 49

Recommendation: Congress should pass section 228 of H.R. 6395 in the FY2021 NDAA, which would require DoD to maintain a public list of "foreign talent programs" that provide a threat to national security interests. **p. 49**

Recommendation: Congress should support a regulation to prevent certain student visa holders from being initially admitted to the United States for the duration of their schooling – no matter how long that schooling lasts. The regulation would require such student visa holders to apply for extensions of their admission every two or four years. **p. 49**

Recommendation: Congress should pass section 229 of H.R. 6395 in the FY2021 NDAA, which would require any individual applying for federal research grants or funds to disclose all sources of foreign funding. *p. 49*

Recommendation: Congress should require the President to identify any foreign persons responsible for actions to access, disrupt, influence, or in any way alter information or information systems related to U.S. political parties or elections for federal office and make any unclassified portion of the list publicly available and published in the Federal Register. **p. 50**

Recommendation: Congress should pass H.R. 7905, the Emergency Assistance for Safe Elections Act; H.R. 4736, the Honest Elections Act; H.R. 6882, the Election Fraud Prevention Act; and H.R. 5707, the Protect American Voters Act. *p. 50*

Recommendation: Congress should pass H.R. 3442, the Defending Elections against Trolls from Enemy Regimes (DETER) Act. *p.* 50

Recommendation: Congress should pass H.R. 1811/S. 480, the bipartisan Countering Chinese Government and Communist Party's Political Influence Operations Act. *p. 51*

Recommendation: Congress should evaluate legislation to require individuals lobbying on behalf of PRC companies (or their affiliates/subsidiaries) to register under the Foreign Agents Registration Act, in addition to the Lobbying Disclosure Act (LDA). *p. 51*

Recommendation: Congress should support the sharing of information and coordination of efforts between federal, state and local law enforcement to counter CCP influence campaigns at the state and local level. **p. 51**

Recommendation: DHS and other federal entities should ensure the interagency has a complete picture of UFWD affiliates operating within the U.S., and the Administration should educate the American public on the goals and methods of CCP influence operations and the reality that no such affiliated organization is free of Beijing's control. **p. 52**

Recommendation: The Administration should designate UFWD organizations as foreign missions, where applicable. p. 52

Recommendation: The Administration should continue outreach to local and municipal governments to counter CCP influence in American society. *p. 52*

Recommendation: The Administration should require that any memorandum of understanding or contract between a U.S. state and municipal government, company, institute of higher education and a CCP entity must be transparent and public, and no exceptions to U.S. laws or best practices should be made to placate CCP requests. **p. 52**

IV: Technology

Recommendation: Congress should ensure final passage of the bipartisan National Artificial Intelligence Initiative Act of 2020, as included in sections 5001-5502 of H.R. 6395 in the FY2021 NDAA. *p. 54*

Recommendation: Congress should support the Administration's FY2021 commitment to accelerate funding for R&D of trustworthy Al across the federal government. *p. 54*

Recommendation: Congress should pass H.R. 8132, the bipartisan American COMPETE Act, which would facilitate a roadmap for commercial adoption of Al and related technologies and remove impediments for U.S. companies to invest and innovate. *p. 54*

Recommendation: The Administration should finalize and adopt the OMB Memorandum on "Guidance for Regulation of Artificial Intelligence Applications." The Federal Trade Commission (FTC) and the Consumer Product Safety Commission (CPSC) should also adopt this quidance. **p. 55**

Recommendation: Congress should pass sections 217, 222, 241-249, bipartisan provisions of H.R. 6395 in the FY2021 NDAA, which are recommendations made by the NSCAI to ensure the necessary talent, infrastructure, and authorities to accelerate the adoption of DoD AI. *p. 55*

Recommendation: The Administration, through the NTIA, should continue to implement the "National Strategy to Secure 5G" as directed by the bipartisan Secure 5G and Beyond Act of 2020 (P.L. 116-184). **p. 56**

Recommendation: Congress should pass legislation to streamline fixed and wireless communications network permitting processes at the federal, state, and local level to ensure all Americans are connected. Reducing U.S. regulatory barriers will promote a market for secure solutions not made in China. **p. 56**

Recommendation: The NTIA should continue working with all federal agencies that have spectrum licenses on ways to increase commercial access to spectrum. **p. 56**

Recommendation: Congress should fund H.R. 4998, the bipartisan Secure and Trusted Communications Networks Act of 2020 (P.L. 116-124). *p. 56*

Recommendation: Congress should pass H.R. 6624, the bipartisan Utilizing Strategic Allied (USA) Telecommunications Act of 2020. *p.* 56

Recommendation: Congress should pass H.R. 6235, the bipartisan NETWORKS Act. p. 56

Recommendation: DoC should fully and strictly implement all recent updates to the Export Administration Regulation (EAR) to restrict the sale or diversion of sensitive U.S. technologies to companies on the Entity List as well as participants in the CCP Military-Civil Fusion strategy. **p. 56**

Recommendation: The U.S. should fully implement the prohibition on using or procuring certain telecommunications and video surveillance equipment from Huawei and ZTE as required by the bipartisan FY2019 NDAA (P.L. 115-232). **p. 57**

Recommendation: The Administration and Congress should continue to support full funding and implementation of the NQI Act (P.L.115-368). Congress should support the Administration's FY21 NQI funding proposal. *p.* **57**

Recommendation: Congress should support and fund the Quantum User Expansion for Science and Technology ("QUEST") Program, as proposed in H.R. 8303, the QUEST Act of 2020. *p.* 57

Recommendation: Congress should pass H.R. 6919, the Advancing Quantum Computing Act. p. 57

Recommendation: Congress should pass HR. 8279, the Quantum Network Infrastructure Act of 2020. p. 58

Recommendation: The Administration should assess and address the risk to National Security Systems posed by quantum computing. p. 58

Recommendation: DoD should establish additional Quantum Innovation centers within each service to identify technical problems and research challenges that are likely to be addressable by quantum computers within the next three to five years. DoD should also establish additional partnerships with academia and industry with functional quantum computing capability. **p. 58**

Recommendation: Congress should pass H.R. 8350, the SELF-DRIVE Act, to ensure the U.S. leads on AVs. p. 58

Recommendation: Congress should pass H.R. 7972, the bipartisan Advanced Unmanned Delivery Services Act. p. 58

Recommendation: Congress should pass H.R. 7214, the bipartisan Surface Transportation Research and Development Act. *p.* 58

Recommendation: Congress should pass key legislative recommendations made by the Cyberspace Solarium Commission to safeguard critical supply chains against CCP interference and enhance the U.S. Government's ability to recruit, develop, and retain its cyber workforce. **p. 59**

Recommendation: Congress should pass S. 2775, the Harvesting American Cybersecurity Knowledge through Education (HACKED) Act. *p.* 59

Recommendation: Congress should pass H.R. 3255, the TOWER Infrastructure Deployment Act. p. 59

Recommendation: The Administration should continue to promote the adoption of the NIST cybersecurity framework for the protection of public and private systems and support the measurement science that informs standards development to enable new cyber technologies and the internet of things (IoT). *p. 59*

Recommendation: The Administration should continue to work through the NTIA's multi-stakeholder process and CISA's binding operational directive process to support collaboration between the private sector and the government on information sharing related to vulnerability disclosures and coordinating response. *p.* **59**

Recommendation: The Administration should promote adoption of recommended actions in "A Road Map Toward Resilience Against Botnets", released by DoC and DHS. *p.* **59**

Recommendation: Congress should pass H.R. 8132, the American COMPETE Act, a bipartisan measure that includes provisions of the SMART IoT Act that promotes an IoT strategy at the federal level that streamlines development and adoption of these technologies. *p.* 59

Recommendation: Congress should ensure final passage of H.R. 4373, the bipartisan Engineering Biology Research and Development Act of 2019. *p. 60*

Recommendation: Congress and the Administration should work together to modernize the regulatory framework for agriculture biotechnology products. *p. 60*

Recommendation: The Administration and Congress should continue to support implementation of the "Strategy for American Leadership in Advanced Manufacturing." *p. 61*

Recommendation: The Administration should leverage the Manufacturing USA institutes and the MEP program as directed in the bipartisan American Manufacturing Leadership Act (P.L. 116-92). **p. 61**

Recommendation: Congress should pass provisions of H.R. 8132, the American COMPETE Act, that promote advanced manufacturing techniques for IoT, incentivize states to adopt model codes for the manufacturing of IoT devices, advance 3D printing capabilities for manufacturing, and require a national strategy for encouraging more tech-focused startups and small businesses in all parts of the U.S. *p. 61*

Recommendation: The U.S. should work with the United Kingdom and other nations to form a new D-10 group of leading democracies focused on developing and deploying 5G and subsequent generations, addressing 5G mobile communications and vulnerable supply chains, and leveraging technical expertise of each nation in emerging technologies for the benefit of democratic nations. *p. 62*

Recommendation: Congress should pass section 1705 of H.R. 6395 in the FY2021 NDAA, a bipartisan provision which directs the National Institute of Standards and Technology (NIST) to commission an independent study on the impact of the policies of the PRC in international standards bodies and how to improve U.S. engagement. *p. 62*

Recommendation: Congress should ensure final passage of H.R. 4500, the bipartisan Promoting U.S. Wireless Leadership Act of 2019. *p. 62*

Recommendation: Congress should ensure final passage of H.R. 3763, the bipartisan Promoting U.S. International Leadership in 5G Act of 2019. *p. 62*

Recommendation: Congress should ensure final passage of H.R. 5698, the Promoting Secure 5G Act. p. 62

Recommendation: The Administration should continue to promote robust participation by U.S. industry in international standards bodies and conferences. *p. 62*

Recommendation: Congress should pass a reauthorization of NASA and fund annual appropriations. p. 63

Recommendation: The Administration and Congress should work together to maintain presence in low-Earth orbit for strategic purposes, including continued operations of the ISS and transition to commercial platforms as soon as possible. **p. 64**

Recommendation: The U.S. should seek international participation in space exploration through bilateral agreements. p. 64

Recommendation: Congress and the Administration should support a balanced, robust, and stable science enterprise that counters the CCP's attempts to eclipse U.S. leadership in the fields of Earth science, astronomy, astrophysics, heliophysics, planetary science, and life and physical sciences. *p. 64*

Recommendation: The U.S. should carry out its space exploration goals by leveraging private sector investments. p. 64

Recommendation: Congress should review the Wolf Amendment to annual appropriations laws that has been in place for nine years, which prohibits bilateral cooperation between NASA and the PRC unless the government makes certain certifications 30 days in advance. **p. 64**

Recommendation: Congress should pass H.R. 3610, the American Space Commerce Free Enterprise Act. p. 64

Recommendation: Congress should pass H.R. 6208, the Protecting American Space Assets Act. p. 64

Recommendation: Congress should pass the Space Technology Advancement Report Act, included in H.R. 6395 in the FY2021 NDAA. *p. 64*

Recommendation: The U.S. should engage with the PRC and other space competitors on shared goals of space sustainability and safety issues, through bilateral diplomatic dialogue as well as forums for multilateral discussions. **p. 64**

Recommendation: Congress should pass legislation that creates an American Space Situational Awareness and Framework for Identity Management. *p. 65*

Recommendation: Congress should pass legislation that establishes national standards for data protection, increases transparency for data collection, increases FTC authority to sufficiently hold bad actors accountable, provides flexibility to protect the U.S. innovation advantage, and enhances data security. **p. 65**

Recommendation: Congress should pass H.R. 6969, the U.S. TELL Act; and H.R. 6942, the Internet Application I.D. Act. p. 65

Recommendation: Congress should pass H.R. 6929, the Advancing Facial Recognition Act. p. 65

Recommendation: NIST should continue to develop and promote adoption of the NIST Privacy Framework. p. 65

Recommendation: Congress should pass H.R. 7005, the SHIELD Act. The Administration should enact H.R. 4779, the bipartisan SAFEWEB Act. *p. 65*

Recommendation: The Administration should complete implementation of the "Clean Path" initiative contained in the 2019 NDAA. p. 66

Recommendation: The Administration should direct the NTIA, as part of the "Clean Cable" initiative, to strengthen interagency coordination of the Executive Branch review of international undersea cable landings and applications for new licenses or transfers of licenses for authorization to provide telecommunications or radio services. *p.* 66

V: Economics and Energy

Recommendation: Congress must work closely with the Administration to aggressively use the new and unprecedented consultation, monitoring, and enforcement mechanisms in the Phase One agreement to strictly enforce that agreement. *p.* 68

Recommendation: Congress should intensify its engagement with the Administration to develop a strategic plan for Phase Two negotiations with the PRC based on a unified U.S. approach. *p. 68*

Recommendation: On a bipartisan basis, Members of Congress should work with their counterparts across the globe to continue to build bilateral and plurilateral relationships to address the challenges posed by the CCP. **p. 69**

Recommendation: Congress should engage in close consultations with the Administration under the Bipartisan Congressional Trade Priorities and Accountability Act (TPA) rules and procedures to negotiate new trade agreements and other arrangements to counter CCP directed influence. *p. 69*

Recommendation: Congress should continue its action and oversight, and the Administration should continue its implementation, of other statutory trade tools to strengthen economic and geostrategic ties with developing countries in Africa, Asia, and Latin America. *p.* 69

Recommendation: The Administration should enhance our relationship with Taiwan by supporting the full and timely implementation of the bipartisan Taiwan Allies International Protection and Enhancement Initiative (TAIPEI) Act of 2019 (P.L. 116-135). *p. 70*

Recommendation: The Administration should work to deepen trade ties with Taiwan and resolve outstanding trade issues, taking the steps to launch trade agreement negotiations once those issues are addressed. *p.* 70

Recommendation: Congress should pass H.Res. 746, a bipartisan resolution supporting the WTO and calling on other WTO members to join the U.S. in reforming the organization. *p. 70*

Recommendation: Congress should work through the WTO, together with the Administration and allies, on developing reforms and new rules and disciplines to address the threats the CCP poses. *p.* 70

Recommendation: Congress should work with the Administration to develop a U.S. government strategy to select a new Director-General of the WTO this fall who understands the scope of the CCP threat to the system. **p. 70**

Recommendation: Congress should ensure effective implementation and resourcing of the Ex-Im Bank's new bipartisan Program on China and Transformational Exports (P.L. 116-94). Congress should pass H.R. 8163, the Countering China Through American Export Competitiveness Act. *p. 71*

Recommendation: As Ex-Im seeks to counteract the CCP's malign designs, it should not finance the PRC in any way. It is critical for Ex-Im to deny support to PRC state-owned enterprises (SOEs). *p.* 72

Recommendation: The Administration should direct the DFC and related agencies, such as the Millennium Challenge Corporation, the U.S. Export Import Bank, and USAID, to partner together to better identify strategic projects in critical regions. *p.* 72

Recommendation: Congress should pass H.R. 7570, a bipartisan measure which provides a budget treatment for equity investments made by the DFC that does not require dollar-for-dollar funding or expose U.S. taxpayers to any significant new risks. *p.* 72

Recommendation: The DFC, working with the Ex-Im Bank, should sign a Memorandum of Understanding with the Office of the Director of National Intelligence to receive and analyze classified economic data related to corporations and countries in order to best direct investments. *p.* 72

Recommendation: The Administration should fully implement the bipartisan Championing American Business through Diplomacy Act (PL 116 -94), which promotes American economic interests abroad and counters the CCP's predatory BRI in developing nations. *p.* 72

Recommendation: The Administration should continue its multilateral efforts to provide a credible alternative to the BRI. p. 72

Recommendation: The Administration should coordinate its diplomacy on trade as well as export control and investment review harmonization to forge closer bonds with U.S. allies and partners. **p. 72**

Recommendation: Congress should pass section 1779 of H.R. 6395 in the FY2021 NDAA, which includes provisions of H.R. 5932, the bipartisan Ensuring Chinese Debt Transparency Act. *p.* 73

Recommendation: Congress should pass H.R. 5846, the Neutralizing Unfair Chinese Subsidies Act. p. 73

Recommendation: Congress should pass H.R. 6086, the IMF Reform and Integrity Act. p. 73

Recommendation: Congress should pass section 1843 of H.R. 6395 in the FY2021 NDAA, which includes provisions of H.R. 5051, the bipartisan Accountability for World Bank Loans to China Act. *p. 73*

Recommendation: Congress should elevate nuclear energy, and related engineering, technological, and industrial capacity, as a national security imperative, with the requisite attention of the White House in coordination with the DoS, DoE, DoC, and DoD. The President should do this through Presidential memorandum. *p. 74*

Recommendation: Congress should strengthen the U.S.' competitive position in global nuclear markets through the expanded export of nuclear technology. *p.* 74

Recommendation: Congress should pass H.R. 7405, the Strengthening American Nuclear Competitiveness Act. p. 74

Recommendation: Congress should pass H.R. 7406, the Nuclear Licensing Efficiency Act. p. 74

Recommendation: Congress should pass H.R. 7814, the Nuclear Prosperity and Security Act. p. 74

Recommendation: Congress should pass H.R. 7404, the Unlocking our Domestic LNG Potential Act of 2020. p. 75

Recommendation: Congress should pass H.R. 7429, the Promoting Cross-border Energy Infrastructure Act. p. 75

Recommendation: Congress should pass H.R. 3983, the Promoting Interagency Coordination for Review of Natural Gas Pipelines Act. p. 75

Recommendation: Congress should strengthen DoE's existing authorities over the BPS and Critical Defense Electric Infrastructure. *p.* 75

Recommendation: Congress should pass H.R. 8329, which would direct the Administration to develop a strategy for export control diplomacy to focus on swift, agile agreements with key partners and allies who possess critical technologies, including semiconductor manufacturing equipment, that enhances the effectiveness of export controls and maintains U.S. leadership in innovation. *p.* 76

Recommendation: DoC must fully implement key aspects of the Export Control Reform Act of 2018 (ECRA), specifically the Emerging and Foundational technology control list. *p.* 76

Recommendation: The Administration should designate all entities on the June 2020 DoD list of PRC entities that are operating in the U.S. and are tied to the CCP military to the DoC Entity List, under a licensing policy of a presumption of denial. *p.* 76

Recommendation: The Administration should update its policy on end-use and end-user agreements in the PRC to recognize that the recipient of any technology will have no ability to refuse diversion to the PRC's military industrial complex. *p.* 76

Recommendation: The Administration should aggressively expand end-use and end-user controls on PRC entities involved in or supporting the Social Credit system and other mass surveillance systems. *p.* 77

Recommendation: The Administration, in coordination with U.S. trading partners, should enforce reciprocal treatment of PRC investment into the U.S. as a means to restore balance and open up the PRC economy to investment, if the PRC continues to restrict meaningful investment access to its market. *p.* 77

Recommendation: Congress should fully fund DoT's CFIUS operations to enable outreach to U.S. allies and partners for the development of targeted investment screening regimes. *p.* 77

Recommendation: Congress should ensure that DoD and other CFIUS member agencies are executing section 1721(b) of FIRRMA by fully assessing their resource needs and procedures to effectively address investment risks, pursuant to the requirements of FIRRMA and recommendations by GAO. **p. 77**

Recommendation: The Administration and Congress should regularly assess whether CFIUS is effectively addressing everchanging and persistent CCP efforts to acquire U.S. technology through foreign investment, while ensuring that robust export controls complement CFIUS's efforts and prevent the acquisition or use of critical technology and IP to end-users of concern. *p.* 77

Recommendation: The Administration should institute a CFIUS "blacklist" in its regulations to implement Section 721(a)(4)(E) of the Defense Production Act, which would focus on the PRC and other countries of concern that require heightened scrutiny for investments. **p. 78**

Recommendation: Congress should require DoT, as it has teams dedicated to the North Korea and Iran threats respectively, to establish a dedicated team focused on the PRC. p. 78

Recommendation: The Administration should carry out enforcement actions and sanction PRC banks responsible for North Korea sanctions evasion, including through more rigorous implementation of the bipartisan Otto Warmbier North Korea Nuclear Sanctions and Enforcement Act (P.L. 116-92). *p. 78*

Recommendation: Congress should pass legislation to address concerns that the SEC and the PCAOB are unable to inspect audit work and practices of PCAOB-registered auditing firms in the PRC, such as H.R. 7000, the Holding Foreign Companies Accountable Act. *p.* 79

Recommendation: Congress should support SEC reforms to improve disclosures relating to emerging market investment risk, including the risks of investing in the PRC, and other PWG recommendations. *p.* **79**

Recommendation: Congress should consider additional legislation regarding disclosures relating to PRC-related investment risk, such as H.R. 8197, the Transparency in Chinese Government Investment Act. *p.* 79

Recommendation: Congress should consider legislative proposals regarding the risks of investing in PRC companies in retirement accounts, such as H.R. 6614, the bipartisan Taxpayers and Savers Protection Act. *p.* 79

Recommendation: Congress should consider legislative proposals to examine capital flows to PRC entities that threaten U.S. national security. For instance, H.R. 8407, the Protecting National Security in Financial Investments Act would require the SEC to assess whether it is appropriate to require the disclosure of information related to investments in entities on the Bureau of Industry and Security of the DoC Entity List. **p. 79**

VI: Competitiveness

Recommendation: Congress and the Administration should keep tax rates globally competitive and remain vigilant if the PRC or other foreign competitors seek to undercut U.S. rates. *p. 80*

Recommendation: Congress should pass H.R. 7749, the Bringing Back American Jobs Through Intellectual Property Repatriation Act. *p. 80*

Recommendation: Congress should pass H.R. 6802, the Accelerate Long-term Investment Growth Now (ALIGN) Act. p. 80

Recommendation: Congress should pass and support funding for H.R. 5685, the bipartisan Securing American Leadership in Science and Technology Act. *p. 81*

Recommendation: The Administration and Congress should work together to prioritize federal funding for basic research and accelerate investments in research for advancing the industries of the future. Congress should also evaluate new mechanisms for funding the transition of federally funded basic research to private sector commercialization in key technology areas. **p. 81**

Recommendation: Congress should pass H.R. 7766, which improves tax incentives to conduct R&D in the U.S. p. 81

Recommendation: Congress should pass H.R. 4549, the bipartisan American Innovation and Competitiveness Act. p. 81

Recommendation: The Administration should continue to expand public-private partnerships between the federal government, universities, national laboratories, and industry to leverage resources and accelerate the movement of early-stage research to commercialization. *p. 81*

Recommendation: The Administration should continue to pursue bilateral agreements for international cooperation on science and technology projects and research with allies and likeminded nations. *p. 81*

Recommendation: The Administration should leverage existing programs to improve regional innovation across all geographic areas of the U.S. *p.* 82

Recommendation: The Administration and Congress should address all 15 key findings in the green paper released by NIST, "Return on Investment Initiative for Unleashing American Innovation." *p. 82*

Recommendation: The Administration should continue to prioritize reducing the time required for the USPTO to complete examination of patent applications. *p.* 83

Recommendation: The Administration should continue to prioritize modernizing and upgrading the IT systems of the USPTO to facilitate the work of patent examiners. Congress and the Administration should work together to ensure that the USPTO has full access to its fee collections for its operations and that fees remain entirely dedicated to the USPTO. **p. 83**

Recommendation: Congress and the Administration should monitor whether CNIPA or other elements of the PRC government provide any unfair advantages or preference to PRC patent applicants over foreign applicants in violation of international agreements. *p. 83*

Recommendation: Congress should evaluate, consolidate, coordinate and fund federal STEM efforts to empower local entities and families with the tools they need to meet the STEM educational needs of their communities and the industries of the future. *p.* 84

Recommendation: Congress should update the COMPETES Act of 2010, directing the National Science and Technology Council's (NSTC) Committee on STEM Education (CoSTEM) to address the fractured STEM financing mechanism with a unified approach. *p. 84*

Recommendation: Congress should reform the Higher Education Act of 1965 (HEA) to create the framework necessary to transition from a degree-based economy to a skills-based workforce. **p. 84**

Recommendation: Congress should pass H.R. 7321, the Elevating America's Workforce Act, a bipartisan measure that would amend the Workforce Innovation and Opportunity Act to include personal reemployment accounts instead of pushing workers through the unemployment insurance system. *p. 84*

Recommendation: Congress should ensure final passage of H.R. 4372, the bipartisan MSI STEM Achievement Act; H.R. 4979, the bipartisan Rural STEM Education Act; and H.R. 2528, the bipartisan STEM Opportunities Act. *p. 84*

Recommendation: Congress and the Administration should work together to expand the U.S.' successful STEM talent programs. *p. 84*

Recommendation: The U.S. immigration system is a generous one that must be updated to meet the needs of the modern economy. This means making a shift towards a more "merit-based" immigration system that remains mindful not to harm the employment prospects of qualified American workers, particularly as the economy reopens in the aftermath of COVID-19. **p. 85**

Recommendation: The Administration should issue uniform and coordinated requirements for researchers and universities across all federal agencies to protect federally funded R&D from foreign interference, through the process established in the bipartisan Securing American Science and Technology Act (P.L 116-92). **p. 86**

Recommendation: Congress should pass section 229 of H.R. 6395 in the FY2021 NDAA, which would require all federally funded researchers to disclose foreign sources of funding and enhances enforcement of disclosure requirements. *p. 86*

Recommendation: Congress and the Administration should work together to provide sufficient resources to federal research agencies and the Offices of Inspectors General to investigate cases of foreign espionage and research misconduct in federally funded research projects. *p. 86*

Recommendation: The Administration should continue to work with key allies to share best practices for deterring CCP influence in academia and the research enterprise that are contrary to the values and norms of the democratic international scientific community. *p.* 86

Recommendation: Congress should amend Section 117 of the Higher Education Act of 1965 to require colleges and universities to report annually all foreign donations received from foreign adversarial sources, including the PRC. **p. 86**

Recommendation: Congress should pass H.R. 7842, the Intelligence on Nefarious Foreign Leaders Using Education Networks for Corrupt Enrichment (INFLUENCE) Act. *p. 86*

Recommendation: The Administration should restrict all federal employees and federal contractors from participating in foreign talent programs. *p.* 87

Recommendation: Congress should pass H.R. 7708, the Defend COVID Research from Hackers Act. p. 87

Recommendation: Congress should pass H.R. 7998, the NIST COVID-19 Cyber-Security Act. p. 88

Recommendation: Congress should pass section 1256 of H.R. 6395 in the FY2021 NDAA, which would require the President to produce a whole-of-government strategy to impose costs on the CCP for cyber-enabled corporate espionage and personal data theft. *p.* 88

Recommendation: Congress should pass H.R. 3611, the Securing American Research from Cyber Theft Act. p. 88

Recommendation: Congress should ensure final passage of H.R. 7601/S. 939, the bipartisan Concerns Over Nations Funding University Campus Institutes in the United States Act (CONFUCIUS Act). *p.* 88

CONCEPTS FOR FURTHER INVESTIGATION

- **H.R. 2161** Pell Flexibility Act of 2019, which would amend the Higher Education Act of 1965 to establish a Job Training Federal Pell Grants demonstration program
- **H.R. 3422** Competency-Based Education Act of 2019, which would amend the Higher Education Act of 1965 to clarify competency-based education
- **H.R. 6978** Endless Frontier Act, which would redesignate the National Science Foundation as the National Science and Technology Foundation and establishes a Directorate for Technology within the foundation.
- Congress should continue evaluating how U.S. capital flows into specific countries and entities of concern may be adversely affecting U.S. national and/or supply chain security in critical sectors and explore whether additional authorities are needed to mitigate any potential risks or threats.
- Congress and the Administration should conduct an exhaustive review to more fully understand the CCP's Military-Civil Fusion (MCF). The CCP's intertwining of its military and civilian economy results in nearly every U.S. interaction with the PRC—including trade, research, and investment—has the potential to benefit their military capabilities. Protecting U.S. national and economic security from MCF will likely require significant reform to how U.S. government agencies and private industry assess and insulate themselves from CCP efforts to extract technology, capital, and know-how. Once we have a better understanding, we can more effectively coordinate with our allies to address this threat.
- Congress and the Administration should conduct a full review of today's national security education and foreign
 language programs to evaluate their efficacy and consider reforms as appropriate. Such programs include the
 Fulbright and Critical Language Scholarship programs administered by the Department of State, and the Boren and
 Language Flagship programs administered by the Department of Defense. The limited data available reflects that for
 at least some of these programs, less than one fifth of participants move on to federal employment.
- The Administration should evaluate whether the CCP should be designated a transnational organized crime threat, and what benefits such a designation might contribute to U.S. competition with the CCP. Pursuant to Executive Order 13773, the administration has previously used this label to sharpen and organize law enforcement efforts for specific groups.
- Congress and the Administration should continue to evaluate whether it would benefit U.S. foreign policy to establish further Fulbright Universities. Fulbright University Vietnam is a pioneering bilateral public-private partnership that has benefitted U.S.-Vietnam relations and serves as a platform for U.S. engagement.
- Congress and the Administration should explore options for increasing support for independent and investigative
 journalism and broadcasting as the CCP aggressively seeks to expand its control over media globally. Such options
 could include reauthorizing, reforming, and expanding the Center for International Media Assistance (CIMA) into a
 grantmaking organization akin to the International Republican Institute or the National Democratic Institute.
- Congress and the Administration should work together to achieve a complete understanding the CCP's, and its
 proxies', presence and activities in the United States, consistent with U.S. principles and Constitutional protections. At
 present, the U.S. government has no mechanism to generate a holistic understanding of CCP members, immigration
 status, holdings, affiliate groups, and activities in the U.S.

APPENDIX II: SUMMARY OF COVID-19 ORIGINS REPORT

Background

During the 2003 SARS pandemic, the Chinese Communist Party (CCP) used its stranglehold on journalists and dissidents in the People's Republic of China (PRC) to hide information and obfuscate the source of the outbreak. CCP leaders failed to inform the World Health Organization (WHO) about the virus for four months. In the wake of this malfeasance, the world demanded reforms to the International Health Regulations (IHR) that govern how countries are required to handle public health emergencies. Today, it has become clear that the CCP failed to heed these lessons. The ongoing pandemic is a tragic second chapter to their mishandling of the 2003 SARS outbreak.

It is beyond doubt that the CCP actively engaged in a cover-up designed to obfuscate data, hide relevant public health information, and suppress doctors and journalists who attempted to warn the world. They deliberately, and repeatedly, disregarded their obligations under the 2005 IHR. Senior CCP leaders, including CCP General Secretary Xi Jinping, knew a pandemic was ongoing weeks before it was announced. By responding in a transparent and responsible manner, the CCP could have supported the global public health response and shared information with the world about how to handle the virus. It is likely the ongoing pandemic could have been prevented had they done so, saving hundreds of thousands of lives and the world from an economic meltdown. As more countries have begun to question the CCP's official accounting of the early stages of the pandemic and call for an international investigation, the PRC has used economic manipulation and trade coercion to demand silence.

During the early stages of the outbreak, PRC companies abroad, at the direction of the CCP, procured millions of protective masks, medical gowns, and gloves on the international market and shipped hundreds of tons of medical equipment from abroad back to the PRC. Within its borders, the CCP nationalized the supply chains and manufacturing capacity of foreign companies like General Motors and 3M to produce medical supplies while denying export licenses for their products. As countries began to call for an international investigation into the PRC's cover-up, the CCP waged a campaign of economic coercion designed to silence their critics.

New primary documents related to the CCP's cover-up have also been identified, including a discipline notice for a nurse in Taizhou who was punished for discussing the COVID-19 outbreak in her city with classmates and family via WeChat. Combined with other documents detailing the harassment of doctors, a snapshot emerges of the widespread nature of the CCP's crackdown on medical professionals.

WHO Director-General Tedros has responded to the CCP's cover-up by praising the CCP for their "transparency," despite internal documents showing WHO frustration with the CCP's failure to share critical data and information about the virus. The WHO has repeatedly parroted CCP talking points while ignoring conflicting information from reputable sources. Director-General Tedros' full-throated defense of the CCP's early response and embrace of their revisionist history, as well as the impact of his actions on the global response, remains incredibly concerning.

After multiple letters of inquiry from Ranking Member McCaul, and repeated requests via phone and email by Committee Minority staff, new information has been provided by the WHO related to the declaration of the PHEIC and the WHO-China Joint Mission on Coronavirus Disease 2019. These responses, which provide a level of detail that has not been publicly reported elsewhere, are included in their entirety in the report and Appendix. However, there are a multitude of outstanding questions that require a serious examination of the WHO's handling of COVID-19. However, it remains clear the WHO has failed to fulfill certain duties required by the IHR.

Nine months into the pandemic, new information continues to emerge from the PRC and elsewhere showing the scale of CCP efforts to cover up the outbreak and punish countries seeking accountability. After discovering new evidence and receiving additional information from the WHO, this report is an effort to put that information into context, define what questions regarding the virus and the response are still outstanding, and provide recommendations on how to improve the global response moving forward. A previous, interim version of this report focused on the early phases of the pandemic, prior to the declaration of a Public Health Emergency of International Concern on January 30, 2020. After the publication of that report, both the WHO and CCP modified their public statements regarding COVID-19, with the WHO issuing a new, "updated" timeline and the CCP temporarily retracting their claim that they notified the WHO on December 31, 2019.

In the intervening months, and under the direction of Ranking Member McCaul, the House Foreign Affairs Committee Minority staff continued its investigation into the origins of the virus and the handling of the pandemic by the PRC and the WHO. The report's timeline was also extended through March 11th, highlighting key events that occurred prior to Director-General Tedros' delayed pandemic declaration. Throughout this investigation, it has become clear that the scale of the CCP cover-up and WHO's mishandling of the pandemic are only partially understood.

Similarity to CCP Actions during the 2003 SARS Pandemic

Given CCP malfeasance during the 2003 SARS pandemic was the basis for the 2005 reforms to the IHR, it is prudent to examine their failures in handling SARS and how they compare with the mishandling of COVID-19. During the early stages of the SARS outbreak, the PRC banned the Chinese press from reporting on the outbreak. The CCP knew about the outbreak for four months prior to notifying the WHO. Even after informing the WHO the virus originating within its borders the CCP continued to provide inaccurate information about the number of SARS cases within the PRC. Similarly, in December 2019 the CCP failed to report the early positive SARS tests or the identification of a novel coronavirus outbreak to the WHO.

Similar to the early days of COVID-19, requests for access to the epicenter of the SARS outbreak were denied by the CCP. Even after the WHO was admitted, the cover-up continued; CCP officials went so far as to put SARS patients in hospital rooms and in ambulances driving around the city to hide them from the WHO. As mentioned in the full report, in early 2003 the CCP failed to warn the public about the outbreak prior to the massive travel season surrounding the Spring Festival. In a repetition of past mistakes, the CCP again failed to warn their citizens or the world about the severity of the outbreak prior to the commencement of the 2020 Spring Festival.

In mid-February 2020, the CCP announced the firing of the Communist Party secretaries for Hubei province and Wuhan and punishments for hundreds of lower level government officials. The announcement was well received on Chinese social media, with one commenter supporting "the wise adjustment of the party central committee." During the SARS pandemic, the CCP employed similar tactics, firing the PRC's health minister and the mayor of Beijing. These high-profile government officials were scapegoated in order to recover public support and protect the top leaders of the CCP, who in both instances have remained in power.

It is evident that there are clear correlations between the CCP's behavior during the 2003 SARS pandemic and the ongoing COVID-19 global pandemic. To date we have identified nine behaviors that the CCP engaged in during both their failed handling of SARS and their cover-up regarding COVID-19:

CCP Actions	SARS	COVID-19
Waited to inform the WHO?	✓	✓
Subsequently hid information from the WHO?	✓	✓
Hid their knowledge of the severity of the outbreak?	✓	✓
Disrupted press from reporting?	✓	✓
Response kept secret until after the Spring Festival travel season began?	✓	✓
Limited access of outside experts to epicenter of the outbreak?	✓	✓
Claimed the virus was under control?	✓	✓
Underreported number of cases?	✓	✓
Firing of select CCP officials as scapegoats?	✓	✓

The startling similarity in the CCP's mishandling of the two outbreaks only adds to the evidence that the spread and impact of COVID-19 could have been prevented. The PRC had faced a similar crisis before, sought to hide it, and the world suffered for their mistake. When faced with a second, incredibly similar scenario, CCP officials doubled down on their past mistakes and COVID-19 became the second, more deadly and damaging chapter of a story that began in 2002.

Recommendations

The United States must take action within the international community to support accountability, transparency, and reforms to the systems and processes that enabled the CCP's cover-up and the WHO's failures. To this end, we provide four recommendations: new leadership at the WHO, Taiwan's re-admittance to the WHO as an observer, United States engagement in an international investigation with likeminded WHO Member States regarding the early stages of COVID-19, and concrete reforms to the International Health Regulations.

New Leadership at WHO

It is clear Director-General Tedros seriously erred in his handling of the COVID-19 pandemic. Coupled with a concerning history of covering up outbreaks of cholera in his home country of Ethiopia and repeated delays in declaring a PHEIC in response to the Kivu Ebola epidemic, we believe there is an established pattern of poor decision-making and political deference that has weakened the ability of the WHO to fulfill its mandate. We do not expect, nor require, the head of the WHO to be perfect. However, Director-General Tedros has repeatedly defended his decisions, responded to Taiwan's criticism by accusing their government of supporting racists, and praised the CCP's deplorable actions in response to the outbreak.

Defenders of Director-General Tedros argue that it would have been counterproductive to push back against the CCP. They argue that "diplomatic flattery is the price of ensuring Chinese cooperation." Others say that the Director-General "cannot afford to antagonize the notoriously touchy Chinese government." These statements rest on the claim that if Director-General Tedros had been more aggressive in questioning the claims coming from the CCP, then the CCP would have shared less information or delayed WHO access to the country.

However, such defenses ring hollow when the world has seen the impact of an independent Director-General of the WHO. In April 2003, two months after the CCP finally reported the outbreak of SARS to the WHO, and in the midst of the WHO response, then-Director-General Gro Harlem Brundtland publicly commented on the CCP's mishandling of the outbreak. Director-General Brundlant criticized the failure of the CCP to report the outbreak and their lack of coordination with the international community. Under her leadership the WHO declared a travel guidance for the first time in 55 years in order to stem the spread of SARS. Almost prophetically, Director-General Brundlant stated:

When I say that it would have been better, it means that I'm saying as the director general of the World Health Organisation: next time something strange and new comes anywhere in the world let us come in as quickly as possible.

Tragically, the CCP failed to heed her guidance. Director-General Brundlant's handling of the 2003 SARS pandemic is a case study for the importance of a Director-General who speaks truth to power and publicly challenges Member States when they fail to uphold their obligations to the international community. Instead, Director-General Tedros has chosen to defend and heap praise on a Member State who has continuously fed the WHO lies and misinformation. We now know Director-General Tedros and other senior leaders within the WHO knew that the PRC was withholding information and failing to abide by the IHR despite the deference of the WHO. They knew their policy of appeasement was failing yet chose to double down on it.

As such, we have lost faith in the ability of Director-General Tedros to lead the WHO. Having presided over two flawed PHEIC responses and prevented Taiwan from engaging with the WHO, it is clear that Director-General Tedros prioritizes matters other than the on-the-ground impact of COVID-19. The WHO's constitution requires it to provide "appropriate technical assistance," not political coverage for mistakes and cover-ups carried out by Member States. As Director-General, the responsibility of declaring a PHEIC, and indeed, the impact of choosing not to declare one, rests on his shoulders. In order to restore the faith of WHO Member States and return the WHO to its mandate of providing accurate, technical advice, Director-General Tedros should accept responsibility for his detrimental impact on the COVID-19 response and resign. The health of the world cannot afford incompetence and poor management.

Re-admittance of Taiwan to the WHO under Observer Status

In the early 1970s, by a vote of the World Health Assembly, Taiwan was removed from the World Health Organization and replaced with the PRC. After years of Taiwan petitioning to be readmitted to the WHO, the PRC and WHO signed the 2005 Memorandum of Understanding between the WHO Secretariat and the PRC. While the text remains secret, it is understood that the agreement severely limits contact between the WHO and Taiwan. Taiwan's interactions with the WHO were so restricted that representatives from Taiwan were only allowed to attend 21 of the approximately 1,000 WHO technical meetings held between 2005 and 2008.

In 2009, after years of diplomatic negotiation, the Department of Health in Taiwan received an invitation from then WHO Director-General Margaret Chan to attend a meeting of the WHA under the name "Chinese Taipei." The invitation, granted under the authority of the Director-General of the WHO, was extended each year until 2016. After Taiwan democratically elected President Tsai Ing-wen, seen as more critical of the PRC than her predecessor, the invitations stopped. Director-General Tedros, after being elected in May 2017, was quick to reassure the CCP that he would support their position. On May 26th, three days after he was elected, Director-General Tedros spoke to Xinhua, a PRC state-run press agency, and pledged to "abide by the one-China principle." The "one-China principle" is the CCP's own view that it holds sovereignty over Taiwan, which is not UN policy, the consensus view of UN member states, nor the policy of the United States.

The importance of Taiwan's inclusion at the WHO is an issue that has longstanding bipartisan support in Congress. During the 116th Congress, both chambers have passed several pieces of legislation supporting Taiwan's engagement with the WHO. The House of Representatives passed H.R.353, a bill supporting Taiwan's participation in the WHO,

unanimously. The Senate followed suit, unanimously approving S.249, a similar bill. A third piece of legislation, S. 1678, was signed into law by President Trump earlier this year, establishing as the policy of the United States support for the inclusion of Taiwan as an observer within appropriate international organizations.

Despite Taiwan's early identification of the outbreak, warning of human-to-human transmission, and success in battling COVID-19, Director-General Tedros has remained committed to the CCP's position and continues to refuse to invite Taiwan to participate in the WHA. Had Taiwan been a member of the WHA, or allowed to attend under Observer Status, it is highly likely their warnings regarding human-to-human transmission would have been transmitted to other countries instead of censored by the WHO. As was the case under the previous Director-General, it is completely within Director-General Tedros' power to invite Taiwan to participate in the WHA. He has simply chosen to allow the PRC to make this decision for him, yielding his authority in deference to the CCP. As such, we call upon the Director-General who replaces Director-General Tedros to invite Taiwan to participate in the WHO, in order to ensure that future warnings about potential health emergencies do not go unheeded.

International Investigation

The United States should engage with likeminded WHO Member States and Taiwan on an international investigation of the CCP's cover-up of the early stages of the pandemic and the WHO's failure to fulfill its obligations under the IHR. Such an investigation should seek to establish an even more definitive account of the origins of SARS-CoV-2, its appearance in humans, efforts by the CCP to conceal relevant scientific and health information about the outbreak, the effect of the CCP's cover-up on the actions of the WHO, the impact of the WHO's parroting of CCP propaganda, and the influence of the CCP's cover-up on the global response.

Fortunately, we are not alone in this proposal. The Governments of Australia, Japan, New Zealand, Sweden, and Taiwan, in addition to the European Commission, have publicly expressed their support for an independent investigation of the pandemic. On May 19, the World Health Assembly unanimously adopted a resolution cosponsored by more than 130 countries calling for an independent and comprehensive evaluation of the WHO's handling of the COVID-19 pandemic. The resolution, despite not mentioning the PRC's cover-up or failure to abide by the IHR, is a positive step towards developing a comprehensive understanding of the pandemic. However, while this investigation is important, it does not address the issue of true accountability regarding the PRC's clear violations of international law.

On July 6th, the United States submitted formal notice of its intent to withdraw from the WHO, effective July 6, 2021. We share the frustrations of President Trump, Secretary of State Pompeo, and National Security Adviser O'Brien with the WHO's mishandling of the COVID-19 pandemic. NSA O'Brien has publicly stated that the Administration would consider remaining a part of the WHO if the organization instituted the necessary reforms to ensure its independence. We agree it is vital for the WHO to restore its independent nature as a body that provides technical advice free from political considerations. The on-going pandemic has revealed deep flaws within WHO processes that can only be addressed by serious, and extensive, reforms. While the WHO failed to abide by the IHR, uphold its mandate, and fulfil its obligations to Member States, we do not believe the withdrawal of the United States or the establishment of a competing international organization is the best path forward. As such, we call on the WHO to fix the deficiencies outlined by the Administration, adopt the recommendations of this report through internal action where possible, and make preparations for improvements and reforms that need to be ratified by the World Health Assembly at its next meeting or emergency session. By remaining part of a WHO that is ready for change, the United States can be drive forward the necessary reforms of the International Health Regulations and the WHO.

IHR Reforms

In the wake of the 2003 SARS pandemic, the United States was involved in efforts to reform the International Health Regulations. Negotiations amongst WHO Member States resulted in the 2005 IHR, which entered into effect in 2007. While the 2005 IHR included several important reforms, the COVID-19 pandemic has revealed additional flaws and the need to refine previous reforms. We recommend the President and Secretary of State use the voice, vote, and influence of the United States to seek additional IHR reforms, including around the information Member States are required to provide, the WHO's obligations to investigate unofficial reports concerning health events and notify Member States, and the process for declaring a PHEIC.

Article 6 of the IHR requires Member States to provide certain relevant public health information to the WHO, including "laboratory results," among other things. The PRC failed to transmit the SARS-CoV-2 genetic sequencing data to the WHO for 10 days, and to date has not provided viral isolates or other biological samples to the WHO. Article 6 should be amended to include, by reference, genetic sequencing data and biological samples in the list of public health information Member States are required to provide to the WHO. This will ensure that Member States cannot exploit loopholes they perceive to hide or suppress vital public health information.

Under Article 9 of the IHR, the WHO has a "mandate" to investigate and seek verification of unofficial reports concerning

health events with "potential international implication." In several instances discussed in this report, it appears that the WHO failed to do so. The United States Government should consider how to improve and clarify the WHO's responsibilities to investigate reports from non-Member States under Article 9. One possible option would be requiring the WHO to disclose the results of their investigations once complete. Alternatively, the IHR could be modified to empower Member States to refer third party or unofficial reports of activity within a different Member State to the WHO for investigation.

Article 11 of the IHR regulates how the WHO provides information to Member States. While the IHR mandates Member States provide certain information with 24- or 48-hours, Article 10 only requires the WHO to provide information "as soon as possible." After the Wuhan Municipal Health Commission notified the WHO of the outbreak, it took the WHO four days to publicly report the notification on social media and five days to issue a technical publication to the scientific and public health communities. The IHR should be modified to require the WHO to inform Member States of all reports and notifications received from a Member State within 48 hours.

Finally, Article 12 concerns the determination of a Public Health Emergency of International Concern. While Section 4 of the Article provides a list of items for the Director-General to consider, there is no requirement that the Director-General heed the advice of the Emergency Committee or provide justification of his decision to declare, or not declare, a PHEIC. We believe that the breakdown of the PHEIC process during the Kivu Ebola epidemic and the current COVID-19 pandemic illustrates the need to reform and formalize this process. PHEIC decisions should be made based on scientific information and global health best practices, not any other considerations. To this end, we recommend reforms around the structure and authority of the Emergency Committee, as well as the processes in Article 12, that would achieve this goal.

Conclusion

There remain many unanswered questions as to the origins of SARS-CoV-2 and the cause of the COVID-19 global pandemic. Director-General Tedros' full-throated defense of the CCP's response and embrace of their revisionist history remains incredibly concerning. Reflecting on what we have uncovered so far, the failures of the CCP to protect their citizens and fulfill their obligations under international law have resulted in disappeared journalists, a world seized by a public health emergency, a shattered world economy, and hundreds of thousands of dead.

Senior CCP leaders, including CCP General Secretary Xi Jinping, knew a pandemic was ongoing weeks before it was announced. Instead of warning the world, the CCP chose to nationalize foreign supply chains and secretively buy up medical supplies in foreign countries to ship to the PRC. When countries complained, or advocated for an investigation into the CCP cover-up, the PRC threatened bans on exports or instituted massive tariffs to punish those countries. The CCP continues to seek to bully not only the WHO, but other countries around the world who want to understand the core failures that lead to COVID-19 becoming a global pandemic.

Research shows the CCP could have reduced the number of cases in China by up to 95% had it fulfilled its obligations under international law and responded to the outbreak in a manner consistent with best practices. It is highly likely the ongoing pandemic could have been prevented. The WHO, despite internal discussions about the lack of transparency and cooperation from the CCP, continues to praise General Secretary Xi and the PRC for its handling of the virus. As such, it is incumbent upon the United States and likeminded WHO Member States to ensure the accountability and reforms at the WHO necessary to prevent the CCP's malfeasance from giving rise to a third pandemic during the 21st century.

Timeline of Key Events in the Chinese Communist Party's Cover-up

December 2019 – January 2020: CCP leaders know about coronavirus but take aggressive steps to hide it from the public, including detaining doctors who warned about the virus and censoring media on the virus.

Dec. 30, 2019: Doctors in Wuhan report positive tests for "SARS Coronavirus" to Wuhan health officials. Under WHO regulations, China is required to report these results within 24 hours. China fails to inform the WHO about the outbreak.

Dec. 31, 2019: WHO officials in Geneva become aware of media reports regarding an outbreak in Wuhan and direct the WHO China Country Office to investigate. Taiwan informs WHO about human-to-human transmission, but data is not published on WHO's data exchange platform.

Jan. 1, 2020: Hubei Provincial Health Commission official orders gene sequencing companies and labs who had already determined the novel virus was similar to SARS to stop testing and to destroy existing samples.

Jan. 2, 2020: The Wuhan Institute of Virology (WIV) completes gene sequencing of the virus, but the CCP does not share the sequence or inform the WHO.

Jan. 3, 2020: China's National Health Commission ordered institutions not to publish any information related to the "unknown disease" and ordered labs to transfer samples to CCP controlled national institutions or destroy them.

Mid-Late January: Despite knowing about the virus, CCP allowed massive travel within China and abroad during the Spring Festival (3 billion estimated trips over 40 days), and Wuhan held a celebratory polluck with more than 40,000 families eating from 14,000 dishes.

Jan. 11-12, 2020: After a researcher in Shanghai leaks the gene sequence online, the CCP transmits the WIV's gene sequencing information to the WHO that was completed 10 days earlier. The Shanghai lab where the researcher works is ordered to close.

Jan. 14, 2020: Wuhan health authorities claim no human-to-human transmission from coronavirus. This assessment was tweeted by WHO the same day. According to classified documents obtained by the Associated Press, Xi Jinping is warned by top Chinese health official that a pandemic is occurring.

Jan. 22, 2020: WHO mission to China admits some evidence of human-to-human transmission.

Jan. 23, 2020: After the Emergency Committee is divided on whether to declare a Public Health Emergency of International Concern (PHEIC), Director-General Tedros decides not to. This delay contributed to a regional epidemic turning into a global pandemic.

Jan. 23, 2020: The CCP institutes a city-wide lockdown of Wuhan. However, before the lockdown goes into effect, an estimated 5 million people leave the city.

Jan. 29, 2020: Tedros praises the CCP's response to the virus, saying their transparency was "very impressive, and beyond words" and that the CCP was "actually setting a new standard for outbreak response."

Jan. 30, 2020: One week after declining to do so, Tedros declares a Public Health Emergency of International Concern.

Feb. 1, 2020: First death outside of the PRC occurs, in the Philippines.

Feb. 7, 2020: Dr. Li, who first shared the positive SARS test results with his classmates via WeChat, dies from COVID-19.

Feb. 9, 2020: The death toll for COVID-19 surpasses that of SARS.

Feb. 15, 2020: First death from COVID-19 outside of Asia occurs, in France.

Feb. 16, 2020: WHO and PRC officials begin a nine-day "WHO-China Joint Mission on Coronavirus Disease 2019" and travel to China to examine the outbreak and origin of COVID-19. Many team members, including at least one American, were not allowed to visit Wuhan on the trip.

Feb. 25, 2020: For the first time, more new cases are reported outside of PRC than within.

Feb. 26, 2020: The WHO-China Joint Mission issues its findings, praising the PRC for its handling of the outbreak.

Feb. 29, 2020: The first reported COVID-19 death in the United States occurs.

March 11, 2020: The WHO officially declares the COVID-19 outbreak a pandemic after 114 countries had already reported 118,000 cases including more than 1,000 in the United States.

APPENDIX III: ACTIONS THE ADMINISTRATION HAS TAKEN AND UNUSED AUTHORITIES

The executive branch has existing authority to sanction individuals and entities from the People's Republic of China (PRC) for a variety of reasons, including protecting U.S. national security and economic interests and defending human rights. This Administration has used many of these tools on PRC individuals and entities, including blocking certain PRC entities access to U.S. technology through export controls and raising import duties on PRC goods through trade authorities.

The Global Magnitsky Act (Glomag)

Authority: Allows the State and Treasury Departments to restrict the travel and freeze the assets of individuals who have violated human rights.

Application: This Administration has placed Glomag sanctions on numerous PRC persons.

The Hong Kong Human Rights and Democracy Act (HKHRDA)

Authority: The HKHRDA requires the Secretary of States to certify whether Hong Kong remains sufficiently autonomous to justify separate treatment under U.S. law, submit a sanctions report to Congress listing persons responsible for human rights violations in Hong Kong, and apply asset blocking and visa sanctions to such persons. Based on the Secretary's certification, the President can then terminate various aspects of Hong Kong's separate treatment under the Hong Kong Policy Act.

Application: The Secretary has decertified Hong Kong's autonomy in the first report due under the HKHRDA, but has not submitted the sanctions report to Congress, which is now overdue. The Administration has levied sanctions on Hong Kong and PRC officials under the HKHRDA. The President has terminated numerous elements of Hong Kong's separate treatment pursuant to the Act in Executive Order 13936.

The Hong Kong Autonomy Act

Authority: The Autonomy Act requires the President to submit a report identifying foreign persons who have materially contributed to undermining Hong Kong's autonomy, as well as the foreign financial institutions who knowingly do business with such persons. The bill imposes mandatory sanctions on such persons and financial institutions.

Application: The Administration has sanctioned individuals under the authority of the Autonomy Act, but has not submitted the required sanctions report or sanctioned financial institutions.

The Uyghur Human Rights Policy Act (UHRPA)

Authority: UHRPA requires the President to issue asset blocking and visa sanctions against persons responsible for human rights violations against Uyghurs, ethnic Kazakhs, Kyrgyz, members of other Muslim minority groups, or other persons in Xinjiang Uyghur Autonomous Region, by December 17, 2020.

Application: This authority has not been implemented.

Entity List and Denied Persons List

Authority: The Commerce Department Entity List contains a list of names of certain foreign persons—including businesses, research institutions, and individuals—that are subject to license requirements for the export of specific items. The Commerce Department Denied Persons List is a list of foreign people and companies whose export privileges have been denied.

Application: Several PRC entities, including Huawei and companies linked to repression in Xinjiang, are on the Entity List. The Trump Administration had put ZTE on the Denied Persons List but later removed it following a settlement with the company.

Section 212(a)(3)(C) of the Immigration and Naturalization Act

Authority: Makes ineligible for a visa or other entry, an alien whose entry to the United States or proposed activities while in the country, would have serious adverse foreign policy consequences for the United States.

Application: The Administration used this authority to impose visa restrictions on the PRC government and Communist Party officials it believes are responsible for the detention and abuse of Muslim minorities in Xinjiang province.

Foreign-Produced Direct Product Rule

Authority: A foreign-produced item may be considered a "direct product" of the United States and subject to the U.S. Export Administration Regulations if the foreign-produced item is based on certain U.S. technology.

Application: The Administration amended this rule to narrowly and strategically target Huawei's acquisition of semiconductors that are the "direct product" of certain U.S. software and technology.

Specially Designated Nationals (SDN)

Authority: Inclusion on the Treasury Department's SDN list generally prohibits U.S. banks from maintaining accounts for listed persons and U.S. persons could face civil or criminal penalties for doing business with them.

Application: The Trump Administration has placed or maintained more than 175 PRC persons on the SDN list.

Foreign Mission Act

Authority: Entities that are designated as a foreign mission must adhere to certain administrative requirements that also apply to foreign embassies and consulates in the United States, including notifying the Office of Foreign Missions at the State Department about the number of personnel and current property holdings in the United States.

Application: The State Department has used this authority to designate several PRC entities operating in the United States, including the Confucius Institute U.S. Center and at least nine CCP propaganda outlets.

Executive Order 13694: Malicious Cyber-Enabled Activities

Authority: Gives broad authority to the president to block the property of companies involved in or benefitting from the theft of trade secrets through cyber-enabled means.

Application: Two PRC persons have been sanctioned for activities relating to North Korea.

Executive Order 13873: Securing the Information and Communications Technology and Services Supply Chain

Authority: Authorizes the Commerce Secretary to regulate the acquisition and use of information and communications technology and services (e.g. any hardware, software, or service) from a "foreign adversary"—likely to include the PRC.

Application: The final rule has not been released yet.

The Anti-Boycott Act

Authority: Encourages and in some cases requires U.S. firms to refuse to participate in foreign boycotts that the United States does not sanction.

Application: This Act has not been applied in response to actions by the PRC government.

Trade Authorities

Authorities: Section 301 of the Trade Act of 1974 and Section 337 of the Tariff Act of 1930 as well as countervailing duties and anti-dumping allow tariffs and import bans to be used as remedies for a variety of violations, including IP theft and subsidies.

Application: All four trade tools have been used with respect to the PRC.

International Emergency Economic Powers Act (IEEPA)

Authority: Broad powers to deal with any "unusual and extraordinary threat" to the United States.

Application: The last two Administrations have used authorities under IEEPA as the legal basis to issue various executive orders, such as EO 13694 (cyber-enabled activities) and EO 13873 (securing the supply chains).

International Investment Survey Act of 1976

Authority: The Act allows the President to request mandatory surveys of companies under specific deadlines with the ability to invoke civil and criminal penalties for noncompliance.

Application: It does not appear this authority has been invoked for the PRC but could be used to gather information on several areas of potential congressional concern, including the status of medical supply production, distribution, and export policy situation facing U.S. companies overseas.

Kingpin Act

Authority: The Foreign Narcotics Kingpin Designation Act (the "Kingpin Act") provides sanctions authorities to deny significant foreign narcotics traffickers, their related businesses, and their operatives access to the U.S. financial system and all trade and transactions involving U.S. companies and individuals.

Application: The Administration has used the Kingpin Act to sanction PRC drug traffickers, including for illegal production and trafficking of fentanyl.

APPENDIX IV: TASK FORCE ACTIVITY

This list includes formal activities conducted by Members and/or staff of the China Task Force; however, the listing does not include all meetings and other consultations conducted during the course of the Task Force's review.

Task Force Activity Summary

Full Task Force Briefings (16)
Member Level Pillar Briefings (40)
Staff Level Briefings (11)
Total Briefings (67)

Total Officials/Experts who Briefed the Task Force (131)

Full Task Force Briefings (16)

David Stilwell, Assistant Secretary and Dr. M. Miles Yu, Office of the Secretary, Department of State (May 2020)

Robert O'Brien, National Security Advisor and **Matt Pottinger,** Deputy National Security Advisor, National Security Agency (May 2020)

Dr. Eric Schmidt, Chair, US DOD Defense Innovation Advisory Board (*June 2020*)

Adam Boehler, CEO, US International Development Finance Corporation (June 2020)

FBI and ODNI Officials (June 2020)

Larry Kudlow, Director, U.S. National Economic Council (June 2020)

Ambassador Robert Lighthizer, U.S. Trade Representative (June 2020)

Secretary Michael Pompeo, Department of State (July 2020)

Ely Ratner and Richard Fontaine, Center for a New American Security (CNAS) (July 2020)

Secretary Mark Esper, Department of Defense (July 2020)

Michele Flournoy, Former Under Secretary of Defense for Policy (*August 2020*)

Hsiao Bi-khim, Taiwan's Representative to the U.S. (August 2020)

Jeh Johnson, Former Secretary of Homeland Security (August 2020)

Kelly Craft, U.S. Ambassador to the United Nations (September 2020)

Deputy Secretary Stephen Biegun, Under Secretary Keith Krach, Assistant Secretary David Stilwell, Special Envoy Lea Gabrielle, and Director of Policy Planning, Dr. Peter Berkowitz, Department of State (September 2020) Ambassador Rosemary Banks of New Zealand and Ambassador Arthur Sinodinos of Australia (September 2020)

Member Level Briefings (40)

Academic and Research Security: Thousand Talents Program (June 2020)

Briefer: Dr. Michael Lauer, Deputy Director for Extramural Research, National Institute of Health (NIH)

Introduction to Economic Statecraft and China's Use of International Financial Institutions (June 2020)
Briefers: Meg Lundsager, International Monetary Fund and Clay Lowery, Institute of International Finance

The Reagan Administration's Ideological Warfare Strategy Against the Soviet Union and Drawing Lessons for US policy Today (June 2020)

Briefers: Roger Zakheim, Washington Director of the Reagan Institute and Will Inboden Ph.D, Executive Director of Clements Center for National Security, Lyndon B. John School of Public Affairs, UT Austin

U.S. China Economic and Security Review Commission's Recommendations: Competitiveness and Research Security (June 2020)

Briefers: Commissioners Robin Cleveland, Jim Talent and analyst Anastasya Lloyd-Damnjanovic

Future Defense Warfare and Cyber Kill Chain Issues (June 2020); Briefer: Chris Brose, Anduril Industries

Promoting U.S. Energy Resiliency (June 2020) Briefers: Maria Korsnick, Nuclear Institute, and Rich Powell, Clearpath

Role of Ideology in Xi's China (June 2020) Briefers: Professor Aaron Friedberg, Princeton University; Daniel Tobin, National Intelligence University and Peter Mattis, Deputy Staff Director of the Congressional-Executive Commission on China

Threats To, Vulnerabilities of, and Opportunities for the U.S. Supply Chain (June 2020)
Briefer: Samantha Ravich, Foundation for Defense of

Democracies (FDD)

Overview of the White House Technology Office (June 2020) Briefer: Michael Kratsios, Chief Technology Officer

CCP's Facilitation of Global Corruption (June 2020) Briefers: Paul Massaro, US Helsinki Commission; Nate Sibley, Hudson Institute's Kleptocracy Initiative; Elaine Dezenski, Foundation for Defense of Democracies' Center on Economic and Financial Power; David Shullman, International Republican Institute CCP's United Front Work Department, Its Global Activities, and CCP Interference and Subversion Around the World (June 2020); Briefers: Anne-Marie Brady, University of Cantebury; Alex Joske, Australia Strategic Policy Institute; John Garnaut, JG Global

The Challenges Posed by China in the Transition to 5G (June 2020)

Briefers: Rob Atkinson, Stephen Ezell, and Doug Brake, Information Technology and Innovation Foundation (ITIF)

PLA Conventional and Nuclear Threats (June 2020) Briefers: Tom Mahnken, President and Toshi Yoshihara, Senior Fellow, Center for Strategic and Budgetary Assessments (CSBA)

White House Office of Science and Technology Policy (OSTP) Activities on China and U.S. Competitiveness (June 2020)

Briefer: Dr. Kelvin Droegemeier, Director, OSTP

Administration Space Policy as Related to Global Competition and China (June 2020)

Briefer: Dr. Scott Pace, Executive Secretary, White House National Space Council

Overview of On-going Efforts to stop Chinese Exploitation of Highly Sensitive Technologies in the U.S. (June 2020) Briefers: Department of Homeland Security Officials

CCP's Efforts to Infiltrate and Influence the UN system and International Organizations Writ Large (July 2020) Briefer: Mark Lambert, Special Envoy for UN Integrity, Department of State

China's Threats on Biotech and Biosecurity (July 2020) Briefers: Alexander Titus, former Assistant Director for Biotechnology, Department of Defense Office of the Under Secretary for Research and Engineering and Jason Kelly, CEO of Gingko Bioworks

Role of the Export-Import Bank and How the Bank Can Be Used as a Tool to Counter China (July 2020) Briefer: Kim Reed, Chairman, EX-IM Bank

Space and Intelligence (July 2020)

Briefers: Kevin Pollpeter, CNA expert on space; Kari Bingen, Former Principle Deputy of the Undersecretary of Defense for Intelligence and Security; and Chirag Parikh, Microsoft Azure space lead and Former Director of the Office of Source Strategies at the National Geospatial-Intelligence Agency

U.S. Export Control Policy with the PRC (*July 2020*) *Briefers: Cordell Hull,* Acting Under Secretary of Commerce for Industry and Security and *Dr. Christopher Ashley Ford,* Assistant Secretary of State for International Security and Nonproliferation

Information Statecraft: Responding to CCP Disinformation and Upgrading U.S. Counter Messaging (July 2020) Briefers: Laura Rosenberger, Alliance for Securing Democracy, and Zack Cooper, German Marshall Fund

University Leadership Perspectives and Actions on Academic Research Security (July 2020)
Briefers: Dr. David Norton, VP of Research, University of Florida; Dr. Morley Stone, VP of Research, Ohio State University; Dr. Michael McQuade, VP of Research, Carnegie Mellon University Mr. Kevin Gamache, Chief Research Security Officer, Texas A&M; Mr. Toby Smith, VP for Policy, Association of American Universities

China's Territorial Aggression in the Indo-Pacific Region, China's Increasing Global Security Footprint, and U.S. Responses (July 2020)

Briefers: Randy Schriver, Former Assistant Secretary of Defense for Indo-Pacific Security Affairs and Dan Blumenthal, Director for Asian Studies of the American Enterprise Institute

Role of Trade Policy in Countering China and Strengthening Alliances in Asia (July 2020) Briefers: Wendy Cutler, Vice President and Managing Director, Asia Society Policy Institute; Former Acting Deputy USTR and negotiator for TPP; and John Murphy, Senior Vice President for International Policy, U.S. Chamber of Commerce

CCP's Human Rights and Religious Freedom Abuses (*July 2020); Briefer: Samuel Brownback*, U.S. Ambassador at Large for International Religious Freedom, Department of State

The Race to 5G, Spectrum Distribution and Critical Technologies Impacted by 5G Deployment (July 2020) Briefers: AT&T, Verizon, T-Mobile and CTIA Executives

How to Better Defend the US in Cyberspace (July 2020) Briefers: RADM (Ret.) Mark Montgomery, Executive Director, Cyberspace Solarium Commission and Jamil Jaffer, Founder & Executive Director, National Security Institute, George Mason University

The Justice Department's China Initiative (July 2020) Briefers: Department of Justice Officials

STEM Education to Enable U.S. Competitiveness and COVID Response and Recovery (July 2020)

Briefer: James Brown, Director, STEM Education Coalition

China's Unrestricted Warfare (*July 2020*) *Briefer:* **General Robert Spalding** (USAF, Ret.), Hudson Institute

Overview of U.S. Energy Competitiveness (July 2020) Briefers: Department of Energy Officials

Role of Allies and Partners in the US-China Competition (July 2020); Briefers: Tom Tugendhat, United Kingdom MP and Andrew Hastie, Australia MP

China and U.S. Capital Markets (July 2020) Briefer: Jay Clayton, Chairman, Security and Exchange Commission

U.S. Competitiveness, Workforce, and Supply Chains (July 2020); Briefers: President and CEO, Joshua Bolten, VP of Trade and International Policy, Paul Delaney, and VP of Technology and Innovation, Denise Zheng, Business Roundtable

National Security Impacts of China's Cyber Operations on Civilian Government Networks and Critical Infrastructure (July 2020); Briefer: Christopher Krebs, Director, DHS' Cybersecurity and Infrastructure Security Agency

Tax and Trade Policies to Make the U.S. More Competitive with China (August 2020)
Briefer: Doug Holtz-Eakin, President, American Action

Briefer: **Doug Holtz-Eakin,** President, American Actior Forum Cyber, Critical Infrastructure, IP Theft and Supply Chain Challenges (August 2020); Briefers: Frank J. Cilluffo, Director of Auburn University's McCrary Institute for Cyber and Critical Infrastructure Security and Nicholas Eftimiades, Professor at Penn State University, Homeland Security Program

Pharmaceutical Supply Chain and Proposed Policies Regarding Supply Chain (August 2020) Briefers: Senior VP of Policy, Anne Pritchett; VP of Law, Kelly Goldberg, and Deputy VP of Law, Neil Pratt, PhRMA

U.S. Corporate Perspectives on Challenging the Belt and Road Initiative (August 2020)

Briefer: Stu Jones, President, Regions and Corporate Relations, Bechtel

Staff Level Briefings (11)

US Trade Policy with China (May 2020) Briefer: **Jamieson Greer**, Former Chief of Staff to USTR Lighthizer

Chinese Influence Operations in the U.S. and Globally (June 2020)

Briefers: Larry Diamond and Glenn Tiffert, Hoover Institute

Google's Quantum Computing Moonshot (June 2020) Briefers: Eric Ostby, Miles Taylor and Andrew Ladner, Google

Foreign Assistance Tools and the Role of EX-IM Bank, Trade Development Agency (TDA), and Development Finance Corporation (DFC) to Respond to Our Great Power Competition with China (June 2020) Briefer: Daniel Runde, Senior Vice President & Chair in Global Analysis, Center for Strategic and International Studies (CSIS)

Drug Manufacturing and Supply Chains (*June 2020*) *Briefers: Leon Wyszkowski* and *Tim Fenton*, Thermo Fisher Scientific

Challenges with and Solutions for U.S. Export Control Policy with the PRC $(June\ 2020)$

Briefers: Georgetown's Center for Emerging Technology and the Congressional Research Service

Strengthening U.S. Competitiveness in 5G (June 2020) Briefer: Klon Kitchen, Heritage Foundation

Artificial Intelligence (July 2020) Briefer: **Charlie Burgoyne**, Valkyrie

Evolving and Emerging Threats to Critical Industries (July 2020); Briefers: David Hanke, Arent-Fox and David Stapleton, Defense Counterintelligence and Security Agency (DCSA)

Trade, Tax, and Workforce Development Policies to Gain a Competitive Advantage Over China (August 2020) Briefers: Carolyn Lee, Executive Director, The Manufacturing Institute and Chris Netram, Vice President of Tax and Domestic Economic Policy

U.S. Leadership in International Standards Development (August 2020); Briefers: Adam Sedgewick and Lisa Carnaham, National Institute of Standards and Technology (NIST)

APPENDIX V: ENDNOTES

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