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COVID-19: Is the U.S. Prepared
for the Next Exogenous Event?

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*We had each other, that's how we won.
~Lando Calrissian*

#LANDOs

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“...when you are planning for an emergency you must start with this one thing: the very definition of "emergency" is that it is unexpected, therefore it is not going to happen the way you are planning.” -- Dwight D. Eisenhower¹

Introduction

The COVID-19 global health crisis highlighted just how complex the world has become. In this century, people have benefited from the invention of life-altering technologies while seeing those same technologies create unprecedented global interconnectedness. In his book, *The Revenge of Geography*, Robert Kaplan provides an effective analogy to understand this dynamic:

The smaller the world becomes because of technology, the more that every place in it becomes important—becomes strategic, in many cases. Think of a wristwatch: so small, but once you start to take the watch apart it suddenly becomes vast and complicated. That is the world of the twenty-first century.²

When compared with the concept of world order, Kaplan’s analogy of delicate and complicated wristwatches (with vast inner workings) illustrates the multilayered complexity of today’s global environment. Like the ripples in a pond created by a pebble, a single change in the status quo can have unprecedented second and third order effects – ripples in the world order.

Policymakers and strategic planners describe exogenous events or factors as unpredictable and unexpected scenarios, external to the long-term plans of any one country – they are often events (large or small) that derail individual strategies, and create a divergence in the existing world order.³ For example, many thought the Cold War would end in conflict, but

¹ Dwight D. Eisenhower, *Dwight D. Eisenhower: 1957 : Containing the Public Messages, Speeches, and Statements of the President, January 1 to December 31, 1957*, 2005, <http://name.umdl.umich.edu/4728417.1957.001>.

² Robert D. Kaplan, *The Revenge of Geography : What the Map Tells Us about Coming Conflicts and the Battle Against Fate.*, 1st ed. (Random House, 2012), <https://nduezproxy.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,url,uid&db=cab04199a&AN=ndu.528510&site=eds-live&scope=site>.

³ Paul K. Davis, Steven C. Bankes, and Michael Egner, *Enhancing Strategic Planning with Massive Scenario Generation: Theory and Experiments*, Technical Report, TR-392 (Santa Monica, CA: RAND National Security Research Division, 2007).

several exogenous factors caused the Soviet Union to collapse unexpectedly, ending the stalemate. Whether it was the nuclear reactor leak at Chernobyl in 1986 which fueled a lack of confidence in President Gorbachev or the significant drop in oil prices that crushed the Russian economy, these scenarios revealed a new world order where United States (U.S.) and European powers were in the driver's seat.⁴

Today, that world order is being challenged in new ways. China's economic growth, military spending, and expanding influence, are increasing U.S. and allied concerns associated with China's political practices, and are creating what Graham Allison called "structural stress" in the global order.⁵ President Xi Jinping has said that China will be the leading world power by 2049.⁶ U.S. national security strategy maintains that rivals, like China, are undermining American interests. The U.S. remains committed to a balance of power that favors America, its allies, and partners.⁷ As the two strongest economies in the world, the U.S. and China remain interdependent, where each profits from one another's economic positions.⁸ In the context of this dynamic, and considering key lessons learned from COVID-19, what can the U.S. do to ensure its national security strategy can stand up against future exogenous events? This paper evaluates the U.S. response to COVID-19 and calls attention to U.S. economic policy deficiencies, highlights inadequacies in U.S. strategic communications, and reveals weaknesses in U.S. supply chains and their *land domain* equities. Keeping in mind the potential for future exogenous events (and their ripple effects), this paper recommends ways in which the U.S. can

⁴ "Collapse of the Soviet Union," HISTORY, November 14, 2019, <https://www.history.com/topics/cold-war/fall-of-soviet-union>.

⁵ Graham Allison. Forward to *Fragile Rise* by Zu Qiyu. (MIT Press: Cambridge, 2017). Graham Allison describes the "Thucydides Trap" which details the rise of a great power like Athens which instills fear in competitors (Sparta), making war inevitable.

⁶ Francois Bougon. *Inside the Mind of Xi Jinping*. (Hurst & Company: London, 2017)

⁷ Donald J. Trump. *National Security Strategy*. December 2017.

⁸ Joseph S. Nye Jr. "Power and Interdependence with China." *The Washington Quarterly*. 19 March 2020.

leverage economic tools to maintain advantages vis-à-vis China, establish a clear strategic communications strategy, and bolster supply chain agility and resiliency.

Successful prosecution of whole of government operations across time and space to achieve political outcomes relies on multiple domains. Control of resources, territory and populations is often decided within the *land domain*. In this context, this paper examines the interplay of economic policy, strategic communications, and the U.S. ability to mobilize in response to exogenous events, such as COVID-19.

Methodology

Economic Policy

First, this paper evaluates economic competition between the U.S. and China in the context of the pandemic and its impact on both economies. A brief comparative analysis of each country's actions to mitigate economic impacts reveals strengths and weakness in both approaches. Fiscal and monetary policy decisions in response to the pandemic highlighted deficiencies in U.S. economic policy that weakened the U.S. position vis-a-vis China.

Strategic Communications

Second, this paper evaluates the U.S. and resultant policy approach to address the promulgation of misinformation and disinformation during the COVID-19 pandemic, to include how adversaries manipulated information to drive the global narrative. Based on misinformation and disinformation targeted at Americans during the crisis, the U.S. and its allies were clearly engaged in an information war. The next crisis should not find the U.S. without a strategic communication plan that addresses both domestic and international messaging, tools, methods, and key audiences.

Supply Chain

Lastly, with the pandemic-response in mind, we looked closely at the U.S.' domestic and international supply chains, evaluating the effectiveness of U.S. policy levers and industry cooperation. This analysis reveals an opportunity to strike a better balance between government and industry actions, to include improving relationships with allies and partners, and increasing supply chain resilience, agility and diversity.

Vignettes. Throughout the paper short vignettes are included to provide contextual insights at the intersection of the *land domain* industry and the COVID-19 pandemic. The vignettes leverage current events to illuminate relevant variables for planning and policy consideration. These are intended to provide leaders insights to prepare for future exogenous events.

Background

World War I

World War I revealed a gap between U.S. military requirements and the industries that fulfill them as a lack of industrial capacity forced the U.S. to send three million men to fight with weapons and planes supplied by other nations. The War Industries Board coordinated with industry to build mountains of war materiel, but little of it was ready in time to fight the war. In fact, “of the 10,000 75mm artillery pieces the War Department ordered, only 143 ever reached the front.”⁹

⁹ Arthur Herman, *Freedom's Forge: How American Business Produced Victory in World War II*, 2013 Random House Trade paperback edition. (Random House Trade Paperbacks, 2013), <https://nduezproxy.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,url,uid&db=cat04199a&AN=ndu.769777&site=eds-live&scope=site>.

World War II

Over two decades later, President Roosevelt appointed General Motors executive William Knudsen to oversee war production to ensure the country did not repeat the mistakes of World War I. Knudsen's extensive background in the manufacturing industry armed him with a readily accessible network of talented people and suppliers. Several leading industries joined the fight and transitioned their plants to build war materials, and this agility became the key to the successful mobilization of World War II. American industries "produced two-thirds of all Allied military equipment used in World War II, including 86,000 tanks, 2.5 million trucks and a half million jeeps." To bolster the agility of the defense industrial base by granting unprecedented government authorities, the First and Second War Powers Acts of 1941 and 1942 enabled the government to influence industry in the interest of national defense, but these Acts lapsed at the end of the war.¹⁰

The Defense Production Act (DPA)

Prompted by the start of the Cold war and invasion of South Korea, the Truman Administration enacted the DPA in September 1950 with World War II mobilization key lessons as the foundation. Since then, Congress has reauthorized the DPA more than 50 times, with several amendments and reductions of authorities from the original law. The DPA's authorities allow the president to influence the industrial base in the interest of national defense. Since the DPA's inception, the scope of national defense has expanded beyond conventional military means to include homeland security, domestic preparedness, and other national emergencies (including pandemics).¹¹

¹⁰ Herman.

¹¹ Michael H Cecire and Heidi M Peters, "The Defense Production Act of 1950: History, Authorities, and Considerations for Congress," March 2, 2020, 36, <https://fas.org/sgp/crs/natsec/R43767.pdf>.

The current DPA defines national defense as:

Programs for military and energy production or construction, military or critical infrastructure assistance to any foreign nation, homeland security, stockpiling, space, and any directly related activity. Such term includes emergency preparedness activities conducted pursuant to title VI of the Robert T. Stafford Disaster Relief and Emergency Assistance Act [42 U.S.C. § 5195 et seq.] and critical infrastructure protection and restoration.¹²

The three current authorities are Titles I, III, and VII. Title I allows the president to prioritize and accept contracts for materials and services (other than employment contracts) ahead of competing interests as long as it is in the interest of national defense. In short, companies must service government contracts over others, including exports. Title III of the statute authorizes the president to offer financial incentives that would encourage private industry to assist in the national defense effort. These incentives could include loans, loan guarantees, direct purchases, and purchase commitments.¹³ Title VII empowers the president to establish voluntary agreements with private industry. Similar to Knudsen's efforts in World War II, the intent of Title VII is to allow for the assembly of a team of subject matter experts, empowered and reinforced at the highest levels of government. The team's charter is to avert shortages of critical supplies swiftly and to scale. This statute is crucial for stimulating production in the face of complicated supply bottlenecks and shortages.¹⁴

¹² Patrick McDonnell, "What's in Trump's Executive Order on the Defense Production Act?," Lawfare, March 20, 2020, <https://www.lawfareblog.com/whats-trumps-executive-order-defense-production-act>.

¹³ Jane Chong, "How to Actually Use the DPA," The Atlantic, April 6, 2020, <https://www.theatlantic.com/ideas/archive/2020/04/how-actually-use-dpa-fight-covid-19/609469/>.

¹⁴ Chong.

COVID-19 Pandemic

COVID-19 is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Although patient zero may have been infected as early as November 2019, the first case was officially recognized in December in Wuhan, China, rapidly escalating to a global pandemic.¹⁵ Its long incubation period, wide range of symptom severity among individuals, relative ease of transmission from person to person, and ability to live for days on surfaces made the virus particularly difficult to control.¹⁶ Additionally, while many cases resulted in mild symptoms, patients with pre-existing conditions often developed more serious symptoms requiring extended hospitalization in intensive care units and complex equipment like ventilators, straining national resources. The pandemic's unique characteristics, rapid onset, and severity meant that many nations, to include the U.S., struggled to balance pandemic control with economic security.

¹⁵ Josephine Ma, "China's First Confirmed Covid-19 Case Traced Back to November 17," South China Morning Post, March 13, 2020, <https://www.scmp.com/news/china/society/article/3074991/coronavirus-chinas-first-confirmed-covid-19-case-traced-back>.

¹⁶ CDC, "Coronavirus Disease 2019 (COVID-19) – Symptoms," Centers for Disease Control and Prevention, April 27, 2020, <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>; Neeltje van Doremalen et al., "Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1," *New England Journal of Medicine* 382, no. 16 (April 16, 2020): 1564–67, <https://doi.org/10.1056/NEJMc2004973>.

COVID-19 Mobilization Vignette. Scholars that study American mobilization during World War II – the rapid surge of American workforce, manufacturing, and equipment – often say this type of mobilization was one-of-a-kind, and unrepeatable.¹⁷ Despite this assertion, the U.S. response to the recent pandemic proved America’s ability to mobilize in a similar fashion. Many experts have identified a gap in U.S. domestic production capacity, which has led to a lack of STEM workers and workers in the skilled trades.¹⁸ During the pandemic, industry demonstrated its ability to mobilize despite these challenges:

- *General Motors* and *Ventec* partnered to dramatically increase medical ventilator production.¹⁹
- *Braskem Petrochemical’s* plant went to 24/7 operations to produce millions of pounds of raw materials for PPE manufacturing²⁰
- *Apple* and *Google* partnered to develop an effective approach to contact tracing²¹
- Silicon Valley venture capitalists connected PPE manufacturers with hospitals²²
- Tens of thousands of medical professionals flocked to New York City²³
- Companies established new partnerships to shift excess human capital from industries with excess to others with shortages, e.g., workers from retail and hospitality industries deployed to healthcare, transportation, banking and local government²⁴

U.S. free-market economic principles, the initiative of the American people, and the innovation of the industrial base rose to the challenge of COVID-19 in one of the largest mobilization efforts since World War II.

¹⁷ Herman, *Freedom’s Forge: How American Business Produced Victory in World War II*; Mark Cancian, “Long Wars and Industrial Mobilization: It Won’t Be World War II Again,” accessed May 13, 2020, <https://warontherocks.com/2017/08/long-wars-and-industrial-mobilization-it-wont-be-world-war-ii-again/>.

¹⁸ Cancian, “Long Wars and Industrial Mobilization: It Won’t Be World War II Again”; Sintia Radu, “STEM Worker Shortage at a Crisis, Survey Shows,” *US News & World Report*, August 23, 2018, <https://www.usnews.com/news/best-countries/articles/2018-08-23/americans-think-they-have-a-shortage-of-stem-workers>; Joshua Wright, “America’s Skilled Trades Dilemma: Shortages Loom As Most-In-Demand Group Of Workers Ages,” March 7, 2013, <https://www.forbes.com/sites/emsi/2013/03/07/americas-skilled-trades-dilemma-shortages-loom-as-most-in-demand-group-of-workers-ages/#61c5f3ba6397>.

¹⁹ Ed Garsten, “GM Begins Ventilator Production At Indiana Parts Plant,” April 14, 2020, <https://www.forbes.com/sites/edgarsten/2020/04/14/gm-begins-ventilator-production/#170d1b1d4092>.

²⁰ Meagan Flynn, “They Lived in a Factory for 28 Days to Make Millions of Pounds of Raw PPE Materials to Help Fight Coronavirus | The Seattle Times,” April 23, 2020, <https://www.seattletimes.com/nation-world/they-lived-in-a-factory-for-28-days-to-make-millions-of-pounds-of-raw-ppe-materials-to-help-fight-coronavirus/>.

²¹ Tripp Mickle, Rob Copeland, and Sam Schechner, “Apple, Google to Turn Smartphones Into Coronavirus Tracking Devices - WSJ,” April 16, 2020, <https://www.wsj.com/articles/apple-google-partner-on-coronavirus-contact-tracing-technology-11586540203>.

²² Rob Copeland, “Two Best Friends and the Global Treasure Hunt for Coronavirus Supplies - WSJ,” accessed May 15, 2020, <https://www.wsj.com/articles/two-best-friends-and-the-global-treasure-hunt-for-coronavirus-supplies-11585410259>.

²³ Christina Farr, “Medical Workers Help Coronavirus Fight in Hotspots, but Might Be Needed at Home,” April 9, 2020, <https://www.cnbc.com/2020/04/09/medical-workers-help-covid-19-fight-in-hotspots-but-might-be-needed-at-home.html>.

²⁴ Lauren Weber, “50,000 Jobs, 900,000 Resumes: Coronavirus Is Redeploying Workers at Record Pace - WSJ,” April 15, 2020, <https://www.wsj.com/articles/inside-the-push-to-redeploy-workers-quickly-11586943000>.

Economic Policy

“We are still in the foothills of a Cold War” – Henry Kissinger²⁵

The U.S. and China are fighting for supremacy on the world stage, and the economy is a key battleground. The recent pandemic created additional areas of economic tension between the U.S. and China, revealed weaknesses in both countries’ crisis response capability, and highlighted asymmetries which either party could manipulate to gain advantage over the other. For over a century, the U.S. has held the position as the top economy, but China could take the lead before 2050 due to China’s growing middle class and expanding consumer market.²⁶

Economists and politicians alike have accused China of employing its economic tools nefariously and some have interpreted the intent of these practices as challenges to global international norms.²⁷ For example, China has been creating dependence in lower-income nations through readily available, high-interest loans, which provide China the opportunity to manipulate that nation’s economic resources to advance China's own interests (e.g., Sri Lanka, Djibouti, etc.).²⁸ Former acting Secretary of Defense, Patrick Shanahan, called these practices “lubricated by corruption” and financial mechanisms that “take advantage of pressing economic needs to structure unequal bargains that disproportionately benefit one party.”²⁹ Framed by

²⁵ Discussing US-China relations, former Secretary of State Henry Kissinger talked about the concerns of escalation between the US and China during Bloomberg’s New Economy Forum in Beijing. Evelyn Cheng. “Fallout from US-China trade conflict could be ‘even worse’ than WWI, Kissinger says.” *CNBC*. 22 November 2019.

²⁶ Top economy is determined by nominal Gross Domestic Product. Malcom Scott and Cedric Sam, “Here’s How Fast China’s Economy Is Catching Up to the U.S.,” *Bloomberg*, May 21, 2019, <https://www.bloomberg.com/graphics/2016-us-vs-china-economy/>.

²⁷ Andrew F. Krepinevich, Jr., “Protracted Great-Power War,” January 2020, 62.

²⁸ Kinling Lo, “Sri Lanka Wants Its ‘Debt Trap’ Hambantota Port Back. But Will China Listen? | South China Morning Post,” December 7, 2019, <https://www.scmp.com/news/china/diplomacy/article/3040982/sri-lanka-wants-its-debt-trap-hambantota-port-back-will-china>.

²⁹ Patrick Shanahan, “Acting Secretary Shanahan’s Remarks at the IISS Shangri-La Dialogue 20,” U.S. DEPARTMENT OF DEFENSE, accessed April 22, 2020, <https://www.defense.gov/Newsroom/Transcripts/Transcript/Article/1871584/acting-secretary-shanahans-remarks-at-the-iiss-shangri-la-dialogue-2019/>.

conversations about decoupling from China's markets, the international community is increasing its awareness of potential consequences associated with an economic relationship with China.³⁰

This section evaluates COVID-19 in the context of the U.S.-China economic relationship.

COVID-19 Economic Impacts

Between December 2019 and March 2020, the world changed dramatically. In a desperate attempt to contain and mitigate the pandemic, both the U.S. and China implemented mandatory quarantines and social distancing practices, closing borders and imposing significant challenges to their economies. Health and economic concerns shifted the balance towards preservation of the most precious asset – human life. The magnitude and speed of the economic collapse that followed was dramatic, creating significant challenges in countries around the world. The strategy to keep moving forward, amid so much uncertainty, depended on the timeliness of containment and the subsequent reopening of the economy. As a result of the abrupt reduction in economic activity, both countries faced significant challenges.

Airlines and hotel chains suffered billions in revenue losses due to flight and reservation cancellations. Employees were unable to commute to their jobs, and local governments closed schools and daycare centers; parents had to stay home with their children. Without workers, companies produced less, and employees who could not work, bought less, creating panic among investors. Facing the unknown, companies took risk-averse actions and cut the line on investment and hiring; those businesses most affected had no option but to lay off their employees. Due to obvious domestic concerns, but also the international community's economic dependence on their markets, the U.S. and China contributed massive resources to protect their

³⁰ Ali Wyne, "How to Think about Potentially Decoupling from China," *The Washington Quarterly* 43, no. 1 (January 2, 2020): 41–64, <https://doi.org/10.1080/0163660X.2020.1735854>.

respective production capacity, but managing complex economies during and after a global crisis is extremely difficult.

Economic Impacts: U.S. The COVID-19 outbreak resulted in the suspension of day-to-day operations and the largest peak of unemployment in the country's history.³¹ Massive layoffs and unprecedented reduction in demand for industrial manufacturing and services, coupled with a loss in consumer confidence, drove conversations about a pending recession.³² With a severe reduction in vehicle usage and air travel, the pandemic-stunted economy significantly reduced its demand for crude oil. When combined with disagreements between Russia and Saudi Arabia, the global oil market suffered an unprecedented crash, dragging crude oil into negative earnings for the first time in history.³³ Problems with the workforce, temporary closures of small companies and defense giants, as well as disruptions in supply chains led to considerable delays and inefficiencies.³⁴

Economic Impacts: China. The coronavirus pandemic also pulled China into one of its worst economic downturns in recent history.³⁵ In the wake of COVID-19, as a major global

³¹ Katia Dmitrieva, "US Jobless Claims Doubled to 6.65 Million in Coronavirus Outbreak - Bloomberg," Bloomberg, April 2, 2020, <https://www.bloomberg.com/news/articles/2020-04-02/u-s-jobless-claims-doubled-to-record-6-65-million-last-week>; "COVID-19 Emergency Declaration | FEMA.Gov," accessed May 2, 2020, <https://www.fema.gov/news-release/2020/03/13/covid-19-emergency-declaration>.

³² Erik Sherman, "Goldman Sachs Just Made a Grim Prediction for Q2 after 'Sudden Stop for the U.S. Economy,'" Fortune, March 20, 2020, <https://fortune.com/2020/03/20/coronavirus-economic-predictions-goldman-sachs-recession-gdp-2q-2020/>.

³³ Early April, while the COVID-19 confined half the planet to their homes, the International Energy Agency (IEA) warned that this would be the worst year in history for the oil sector. With an expected demand by 29m barrels a day, the oil prices sunk, consumption plummeted, and reserve tanks have run out of space to store crude, particularly in the US. "American Crude Oil Has Fallen to Less than Nothing," April 20, 2020, <https://www.economist.com/graphic-detail/2020/04/19/american-crude-oil-has-fallen-to-less-than-nothing>.

³⁴ Supply chain impact due to the closure of defense contractors: of 10,509 prime companies, 106 remain closed. of 11,413 vendor-based companies, 427 closed, and over 1,500 contracts were modified to help companies file bills at a higher progress payment rate. Aaron Mehta, "Pentagon Bracing for Three-Month Slowdown on Major Defense Equipment," Defense News, April 20, 2020, <https://www.defensenews.com/pentagon/2020/04/20/pentagon-bracing-for-three-month-slowdown-on-major-defense-equipment/>.

³⁵ Yao, "Coronavirus to Push China's First-Quarter GDP into First Decline on Record: Reuters Poll - Reuters," Reuters, April 15, 2020, <https://www.reuters.com/article/us-china-economy-poll/coronavirus-to-push-chinas-first-quarter-gdp-into-first-decline-on-record-reuters-poll-idUSKCN21X0KQ>.

supplier, the first quarter of 2020 reported a 6.8% drop in China’s GDP from the previous year – almost \$98 billion in lost production (Figure 1). This single-quarter decline was the worst since the social and economic crisis of the 1970s.³⁶ Almost overnight, retail spending dropped 19%, exports fell by more than 13%, and investing came to a halt.³⁷ Due to increased global demand, China’s industrial production only saw a 1.1% drop from pre-pandemic numbers.³⁸

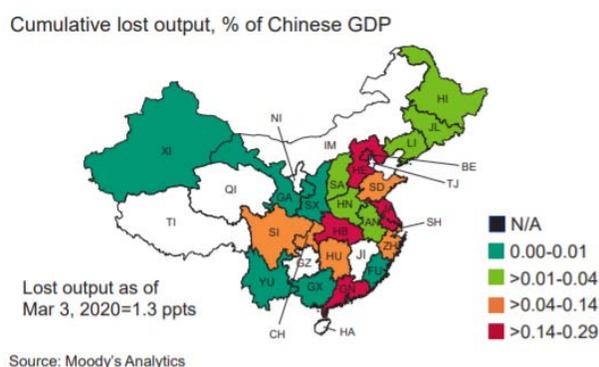


Figure 1: *China’s Impact to GDP during COVID-19*

U.S. Fiscal and Monetary Response

As soon as it became clear that the pandemic was sending shockwaves through the U.S. and global economies, the federal government turned to fiscal and monetary policy in an attempt to mitigate the economic impact. First, the Federal Reserve dropped the Federal Funds Rate to near zero, while implementing a series of other programs aimed at injecting money to support the economy.³⁹ Next, Congress approved a \$2 trillion rescue package targeting individual taxpayers,

³⁶ Keith Bradsher, “China’s Economy Shrinks, Ending a Nearly Half-Century of Growth - The New York Times,” *The New York Times*, April 16, 2020, <https://www.nytimes.com/2020/04/16/business/china-coronavirus-economy.html>; Yao, “Coronavirus to Push China’s First-Quarter GDP into First Decline on Record: Reuters Poll - Reuters.”

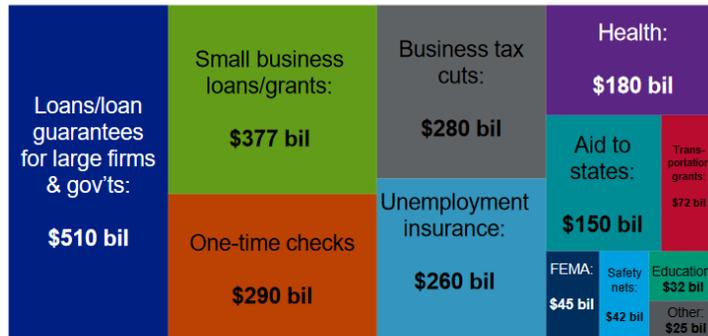
³⁷ James Joyner, “The End of China’s Growth?,” *Outside the Beltway* (blog), April 17, 2020, <https://www.outsidethebeltway.com/the-end-of-chinas-growth/>.

³⁸ “China Industrial Production | 1990-2020 Data | 2021-2022 Forecast,” accessed May 2, 2020, <https://tradingeconomics.com/china/industrial-production>.

³⁹ Heather Long, “Federal Reserve Slashes Interest Rates to Zero as Part of Wide-Ranging Emergency Intervention - The Washington Post,” March 15, 2020, <https://www.washingtonpost.com/business/2020/03/15/federal-reserve-slashes-interest-rates-zero-part-wide-ranging-emergency-intervention/>.

businesses, educational institutions, state and local governments, and public health (Figure 2).⁴⁰

Governors used similar measures to support their states' fight against the virus.



Sources: CRFB, Moody's Analytics

Figure 2: *Cost and Content of the COVID-19 CARES Act*⁴¹

China's Fiscal and Monetary Response

As a precautionary measure, China kept restrictions in place throughout the country, even in cities that were not severely impacted by the pandemic. Much like the rest of the world, the country's economic recovery was slow due to dependence on international markets also affected by the virus, causing tension in China's labor market. Already faced with an increase in unemployment before the crisis, China reported that 3.6 million people filed jobless claims in March of 2020.⁴² China's public acknowledgement of record unemployment during the pandemic indicated the government understood the political impacts of out of work citizens.⁴³ These concerns pushed authorities to consider additional measures to ease the country's economic distress, including flexible loan policies and low-interest rates aimed at removing

⁴⁰ Kelsey Snell, "What's Inside the Senate's \$2 Trillion Coronavirus Aid Package," National Public Radio, March 26, 2020, <https://www.npr.org/2020/03/26/821457551/whats-inside-the-senate-s-2-trillion-coronavirus-aid-package>.

⁴¹ Snell.

⁴² Laura He, "China GDP: Q1 Data Shows First Economic Contraction in More than Four Decades," April 17, 2020, <https://www.cnn.com/2020/04/16/economy/china-economy-gdp/index.html>.

⁴³ He.

barriers for small businesses to thrive.⁴⁴ This problem, coupled with weakening consumer spending, led experts to believe job stability could become China's top political concern.⁴⁵

Despite economic decline due to the virus, experts predicted growth for China in 2020 (Figure 3).⁴⁶



Figure 3: *China's Economic Outlook during COVID-19*⁴⁷

China's Response Gained Advantages

During a crisis the international community looks to the nation that has the economic strength to provide support and leadership. To that end, an examination of China's behavior during the pandemic illustrated a desire to use the virus as an opportunity to gain an advantage over its rivals. Through swift and severe quarantine measures and insistence on keeping factories open, China kept its economy running despite risks to its people, and when demand for medical supplies continued to increase, China was ready to support.

China's ability to meet that demand created some goodwill within the international community, as industry depended (in part) on China as a producer of life-saving equipment. In contrast, some countries, including the U.S., were less effective in their response, specifically in

⁴⁴ Charles Riley, "Pre-market Stocks Trading: China Flexes Its Economic and Political Muscle," CNN, January 2, 2020, <https://www.cnn.com/2020/01/02/investing/pre-market-stocks-trading/index.html>.

⁴⁵ He, "China GDP: Q1 Data Shows First Economic Contraction in More than Four Decades."

⁴⁶ The International Monetary Fund earlier this week foretold that China's economy would grow 1.2% in 2020 before jumping 9.2% next year, making it the best performer among major economies. "International Monetary Fund," International Monetary Fund, accessed May 2, 2020, <https://www.imf.org/external/index.htm>.

⁴⁷ "International Monetary Fund."

securing supply chains, which highlighted weaknesses that undermined the ability of the U.S. to support its allies and partners. Within the context of great power rivalry, some have argued that China turned a crisis into an opportunity by capitalizing on asymmetries created by the virus. At the same time, members of the international community highlighted concerns in China's practices, including the delivery of defective equipment.⁴⁸

U.S. Tools to Maintain Advantage

Before the next crisis, the U.S. must broaden its toolkit to compete with China.

According to a recent U.S. Trade Representative (USTR) Report summarizing China's lack of compliance with World Trade Organization (WTO) regulations, "the U.S. needs to use available tools – including domestic trade remedies, bilateral negotiations, WTO litigation and strategic engagement with like-minded trading partners – to respond to the unique and very serious challenges presented by China."⁴⁹

The WTO and its compliance mechanisms provide the U.S. and other concerned nations the opportunity to challenge China's economic practices. Economic experts have articulated the challenges in uncovering these violations but stress the importance of the WTO's dispute resolution process, specifically as it relates to revealing violations linked to "property protection, forced technology transfer, and subsidies."⁵⁰ While the current administration and the USTR believe the WTO dispute resolution process is ineffective, some analysts contend it can have an

⁴⁸ Joe Penney, "As the U.S. Blames China for the Coronavirus Pandemic, the Rest of the World Asks China for Help," *The Intercept* (blog), March 18, 2020, <https://theintercept.com/2020/03/18/coronavirus-china-world-power/>; Katya Adler, "Countries Reject Chinese-Made Equipment," *BBC News*, March 30, 2020, sec. Europe, <https://www.bbc.com/news/world-europe-52092395>.

⁴⁹ "2018-USTR-Report-to-Congress-on-China's-WTO-Compliance.Pdf," Office of the United States Trade Representative, February 2019, <https://ustr.gov/sites/default/files/2018-USTR-Report-to-Congress-on-China%27s-WTO-Compliance.pdf>.

⁵⁰ "Disciplining China's Trade Practices at the WTO: How WTO Complaints Can Help Make China More Market-Oriented," Cato Institute, November 15, 2018, <https://www.cato.org/publications/policy-analysis/disciplining-chinas-trade-practices-wto-how-wto-complaints-can-help>.

impact: “China has responded to previous WTO complaints with market opening. The WTO dispute process is not perfect, but it is a tried-and-true approach to this problem. Its biggest flaw is that it is underutilized.”⁵¹ Since 2018, the U.S. has consistently used domestic authorities to impose tariffs to mitigate the economic impact on U.S. markets and challenge China's violation of international trade norms.⁵² Although many economists have advocated against using trade war-like tariffs, some analysts have pointed to its potential for at least limited success for the U.S.: “China may have the most to lose from the ongoing dispute, particularly if it continues to devalue its currency to record lows.”⁵³ While economists may be divided over when and how to use tariffs, the main lesson seems clear: they are a tool to maintain economic competitiveness as China continues to challenge the validity of the global economic system.⁵⁴

As China continues to invest heavily in infrastructure through its Belt and Road Initiative (BRI), the U.S. has developed mechanisms to give countries alternatives to Chinese investment. For example, the U.S. International Development Finance Corporation (USIDFC) was designed to “align the U.S. government's development-finance tools with broader foreign policy and development goals, to enhance their competitiveness.”⁵⁵ This has been facilitated by the recently formed Blue Dot Network (BDN) with Australia, Japan and the U.S. as charter members.⁵⁶ The BDN broadens U.S. influence through cooperation with allies to benefit developing countries. The Defense Production Act (DPA) is another potential tool for the U.S. to employ as it faces

⁵¹ “Disciplining China’s Trade Practices at the WTO.”

⁵² Ana Swanson, “Trump’s Trade War with China Is Officially Underway,” *The New York Times*, accessed April 22, 2020, <https://www.nytimes.com/2018/07/05/business/china-us-trade-war-trump-tariffs.html>.

⁵³ Laker, “Who’s Winning The Trade War? And How Will It End?,” *Forbes*, February 3, 2020, <https://www.forbes.com/sites/benjaminlaker/2020/02/03/whos-winning-the-trade-war-and-how-will-it-end/#3afedbaa5460>.

⁵⁴ Laker.

⁵⁵ Laker.

⁵⁶ Mercy A. Kuo, “Blue Dot Network: The Belt and Road Alternative,” accessed May 12, 2020, <https://thediplomat.com/2020/04/blue-dot-network-the-belt-and-road-alternative/>.

economic competition with China. Though originally designed for use in conventional warfare scenarios, the president invoked the DPA via executive order in the recent pandemic.⁵⁷ If faced with another exogenous event, the DPA could be used similarly to meet critical national security needs. To this end, the definition of national defense in the DPA should be rewritten to expressly mention pandemic preparations and response.

The pandemic has directly impacted the functionality of the WTO itself, and the organization acknowledged the negative impact the crisis had on trade and provided a list of changes to importation regulations made by specific WTO-members due to the pandemic.⁵⁸ Due to U.S. supply chain reliance on Chinese production capability, the USTR lifted tariffs on medical products imported from China, specifically “medical masks, examination gloves, and antiseptic wipes.”⁵⁹ The pandemic did not cause significant changes to trade agreements between the U.S. and China, however actual imports and exports have been significantly affected. Messaging over each country's handling of the crisis made “great power dynamics more confrontational” – this increased tension came amidst the unfinished business of the ongoing U.S.-China trade disputes.⁶⁰ Economic security is national security, and the U.S. should leverage existing economic tools to ensure the country is well prepared for the next exogenous event and focused on achieving national security objectives.⁶¹

⁵⁷ McDonnell, “What’s in Trump’s Executive Order on the Defense Production Act?”

⁵⁸ “COVID-19 and World Trade,” World Trade Organization, accessed April 25, 2020, https://www.wto.org/english/tratop_e/covid19_e/covid19_e.htm.

⁵⁹ “US Seeks Comments on Tariff Cuts for Chinese Imports to Aid Coronavirus Battle,” CNBC, March 21, 2020, <https://www.cnbc.com/2020/03/21/coronavirus-us-seeks-comments-on-tariff-cuts-for-chinese-imports-trade-war.html>.

⁶⁰ Monish Tourangbam and Hamsini Hariharan, “COVID-19 Will Make the US-China Great Power Dynamics More Confrontational,” *The Diplomat*, April 15, 2020, <https://thediplomat.com/2020/04/covid-19-will-make-the-u-s-china-great-power-dynamics-more-confrontational/>.

⁶¹ “2017 National Security Strategy,” accessed December 7, 2019, <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

Combat Vehicle Manufacturing Vignette: In its manufacture of combat vehicles *land domain* defense firms are particularly vulnerable to the deleterious effects of the pandemic due to pre-existing weaknesses in the defense industrial base: a manufacturing labor force skills gap and consolidation of firms. If the U.S. government does not implement specific policies and programs to reduce the skills gap and the consolidation of defense firms, the ability to produce key national defense resources will degrade because of labor and financial challenges introduced by the pandemic. This vignette evaluates impacts of COVID-19 on combat vehicle industries, and projects an increase in long-term defense costs due to the virus.

Land domain industry firms have struggled to attract critical skill sets, and over the past few years vacancies have increased. The Bureau of Labor Statistics estimates that over the next decade, the industry will lose \$450 billion due to 2.4 million unfilled jobs.⁶² These vacancies will worsen as a result of COVID-19. In the short term, firms will see reductions in productivity due to lost workdays because of closures and sick days.⁶³ In the long term, due to global supply chain disruptions, the manufacturing industry could see increased labor shortage as U.S. firms on-shore manufacturing. This would add more jobs and compete for short-term labor requirements, while increasing training requirements. Training is already an added cost to manufacturers, and the addition of new jobs would require investment in training, increasing overhead.⁶⁴

In the past five years, the defense industrial base has seen increases in the consolidation of small and medium firms. These firms have fallen prey to the economic impacts of COVID-19, creating further opportunity for consolidation as larger firms vertically integrate through acquisitions of smaller firms.⁶⁵ Although this would reduce supply chain risks by reducing fragile, small suppliers, this consolidation decreases competition.

In economic terms, increased costs due to added training, wage growth due to labor shortages, and on-shoring jobs are borne by manufacturers. Consolidation within the industry reduces competition. Added costs and reduced competition both increase costs to the customer – the U.S. government.

⁶² Critical skills include , engineer, software developer and tradesmen John Klaess, “A Critical Look at the Skills Gap in Manufacturing,” *Tulip* (blog), November 6, 2019, <https://tulip.co/blog/skills-gap/skills-gap-manufacturing/>.

⁶³ Seasonal influenza alone is responsible for 111 million lost workdays every year, and with school and childcare closures compounding absences, it is reasonable to anticipate a dramatic increase in those numbers. Closing schools during a pandemic has been estimated to result in a 6% decrease in GDP and be 14 to 21 times more costly than leaving schools open. Sharon Begley, “Flu-Conomics: The next Pandemic Could Trigger Global Recession,” Reuters, January 21, 2013, <https://www.reuters.com/article/us-reutersmagazine-davos-flu-economy-idUSBRE90K0F820130121>; Simon Cauchemez et al., “Closure of Schools during an Influenza Pandemic,” *The Lancet. Infectious Diseases* 9, no. 8 (August 2009): 473–81, [https://doi.org/10.1016/S1473-3099\(09\)70176-8](https://doi.org/10.1016/S1473-3099(09)70176-8).

⁶⁴ Adrienne Selko, “Skills Gap Could Cost US Economy \$2.5 Trillion Over Next Decade,” *IndustryWeek*, November 20, 2018, <https://www.industryweek.com/the-economy/article/22026709/skills-gap-could-cost-us-economy-25-trillion-over-next-decade>.

⁶⁵ “Nieman Guide to Covering Pandemic Flu | Pandemic Preparedness | Challenges for Businesses,” accessed April 17, 2020, <https://nieman.harvard.edu/wp-content/uploads/pod-assets/microsites/NiemanGuideToCoveringPandemicFlu/PandemicPreparedness/ChallengesForBusinesses.aspx.htm> l.

Strategic Communications

“One who knows the enemy and knows himself will not be endangered in a hundred engagements.” – Sun Tzu⁶⁶

The Department of Defense defines strategic communication as “efforts to understand and engage key audiences in order to create, strengthen, or preserve conditions favorable for the advancement of [government] interests, policies, and objectives through the use of coordinated programs, plans, themes, messages and products synchronized with the actions of all elements of national power.”⁶⁷ The chaos of national emergencies can quickly become divisive within the domestic population when adversaries attempt to influence domestic opinion about the U.S. Further adversaries can use strategic communications to splinter alliances and diminish U.S. credibility among allies and competitors.

Based on an analysis of strategic communications during the pandemic, it is clear that a cohesive strategic communications plan and execution thereof is critical to the effective management of a crisis. In preparation for the next national emergency, the U.S. must develop a plan now that addresses both internal (domestic) audiences and external (international) audiences. Internal messaging should specifically combat mis- and disinformation, through improved cyber literacy, social media awareness (deepfakes, bots, etc.), and similar techniques. External messaging should focus on U.S. adversaries, competitors, and allies.

Strategic Communications Background

“The United States has a tremendous advantage over practically any of our enemies, and that is the truth,” according to Robert Killebrew, a consultant with the U.S. Commission on

⁶⁶ Sun Tzu, “The Art of War,” Internet Classic Archive, accessed May 7, 2020, <http://classics.mit.edu/Tzu/artwar.html>.

⁶⁷ Department of Defense, “Information Operations Joint Publication 3-13,” accessed May 5, 2020, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_13.pdf.

National Security. “If the government says something, and the press verify it, then you have a very, very powerful communications message. This is an important point that gets more important as the world gets more complex.”⁶⁸ Unfortunately, the rise of the fifth estate, (i.e., social media and other informal sources) whose veracity is often unverifiable, has resulted in a pace of dubious information flow that is difficult for a cumbersome bureaucracy to match.

Autocratic countries frequently use the internet to control their populations by manipulating information, but in nations that value free speech and a free press, information-based attacks can be more effective. Although Russian meddling in the 2016 U.S. elections opened the world’s eyes to effective use of information strategy, social media’s pervasiveness and lingering effects make it difficult for a democratic nation to counter disinformation and propaganda.⁶⁹

Fertile ground for both misinformation (unintentional false information) and disinformation (intentional false information), the fifth estate has become a major battlespace for strategic communications both domestically and internationally. In his book *LikeWar*, Peter Singer states, “Attacking an adversary’s most important center of gravity – the spirit of its people – no longer requires massive bombing runs or reams of propaganda. All it takes is a smart phone and a few idle seconds.”⁷⁰

⁶⁸ Ellen K. Haddock, “Winning with Words: Strategic Communications and the War on Terrorism:” (Fort Belvoir, VA: Defense Technical Information Center, January 1, 2002), <https://doi.org/10.21236/ADA441620>.

⁶⁹ Massimo Calabresi and Pratheek Rebala, “Hacking Democracy Inside Russia’s Social Media War on America.,” *TIME Magazine* 189, no. 20 (May 29, 2017): 30, <https://time.com/4783932/inside-russia-social-media-war-america/>.

⁷⁰ P. W. Singer and Emerson T. Brooking, *Likewar : The Weaponization of Social Media* (Houghton Mifflin Harcourt, 2018), 18, <https://nduezproxy.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,url,uid&db=catalog04199a&AN=ndu.777831&site=eds-live&scope=site>.

Internal Messaging

Misinformation. Information is a critical tool in gaining influence or diminishing an adversary's influence regardless of the arena of competition. It shapes perceptions of the aims, goals, and nature of the adversary. Misinformation creates opportunity for anti-government groups, conspiracy theorists, and political parties to promote false information in achievement of their individual objectives. The same opportunity exists for state-sponsored entities, individual hackers, and non-state actors such as Islamic State of Iraq and Syria (ISIS) and other revolutionary groups. Misinformation must be countered by a combination of strong and factual internal communications and consistent external engagement to expose false claims, and the identities and motivations of the attackers.

The process by which the U.S. delivers information to the public through traditional media channels is well established. Collectively known as the fourth estate, the main stream media traditionally plays the role of the final check on the government, upholds the ideals of free speech and seeks the truth on behalf of the private citizen.⁷¹ With the advent of the internet, however, a fifth estate has emerged: blogs, social media and other sources of information that do not hold themselves to the high journalistic standards of the truth-seeking fourth estate.⁷² Mark Zuckerberg, arguably one of the most powerful fifth estate players, admitted that sites like Facebook should not be held accountable for the veracity of the information on their sites,

⁷¹ "The Fourth Estate As The Final Check - Yale Law School," accessed April 30, 2020, <https://law.yale.edu/mfia/case-disclosed/fourth-estate-final-check>.

⁷² "Post-Truth Politics, the Fifth Estate and the Securitization of Fake News | Global Policy Journal," accessed April 30, 2020, <https://www.globalpolicyjournal.com/blog/07/06/2017/post-truth-politics-fifth-estate-and-securitization-fake-news>.

differentiating social media from traditional fourth estate media outlets who have an ethical obligation to ensure accuracy.⁷³

The U.S. Department of Health and Human Services (HHS) and the Center for Disease Control and Prevention (CDC) each have systems capable of informing local health organizations of critical information during a crisis.⁷⁴ Additionally, the CDC published a document that details steps to be taken by the federal government and provides guides for state, tribal and local agencies on how to manage crisis situations. The Crisis & Emergency Risk Communication (CERC) Manual details the ways and means by which the government should execute a mitigation plan for almost any type of emergency. This gives the U.S. a well-organized system to inform government agencies and the general public during the phases of an emergency. During the coronavirus pandemic, research indicates that the lead agency, the CDC, and other federal agencies followed the established protocols and policy to inform the public despite confusion caused misinformation.

When examined, the volume and disorganization of information coming from media outlets can be confusing and contribute to the spread of misinformation. Because the public believes that journalists have a responsibility to report information in an honest and objective way, initial, but sometimes inaccurate, reporting can lead to the propagation of false information. Various organizations that need to disseminate information to the public expect media outlets to report accurately and to reach the necessary populations with their message. For instance, the World Health Organization (WHO) asked media outlets and individual journalists to “do their utmost to keep up to date with the outbreak using reliable information from respective health

⁷³ “Facebook’s Mark Zuckerberg Defends Political Ad Rules, Says Digital Speech Is New ‘Fifth Estate,’” NBC News, accessed April 30, 2020, <https://www.nbcnews.com/tech/tech-news/facebook-s-mark-zuckerberg-defends-speech-rules-says-tech-companies-n1068241>.

⁷⁴ “Health Alert Network (HAN) | CDC,” March 28, 2020, <https://emergency.cdc.gov/han/>.

departments and the WHO, and that they should both fact- and reality-check information in order to remain a trusted source.”⁷⁵ Domestically, the federal government, local emergency management professionals, and the general public expect media outlets to report in a way that supports official goals. However, media outlets are not an adjunct to public emergency response organizations or government, and politicization can become an issue. Nevertheless, federal and local emergency management planners should acknowledge the media’s role in a crisis and plan to meet reasonable media requests.⁷⁶

A 2007 study by the National Institutes of Health (NIH) collected data from 26 subject matter experts including “journalists and public information officers, state health officials, experts in terrorism and emergency preparedness, and experts in health, risk, and science communication.”⁷⁷ They concluded that political bias and organizational processes can hamper communication between government spokespersons and journalists. To counter this, more interaction between government officials and journalists through drills and exercises is a critical component of emergency preparedness.⁷⁸

The politicization of an emergency can also be highly problematic. For example, despite multiple warnings from the WHO, political pundits politicized reports of adjusted mortality rates, concluding that government officials had done so only to provide rationale for the implementation of restrictions. In this case, *Forbes* discussed changes to the method of counting

⁷⁵ Martha Powell, “What Role Do the Media Play in Managing the COVID-19 Outbreak?,” *Infectious Diseases Hub* (blog), March 5, 2020, <https://www.id-hub.com/2020/03/05/role-can-media-play-managing-covid-19-outbreak/>.

⁷⁶ “CERC_Working_with_the_Media.Pdf,” Center for Disease Control and Prevention, 2018, https://emergency.cdc.gov/cerc/ppt/CERC_Working_with_the_Media.pdf.

⁷⁷ Wilson Lowrey et al., “Effective Media Communication of Disasters: Pressing Problems and Recommendations,” *BMC Public Health* 7 (June 6, 2007): 97, <https://doi.org/10.1186/1471-2458-7-97>.

⁷⁸ Lowrey et al.

positive cases, which influenced the mortality denominator, thereby reducing the mortality rate.⁷⁹ Subsequently Rush Limbaugh's introduced a theory that the deaths from COVID-19 were inflated for political gain.⁸⁰ Although this theory was countered by media outlets, it left the public with multiple narratives, unintentionally sowing distrust of the government.⁸¹ Even though Limbaugh may not have been intentionally providing false information, this examples demonstrates the influence information can have in constructing the public's understanding of truth and reality.⁸²

Disinformation: Americans must understand how disinformation distorts the fundamental data that is used to construct one's understanding of reality. Disinformation, the intentional spread of false information, represents a strategic threat to the American way of life. Beyond mere distortion, disinformation efforts are often designed to sow doubt, create confusion, and amplify fear and polarization. In essence, the intent is to ignite emotion to suppress reason, a key element of progress in a democratic process. As Mathew Rosenberg, Nicole Perlroth, and David E. Sanger characterized it in their New York Times article, "chaos is the point."⁸³

Unfortunately, a strategic gap exists in U.S. national security caused by the rapid evolution of modern technologies, specifically the emergence of data sciences and digital social

⁷⁹ Bruce Y. Lee, "Cases Of COVID-19 Coronavirus Jumped Due To Change In Counting Method," Forbes, February 13, 2020, <https://www.forbes.com/sites/brucelee/2020/02/13/new-coronavirus-covid-19-counting-method-leads-to-jump-in-cases-deaths/#741cb84316af>.

⁸⁰ Justin Baragona, "Rush Limbaugh Floats Theory That Coronavirus Deaths Are Being Inflated to Push an Agenda," The Daily Beast, April 2, 2020, <https://www.thedailybeast.com/rush-limbaugh-claims-governments-eager-to-blame-everyday-deaths-on-coronavirus>.

⁸¹ Oliver Darcy, "Right-Wing Media Suggests Coronavirus Death Toll Is Inflated, despite Experts Saying the Opposite," CNN, April 7, 2020, <https://www.cnn.com/2020/04/07/media/right-wing-media-coronavirus-death-toll-reliable-sources/index.html>.

⁸² Lee, "Cases Of COVID-19 Coronavirus Jumped Due To Change In Counting Method."

⁸³ Matthew Rosenberg, Nicole Perlroth, and David E. Sanger, "'Chaos Is the Point': Russian Hackers and Trolls Grow Stealthier in 2020," *The New York Times*, January 10, 2020, sec. U.S., <https://www.nytimes.com/2020/01/10/us/politics/russia-hacking-disinformation-election.html>.

media.⁸⁴ These two technologies were inconceivable during the framing of the Constitution in the 18th century, nor were they considered later when Franklin D. Roosevelt argued for the “four freedoms” during his State of the Union address in 1941.⁸⁵ The foundation of democracy is the citizen’s freedom of choice based on a freedom to discover choices. If those choices are being influenced by a false narrative, the outcomes of the democratic process become buttressed by falsehoods. John Locke argued in his *Second Treatise of Government*,

To understand political power right, and derive it from its original, we must consider, what state all men are naturally in, and that is, a state of perfect freedom to order their actions, and dispose of their possessions and persons, **as they think fit** [emphasis added], within the bounds of the law of nature, without asking leave, or depending upon the will of any other man.⁸⁶

In this statement Locke argued for inherent freedoms in the face of a tyrannical government. No human can pursue a state of perfect freedom if the initial conditions of that pursuit are corrupted by deceit. To take a step further, to make free decisions as they see fit implies the gathering of unfettered information, and subsequently the opportunity to reason.

No U.S. policy specifically addresses the disinformation threat, although there are numerous efforts to better understand the problem. What remains is a vulnerability gap. America requires policy to strengthen understanding and laws to discourage the promulgation of false narratives and disinformation. Although disinformation is not a new tool, the propagation of disinformation has been exponentially enhanced by the evolution of social media, threatening the basic tenants of democracy through the unfettered spread of false information. Both internal and external media campaigns created a fog around the pandemic and U.S. efforts to safeguard

⁸⁴ M. Mitchell Waldrop, “The Chips Are Down for Moore’s Law,” *Nature News* 530, no. 7589 (February 11, 2016): 144, <https://doi.org/10.1038/530144a>.

⁸⁵ History.com Editors, “Franklin D. Roosevelt Speaks of Four Freedoms,” HISTORY, accessed May 1, 2020, <https://www.history.com/this-day-in-history/franklin-d-roosevelt-speaks-of-four-freedoms>.

⁸⁶ John Locke, “The Project Gutenberg EBook of *Second Treatise Of Government*,” Project Gutenberg, 1690, <https://www.gutenberg.org/files/7370/7370-h/7370-h.htm>.

its population. These efforts could have led to erroneous decisions, threatening to undermine the public's faith in the government's response.

External Messaging

Strategic communication is a critical component of great power competition, and only through engagement with a cohesive information strategy and close coordination among allies can the U.S. expect to rise to the challenge presented by its near-peer competitors. Adversaries will take advantage of a national emergency like COVID-19 to reduce U.S. prestige on the world stage. For example, during the pandemic, China, Russia, and Iran all used state-sponsored media outlets to accuse the U.S. of various bad actions and aggressive goals. These included accusations that the U.S. caused the COVID-19 pandemic or that the U.S. weaponized the outbreak for political gain. In the face of a national crisis, the U.S.'s communications strategy must not only focus on countering our opponents' narrative, but also on shoring up ties with our allies.

China and Russia Information War to Disrupt Alliances. The pandemic has uncovered potential areas of friction in the relations between the United States and Europe. On top of years of arguments over defense spending and trade, in response to global medical supply shortages, both the U.S. and Europe have focused on internal production rather than coordination with allies.⁸⁷ The situation is similar within the EU where nations are competing among each other for resources. For instance, "Italy has complained that its European brethren have been slow to step in to assist."⁸⁸ This situation offers perfect conditions for information warfare targeted at weakening western alliances.

⁸⁷ Karen Donfried and Wolfgang Ischinger, "The Pandemic and the Toll of Transatlantic Discord," April 26, 2020, <https://www.foreignaffairs.com/articles/united-states/2020-04-18/pandemic-and-toll-transatlantic-discord>.

⁸⁸ Morris Loveday, William Booth, and Luisa Beck, "Europe Scrambles for Beds and Supplies amid Coronavirus Surge," Washington post, March 22, 2020, <https://www.washingtonpost.com/>.

Russia and China are taking advantage of the pandemic not only to tout their own strategies, but also to divide their competitors. As author Elisabeth Braw asserted, “China and Russia are sending medical aid to Italy and other coronavirus-stricken countries, but their motives aren’t so altruistic.”⁸⁹ The constant public relations campaign regarding this assistance has a purpose: highlighting the fact that Italy’s allies did not provide assistance when requested.⁹⁰ This open communication is seconded by intense activity on social media. Russian and Chinese bots have been observed, driving significant digital amplification on social media of messages to: “undermine the legitimacy of western governments,” “use COVID aid to further diplomatic objectives (pull Italy, Spain and others from [the EU], isolate Taiwan),” and “undermine the U.S. global leadership.”⁹¹ Using official communication, manipulation of social media, or a combination of both, China and Russia are waging an aggressive information war against western alliances.⁹²

Information Warfare against Adversaries. Some have argued that during the COVID-19 pandemic, China’s goal was to assign or obfuscate blame for the virus while simultaneously playing the hero to other countries including both the U.S. and its allies.⁹³ “Iranian, Russian, and Chinese propaganda media outlets would like you to believe, without evidence that the emerging public health crisis comes from U.S. biological weapons.”⁹⁴ The Chinese even went so far as to

⁸⁹ Elisabeth Braw, “Beware of Russian and Chinese Aid in Response to the Coronavirus,” *Foreign Policy*, March 30, 2020, <https://foreignpolicy.com/2020/03/30/russia-china-coronavirus-geopolitics/>.

⁹⁰ “Coronavirus : Gagner Aussi La Bataille Géopolitique,” *Le Monde*, March 24, 2020, https://www.lemonde.fr/idees/article/2020/03/24/coronavirus-gagner-aussi-la-bataille-geopolitique_6034216_3232.html.

⁹¹ Doowan Lee, “Combating COVID-19 Propaganda and Disinformation from Foreign Actors” (Mitre Corporation Webinar, April 10, 2020).

⁹² The Chinese Ambassador in Paris is now famous for pushing disputable claims.

⁹³ Lee, “Combating COVID-19 Propaganda and Disinformation from Foreign Actors.”

⁹⁴ Patrick Tucker, “Iranian, Russian, Chinese Media Push COVID-19 ‘Bioweapon’ Conspiracies,” *Defense One*, March 10, 2020, <https://www.defenseone.com/technology/2020/03/iran-and-russian-media-push-bioweapon-conspiracies-amid-covid19-outbreak/163669/>.

have one of their diplomats promote the conspiracy. Misquoting a U.S. official, Foreign Ministry spokesman Zhao Lijian posted a tweet to his more than 300,000 followers asking “When did patient zero begin in U.S.?” and inferred that “It might be [the] U.S. army [*sic*] who brought the epidemic to Wuhan.”⁹⁵ With the strict media control exercised by the Chinese Communist Party (CCP) it is doubtful that this was either a personal opinion or an accident. Loosely linking U.S. military attendance at the World Military Games of October 2019 in Wuhan with CDC statements about the first U.S. case of coronavirus, Zhao launched a Chinese propaganda campaign that obfuscated the actual cause of the pandemic. When questioned on the subject, fellow Ministry spokesman Geng Shuang implied that the theory of a U.S. origination of the virus had international backing.⁹⁶ According to CNN, it appears that there was a “concerted campaign” by the Chinese to call into question the origin of the coronavirus.⁹⁷

Although Iran is often viewed as a regional actor, the country has been one of the more aggressive disseminators of disinformation about the pandemic. The Iranian, state-backed media organization, PressTV, consistently reported theories that COVID-19 was a U.S.-manufactured bioweapon. Another theory put Iran as the central target of an Israeli effort to use the epidemic “as a cover to engineer an even more deadly strain of the virus.”⁹⁸ Fighting hard for regional influence, Iran took advantage of the chaos caused by this global emergency to discredit the U.S. and its allies.

⁹⁵ Ben Westcott and Steven Jiang, “Chinese Diplomat Promotes Conspiracy Theory That US Military Brought Virus to Wuhan,” CNN, March 13, 2020, <https://www.cnn.com/2020/03/13/asia/china-coronavirus-us-lijian-zhao-intl-hnk/index.html>.

⁹⁶ Westcott and Jiang.

⁹⁷ Westcott and Jiang.

⁹⁸ Tucker, “Iranian, Russian, Chinese Media Push COVID-19 ‘Bioweapon’ Conspiracies.”

For Russia, the pandemic was another opportunity to sow discontent among the U.S. populace by fostering conspiracies and anti-government sentiment through disinformation and opinions on social media. Writing for the Moscow-backed Strategic Culture Foundation, “former CIA officer and conspiracy monger” Philip Giraldi, supported the theory that the U.S. was responsible for COVID-19. This opinion was then picked up by Russian state-backed media, an example of how Russia takes advantage of self-proclaimed experts to levy false allegations designed to confuse and muddle the truth. Russia used its extensive social media machine and state-run media channels like Russia Today (RT) to disseminate its own propaganda and amplify that of other U.S. adversaries such as Iran or China.⁹⁹ This provided a continuous flow of false information in an attempt to foment anti-U.S. sentiment around the globe, and create government distrust within the U.S.

These three U.S. adversaries pushed the narrative that the “U.S. is weaponizing the crisis for political gain and thus worsening its spread globally.”¹⁰⁰ Doowan Lee of Zignal Labs, which observes and catalogs social media disinformation campaigns, said that the “volume of artificial amplification [concerning Coronavirus misinformation] is off the chart.” Artificial amplification is the use of fake accounts and automated software to increase the number of likes, tweets, posts, and other social media content. This promotes stories by triggering automatic newsfeed algorithms on host sites like *Facebook*, *Twitter*, and *Instagram* to put these viral articles on more feeds. Based on extensive data mining, Lee estimated that approximately 80% of Chinese citizens believe the U.S. Army started the coronavirus.¹⁰¹

⁹⁹ Tucker.

¹⁰⁰ Rachel Chernaskey, “Iranian, Chinese and Russian Overt Media on Coronavirus,” <https://www.fpri.org/>, March 9, 2020, <https://www.fpri.org/fie/overt-media-on-coronavirus/>.

¹⁰¹ Lee, “Combating COVID-19 Propaganda and Disinformation from Foreign Actors.”

Using the 2020 pandemic as a model, it should be expected that future crises will see a high volume of both misinformation and disinformation in attempts to undermine U.S. interests and advance the agendas of U.S. adversaries. Given this, the U.S. strategic information plan for a national emergency needs to focus on understanding and countering disinformation campaigns and methodologies as well as common vectors for misinformation. This battle to control the message must be iterative, with each subsequent move by our adversaries quickly countered with a consistent and verifiable message. The federal government must understand when and how disinformation campaigns affect public perception, both domestically and internationally. “The United States is engaged on a new battlefield defined by the ‘speed, spread, and accessibility of information.’”¹⁰²

Strategic Communications Conclusion

Based on the COVID-19 pandemic, U.S. adversaries are waging an information war to gain influence and reduce U.S. influence. The U.S. is in a battle against those looking to challenge the U.S.-led world order. Conventional war using the military instrument of national power is extremely unlikely during future crises. As such, the weaponization of information about the U.S. and its handling of a future crisis puts the U.S. in a position where it must be able to prevent and counter misinformation and disinformation.

Nation states that persistently disseminate disinformation will absolutely create false narratives about the coronavirus outbreak. Their output will be steady, their sophistication higher on average and over the long term. The big three – Russia, Iran, and China – will use state-sponsored news to advance a few chosen narratives about the outbreak that develop or amplify pseudoscience and revised histories about the coronavirus’s origin and its spread.¹⁰³

¹⁰² Natasha Bajema and Christine Parthemore, “How to Counter China’s Coronavirus Disinformation Campaign,” *Defense One*, March 29, 2020, <https://www.defenseone.com/ideas/2020/03/how-counter-chinas-covid-19-disinformation-campaign/164188/>.

¹⁰³ Tucker, “Iranian, Russian, Chinese Media Push COVID-19 ‘Bioweapon’ Conspiracies.”

The U.S. government must work with both fourth and fifth estate to ensure timely and accurate dissemination of information during a crisis. Coordination with these stakeholders ahead of time is critical, and industry and government leaders must work to build relationships and trust through exercises prior to an emergency. Only through robust planning that includes key stakeholders can the U.S. ensure its preparedness in the face of the next national emergency.

Supply Chain and Mobilization

“This supply chain stuff is really tricky.” – Elon Musk¹⁰⁴

The current pandemic uncovered several underlying risks in the U.S. supply chain and industrial capacity as well as the country’s ability to mobilize in response to a national security crisis. In the short term, the U.S. must set conditions to safely navigate the post- pandemic return to normalcy as the country prepares to re-open the economy. In the long term, the U.S. must transition the manufacturing base from one that is overly dependent on Chinese manufacturing to one that is globally diverse and agile. This section will provide background on the current problem and historical context for mobilization in the face of a national emergency. Next it will analyze key decisions related to supply chain and mobilization during the pandemic. Finally it will provide short- and long-term recommendations to both recover from the current crisis and prepare for the next.

Analysis of Mobilization and Supply Chain Decisions

For years, experts have warned of the dangers of over-reliance on Chinese manufacturing, and the medical industry is no exception. For example, the last penicillin manufacturing plant in the U.S. closed in 2004, and in 2019, a Department of Commerce study

¹⁰⁴ *Elon Musk | Full Interview | Code Conference 2016*, 2016, <https://www.youtube.com/watch?v=wsixsRI-Sz4>.

revealed that 97% of all antibiotics in the U.S. come from China.¹⁰⁵ Furthermore, 90% of prescribed medications in the U.S. are generic, and although India may be the leading manufacturer of generic drugs, they receive 80% of the raw materials from China.¹⁰⁶ When faced with COVID-19, the U.S. fully appreciated the risks of over-reliance on China for pharmaceuticals, personal protective equipment (PPE), and other materials critical to managing the crisis. For instance, 70% of U.S. PPE comes from China, and in early February 2020, under authorities similar to the U.S. DPA, the Chinese government mandated that all PPE production would be prioritized for domestic use.¹⁰⁷

In the absence of supplies from China, (the primary source for supply), the U.S. was not prepared to manufacture the required material (e.g., PPE, ventilators, test kits, etc.) fast enough to meet the challenge presented by the pandemic. Much of the domestic manufacturing industry had neither the skilled labor nor the infrastructure to increase production at the required rate. Furthermore, different industries often competed with each other for raw materials or supporting products. For instance, hand sanitizer was in high demand, but despite higher production of sanitizer, supply to consumers was still stunted due to competition with food producers for plastic for bottles.¹⁰⁸

Authorities. On March 1, 2020, President Trump declared a national emergency and seventeen days later he signed an executive order to allow the use of the DPA to prioritize

¹⁰⁵ Bryan Llenas, “America Too Dependent on China for Its Medicine, Experts Warn,” Text.Article, Fox News (Fox News, May 30, 2019), <https://www.foxnews.com/us/america-dependent-china-medicines>; Yanzhong Huang, “U.S. Dependence on Pharmaceutical Products From China,” Council on Foreign Relations, August 19, 2019, <https://www.cfr.org/blog/us-dependence-pharmaceutical-products-china>.

¹⁰⁶ Llenas, “America Too Dependent on China for Its Medicine, Experts Warn.”

¹⁰⁷ Karen M Sutter, Andres B Schwarzenberg, and Michael D Sutherland, “COVID-19: China Medical Supply Chains and Broader Trade Issues” (Congressional Research Service, April 6, 2020).

¹⁰⁸ Gerald Porter Jr. and Edward Ludlow, “Hand Sanitizer Will Be Hard to Find for a Long Time,” *Bloomberg.Com*, April 8, 2020, <https://www.bloomberg.com/news/articles/2020-04-08/hand-sanitizer-is-going-to-be-hard-to-find-for-a-long-long-time>.

medical equipment and supplies in high demand and short supply, including PPE and ventilators.¹⁰⁹ As one journalist described it:

The new executive order does not so much directly invoke the DPA as it creates the conditions under which the administration can later employ its authorities. Essentially, it classifies health and medical resources needed to respond to the spread of COVID-19 in a way that authorizes the administration to later have private businesses prioritize government contracts over other contracts. The order also delegates broad authority to the secretary of health and human services (HHS) to later employ certain powers of the DPA.¹¹⁰

The president opted not to implement the full authorities of the DPA to encourage industries to voluntarily respond to the crisis.¹¹¹ Allowing firms to pursue efforts based on market conditions and associated incentives reduces economic impact and accelerates recovery from crisis.

Shortages. China's first case of COVID-19 officially presented in December 2019, and it was soon evident that PPE and ventilators would be in high demand. At the time, China manufactured half the world's supply of face masks, so the country invoked their own authorities, (similar to the U.S. DPA) prohibiting exports and stockpiling supplies for domestic use.¹¹² For some, the PPE shortage was expected. Saskia Popescu, an epidemiologist who works in hospital preparedness, reported that past pandemic exercises documented existing supply chain issues.¹¹³ As shortages became more apparent, the general public panicked and began stockpiling PPE, limiting quantities available for healthcare workers. Even with the

¹⁰⁹ McDonnell, "What's in Trump's Executive Order on the Defense Production Act?"

¹¹⁰ McDonnell.

¹¹¹ Katie Rogers, Maggie Haberman, and Ana Swanson, "Trump Resists Pressure to Use Wartime Law to Mobilize Industry in Virus Response - The New York Times," March 20, 2020, <https://www.nytimes.com/2020/03/20/us/politics/trump-coronavirus-supplies.html>.

¹¹² German Lopez, "Why America Ran out of Protective Masks — and What Can Be Done about It," Vox, March 27, 2020, <https://www.vox.com/policy-and-politics/2020/3/27/21194402/coronavirus-masks-n95-respirators-personal-protective-equipment-ppe>.

¹¹³ Lopez.

addition of supplies from the national stockpile and other federal reserves, shortages remained, putting healthcare workers at risk.¹¹⁴

Shortages of supplies are difficult to prevent at the onset of a national emergency, but it is critical that the government and the industrial base rapidly recognize and respond to shortages. Understanding shortages of key material, manufacturer capabilities, and production capacities are keys to a resilient and agile supply chain.

Test Kits. Another critical supply item was COVID-19 test kits. By March 6, 2020, U.S. healthcare workers had tested only 2,000 Americans for coronavirus. In contrast, South Korea had tested over 140,000 people.¹¹⁵ The shortage was partly due to faulty kits produced by the CDC that required remanufacturing after failing quality control tests.¹¹⁶ The CDC's test kits for the H1N1 and Zika viruses had earned the organization credibility and prompted them to insist on developing their own advanced test kit rather than seeking additional test kit development from industry partners.¹¹⁷

While test kits may seem to be a unique aspect of a health pandemic, it represents a critical component of any government response to a national emergency: a timely and accurate assessment of the extent of the damage. Data on the number of cases by location were key resources in the pandemic that provided indications to government agencies and manufacturers in locations likely to require increased resources. In future national emergencies, damage assessment tools could be, mining data from social media, tracking movement via cell phone, or conducting aerial assessments via manned and unmanned aircraft.

¹¹⁴ Lopez.

¹¹⁵ Brian Resnick, "The CDC's Rocky Effort to Get Americans Tested for Coronavirus, Explained," Vox, March 6, 2020, <https://www.vox.com/science-and-health/2020/3/6/21168087/cdc-coronavirus-test-kits-covid-19>.

¹¹⁶ Resnick.

¹¹⁷ Caroline Chen et al., "Key Missteps at the CDC Have Set Back Its Ability to Detect the Potential Spread of Coronavirus," Propublica, February 28, 2020, <https://www.propublica.org/article/cdc-coronavirus-covid-19-test>.

Short-term Actions

The analysis of critical shortcomings and failures during the first few months of the pandemic has highlighted several areas in which short-term actions must be taken to set conditions for recovery as rapidly as possible. The single best tool to address these areas is the DPA, whose full authorities give the government all necessary tools to work with industry to provide an agile, timely and comprehensive response.

As soon as possible, the government should invoke all titles of the DPA to establish purchase agreements for critical items and bring industry leaders on board to ensure adequate production throughout the pandemic. These actions would provide necessary resources to ensure the safety of healthcare workers and reduce bankruptcy risk for private companies directed to modify their production lines to produce critical materiel. Invoking Title III to establish purchase agreements will facilitate competition among firms and encourage public-private partnerships to mass-produce PPE and ventilators while shielding them from anti-trust lawsuits or other regulatory barriers. Timely collaboration with the FDA to implement Emergency Use Authorizations (EUA) exemptions or deregulations would accelerate approval and production in domestic facilities. Manufacturers and regulators should be vigilant when accelerating approval for production to ensure that safety and quality standards are not compromised in exchange for speed.”¹¹⁸

Uncertainty associated with required quantities and infrastructure and tooling requirements complicated previously mentioned shortages, making it difficult for the government to dictate requirements to manufacturers. It could be argued that uncertainty in

¹¹⁸ Caleb Watney and Alec Stapp, “Opinion | Trump Is Using the Defense Production Act All Wrong,” Politico, April 9, 2020, <https://www.politico.com/news/agenda/2020/04/09/trump-defense-production-act-175920>.

market demand is a problem best solved by industry experts but incentivized by the government. “In other words, instead of deciding which companies or factories should take on this production, the government can provide market incentives that allow the best, most efficient companies to step up to the challenge.”¹¹⁹ Retooling facilities comes with enormous costs (ordering supplies, hiring staff, and investing in bigger and better equipment) that are often outweighed by uncertainty about the duration of the demand surge. Invoking Title III would offer purchase guarantees from the government, reducing risk for firms making large, up-front investments.¹²⁰ Any excess materials could be used to build up national stockpiles, made available to the public or exported to allies.

Supply Chain and Mobilization Summary

The U.S. healthcare force could have been better prepared to fight COVID-19 with adequate supplies and test kits, but the near-term utilization of the Defense Production Act’s authorities were critical. The balance between government involvement and a free-market economy is always delicate, but the DPA gives the necessary tools in the short term. In the long-term, continued investment in the industrial base to encourage diversification and modernization of supply chains and risk assessment; and refinement of agreements with partners and allies must become the foundation for a rapid, comprehensive and agile response to the next crisis.

¹¹⁹ Watney and Stapp.

¹²⁰ Watney and Stapp.

Ventilator Manufacturing Vignette: General Motors (GM) partnered with Ventec Life Systems to provide tools to front-line medical professionals during the pandemic. Specifically, HHS awarded a contract to GM for \$489 million to deliver 30,000 ventilators. Hospitals in the U.S. have approximately 65,000 fully capable ventilators on-hand and can surge to 170,000 ventilators in an emergency.¹²¹ The CDC manages the national stockpile that currently stores 12,000 to 13,000 ventilators.¹²² **The Partnership:** In March of 2020, GM was introduced to the Ventec team.¹²³ Together, they surged from 1,000 to 20,000 ventilators a month. GM worked continuously to secure commitment from suppliers to construct the parts for the ventilators.¹²⁴ Ventec and GM global supply chain leaders built sourcing plans for more than 700 individual parts to roll out 200,000 ventilators.¹²⁵ In fact, Meridian, an auto-manufacturing supplier, admitted to their inability to produce the request, but connected GM with its competitors to meet the ventilator requirement.¹²⁶ **Retooling:** The estimated cost to retool an automotive factory for ventilator manufacturing is over \$200 million.¹²⁷ To build ventilators, GM repurposed tools at a dormant manufacturing plant. “Scrambling to get production underway, the workers took apart a ventilator and 3-D scanned each of the roughly 300 parts, creating computer simulations of how the device could be assembled efficiently.”¹²⁸ **FDA Approval:** During the crisis, FDA officials issued EUAs, which allowed healthcare organizations to use modified FDA-approved ventilators.¹²⁹ The FDA also streamlined the process for new entrants to the ventilator market to obtain FDA approval.¹³⁰ These actions provide maximum regulatory flexibility while helping to increase ventilator inventory.

¹²¹ “Trump Seeks to Force General Motors to Produce Ventilators,” *Bahrain News Agency*, March 28, 2020, Gale In Context: Global Issues, <https://link.gale.com/apps/doc/A618740479/GIC?u=wash60683&sid=GIC&xid=b4cf73e1>.

¹²² David Welch, “GM Secures \$500 Million U.S. Contract to Make 30,000 Ventilators,” *Bloomberg*, April 8, 2020, <https://www.bloomberg.com/news/articles/2020-04-08/gm-secures-almost-500-million-u-s-contract-to-make-ventilators>.

¹²³ Reed Albergotti and Faiz Siddiqui, “Ford and GM Are Racing to Build Coronavirus Ventilators, but Their Efforts May Be Too Late,” *The Washington Post*, April 4, 2020, <https://www.washingtonpost.com/>.

¹²⁴ Neal Boudette and Andrew Jacobs, “Inside G.M.’s Race to Build Ventilators, Before Trump’s Attack - The New York Times,” March 30, 2020, <https://www.nytimes.com/2020/03/30/business/gm-ventilators-coronavirus-trump.html>.

¹²⁵ “Ventec Life Systems and GM Partner to Mass Produce Critical Care Ventilators in Response to COVID-19 Pandemic,” accessed May 13, 2020, <https://media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2020/mar/0327-coronavirus-update-6-kokomo.html>.

¹²⁶ Timothy B. Lee, “At Trump’s Request, Ford and GM Help Ventilator Makers Boost Output | *Ars Technica*,” March 24, 2020, <https://arstechnica.com/science/2020/03/at-trumps-request-ford-and-gm-help-ventilator-makers-boost-output/>.

¹²⁷ Kaitlan Collins and Kristen Holmes, “White House Reassessing Deal with General Motors and Ventec Life to Produce Ventilators over Timeline and Price Tag Concerns,” *CNN Wire*, March 27, 2020, Gale Academic OneFile, <http://link.gale.com/apps/doc/A618676515/AONE?u=wash60683&sid=zotero&xid=de2f75c3>.

¹²⁸ Albergotti and Siddiqui, “Ford and GM Are Racing to Build Coronavirus Ventilators, but Their Efforts May Be Too Late.”

¹²⁹ Stephen M. Hahn, “Coronavirus (COVID-19) Update: FDA Takes Action to Help Increase U.S. Supply of Ventilators and Respirators for Protection of Health Care Workers, Patients,” FDA (FDA, March 27, 2020), <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-takes-action-help-increase-us-supply-ventilators-and-respirators>.

¹³⁰ Lee, “At Trump’s Request, Ford and GM Help Ventilator Makers Boost Output | *Ars Technica*.”

Recommendations

“The issues that face us are momentous, involving the fulfillment or destruction not only of this Republic but of civilization itself.” – NSC-68¹³¹

How will the U.S.-China competition change in the face of future exogenous events, and how can the U.S. build resilience into its supply chains, mitigate disinformation, and protect the American people from economic instability? Following the collapse of the Soviet Union, a peer competitor for over thirty years, the U.S. experienced decades of unrivaled military power. Some defense analysts believe that this dominance atrophied America's ability to develop long term strategy that could weather new competitors and unpredictable events.¹³² With China's recent and rapid rise to superpower status, the U.S. has been forced to, once again, put near-peer competition at the forefront of American strategy.¹³³

Whether evaluating military or economic power, in comparison to the analog-simplicity of the Cold War era, today's globalization and interconnectedness inject new complexity into competition, requiring novel strategic approaches. Considering the recent global pandemic, that strategy is being tested in countless ways. The U.S. national security strategy clearly outlines how the country intends to challenge rivals like China but fails to describe how this would be accomplished if faced with an exogenous event, like a global pandemic.¹³⁴ The recent health crisis also provided an opportunity to incorporate foreign and domestic policy lessons that can strengthen U.S. national security in an increasingly competitive global environment, where an

¹³¹ James Lacey. *Great Strategic Rivalries: From the Classical World to the Cold War*. (Oxford University Press: New York, 2017).

¹³² Andrew F. Krepinevich, Jr, “The Decline of Deterrence” (Hudson Institute, Inc., March 2019), <http://www.hudson.org/research/14871-the-decline-of-deterrence>.

¹³³ *Hundred-Year Marathon, The : China's Secret Strategy to Replace America As the Global Superpower*, vol. Unabridged (New York: St. Martin's Griffin, 2016),

<https://nduezproxy.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,url,uid&db=nlabk&AN=971340&site=eds-live&scope=site>.

¹³⁴ Donald J. Trump. *National Security Strategy*. December 2017.

exogenous event can tip the superpower scale in the blink of an eye. COVID-19 coupled with the ongoing rivalry between the U.S. and China required more resilient supply chains, more flexible economic policies, and a well-thought out strategic communications plan, broadly suggesting the need for a revised national strategy. The following recommendations are not comprehensive but outline adjustments to specific areas of U.S. national strength, in order to combat tomorrow's crisis and maintain a competitive edge.

Economic Recommendations

U.S. economic policies are in place to manage several contingencies, while still maintaining competitive advantage over adversaries. Senior leaders must employ these tools in a deliberate, strategic, and timely manner.

Skilled Labor Vignette. To combat the widening skills gap and shore up small and medium businesses, the U.S. government needs to act quickly. First, increase skilled labor through government subsidized training programs and incentives. Large *land domain* firms (e.g., BAE and General Dynamics Land Systems) have robust training for critical skills, and many of these programs were cut because of COVID-19; therefore, government will have to take a larger role in bolstering formal training within specific skilled labor areas (e.g., welding, metal working etc.).¹³⁵ To reduce the financial burden in re-starting these programs, government should focus on public-private partnerships with industry and academia, by facilitating lending incentives, subsidized tuition, and matching pledges. Second, the U.S. government should focus on buoying those small and medium businesses who may otherwise exit the market. During the pandemic, the \$350 billion small business loan program ran out of funding in less than two weeks, revealing that the demand for stimulus was larger than anticipated.¹³⁶ The U.S. government should support additional loan incentives for small and medium businesses within the defense sector in future budget requests.

¹³⁵ Kate Fleeger, "COVID-19 Impacts on Land Domain Combat Vehicle Industry," April 17, 2020.

¹³⁶ "Federal Government's \$350B Small Business Relief Fund Runs out of Money in Less than 2 Weeks," GeekWire, April 16, 2020, <https://www.geekwire.com/2020/federal-governments-350b-small-business-relief-fund-runs-money-less-2-weeks/>.

World Trade Organization. The U.S. needs to be more aggressive and strategic with its filing of complaints through the WTO dispute resolution process. China has responded positively to some filings by changing its behavior.¹³⁷ As a global economic leader, China must consistently adhere to international norms and standards. To hold China accountable to these standards, the U.S. should use the WTO's dispute resolution mechanisms more often targeted to cases of clear violations of norms.¹³⁸ The U.S. should also influence allies and partners to do the same. Doing so will increase the legitimacy of the WTO, improve the efficacy of its processes, and force China to comply with international norms and standards.

Tariffs. Economists continue to debate the efficacy of tariffs, but they remain a powerful tool in the economic competition with China. Tariffs have been applied effectively to protect domestic industries and target unfair practices by foreign entities, serving both economic and diplomatic goals.¹³⁹ Prior to implementing tariffs, policymakers should determine well-defined, achievable objectives relevant to national interests. Because tariffs can have a negative effect on the domestic industrial base over time, they should not be left in place indefinitely. Instead the USTR must continue to monitor the effectiveness of tariffs through established benchmarks and metrics, modifying or removing them as national security requirements dictate. Through a deliberate implementation plan, the U.S. can effectively use tariffs as a tool to promote national security interests and support the domestic industrial base.

USIDFC. Pandemic response is not clearly delineated as a funding priority for the USIDFC. In light of the COVID-19 pandemic, these priorities should be modified to include

¹³⁷ "Disciplining China's Trade Practices at the WTO."

¹³⁸ "2018-USTR-Report-to-Congress-on-China's-WTO-Compliance.Pdf."

¹³⁹ Andrew Chatzky, "The Truth About Tariffs," Council on Foreign Relations, May 16, 2019, <https://www.cfr.org/backgrounder/truth-about-tariffs>.

improvement of crisis response abroad (e.g., pandemic response).¹⁴⁰ Improving crisis response capacity of other nations would create goodwill while reducing risk to U.S. global supply chains. Accordingly, the U.S. should also reprioritize international outreach programs that are associated with improving crisis response capabilities and increase funding for these efforts.¹⁴¹

DPA. Lastly, considering the devastation caused by the pandemic, the U.S. must reconsider the management of the defense industrial base and supply chain. The use of the DPA in response to the COVID-19 pandemic shows that the act can be an effective tool for combating a pandemic.¹⁴² However, policymakers should consider modifying it to increase this effectiveness. For example, the definition of national defense should be updated and expanded to prioritize pandemic response as part of homeland defense within the DPA framework. Senior leaders should also be knowledgeable about the DPA and utilize its authorities at the onset of an exogenous event. Timely use of this tool would increase cost efficiencies and provide more resources throughout the crisis.

Strategic Communications Recommendations

Regardless of the crisis, U.S. adversaries will attempt to use information to control the narrative and advance their interests. The U.S. government must protect its interests by countering adversary disinformation efforts during exogenous events.

Strategic Communications Plan. Using existing emergency response policies and procedures and the State Department’s Global Engagement Center as a foundation, the U.S. should develop a comprehensive to guide communications and messaging during crises. The

¹⁴⁰ David Bohigian and Worku Gachou, “Press Briefing on the Launch of the U.S. International Development Finance Corporation,” *United States Department of State* (blog), August 14, 2019, <https://www.state.gov/press-briefing-on-the-launch-of-the-u-s-international-development-finance-corporation/>.

¹⁴¹ Bohigian and Gachou.

¹⁴² McDonnell, “What’s in Trump’s Executive Order on the Defense Production Act?”

plan should focus on interagency and public-private cooperation and information sharing and specific roles and responsibilities.¹⁴³ The U.S. should increase trust with the American public by ensuring official communication is unbiased and accurate and by designating spokespersons trained in crisis communication. Additionally, the U.S. should conduct a study in collaboration with leaders in the fifth estate to determine if a public-private partnership to combat misinformation and disinformation. Additionally the U.S. should consider increasing funding for law-enforcement and intelligence community efforts to combat disinformation.

Cyber-literacy. The U.S. must create a Center of Excellence for Cyber-literacy (CEC) led by the Department of Education and leveraging the cybersecurity industry, online education platform firms and academia. This center must provide a comprehensive educational plan designed to ensure the American public can critically assess online information and sources. Along-term investment, the CEC would build a culture of awareness of the threats of misinformation and disinformation. This would have beneficial secondary effects of creating economic value by growing the cyber-literacy industry sector.

Strengthening Alliances. Allies remain critical to U.S. security, and the *empty chair policy* is contrary to effective collaboration.¹⁴⁴ Focusing on alliances will enable the U.S. to strengthen its position in international organizations and position itself to publicly counter disinformation. The U.S. should also coordinate with partners and allies to develop concerted responses to influence and information attacks. This will allow the U.S. and its allies to be more

¹⁴³ The Global Engagement Center is a data-driven Mission Center leading U.S. interagency efforts to proactively address foreign adversaries' attempts to use disinformation and propaganda to undermine U.S. interests. "Global Engagement Center," *United States Department of State* (blog), accessed May 15, 2020, <https://www.state.gov/bureaus-offices/under-secretary-for-public-diplomacy-and-public-affairs/global-engagement-center/>.

¹⁴⁴ The *empty chair policy* is a term that refers to a method of protesting the agenda or legitimacy of an international organization by not attending meetings. N. Piers Ludlow, "De-Commissioning the Empty Chair Crisis: The Community Institutions and the Crisis of 1965-6," October 25, 2007, <https://web.archive.org/web/20071025203706/http://eprints.lse.ac.uk/2422/01/Decommissioningempty.pdf>.

effective in defending against influence campaigns of nations looking to take advantage of opportunities created by exogenous events.

Supply Chain and Mobilization Recommendations

While the next national security crisis may not be a pandemic, lessons can be learned from COVID-19 and applied to future exogenous events. These include the diversification of supply chains; modernization of supply chain management to include digitization and integration of risk assessment and management tools; and reliance on our allies and partners.

Diversify Supply Chains. Firms should apply lessons from the COVID-19 pandemic to diversify and improve supply chain operations. A German supply chain consultant with Kloeppel Consulting noted, “Every third company has major Chinese customers and 81% of companies rely on Chinese suppliers.”¹⁴⁵ By exercising DPA Title III, the U.S. government could invest in industries that manufacture critical goods to enhance their operations and manufacturing capabilities for the future. On a more operational level, McKinsey & Company suggests a six-step process for supply chain firms to build resilience in a national crisis: 1) create transparency on multitier supply chains; 2) estimate available inventory along the value chain; 3) assess realistic final-customer demand; 4) optimize production and distribution capacity; 5) identify and secure logistics capacity; 6) manage cash and net working capital.¹⁴⁶ These steps can help firms navigate risks in the supply chain and remain both agile and solvent.

Digitize Supply Chain with Built-In Risk Function. McKinsey & Company also suggests firms prepare for the future by digitizing their supply chains to improve speed,

¹⁴⁵ Huileng Tan, “There Will Be a ‘massive’ Shuffling of Supply Chains Globally after Coronavirus Shutdowns,” CNBC, March 20, 2020, <https://www.cnbc.com/2020/03/20/coronavirus-shocks-will-lead-to-massive-global-supply-chain-shuffle.html>.

¹⁴⁶ Knute Alicke, Xavier Azcue, and Edward Barriball, “Coronavirus’s Impact on Supply Chain,” McKinsey, March 2020, <https://www.mckinsey.com/business-functions/operations/our-insights/supply-chain-recovery-in-coronavirus-times-plan-for-now-and-the-future>.

accuracy, and flexibility of supply-risk management.¹⁴⁷ The system would have the capability of assessing risk, continually updating risk-impact estimates and remediation strategies, and overseeing risk governance.¹⁴⁸ Together these capabilities allow firms to anticipate risk and have greater visibility across the supply chain. For example, a digitized supply chain allows mitigation strategies to be implemented immediately when an issue occurs. If a shipment of a needed input to manufacturing gets delayed, an order from an alternative source can instantaneously be placed by the system using predetermined criteria. This saves time that is often crucial in preventing or compounding massive delays. Also, the data from digital supply chains allows for the development of predictive analytics that can prevent or anticipate disruptions before they occur.

Leverage Allies and Partner Nations. The idea of using allies in support of domestic shortages is not new. In fact, the Department of Defense recently contracted with an Israeli company for the procurement of critical nerve agent antidote auto-injectors when the domestic manufacturer experienced significant quality and manufacturing issues.¹⁴⁹ During the COVID-19 pandemic, South Korea rapidly tested more than 300,000 people in the initial outbreak and are now preparing their manufacturing facilities for exports worldwide.¹⁵⁰ This transition from an internal focus to one of assisting allies should be modeled in treaties and agreements between the U.S. and allies and partner nations. Additionally, among North Atlantic Treaty Organization (NATO) members, dollars earmarked for industrial base investments could be bookkept as defense spending so countries can meet the two percent defense spending targets. Financially

¹⁴⁷ Alicke, Azcue, and Barriball.

¹⁴⁸ Alicke, Azcue, and Barriball.

¹⁴⁹ David Johns, Interview on American Manufacturing Sources, May 11, 2020.

¹⁵⁰ Donald Kirk, “Korea Races To Export Test Kits After Trump Asks Moon For Help Fighting COVID-19,” Forbes, accessed April 22, 2020, <https://www.forbes.com/sites/donaldkirk/2020/03/27/korea-races-to-export-test-kits-after-trump-asks-moon-for-help-fighting-covid-19/#e6b92f31244f>.

strained NATO countries will have to decide how to prioritize increased defense spending with economic recovery caused by the coronavirus quarantine. Rather than purchasing weapons or fighter planes, countries could invest in their industrial bases to grow capacity and facilitate responsiveness to the next crisis. With emerging security concerns in the Indo-Pacific, the U.S. should leverage its relationships with partners and allies in this region.

Maintaining or growing a robust domestic capacity is preferable to relying on products manufactured offshore. Because certain industries (to include healthcare) have experienced a precipitous decline in domestic production, such reliance on domestic sourcing is not possible in the short term. Current procurement regulations (e.g., the Buy American Act and the Trade Agreements Act) fall short in their acknowledgement of this domestic capacity shortfall and restrict purchases of critical items from foreign sources. The government should examine domestic production capacity for critical supplies and expand allowable procurement sources to include allies. This will diversify the supply chain and strengthen economic and diplomatic relationships among allies.¹⁵¹ Strong partnerships with our allies to include those in the Pacific will further enhance our ability to respond to the next crisis.

¹⁵¹ Yadong Luo, "Structuring Interorganizational Cooperation: The Role of Economic Integration in Strategic Alliances," *Strategic Management Journal* 29, no. 6 (2008): 617–37, www.jstor.org/stable/20142044.

Conclusion

“Nations, especially great powers, exist in a world of limited resources, where capabilities are never sufficient to exploit all opportunities and confront all threats.”¹⁵² – Hal Brands

Not unlike the Cold War between the U.S. and Russia, China and the U.S. draw on various tactics to gain advantages and protect their respective interests.¹⁵³ For example, in part due to China’s claims in the South China Sea and violations of intellectual property rights, U.S. lawmakers have called for increased spending to protect the U.S., its allies, and partners' interests as a result of China's actions.¹⁵⁴ In turn, China has made several statements about "western meddling" in Chinese affairs.¹⁵⁵ As the two leading economic powers, China and the U.S. wield significant influence on the world order.

The recent pandemic frustrated supply chains, resulted in massive disinformation campaigns, and crippled economies worldwide. Will the U.S. be able to keep the watch of security and prosperity wound and ticking? Policymakers must ask themselves: What will the long-term impacts be to global order as a result of the COVID-19 pandemic? Will the balance of power between the U.S. and China change? How can the U.S. adjust its national strategy to mitigate the ripple effect of an exogenous event in the future while still maintaining its

¹⁵² In describing the challenge of developing grand strategy, author and Professor Hal Brands describes the importance of strategic prioritization of resources. Walter Russell Mead, “What Good Is Grand Strategy? Power and Purpose in American Statecraft From Harry S. Truman to George W. Bush.,” *Foreign Affairs* (Council on Foreign Relations, Inc., 2014), Business Insights Global, <https://nduezproxy.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,url,uid&db=edsbig&AN=edsbig.A381409238&site=eds-live&scope=site>.

¹⁵³ James Lacey. *Great Strategic Rivalries: From the Classical World to the Cold War*. (Oxford University Press: New York, 2017).

¹⁵⁴ Robert Kaplan, “A New Cold War Has Begun,” *Foreign Policy*, accessed April 22, 2020, <https://foreignpolicy.com/2019/01/07/a-new-cold-war-has-begun/>.

¹⁵⁵ John W. Garver, *China’s Quest : The History of the Foreign Relations of the People’s Republic of China*. (Oxford University Press, 2016),

<https://nduezproxy.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,url,uid&db=cat04199a&AN=ndu.738564&site=eds-live&scope=site>.

competitive advantage vis-a-vis China? In reference to his description of “structural stress” in the global order caused by the U.S.-China competition, and prophecy that war between great-powers is inevitable, Graham Allison said, “the defining question for this generation is whether Chinese leaders and their counterparts in the U.S. will be up to the challenge of compromise.”¹⁵⁶ In answering the above questions, only by adding new areas of emphasis in its national strategy, can the U.S. maintain its advantage if faced with another exogenous event. The U.S. must mitigate the potential for escalation through more diverse and resilient supply chains, well-informed internal and external strategic communications policy, and enhanced economic policy levers. The U.S. must ensure a future where the nation can rise to the challenge of the next exogenous event.

¹⁵⁶ Graham Allison. *Fragile Rise: Grand Strategy and the Fate of Imperial Germany, 1871-1914* by Xu Qiyu. (MIT Press: Cambridge, 2017).

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