



NORTH AMERICA'S SHIFTING SUPPLY CHAINS: THE USMCA, COVID-19, AND THE U.S.-CHINA TRADE WAR

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Part I: Introduction

The United States-Canada-Mexico Agreement (USMCA) entered into force on July 1, 2020,¹ after a long and arduous journey that began in 2017 with multiple U.S. threats to terminate the North American Free Trade Agreement (NAFTA). Its journey effectively ended when the Trump administration and the Democratic Congress agreed in December 2019 on a series of amendments to the original text signed on November 30, 2018.²

For purposes of this paper, it suffices to note that while much of NAFTA has been carried over into the USMCA, extensive modernization and innovation were accomplished, reflecting the passage of 28 years since NAFTA was originally negotiated in 1991-92.³ Overall, the most significant changes directly affecting regional trade are those that impact the auto industry, particularly the requirements that autos and light trucks benefitting from the zero tariff status granted under NAFTA must, after three years, increase their regional value content from 63.5% to 75%, and that 70% of the steel and aluminum used in automotive production must originate in North America (the steel, after seven years, must also be melted and poured in North America).^{4 5}

These provisions in themselves will require significant modifications to the supply chains utilized by the dozens of auto plants operating in North America, keeping in mind that NAFTA created the regionalization of automotive supply chains nearly 30 years ago. Simultaneously, several other factors are forcing North American manufacturers, including but not limited to those in the automotive industry, to radically adjust their supply chains, creating a veritable “perfect storm” of pressures to decouple with China (and reduce dependence on other non-North American sources) for materials and components. This has led to an already significant decoupling of the U.S. and Chinese economies in the first

¹ USTR (Office of the United States Trade Representative), “USMCA to Enter Into Force July 1 after United States Takes Final Procedural Steps for Implementation,” April 24, 2020, <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2020/april/usmca-enter-force-july-1-after-united-states-takes-final-procedural-steps-implementation>. Also see USTR, “Agreement Between the United States of America, the United Mexican States, and Canada 7/1/20 Text,” December 13, 2019, <https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/agreement-between>.

² USTR, “United States-Mexico-Canada Agreement,” December 2018, <https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement>.

³ David A. Gantz, *The United States-Mexico-Canada Agreement: Overview and Analysis*. Baker Institute Report no.12.11.18. Rice University's Baker Institute for Public Policy, Houston, Texas, <https://www.bakerinstitute.org/files/13859/>; David A. Gantz, *An Introduction to the United States-Mexico-Canada Agreement: Understanding the New NAFTA*, ch. 1, (Edward Elgar Publishers, forthcoming 2020).

⁴ See David A. Gantz, *The United States-Mexico-Canada Agreement: Tariffs, Customs, and Rules of Origin*. Baker Institute Report no.02.21.19. Rice University's Baker Institute for Public Policy, Houston, Texas, <https://www.bakerinstitute.org/files/14069/>; David A. Gantz, *An Introduction to the United States-Mexico-Canada Agreement: Understanding the New NAFTA*, ch. 2 (Edward Elgar Publishers, forthcoming 2020).

⁵ With steel and aluminum, most foreign producers are saddled with 25% and 10% of additional duties, respectively, based on bogus national security concerns, but China is not among those significantly affected. See Part IV, below.

quarter of 2020.⁶ Although this is not the place for a full discussion of the U.S.-China relationship, it is notable that a high official of the Trump administration has argued for an end to “blind engagement” with China and criticized U.S. allies for not taking action to address the prospect of “a Chinese century.”⁷

Nor is this reshoring limited to the United States. The Japanese government has promised \$2.2 billion to bring production back to Japan and in July announced that 87 companies had been paid to shift production either back to Japan or into other Southeast Asian nations.⁸ Here, as presumably will be the case with the United States, the departures from China are not simply to Japan, but to preferred locations where low-cost labor is available, such as Vietnam.

The United States-China trade war, discussed in Part II of this paper, is the most important of the pressures for altering the long-existing supply chains. The trade war, despite the conclusion of the “Phase One” agreement between the U.S. and China on January 15, 2020, permits the United States to continue to impose tariffs of 7.5% to 25% on \$370 billion worth of goods imported from China.⁹ Many observers, myself included, believe that these penalty tariffs, imposed originally to pressure China to improve its protection of intellectual property,¹⁰ will be in force for the foreseeable future. Given the unpredictability of both the Trump administration and the Chinese leadership, the tariff levels could be increased without much warning, or the \$150 billion or so of U.S. imports from China that are not currently subject to penalty tariffs could be taxed as well; this was threatened by the Trump administration in the fall of 2019 when the Phase One agreement was under negotiation.¹¹

⁶ James Kynge, “US-China Economic Decoupling Accelerates in First Quarter of 2020,” *Financial Times*, May 11, 2020, <https://www.ft.com/content/115fc14f-4a8a-45da-8688-c59605a5191a>.

⁷ See Katrina Manson, “Pompeo Calls for an End to ‘Blind Engagement’ with China,” *Financial Times*, July 23, 2020, <https://www.ft.com/content/825870b5-99a3-4b45-9fb3-1baa7772f011?shareType=nongift> (Quoting Secretary of State Mike Pompeo).

⁸ Simon Denyer, “Japan Helps 87 Companies to Break from China After Pandemic Exposed Overreliance,” *The Washington Post*, July 21, 2020, https://www.washingtonpost.com/world/asia_pacific/japan-helps-87-companies-to-exit-china-after-pandemic-exposed-overreliance/2020/07/21/4889abd2-cb2f-11ea-99b0-8426e26d203b_story.html.

⁹ *Economic and Trade Agreement Between the Government of the United States of America and the Government of the People's Republic of China*, January 15, 2020, [https://ustr.gov/sites/default/files/files/agreements/phase%20one%20agreement/Economic And Trade Agreement Between The United States And China Text.pdf](https://ustr.gov/sites/default/files/files/agreements/phase%20one%20agreement/Economic%20And%20Trade%20Agreement%20Between%20The%20United%20States%20And%20China%20Text.pdf) [This is hereinafter referred to as the Phase One agreement]; see Peter Eavis, Alan Rappeport, and Ana Swanson, “What’s in (and Not in) the U.S.-China Trade Deal,” *The New York Times*, January 15, 2020, <https://www.nytimes.com/2020/01/15/business/economy/china-trade-deal-text.html>. (Noting that the pact preserves the bulk of the \$360 billion in U.S. tariffs earlier imposed on China).

¹⁰ USTR, “Findings of the Investigation into China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property and Innovation under Section 301 of the Trade Act of 1974,” March 22, 2018, <https://ustr.gov/sites/default/files/Section%20301%20FINAL.PDF>; USTR, “China Section 301-Tariff Actions and Exclusion Process,” April 6, 2018 to March 26, 2020, <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions>.

¹¹ See Jacob Pramuk, “Trump Signs ‘Phase One’ Trade Deal with China in Push to Stop Economic Conflict,” *CNBC*, January 15, 2020, <https://www.cnbc.com/2020/01/15/trump-and-china-sign-phase-one-trade-agreement.html>. (Noting that because of the agreement, Trump scrapped additional tariffs that were scheduled earlier to be imposed).

Thus, in many respects, North America will become the most attractive option for sourcing many parts and components for manufacturing and for supply chain management more broadly, even if the logistics and other complexities of more extensive decoupling from China require an extended period (three to five years) for manufacturers of complex products.

Beyond the purely economic impact of higher tariffs, U.S. relations with China have deteriorated. Primarily based on national security concerns and on efforts to hold China responsible for originating the COVID-19 pandemic, it is possible that further penalty tariffs, export restrictions, and limitations on Chinese investment in the United States will be imposed.

At minimum, it may become impracticable for publicly traded U.S. enterprises to continue to source certain goods from China even if they continue to produce goods in China for the Chinese market. The dislocations will not be limited to U.S. importers, since American firms—such as semiconductor producers Qualcomm and Intel, as well as Boeing, who all count China as one of their most significant markets—are likely to lose partial access to that market either because of export controls or as retaliation against U.S. tariffs on Chinese exports to the United States.

Initial concerns arose some years ago, well before the coronavirus became a world-wide catastrophe, and before the U.S. and other governments placed blame on China for concealing the seriousness of the outbreak in a manner that has made it difficult to react promptly and effectively to the associated health and economic threats.¹² The pandemic has further reinforced the determination of the president, his key advisers, and many in Congress to greatly reduce or eliminate the supply chain links between U.S. manufacturers and China,¹³ through “reshoring” production either to the United States proper (as the administration would seemingly prefer) or, more likely in the case of labor-intensive products, “nearshoring” production to Mexico.¹⁴ It is evident that the process, stimulated by most of the factors addressed herein, is already taking place. In 2018, the U.S. market imported \$0.131 of production from low-cost Asian producers for every \$1 worth of domestic manufacturing output; currently the ratio has fallen to \$0.121.¹⁵

¹² Nectar Gan, “Coronavirus has Created a Rift Between the US and China that May Take a Generation to Heal,” *CNN*, May 8, 2020, <https://www.cnn.com/2020/05/08/asia/us-china-relations-nationalism-intl-hnk/index.html>. (The gross incompetence of the Trump administration in promptly and effectively addressing the threat of COVID-19 is evident to everyone outside the administration but will not be addressed here; See Alice Ollstein, “5 Ways the Trump Administration Fell Short of its Own Pandemic Goals,” *Politico*, April 4, 2020, <https://www.politico.com/interactives/2020/trump-pandemic-goals/>).

¹³ See, e.g., Chloe Taylor, “Companies will Shift Supply Chains Away From China After Coronavirus Crisis, Mark Mobius Predicts,” *CNBC*, April 21, 2020, <https://www.cnbc.com/2020/04/21/supply-chains-will-move-away-from-china-after-coronavirus-mark-mobius.html>.

¹⁴ See Andrea Durkin, “Can We Measure Whether ‘Reshoring’ is Real?” Hinrich Foundation, May 21, 2020, <https://www.hinrichfoundation.com/research/tradevistas/measure-reshoring/>. (Coining the term “nearshoring” for bringing manufacturing from Asia to Mexico or Canada).

¹⁵ *Ibid* (Quoting the Kearney “Reshoring Index”).

A year or two ago, this process would have been even more difficult because of the uncertainty surrounding the replacement of NAFTA. Most potential investors, otherwise inclined to create or expand manufacturing activities and related employment in North America, were simply not willing to do so while NAFTA and its potential USMCA replacement were in doubt.¹⁶ Although some new investment has largely been postponed because of the pandemic, the entry into force of the USMCA has greatly reduced this particular source of investor uncertainty.¹⁷ In time, probably within several years, most businesses operating within North America will have become comfortable with the USMCA's new rules of origin, and thus will feel more confident in expanding their operations in North America under generally reliable and transparent rules of the game. The timing of any investment surge will depend, in part, on how quickly the U.S. and Mexico recover from the recession brought about by COVID-19, the unemployment it has caused (nearly 15% as of the second quarter of 2020 and a predicted 10.1% for 2021), and the massive reduction in U.S. gross domestic product (GDP).¹⁸ Given that both Mexico and Canada depend on the United States to take 75% or more of their exports,¹⁹ once the U.S. economy begins to recover, Mexico and Canada will hopefully not be far behind.

Much of the public discussion of supply chain reorientation suggests that when U.S. enterprises reduce or eliminate dependence on China for their materials and components, the United States should be substituted for production processes that can be highly automated and/or are subject to severe national security concerns. However, products, as well as parts and components that remain labor intensive, should logically be produced in Mexico, where average hourly manufacturing labor costs are still only about 15%-20% of those in the United States.²⁰

Moreover, and of particular importance for those who seek to relocate all manufacturing to the United States rather than North America, it is notable that goods produced in Mexico for export to the United States typically contain about 40% U.S. content (25% from Canada),

¹⁶ Frances Donald, "NAFTA Uncertainty Hurting Business Investment: Manulife's Donald," *BNN Bloomberg*, May 2, 2018, <https://www.bnnbloomberg.ca/economics/video/nafta-uncertainty-hurting-business-investment-manulife-s-donald-1334693>.

¹⁷ Some aspects remain. For example, in the automotive industry new and complex rules of origin are unclear and, in any event, will require a learning curve of months or years before stakeholders are comfortable with the new requirements.

¹⁸ See Phil Swagel, "CBO's Current Projections of Output, Employment, and Interest Rates and a Preliminary Look at Federal Deficits for 2020 and 2021," *Congressional Budget Office (CBO)*, April 24, 2020, <https://www.cbo.gov/publication/56335>. (Swagel is the director of the CBO).

¹⁹ See Sharay Angulo, "Mexico's Dependence on U.S. Demand Spells Trouble for Weak Economy," *Reuters*, August 1, 2019, <https://www.reuters.com/article/us-mexico-economy-analysis/mexicos-dependence-on-us-demand-spells-trouble-for-weak-economy-idUSKCN1UR5LT>. (Reporting that over 80% of Mexico's exports go to the United States); "Canada's Staggering Trade Dependency on the U.S. Looks like a Liability," *Financial Post*, March 15, 2018, <https://business.financialpost.com/news/economy/canadas-staggering-trade-dependency-on-the-u-s-looks-like-a-liability>. (Reporting that 74.79% of Canada's 2017 exports went to the United States).

²⁰ "Average Labor Costs in Mexico vs. United States," *Tetakawi*, February 13, 2020, <https://insights.tetakawi.com/average-labor-costs-mexico-vs-usa>. (Reporting wages of \$16.07-\$25.98 in the United States compared to \$2.40 to \$3.04 in Mexico).

while for those sourced in China, the U.S. content is only about 4%.²¹ Other advantages (as well as disadvantages) of producing in Mexico are discussed later in this paper. Even if enterprises decide that they should not be dependent on single-source suppliers ever again, North America remains the most attractive means of hedging bets.

The remainder of this paper is organized into five parts. Part II briefly describes the pressures on enterprises producing goods in North America to move materials and component sourcing to North America from China because of the U.S.-China trade war. Part III reflects on the additional pressures that national security concerns are placing on the sourcing of Chinese parts and components, particularly in high-tech areas such as 5G telecommunications. This section also discusses what some term a new “cold war” developing between the U.S. and China. Part IV discusses similar pressures arising out of the USMCA, particularly the automotive rules of origin, which offer a dual benefit through avoiding penalty tariffs and assuring zero tariffs and quotas for USMCA-originating goods. Part V addresses related pressures resulting from both COVID-19 and carbon footprint concerns to reduce or eliminate long supply lines, particularly regarding medical equipment, pharmaceutical products, and personal protective equipment. Part VI provides a short conclusion and predictions for the future.

Part II: U.S.-China Trade War Impact on USMCA Implementation and North American Regional Trade

In broad terms, U.S. strategy toward China has, according to the Trump administration, been guided by the following principles: “(1) protect the American people, homeland, and way of life; (2) promote American prosperity; (3) preserve peace through strength; and (4) advance American influence.”²² Whether or not the administration’s China policies have been consistent with these goals (particularly with number 4) is beyond the scope of this paper. However, execution of the policy through the first three and a half years of the Trump administration has been primarily through penalty tariffs. For more than two years, the United States has imposed high tariffs on most imports from China, ostensibly as punishment for China’s violation of international intellectual property (IP) norms, including theft of IP, forced transfer of IP to joint venture partners as a condition of doing business in China, and widespread hacking of IP owned by both private enterprises and the U.S. government.²³ Unrelated to the IP concerns are the Trump administration’s efforts to manage (and hopefully) reduce the large and growing

²¹ Pia Orrenius, “Economic Outlook Deteriorates Due to COVID-19: Short and Long Run Implications for North American Supply Chains,” *Federal Reserve Bank of Dallas*, May 13, 2020 (PowerPoint presentation, 2004 data).

²² “United States Strategic Approach to the People’s Republic of China,” The White House, May 20, 2020, <https://www.whitehouse.gov/wp-content/uploads/2020/05/U.S.-Strategic-Approach-to-The-Peoples-Republic-of-China-Report-5.20.20.pdf>.

²³ USTR, “Findings of the Investigation,” 7.

annual trade deficit with China, even though other factors such as a strong U.S. dollar and weak U.S. savings rates are among the core causes.²⁴

After difficult negotiations between the United States and China throughout 2019, the two countries, as noted in the introduction, concluded the Phase One trade agreement on January 15, 2020. Significantly, it did not deal with what many believe is the most significant underlying problem with China: the government's massive (and often illegal, under the World Trade Organization's rules) subsidies of various productive sectors in China. These sectors include those which are part of China's "Made in China 2025" effort to become the world leader in areas such as robotics, semiconductors, artificial intelligence, and electric automobiles, among others.²⁵

In addition to intellectual property, the Phase One agreement applies to the opening of the Chinese financial services market and provides limits on currency manipulation. It also includes detailed mechanisms on setting the appropriate standards—mostly health standards for dairy and infant formula, poultry, beef, live breeding cattle, pork, processed meat, aquatic products, rice, and pet food. China also agreed to revise its tariff-rate quotas for wheat, rice, and corn in order to establish procedures that allow for the importation of genetically modified products and other biotechnology products.²⁶

In a managed trade approach to reducing the U.S. trade deficit, which, as noted earlier, is a principal concern of the Trump administration, China promised to buy \$200 billion more in U.S. goods in 2020 and \$257.5 billion in 2021. In 2020, this would include \$77.7 billion of manufactured goods, \$32.0 billion of agricultural products, \$52.4 billion of energy products, and \$37.9 billion in services (according to annex 6.1 of the Phase One agreement). This expansion, if achieved, would constitute a 92% increase from 2017 to 2021.²⁷

What is perhaps most surprising about the agreement, and most significant for trade between the United States and China, is the fact that the United States is permitted to maintain existing penalty tariffs of 7.5% to 25% on \$370 billion worth of imports.²⁸ The United States has promised not to impose 15% tariffs on the remaining \$160 billion worth of imported Chinese goods and to reduce existing tariffs on \$120 billion worth of Chinese imports from 15% to 7.5%. However, should China not meet its import commitments under the agreement (for example, because the pandemic forced the closure of the Chinese economy for the first quarter of 2020²⁹), there is nothing to prevent the Trump

²⁴ See Kimberly Amadeo, "US Trade Deficit with China and Why It's So High," *The Balance*, February 26, 2020, <https://www.thebalance.com/u-s-china-trade-deficit-causes-effects-and-solutions-3306277>.

²⁵ Eavis, Rappoport and Swanson, "What's in (and Not in) the U.S.-China Trade Deal."

²⁶ The Phase One trade agreement covers the following: Ch. 1 Intellectual Property; Ch. 2 Technology Transfer; Ch. 3 Trade in Food and Agricultural Products; Ch. 4 Financial Services; Ch. 5 Macroeconomic Policies and Exchange Rate Matters; Ch. 6 Expanding Trade (with explicit goals).

²⁷ Eavis, Rappoport and Swanson, "What's in (and Not in) the U.S.-China Trade Deal," 6.

²⁸ *Ibid.*

²⁹ Kitty Fok, Lianfeng Wu, Zhenshan Zhong, Thomas Zhou, and Antonio Wang, "COVID-19 Impact on China's Economy and ICT Market," IDC, March 2020, <https://www.idc.com/getdoc.jsp?containerId=CHE46110220>.

administration or its successor from terminating the Phase One agreement and imposing higher tariffs on the already penalized imports and/or imposing tariffs on the remaining \$160 billion worth of imports. While as of mid-2020 it appeared that both the United States and China expected Phase One implementation in the agreed manner,³⁰ in my view, there is in no certainty that the United States will maintain this viewpoint, either because China cannot or will not meet its import quotas, or because the Trump administration believes that termination of the agreement is desirable for domestic political purposes. This doubt was confirmed in May when President Trump, indicating that he was “having a very hard time with China” because of its role in instigating a pandemic, said he was considering imposing tariffs on China because of COVID-19.³¹

While the effort to halt further escalation of the ongoing trade war between the U.S. and China should be applauded, whether the agreement is anything more than a two-year truce and whether it will effectively address the underlying and changing landscape in the bilateral relationship and the global economy, remains to be seen. In any event, the termination of extra tariffs currently applicable to \$370 million worth of Chinese source imports is not likely for many months or years. Even if China meets the obligations agreed to under the Phase One agreement, the likelihood of the successful negotiation of a Phase Two agreement, which would deal at least in part with illegal Chinese subsidies of steel and other products, seems slim indeed. Moreover, and ironically, in the current efforts to respond to China's command economy, the U.S. is effectively imitating China and “sabotaging America's premier strength: fair, innovative and competitive markets governed by the rule of law.”³²

What does this mean for purposes of implementing the USMCA? American manufacturers who continue to rely on China as a source (particularly a sole source) of raw materials and intermediate goods do so at their own peril. It might have been reasonable a year and a half ago to hope that the trade war would eventually be eliminated or at least reduced in scope through agreement. No more. The costly (for businesses and consumers) and time-consuming process of restructuring global value chains, which some multinational enterprises are much better equipped to undertake than others,³³ inevitably must continue—hopefully with a thoughtful, measured approach. This is evident even if many U.S. and other multinational enterprises continue to invest in China to serve a market of

³⁰ See “USTR: Phase-One Implementation Expected in Timely Manner, Despite COVID-19,” May 8, 2020, *World Trade Online*, <https://insidetrade.com/daily-news/ustr-phase-one-implementation-expected-timely-manner-despite-covid-19>.

³¹ Josh Wingrove, “Trump Casts Doubt on Future of China Trade Deal After Phone Call,” *Bloomberg Law*, May 8, 2020, <https://www.bloomberg.com/news/articles/2020-05-08/china-u-s-trade-teams-agree-to-work-to-implement-trade-deal>.

³² Robert Zoellick, “Trump is Losing His New ‘Cold War’ with China,” *The Washington Post*, October 7, 2020, <https://www.washingtonpost.com/opinions/2020/10/07/trump-is-losing-his-new-cold-war-with-china/>.

³³ See Claire Jones, “Onshoring Won't protect Us,” *Financial Times*, May 11, 2020, <https://ftalphaville.ft.com/2020/05/11/1589180995000/Onshoring-won-t-protect-us/?shareType=nongift>. (Questioning whether adjusting supply chains away from China is feasible).

potentially 1.4 billion consumers, and if for economic reasons China will continue to be the preferred producer for U.S. sourcing of non-sensitive products.

Part III: National Security and Other Restrictions on Maintenance of Supply Chains with China

Directly related to the trade war issues discussed in Part II, are the increasing U.S. national security concerns regarding dependence on China for sourcing high-tech goods, pharmaceutical products, and personal protective equipment, such as that used to address the coronavirus.³⁴ The high-tech concerns are reflected in the United States' recent decision not to source 5G telecommunications equipment from the giant telecommunications firm Huawei and not to sell key components, including certain semiconductors, to Huawei and other high-tech Chinese firms (like LTE) in the future (out of concerns over espionage and IP theft). At the time of this writing, the effective dates for this decision are still being discussed.³⁵ This policy, which is strongly supported by both Democrats and Republicans in Congress, seems highly likely to make it difficult or impossible for many U.S. and other non-Chinese high-tech enterprises to continue their dependence on China for materials and components.

Concerns regarding Chinese government cybersecurity violations are not new. For example, concerns arose following Chinese efforts to steal ship maintenance data and missile plans in 2018, prompting a review of U.S. cyber vulnerability to improve protection of military technology.³⁶

The impact of a high-tech decoupling on supply chains will often be reciprocal, with costs for American firms that are exporting to, rather than importing from, China. For example, in May 2020 the Trump administration announced a rule change "that will make high-tech chips destined for Huawei subject to U.S. export control licensing requirements if those chips are produced with U.S.-controlled equipment or if the chip's design are of U.S. origin."³⁷ Chip makers such as Qualcomm and Intel will be directly affected since China accounts for roughly two-thirds of their global revenue. Additionally, China (including Taiwan) accounts for about 15% of Apple's revenues.³⁸ China has threatened to retaliate by

³⁴ See Ana Swanson, "Coronavirus Spurs U.S. Efforts to End China's Chokehold on Drugs," *The New York Times*, March 11, 2020, <https://www.nytimes.com/2020/03/11/business/economy/coronavirus-china-trump-drugs.html>.

³⁵ See Jon Porter, "US Delays Full Huawei Ban Yet Again Until May 15," *The Verge*, March 12, 2020, <https://www.theverge.com/2020/3/12/21176530/huawei-us-ban-extension-length-rural-providers-network-infrastructure>. (Reporting on the status of a full ban against American companies doing business with Huawei).

³⁶ Gordon Lubold and Dustin Volz, "Chinese Hackers Breach U.S. Navy Contractors," *The Wall Street Journal*, December 14, 2018, <https://www.wsj.com/articles/u-s-navy-is-struggling-to-fend-off-chinese-hackers-officials-say-11544783401>.

³⁷ "Commerce Expands Export Controls to Cover More Chips Destined for Huawei," *World Trade Online*, May 15, 2020, <https://insidetrade.com/daily-news/commerce-expands-export-controls-cover-more-chips-destined-huawei>.

³⁸ "The Great Decoupling: the Trump Administration Wants an US-China Commercial Split," *The Economist*, August 15, 2020, <https://www.economist.com/business/2020/08/15/the-trump-administration-wants-a-us-china-commercial-split>.

investigating companies such as Apple and Boeing that have extensive production and sales in China and by suspending purchases of Boeing aircraft.³⁹ Huawei will also be further encouraged to develop its own chips that, in a few years or less, will permit it to manufacture 5G equipment and cell phones independently of U.S. component sources, such as Qualcomm .

The deteriorating U.S.-China political, economic, and security relationship is driving efforts by some members of Congress and others in the United States to hold China financially accountable for its early efforts to conceal the full dangers of COVID-19 from the United States and other countries. China's concealment efforts ultimately complicated and delayed those countries' responses to the pandemic, resulting in human and economic suffering.⁴⁰ The likelihood of further ruptures in the U.S.-China political and economic relationship, particularly when U.S. legislation is being contemplated,⁴¹ is increased by actions such as China's lame efforts to blame U.S. military personnel who visited China late in 2019 for bringing COVID-19 with them; its woeful treatment of its Muslim population and other minorities; its increasingly strident relations with Taiwan; the passing of new legislation that has eliminated most remaining autonomy for Hong Kong; and its decision to seize and militarize portions of the South China Sea that belong to Vietnam, the Philippines, and other Asian nations.⁴² Additionally, Chinese government agencies have been accused by the United States of seeking to hack U.S. vaccine data, presumably in an effort to give China a competitive edge in developing coronavirus vaccines.⁴³ Chinese diplomats, in their relations with the United States, the European Union (EU), and Australia, among other nations, appear to have replaced diplomacy with intimidation, in many instances .⁴⁴

These factors have also carried over to Chinese foreign investment in the United States, particularly relating to the reluctance of the Committee on Foreign Investment in the United States (CFIUS) to approve inward investment from China. Experts suggest that these concerns are leading to greater scrutiny by CFIUS of health and biotechnology

³⁹ Ibid.

⁴⁰ See Curt Anderson, "US Virus Patients and Businesses Sue China Over Outbreak," *AP News*, May 10, 2020, <https://apnews.com/article/fdd728197808914e741e9753b5441749>. (Discussing lawsuits filed by various individuals and businesses against China). Success in such actions seems unlikely. See Jessica Chen Weiss, "Can the U.S. Sue China for COVID-19 Damages? Not Really," *The Washington Post*, April 29, 2020, <https://www.washingtonpost.com/politics/2020/04/29/can-us-sue-china-covid-19-damages-not-really-this-could-quickly-backfire/>.

⁴¹ See "Lawmakers Mull Supply Chain Legislation, COVID-19 Response Coordination," *World Trade Online*, June 15, 2020, <https://insidetrade.com/daily-news/lawmakers-mull-supply-chain-legislation-covid-19-response-coordination>. (Noting a plethora of conflicting bills in both the House and Senate).

⁴² See, e.g., "Territorial Disputes in the South China Sea," *Council on Foreign Relations*, May 11, 2020, <https://www.cfr.org/interactive/global-conflict-tracker/conflict/territorial-disputes-south-china-sea>. (Discussing the South China Sea dispute and the U.S. reaction to it).

⁴³ David E. Sanger and Nicole Perlroth, "U.S. to Accuse China of Trying to Hack Vaccine Data, as Virus Redirects Cyberattacks," *The New York Times*, May 10, 2020, <https://www.nytimes.com/2020/05/10/us/politics/coronavirus-china-cyber-hacking.html>.

⁴⁴ Kathrin Hille, "'Wolf Warrior' Diplomats Reveal China's Ambitions," *Financial Times*, May 11, 2020, <https://www.ft.com/content/7d500105-4349-4721-b4f5-179de6a58f08>.

sectors, as well as critical technologies; careful review of “predatory acquisition” of undervalued enterprises, including those in critical technologies; and acquisitions that could further exacerbate dependence on China for personal protective equipment and ventilators.⁴⁵ At the same time, CFIUS is under pressure to maintain an open investment regime, since investment could be a significant positive factor in the U.S. recovery from the pandemic.

This new “cold war” will make it politically and economically difficult for many publicly traded American enterprises to continue their close relationships with China, at least when it comes to imports into the United States, even if they are willing to pay the high import tariffs. It is also likely to encourage some non-U.S.-owned enterprises to produce high-tech goods in the United States to minimize future disruptions (and possibly curry favor with the U.S. government). For example, the giant Taiwanese silicon wafer manufacturer Taiwan Semiconductor Manufacturing Company announced plans in May 2020 to construct a \$12 billion state-of-the-art plant in Phoenix, Arizona, with wafer production expected to begin in 2021.⁴⁶ If completed, this plant will assist the U.S. chip industry in reshoring some of its own production, reducing dependence on Asia and allowing manufacturers to preserve their domination of the global chip industry.⁴⁷ U.S. government officials have also pressured high-tech companies in Taiwan to act more quickly in moving their manufacturing out of China.⁴⁸

In the pharmaceutical product area, the Trump administration recently committed more than \$350 million to support a new company in Virginia that manufactures generic medicines and ingredients (with an initial focus on creating COVID-19 drugs), to replace imports from China and India.⁴⁹

⁴⁵ See Himamauli Das, “Insight: Five CFIUS Enhanced Enforcement Trends During COVID-19,” *Bloomberg Law*, May 19, 2020, <https://news.bloomberglaw.com/white-collar-and-criminal-law/insight-five-cfius-enhanced-enforcement-trends-during-covid-19>.

⁴⁶ “Taiwan Company to Build Semiconductor Factory in Arizona,” *AP News*, May 14, 2020, <https://apnews.com/article/242f0cd72a04b62a67db940afe0930f6>.

⁴⁷ See Richard Waters, “U.S. Chip Industry Plots Route Back to Homegrown Production,” *Financial Times*, August 2, 2020, <https://www.ft.com/content/ff7996bb-1309-4921-89c1-11aa8e6507de>. (Discussing the current dependence of U.S. chip producers on Asian countries to make its silicon chips, possibly with U.S. government subsidies of the industry).

⁴⁸ Lauly Li and Cheng Ting-Fang, “Inside the US Campaign to Cut China Out of the Tech Supply Chain,” *Asia.Nikkei.com*, October 7, 2020, <https://asia.nikkei.com/Spotlight/The-Big-Story/Inside-the-US-campaign-to-cut-China-out-of-the-tech-supply-chain>.

⁴⁹ Sheryl Stolberg and Katie Thomas, “Trump to Tap New Company to Make COVID-19 Drugs in the U.S.,” *The New York Times*, May 18, 2020, <https://www.nytimes.com/2020/05/18/us/politics/trump-coronavirus-drug-manufacturing.html>. The Trump campaign promises that if he is re-elected he will “end our reliance on China” and bring back 1 million jobs from China through a combination of tax credits, favorable treatment of tax deductions for pharmaceuticals and robotics, and barring federal contracts for enterprises that outsource to China. “Trump Campaign Announces President Trump’s 2nd Term Agenda,” August 23, 2020, <https://www.donaldjtrump.com/media/trump-campaign-announces-president-trumps-2nd-term-agenda-fighting-for-you/>. Details have not been released as of September 2020.

U.S. national security concerns with China, even if exaggerated, go beyond telecommunication and industrial espionage. Some members of Congress have expressed concerns that TikTok, a Chinese social media app that is also popular in the United States, constitutes an espionage risk because of its access to the data of many Americans. Recently, the Trump administration even sought to block TikTok in the United States as a security risk.⁵⁰ Efforts were underway as of November 2020 to sell TikTok's American operations to a U.S. companies Oracle and Walmart;⁵¹ however, at the same time, TikTok's owners obtained a federal court ban, halting the forced sale.⁵² Another example is the revelation that Chinese military officials, recently indicted in the United States, were responsible for stealing data from Equifax in 2017.⁵³

Yet another likely area of concern is newer electric vehicles (particularly those manufactured in China or with Chinese computer systems), which may have sophisticated communications systems where a central computer system is in constant contact with each vehicle (similar to the systems in Tesla vehicles).⁵⁴ Broad support also exists for reducing or eliminating dependence on China for certain rare earth minerals, even though, in this case, diversifying suppliers means finding sources that are outside the United States.⁵⁵ It also seems likely to some observers that the United States will eventually focus on the Aviation Industry Corporation of China (AVIC), a government-owned conglomerate with over one hundred subsidiaries and over 450,00 employees. AVIC produces both war material and civilian aircraft and has joint ventures with a number of U.S. high-tech companies including General Electric and Honeywell in avionics and Textron's Cessna for business jets.⁵⁶

Still, the policy raises serious risks for the United States' high-technology sector. The Information Technology Council (ITC) has argued that actions of the government designed to address "very legitimate risks ... could create unintended negative consequences for U.S.

⁵⁰ Michael Sykes, "Bipartisan Senators Request National Security Investigation Into TikTok," *Axios*, October 25, 2019, <https://www.axios.com/tik-tok-national-security-china-schumer-cotton-3c4889e5-3ff7-4a7b-a90f-b6f58e126827.html>; Christy Cooney, "Clock is Tik-ing: US May Ban TikTok over Concerns the Chinese App 'Poses National Security Risks for America,'" *The Sun (UK)*, July 7, 2020, <https://www.thesun.co.uk/news/12051400/tik-tok-ban-us-china-app-users-communist-party/>.

⁵¹ Helen Davidson, "TikTok: Why it is Being Sold and Who will Own It," *The Guardian*, September 22, 2020, <https://www.theguardian.com/technology/2020/sep/22/tiktok-sale-the-reasons-behind-it-and-the-new-deal>.

⁵² Mike Issac, "U.S. Appeals Injunction Against TikTok Ban," *The New York Times*, October 8, 2020, <https://www.nytimes.com/2020/10/08/technology/us-appeals-injunction-against-tiktok-ban.html>.

⁵³ Katie Benner, "U.S. Charges Chinese Military Officers in 2017 Equifax Hacking," *The New York Times*, May 7, 2020, <https://www.nytimes.com/2020/02/10/us/politics/equifax-hack-china.html>.

⁵⁴ Kirsten Korosec, "Tesla's Full Self-Driving Computer is Now in all New Cars and a Next-gen Chip is already 'Halfway Done,'" *TechCrunch*, April 22, 2019, <https://techcrunch.com/2019/04/22/teslas-computer-is-now-in-all-new-cars-and-a-next-gen-chip-is-already-halfway-done/>.

⁵⁵ See "Deputy USTR Nominee: Addressing Rare Earth Dependency Should be a Priority," *World Trade Online*, July 22, 2020, <https://insidetradetrade.com/daily-news/deputy-ustr-nominee-addressing-rare-earths-dependency-should-be-priority>. (Quoting Deputy USTR nominee Michael Memelka).

⁵⁶ Emma O'Brien, Bruce Einhorn, and Jing Li, "China's Jet and Aerospace Giant Could Land in U.S. Crosshairs," *Bloomberg News*, October 12, 2020, <https://ajot.com/news/chinaas-jet-and-aerospace-giant-could-land-in-u.s-crosshairs>.

competitiveness, technological leadership, and—ironically—national security” because they are often wrapped up inappropriately with other trade and economic policy goals. Essentially, the ITC is arguing that a national security pretext should not be used to support unrelated economic and trade objectives, because this could accidentally harm U.S. global competitiveness in the sector.⁵⁷ One such example, which particularly would affect the field of artificial intelligence, is the proposed U.S. visa policy limiting the number of Chinese scientists allowed in the country (even though many of them were trained in the United States). One U.S. expert notes that “These are some of the brightest minds in China, and they’re choosing to work for American research labs, teach American students and help build American companies.”⁵⁸ If such collaboration were banned, the United States technology sector could have difficulty maintaining its edge.

Alleged “national security” concerns led the Trump administration to impose 25% tariffs on an expanded list of steel and aluminum derivative items in January 2020.⁵⁹ Except for a few situations where quotas were substituted for tariffs, the restrictions remain in place for all such imports except those from Canada and Mexico. The tariffs on imports from Canada and Mexico were terminated in May 2018,⁶⁰ because they made it clear to the United States that they would not move forward with approval of the USMCA while the tariffs remained in place.⁶¹ Ironically, the original tariffs on steel and aluminum, imposed for national security reasons under Section 232 of the Trade Expansion Act of 1962, do not significantly affect steel imports from China⁶² and are a major policy step that could discourage some new manufacturing in the United States. However, steel and aluminum imports into Canada and Mexico are not affected, except with regard to auto production, discussed below.

⁵⁷ Doug Palmer, “Tech Calls for Change in Trump’s National Security Policies,” *Politico Weekly Trade*, June 8, 2020, <https://www.politico.com/newsletters/morning-trade/2020/06/08/tech-calls-for-change-in-trumps-national-security-tactics-788324>. (Quoting and commenting on an ITI policy paper).

⁵⁸ Poul Mozur and Cade Metz, “A U.S. Secret Weapon in A.I.: Chinese Talent,” *The New York Times*, June 10, 2020, <https://www.nytimes.com/2020/06/09/technology/china-ai-research-education.html>. (Quoting MarcoPolo analyst Matt Sheehan).

⁵⁹ See “Proclamation on Adjusting Imports of Derivative Aluminum Articles and Derivative Steel Articles into the United States,” The White House, January 24, 2020, <https://www.whitehouse.gov/presidential-actions/proclamation-adjusting-imports-derivative-aluminum-articles-derivative-steel-articles-united-states/>.

⁶⁰ USTR, “United States Announces Deal with Canada and Mexico to Lift Retaliatory Tariffs,” May 17, 2018, <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2019/may/united-states-announces-deal-canada-and>.

⁶¹ See Adrian Morrow and Campbell Clark, “Canada, U.S. Nearing Agreement to Lift Steel and Aluminum Tariffs, Cease Trade War,” *The Globe and Mail*, May 15, 2019, <https://www.theglobeandmail.com/business/article-mexico-close-to-deal-with-us-to-lift-tariffs-waiting-for-canada/>. (“Both Canada and Mexico have refused to ratify the renegotiated NAFTA, dubbed the United States-Mexico-Canada Agreement (USMCA) by Mr. Trump, until the tariffs are lifted”).

⁶² See Mrinalini Krishna, “Where Does the U.S. Import its Steel From?” *Investopedia*, June 25, 2019, <https://www.investopedia.com/news/where-does-us-import-steel/>. (Showing that in 2018, China was not among the top 10 U.S. sources of imported steel).

Part IV: USMCA Pressure to Transfer Production to North America: The Auto Sector Example

Automobiles and auto parts typically accounted for more than 25% of total NAFTA trade in manufactured goods and about 950,000 jobs in the United States.⁶³ Some automotive components cross the Canada and/or Mexico borders as many as eight times before they are assembled into a finished automobile in one of the three NAFTA countries.⁶⁴ It is thus not surprising that this was the focus of the NAFTA renegotiations and that these changes will build on other pressures to shift current Chinese supply chains to North America.

The elements of the USMCA that directly address the auto industry include modifications to the NAFTA rules of origin and related content requirements, plus some protections for Mexico and Canada should the Trump administration (as it has periodically threatened) impose 20%-25% tariffs on U.S. auto and auto part imports (presumably on “national security” grounds under Section 232 of the Trade Expansion Act of 1962).⁶⁵ Automotive trade was extensively “managed” under NAFTA and is even more subject to government requirements under the USMCA. Whether these increasingly strict rules in the medium or long term will help or hurt the North American auto and auto parts industries will not be known for at least three to five years under the USMCA rules. USMCA requirements for the automotive industry include raising the percentage of regional value content required for automobiles and light trucks from 62.5% to 75%. These requirements are to be phased in over three years from the date the USMCA goes into effect; certain “core” components such as engines, advanced batteries for electric cars, and transmissions must originate in North America.⁶⁶ In addition, 70% of the steel used in the manufacturing of cars and small trucks must originate in USMCA countries.⁶⁷ The full significance of the 70% rule was clarified only in the December 10, 2019 protocol of amendment. In a further step, apparently designed by the Trump administration rather than Congress, the steel rules (but not those relating to aluminum) were further tightened. Steel automotive products such as chassis and bodies will not count toward the 70% after a 7-year grace period unless the steel is “melted and poured” in North America.⁶⁸ Ten years after the USMCA enters into force, the parties will consider similar requirements to be applicable to aluminum.⁶⁹

⁶³ Bureau of Labor Statistics, “Automotive Industry: Employment, Earnings and Hours,” October 2018, <https://www.bls.gov/iag/tgs/iagauto.htm>. Another 3.3 million people are employed in vehicle and parts dealerships.

⁶⁴ See Kristin Dzciczek, Bernard Swiecki, Yen Chen, Valerie Brugeman, Michael Schultz, and David Andrea, “NAFTA Briefing: Trade benefits to the automotive industry and potential consequences of withdrawal from the agreement,” Center for Automotive Research, January 2017, <https://www.cargroup.org/publication/nafta-briefing-trade-benefits-to-the-automotive-industry-and-potential-consequences-of-withdrawal-from-the-agreement/>.

⁶⁵ 19 U.S. Code § 1862–Safeguarding National Security.

⁶⁶ USMCA, app. to annex 4-B, art. 3.1.

⁶⁷ USMCA, app. to annex 4-B, art. 6.

⁶⁸ USMCA, app. 4-B, art. 61, footnote 74.

⁶⁹ Ibid.

Also significantly for Mexico, 40% of the materials for cars and 45% of the components for light trucks must be produced by enterprises that pay workers at least \$16 per hour.⁷⁰ Some employees of automotive enterprises that conduct research and development and/or assemble advanced components such as batteries, engines, and transmissions in Mexico would count toward up to 15% of these thresholds if the workers are paid at this level.⁷¹

Since typical auto industry hourly wages in Mexico are approximately \$3.60-\$3.90 (a level some studies attribute in part to the lack of union support for workers),⁷² this wage requirement means most of the materials and components counting toward the 40%-45% content rule must be produced in the United States or Canada. It is possible that wages in Mexico will eventually increase to the \$16/hour level; Mexican President Andrés Manuel López Obrador presumably will seek to implement policies encouraging higher wages for Mexican workers, including policies that support workers' rights to organize independent unions, as required under the USMCA.⁷³

Few objective observers would agree that the more protectionist rules for vehicles and auto parts will benefit auto manufacturers or consumers, and it remains to be seen whether the changes will benefit workers in the industry. Accurately estimating the additional North American production costs (because of the more restrictive rules of origin and related minimum salary requirements) is almost impossible, in part because they likely will vary company to company and vehicle model to vehicle model. The \$16/hour wage requirement may impose a significant tracking and record-keeping burden on enterprises that produce finished passenger vehicles or light trucks and on associated parts suppliers, at least temporarily.⁷⁴ This will likely add to vehicle manufacturing costs in North America, compared to automotive production costs in Asia or the EU. In the interim, producers of small trucks in Mexico selling them in the U.S. market will have to be particularly careful. If they fail to meet the rules of origins for autos, the most-favored-nation tariff is only 2.5%. If they fail to meet the rules of origins for trucks, the tariff is 25%.⁷⁵ Still, one can reasonably expect that within a few years, the major North American auto producers will have devised means of minimizing the costs, given the phase-in period and potential detailed regulatory guidance the U.S. government is providing.⁷⁶ Nor is it likely, given the overwhelming

⁷⁰ USMCA, app. to annex 4-B, art 7.

⁷¹ USMCA, app. to annex 4-B, arts. 3.4, 3.5. These calculations are subject to complex tracing rules, which likely will add to auto manufacturing costs in North America, although some of the NAFTA tracing rules for parts and components have been relaxed.

⁷² "Study Points to Large Wage Gaps for Mexican Auto Workers," *Mexico News Daily*, July 2, 2018, <https://mexiconewsdaily.com/news/study-points-large-wage-gaps-mexican-auto-workers/>.

⁷³ See USMCA, annex 23-A ("Worker Representation in Collective Bargaining in Mexico). The \$16/hour rate is not indexed to inflation, although with inflation in the United States averaging about 2% per year (\$0.32), the lack of indexing probably would not significantly help Mexico.

⁷⁴ USMCA, app. to annex 4-B, art. 7.

⁷⁵ See "'American Cars First'—Uncertainty about Car Tariffs Persists," *BDI* (Germany), 2019, <https://english.bdi.eu/article/news/american-cars-first-uncertainty-about-car-tariffs-persists/>. (Discussing U.S. and European tariffs on cars and light trucks).

⁷⁶ See USMCA, app. to annex 4-B, art. 3.

support for these more protectionist automotive rules by Democrats in Congress, that a Biden administration would make any effort to rescind them.

The overall economic impact of these provisions on the North American auto industry depends on several other factors, such as the increased cost of steel and aluminum due to U.S. tariffs and quotas on steel and aluminum imported from most countries other than Australia. The Trump administration imposed these tariffs and quotas in June 2018 under Section 232 of the Trade Expansion Act of 1962 on “national security” grounds (with Canada and Mexico exempted in May 2019).⁷⁷ Given the costs to North American auto producers of complying with the requirements of the rules of origin, particularly those relating to the sourcing of steel and labor cost minimums, one can reasonably expect American and other North American vehicle sales to fall, although predicting the magnitude of the decrease—and the resulting job losses, if any—is difficult. In the short term, the fact that most of the auto-related rules of origin will not be applied strictly by U.S. authorities until mid-2021 should give the auto industry additional time to adjust to the new rules.

In the future, it can be assumed that some of the auto parts currently sourced in China will be shifted either to Mexico or to the United States (or perhaps in some cases to Canada). The increase in North American content requirements by 12.5% will likely result in a shift from importing lower-priced parts from China, to importing them from Mexico. Mexico's much lower labor costs make it a more likely source for parts compared to Canada or the United States, unless their production in the United States can be extensively mechanized. At the same time, while the regional value content is increasing from 62.5% to 75%, it is obvious this means that 25% of the total content may still be obtained from non-North American sources.

For Mexican auto production, sourcing some components from China, elsewhere in Asia, and the EU will still be feasible, even in the now unlikely event that the Trump administration imposes 20%-25% tariffs on auto parts from those countries under Section 232. One may also speculate that the steel content requirements, combined with the increased fabrication (“melted and poured”) requirements for USMCA treatment, might stimulate investment in Mexico's basic steel production. Production costs will likely be lower in Mexico than in Canada or the United States, even as steel production in the developed parties becomes increasingly automated. The extent of a shift of both parts and steel production to Mexico from China or elsewhere will be affected to some extent by whether uncertainties regarding the investment climate under President López Obrador are favorably resolved.⁷⁸ Whether these positive changes for Mexico will offset the potential loss of some production because of the \$16/hour requirements remains to be seen.

⁷⁷ Australia is the only country exempted to date, as of December 2018. See Michael Cowden, “Australia Joins 232 Tariff Exemption Parade,” *Fastmarkets AMM*, March 12, 2018, <https://www.amm.com/Article/3793254/Australia-joins-232-tariff-exemption-parade.html>.

⁷⁸ See, for example, Colby Smith, “Investors Face Big Call as Mexico's Lopez Obrador Prepares Budget,” *Financial Times*, December 11, 2018, <https://www.ft.com/content/52a1e866-fc4e-11e8-ac00-57a2a826423e>.

Part V: COVID-19 and Environmental Factors also Favor Operations within North America

Beyond U.S. pressures to make China pay for the costs of COVID-19, discussed in Part III, perhaps the most succinct argument for why COVID-19 has convinced many countries that regional trade is preferable over the current dependency on China comes not from the United States but from French Finance Minister Bruno Le Maire:

Do we want to still depend at the level of 90 percent or 95 percent on the supply chain of China for the automobile industry, for the drug industry, for the aeronautical industry or do we draw the consequences of that situation to build new factories, new productions, and to be more independent and sovereign? That's not protectionism—that's just the necessity of being sovereign and independent from an industrial point of view.⁷⁹

While admittedly France is one of the most protectionist nations in the EU, the sentiments are shared in dozens of other nations in Europe as well as by many in the United States, and probably Japan and Canada as well.

While concerns about overdependence on China predate COVID-19 by well over a decade, the issue has been exacerbated by problems related to the pandemic, particularly the difficulty of obtaining protective gear for medical and first response personnel from China and India (and elsewhere in Asia) and the realization that the United States depends on China and India for 70%-90% of its various medicines and/or critical ingredients used in the manufacture of medicines.⁸⁰ There have always been trade-offs between the economic benefits of just-in-time inventory management and extreme, often single-source, specialization of production. Additionally, the economic and non-economic vulnerabilities that such supply operations present must be considered, not only for public health but for the economic health of the U.S. enterprises that have become so dependent on China.⁸¹ It seems reasonable to believe that security of supply will outweigh low-costs considerations for many enterprises, causing supply chains to be decoupled from China. If such business considerations are not sufficient, pressures from the U.S. Congress and the public may force enterprises to take such steps.

The result is likely to favor, *inter alia*, shorter supply chains. Even if Chinese production must be moved elsewhere, producing the goods in other Asian countries, such as in Vietnam, does not really resolve the long supply chain or single-source problems. At present, the production of many finished goods in Vietnam is still dependent on parts and components from China.⁸² Moreover, since Vietnam maintains a large and growing trade deficit with the United States

⁷⁹ Stephen Olson, "Managing Supply Chain Risk in a Post-COVID-19 World," East Asia Forum, May 6, 2020, <https://www.eastasiaforum.org/2020/05/06/managing-supply-chain-risk-in-a-post-covid-19-world/>.

⁸⁰ Swanson, "Coronavirus Spurs U.S. Efforts to End China's Chokehold on Drugs," 32.

⁸¹ See Olson, "Managing Supply Chains."

⁸² See Manisha Mirchandani, "Coronavirus Exposes Dependency of Southeast Asia's Manufacturers on China," *Brink News*, March 15, 2020, <https://www.brinknews.com/coronavirus-exposes-dependency-of-southeast-asias-manufacturers-on-china/>.

(exacerbated by the shifting of some production from China to Vietnam),⁸³ enterprises have no real assurances, even in a Biden administration, that Vietnam would not become the focus of uncertain but potentially significant pressures from the United States.

Thus, where production of materials is made more efficient by the availability of lower-wage cost production as well as shorter supply chains, the obvious choice for enterprises in the United States (and Canada) is Mexico under the USMCA. The benefits of production in Mexico over other lower-wage cost countries are significant. Among the most important are:⁸⁴ a) proximity to the United States and to America's still critical interstate highway system (meaning a truck from Mexico can reach all parts of the United States within a few days, compared to three weeks or more for a container from Shanghai); b) an adequate supply of increasingly skilled workers; c) relative political stability (at least for now); d) a language (Spanish) that is common to that spoken by over 40 million Americans; e) respect for rules of the game that are guaranteed by the USMCA; f) a relatively open and transparent economy (thanks in part to more than 25 years of NAFTA obligations); g) some opportunity for foreign investors to resort to investor-state dispute settlement where major disputes with the government arise (although these opportunities are reduced from NAFTA);⁸⁵ and h) an openness to international commercial arbitration.⁸⁶ In addition, as noted in the introduction, goods produced in Mexico typically have 40% U.S. content, while similar goods produced in China typically contain less than 5% U.S. content.

Mexico of course has its share of disadvantages. Corruption at all levels of the government and drug-related violence remain rampant, despite President López Obrador's campaign promises.⁸⁷ The legal system, including the court system, has improved somewhat since the advent of NAFTA in 1994, but it still has gaps in terms of the competence and political independence of judges, and litigation is a very slow and costly affair. However, compared to China, where the courts are operated and controlled by the Communist Party and the only other authorized means of resolving disputes (including those between foreign businesses and state-owned enterprises) is arbitration, which may be influenced by the Chinese government anyway, the Mexican judicial system is probably somewhat more acceptable to foreign investors.

⁸³ The U.S. trade deficit with Vietnam in 2019 was \$55.797 billion, up from \$39.498 billion in 2018. U.S. Census, "Trade in Goods with Vietnam," April 2020, <https://www.census.gov/foreign-trade/balance/c5520.html>.

⁸⁴ See e.g., Brandon Gaille, "16 Pros and Cons of Doing Business in Mexico," *BrandonGaille*, September 16, 2019, <https://brandongaille.com/16-pros-and-cons-of-doing-business-in-mexico/>.

⁸⁵ USMCA, ch. 14. Such protections under the USMCA do not extend to disputes between U.S. investors and Canada.

⁸⁶ See "Mexico: International Arbitration 2019," *ICLG.Com*, August 22, 2019, <https://iclg.com/practice-areas/international-arbitration-laws-and-regulations/mexico>.

⁸⁷ Shannon K. O'Neil, "Mexico's López Obrador is Stoking Corruption, not Fighting It," *Bloomberg Opinion*, February 4, 2020, <https://www.bloomberg.com/opinion/articles/2020-02-04/mexico-s-lopez-obrador-is-stoking-corruption-not-fighting-it>.

A major caveat, however, relates to the fact that López Obrador, with a term that continues until December 1, 2024, is an anti-business populist who strongly favors government production over private enterprise in such sectors as petroleum and electricity. A series of actions since his inauguration on December 1, 2018 have eroded investor confidence, including terminating a half-finished airport project in Mexico City, threatening privately owned clean-energy producers with changes that may put them out of business,⁸⁸ and terminating an internationally owned brewery already under construction in Mexicali.⁸⁹ He has also effectively halted the opening up of the petroleum sector, a process that was instigated by his predecessor President Enrique Peña-Nieto, ending the issuing of new leases at least through 2021 and affording expanded powers to the corrupt, often incompetent, and near-insolvent national oil monopoly, Pemex.⁹⁰ It is also evident that the Mexican government has shown significantly less ability to deal with the COVID-19 pandemic than even the United States.⁹¹

These factors may convince some potential investors to seek opportunities outside of Mexico, perhaps even in the United States or Canada. As one observer has noted, despite the Mexican government's efforts to tout Mexico as an alternative to China, "Mexico in some ways is its own worst enemy. On paper, it should be doing better than it is, but there's real concern about the predictability of the investment climate."⁹²

The Trump administration has long pressured U.S. manufacturing enterprises, particularly those in the automotive industry, to bring their production back to the United States.⁹³ Those objectives are reflected in some of the major changes in the USMCA's automotive rules of origin, as discussed in Part IV, above, and by the Section 232 "national security" tariffs imposed on virtually all steel imported from everywhere except Canada and Mexico (which were exempted as of March 2018). These import restrictions were expanded to certain derivative

⁸⁸ See Kate Brown de Vejar and Marcelo Paramo Fernandez, "Energy Alert," DLA Piper, May 19, 2020, <https://www.dlapiper.com/en/us/insights/publications/2020/05/mexican-renewable-energy-projects-affected-by-new-measures/>. (Noting that new government resolutions "will have a significant negative impact on the profitability, and indeed the viability, of multiple solar and wind energy farms in Mexico").

⁸⁹ "AMLO Deals Another Blow to Foreign Investor Confidence in Mexico," *The Mazatlán Post*, March 24, 2020, <https://themazatlanpost.com/2020/03/24/amlo-deals-another-blow-to-foreign-investor-confidence-in-mexico/>.

⁹⁰ Jude Webber and Colby Smith, "Pemex Slapped with Second 'Junk' Rating," *Financial Times*, April 17, 2020, <https://www.ft.com/content/478975eb-fb3d-443b-a94f-78e2324b1338>.

⁹¹ See Azam Ahmed, "Hidden Toll: Mexico Ignores Wave of Coronavirus Deaths in Capital," *The New York Times*, May 8, 2020, <https://www.nytimes.com/2020/05/08/world/americas/mexico-coronavirus-count.html>.

⁹² See Kevin Seif, "As U.S.-China Rift Grows, Mexico Tries to Lure American Businesses to Move Operations Closer to Home," *The Washington Post*, August 13, 2020, https://www.washingtonpost.com/world/the_americas/us-mexico-china-factories/2020/08/12/c29f4a9a-d0f1-11ea-8c55-61e7fa5e82ab_story.html?utm_campaign=wp_post_most&utm_medium=email&utm_source=newsletter&wpisrc=nl_most. (Quoting Eric Miller of Rideau Potomac Strategy Group).

⁹³ See Robert E. Lighthizer, "The Era of Offshoring U.S. Jobs is Over," *The New York Times*, May 11, 2020, <https://www.nytimes.com/2020/05/11/opinion/coronavirus-jobs-offshoring.html>. (Noting President Trump's lack of support for business offshoring).

products in January 2020.⁹⁴ Although it is probably an exaggeration to contend that “the era of offshoring U.S. jobs is over,”⁹⁵ some pressures against offshoring are likely to continue in a Biden administration.

If these considerations are fully assessed, production in the United States may be favored even over Mexico, at least for many of the inputs for complex products, particularly if the investment climate in Mexico deteriorates further. The difference in wage costs between the United States and Mexico is still typically about six to one.⁹⁶ However, this disparity may decrease in the future. Under the USMCA, as amended with the demands of the Democratic Congress, Mexican labor costs may well increase gradually due to the requirements for effective and transparent collective bargaining, along with strict enforcement provisions in the USMCA and in U.S. implementation legislation.⁹⁷

Some observers believe that the USMCA’s “rapid response” mechanism for complaints will be utilized soon after the USMCA enters into force to address the fact that specific Mexican enterprises are not meeting the collective bargaining and other requirements, particularly in “priority sectors” like mining and manufacturing.⁹⁸ However, as of mid-November 2020, no enforcement actions have been brought by the United States under the USMCA's new labor mechanism.

A broad consensus also exists among production experts that the pandemic (and I would suggest the other factors discussed in this paper as well) will accelerate the movement in U.S. manufacturing toward more automation.⁹⁹ For example, a spokesperson for AMP Robotics suggested in April 2020 that the firm has seen a “significant” increase in orders for its robots that use artificial intelligence. Other labor and robotics experts have opined that “social-distancing directives, which are likely to continue in some form after the crisis subsides, could prompt more industries to accelerate their use of automation. And long-simmering worries about job losses or a broad unease about having machines control vital aspects of daily life could dissipate as society sees the benefits of restructuring workplaces in ways that minimize close human contact.”¹⁰⁰ Automation increases could thus partially offset the cost advantages

⁹⁴ See discussion in Part III, above.

⁹⁵ See Robert E. Lighthizer, “The Era of Offshoring U.S. Jobs is Over.” (Arguing that “Many companies have realized that offshoring creates risks that often outweigh the incremental efficiencies. Long supply lines flow at the whim of local politics, labor unrest and corruption”).

⁹⁶ “Study Points to Large Wage Gaps for Mexican Auto Workers.”

⁹⁷ See United States-Mexico-Canada Agreement Implementation Act, introduced December 13, 2019, Secs. 717-19, H.R. 5430, 116th Congress, 1st Session; USMCA, annexes 23-A, 31-B. See also David A. Gantz, “Labor Rights and Protection of the Environment,” *An Introduction to the United States-Mexico-Canada Agreement: Understanding the New NAFTA* (Edward Elgar Publishers, forthcoming 2020), ch. 4.

⁹⁸ See “Analysts Predict Early Flurry of Activity Under USMCA Rapid Response Tool,” *World Trade Online*, May 11, 2020, <https://insidetrade.com/daily-news/analysts-predict-early-flurry-activity-under-usmca-rapid-response-tool?s=na>.

⁹⁹ See, e.g., Michael Corkery and David Gelles, “Robots Welcome to Take Over, as Pandemic Accelerates Automation,” *The New York Times*, April 8, 2020, <https://www.nytimes.com/2020/04/10/business/coronavirus-workplace-automation.html>.

¹⁰⁰ *Ibid.*

of supply chain reliance on Mexican production, at least for the production of parts, components, and finished goods that are adaptable to higher degrees of automation than is presently the case. The same is true for enterprises in the United States that have been forced to rebalance the financial advantages of Chinese-based supply chains with the economic and non-economic costs of such reliance.

North American production and shorter supply lines may also be favored by some enterprises that are intent on reducing their carbon footprint. Materials and components sourced in North America enjoy far shorter supply lines than those imported from China and elsewhere in Asia. A container ship requires about three weeks to travel from Shanghai to the ports of Los Angeles and Long Beach, taking nearly a month door-to-door.¹⁰¹ A truck loaded in Monterrey, Mexico (Mexico's financial and commercial capital) can reach most of the major population centers in the United States within about three days.¹⁰² If enterprises realize that they must abandon China for other locales, some will decide to take advantage of this disruption by becoming "greener" at the same time. As one former trade negotiator and lawyer has observed,

For years you've had a situation where companies are looking at their supply chains and they are recognizing that they are globally diverse and that they do have a large carbon footprint—that their operations are not environmentally sustainable. ... Onshoring products, vertically integrating production, and creating a more regional supply chain are among the options companies are considering to minimize their exposure.¹⁰³

Part VI: Concluding Observations

As this discussion indicates, there are multiple pressures forcing enterprises to abandon or at least significantly reduce their dependence on Chinese sourcing. The U.S.-China trade war, national security concerns, the entry into force of the USMCA, COVID-19, and carbon footprint concerns, are combining to stimulate extensive changes in the way global enterprises conduct their business.

It is estimated that up to 26% of global exports with a value of \$4.6 trillion, could move to new source countries within the next five years.¹⁰⁴ In many respects, these changes will be costly to the businesses involved, increasing their production costs and the costs to consumers in the United States (and many other countries) of the finished goods that are sold, and probably

¹⁰¹ "Shipping from China to the US: Costs, Times & Everything You Need to Know," *Freightos*, May 2020, <https://www.freightos.com/shipping-routes/shipping-from-china-to-the-united-states/>.

¹⁰² The driving distance from Monterrey, Mexico to Houston, Texas is about 500 miles and eight to 10 hours of driving, where a truck can then head toward Los Angeles or the U.S. East Coast via I-10 in less than two more days.

¹⁰³ See "Collinson: Pandemic Foreign 'Rethink' of Corporate Sustainability, Supply Chains," *World Trade Online*, May 1, 2020, <https://insidetrade.com/daily-news/collinson-pandemic-forcing-%E2%80%98rethink%E2%80%99-corporate-sustainability-supply-chains>. (Quoting former U.S. trade negotiator Nicole Bivens Collinson).

¹⁰⁴ Ran Foroohar, "The Great Trade Unwinding," *Financial Times*, August 9, 2020, <https://www.ft.com/content/3a21c843-43ed-4e94-b78e-635947050c71>.

reducing shareholder profits as well. It is possible that some producers who are forced to diversify their sourcing from China will not survive or will survive only in a reduced capacity. It will be important for businesses to balance the maximization of profits and minimization of production costs with the diversification of supply chains to reduce, if not eliminate, dependence on Chinese sourcing. Various proposals (some of which would require legislation) have been made to encourage resourcing to the United States and to reduce the costs for businesses of doing so, including tax breaks, less onerous rules, and even carefully structured subsidies.¹⁰⁵ The potential impact of prohibiting Chinese engineers and scientists from working in the United States, particularly if applied carelessly, could also harm U.S. competitiveness. Additionally, the Trump administration has threatened to impose tariffs on U.S. enterprises that fail to move manufacturing back to the United States, although it is unclear how such sanctions would work.¹⁰⁶ It seems reasonably possible that a Biden administration would modify this policy or substitute other approaches.

It is likely that some of the excess costs of decoupling from China could be reduced through innovative approaches by importers and producers. One expert has suggested that this could occur, at least for personal protective equipment, through the use of a “stress test.” Here, companies are asked “to demonstrate how they will meet large surges in demand and destruction of global supply,” an approach that would strongly discourage a “just-in-time” driven philosophy of inventory and manufacturing” and that would promote the diversification of supply.¹⁰⁷ The resourcing/near-sourcing process could also be facilitated if, as U.S. and Mexican officials are discussing, the United States and Mexico establish a consultation mechanism that would align the North American region’s “essential sectors” and help enterprises to focus on supply chains that could be reshored.¹⁰⁸

American enterprises that export to China, particularly those producing high-tech products in the United States, such as Intel and Qualcomm, may see their exports to China reduced or eliminated. Retaliation by China may also affect some unrelated industries; Apple iPhone sales in China may decline, and China may refuse to purchase Boeing aircraft in the future. Even though the complexity of China-based supply chains means they cannot be shifted elsewhere overnight, it is also reasonable to expect China, over the longer term, to seek more diversified external relations that will permit it to maintain its now dominant place in the global supply chain despite reduced trade and reduced dependence on the

¹⁰⁵ “US Development Fund to Support Reshoring, Though Concerns it Would Reward Offshoring,” *Supply Chain Digest*, May 20, 2020, <http://www.scdigest.com/ontarget/20-05-20-US-Fund-Subsidize-Moving-Sourcing-from-China.php?cid=16810&ctype=content>.

¹⁰⁶ Alex Wayne, “Trump Threatens Tariffs for U.S. Companies That Won’t Move Jobs,” *Bloomberg Law*, August 20, 2020, <https://news.bloomberglaw.com/daily-tax-report/trump-threatens-tariffs-for-u-s-companies-that-wont-move-jobs?context=search&index=0>.

¹⁰⁷ See “Murphy Urges U.S. to Embrace Global Trade, Supply Chains Amid Pandemic,” *World Trade Online*, July 23, 2020, <https://insidetrade.com/trade/murphy-urges-us-embrace-global-trade-supply-chains-amid-pandemic>. (Quoting Prashant Yadav, senior fellow at the Center for Global Development).

¹⁰⁸ “U.S., Mexico Eye Consultations to Align ‘Essential’ Sectors, Reshore Production,” *World Trade Online*, July 31, 2020, <https://insidetrade.com/daily-news/us-mexico-eye-consultations-align-%E2%80%98essential%E2%80%99-sectors-reshore-production>.

United States. At the same time, China may be expected to increasingly focus on its growing domestic market.¹⁰⁹ New policies are expected to stimulate Chinese companies' expansion into international markets, along with government subsidies and other existing policies designed to improve technological innovation.¹¹⁰

A sensible U.S. government approach to reshoring or nearshoring could reduce but not eliminate the pain. It would be wise to prioritize products and technology that could aid in the response to threats to intellectual property, national security, and public health. However, there is little benefit of any kind in seeking to restrict the import of apparel, shoes, consumer electronics, auto parts, or basic steel. If restrictions are imposed on such sectors, it will be because of rampant protectionism for industries that would be dying in the United States with or without Chinese competition, not for legitimate strategic reasons.

The confusion for businesses has been increased by conflicting statements within the Trump administration. In June, U.S. Trade Representative Robert Lighthizer told Congress that he did not believe complete decoupling from China was feasible: "Do I think that you can sit down and decouple the United States economy from the Chinese economy? No. I think that was a policy option years ago. I don't think it's ... a reasonable policy option at this point." The next day he was contradicted by President Trump, who stated that the administration has not ruled out "a complete decoupling from China."¹¹¹ That makes no sense. As Representative Stephanie Murphy observed, "having exclusive domestic sourcing is both unrealistic and counterproductive. It would just leave us as vulnerable to shocks here at home as to ones abroad."¹¹²

American enterprises will continue to invest in China, but in the future, it seems likely that the bulk of that investment will be in production for the local Chinese market or exports to third countries such as the members of the EU (e.g., Harley Davidson and Tesla). Some private businesses (for example, those that manufacture high-tech communications equipment, products with national security implications, or pharmaceutical products) that do not voluntarily reshore, risk being forced to do so by the U.S. government. As one observer has accurately noted, "Governments are becoming more likely to utilize interventionist policies to foster higher levels of domestic production, reduce foreign dependence, and ensure greater supply chain security during a time of intensifying geopolitical tensions. And companies will do what they need to do in order to avoid getting

¹⁰⁹ See Frank Tang, "China eyes 'Diversified' Relations as US Becomes Increasingly Hostile, Beijing Economic Adviser Says," *South China Morning Post*, May 30, 2020, <https://www.scmp.com/economy/china-economy/article/3086497/china-eyes-diversified-relations-us-becomes-increasingly>. (Interviewing Cai Fang, vice-president of the Chinese Academy of Social Sciences).

¹¹⁰ Ibid.

¹¹¹ "Trump: Lighthizer was Wrong—'Complete Decoupling from China' still an Option," *World Trade Online*, June 18, 2020, <https://insidetrade.com/trade/trump-lighthizer-was-wrong-%E2%80%93-complete-decoupling-china-still-option>.

¹¹² Quoted in *Global Business Dialogue*, July 23, 2000, <https://www.gbdinc.org/>.

caught in the crossfire.”¹¹³ This was evident, *inter alia*, in other recent comments made by Lighthizer, who has, in a partial conflict with earlier statements, called for a new “industrial policy” to support reshoring policies in the United States with a focus not only on personal protective equipment but also low- and high-tech goods.¹¹⁴

Separating the effects of the various considerations supporting the reduction or elimination of Chinese supply chains may be difficult and will not be the same among all business sectors and individual enterprises, but it seems to me that the changes they are bringing about are both cataclysmic and irreversible. In my view, the advent of the USMCA has made this supply chain revision less difficult and complex than it might otherwise have been. It provides a satisfactory, if not ideal, environment for manufacturing labor-intensive parts and components (in Mexico), and at the same time encourages many businesses to consider a highly automated form of production in the United States. In some instances, Canada may also benefit, not because of lower labor costs, but because it is easier for foreign-born technicians and engineers to work in Canada than for them to work in the United States due to the strict U.S. immigration and visa restrictions. Such reshoring or nearshoring will probably not result in a large volume of job creation, except possibly in Mexico. It should, however, help to prepare the United States and the rest of North America for what promises to be a decades-long, bitter economic (and political) conflict with China.

In the final analysis, given the potential foreign and national security policy implications of these changes, as former Congressman Dan Coats has urged,

[T]he U.S. response must be coherent, disciplined and sophisticated. It must balance capabilities and objectives. Reverting to a Cold War mentality will drive us toward belligerent posturing that has little or no chance of changing Chinese behavior and could, on the contrary, provoke overreactions and dangerous miscalculations on both sides. Above all, we must create a deliberate strategy that is aimed at managing this great-power conflict rather than vanquishing a foe. This is very hard work, requiring patience, conviction and broad political support. It also requires the full participation of our allies, both in the region and elsewhere.¹¹⁵

It is reasonable to hope that a Biden administration will heed Congressman Coates' recommendations.

¹¹³ Stephen Olson, “TSMC’s New US Facility Signals Managed Decoupling,” Hinrich Foundation, May 18, 2020, <https://www.hinrichfoundation.com/research/article/us-china/tsmc-s-new-us-facility-signals-managed-decoupling/>.

¹¹⁴ “Lighthizer calls for Post-Pandemic U.S. Industrial Policy,” *World Trade Online*, June 4, 2020, <https://insidetrade.com/daily-news/lighthizer-calls-post-pandemic-us-industrial-policy>.

¹¹⁵ Dan Coats, “There’s no Cold War with China—And if There were we Couldn’t Win,” *The Washington Post*, July 28, 2020, <https://www.washingtonpost.com/opinions/2020/07/28/new-cold-war-between-us-china-is-dangerous-myth/>.