Recovery with Resilience

Diversifying Supply Chains to Reduce Risk in the Global Economy

By Daniel F. Runde and Sundar R. Ramanujam

At the time of publishing this document, the coronavirus pandemic (or Covid-19) has claimed nearly 900,000 lives and destroyed the livelihoods of several millions of people around the world. Given the contagious nature of this disease, it was not too long before the deadly public health crisis led to a devastating economic turmoil. The impending economic recession can be captured through a recent World Bank memo that forecasts a global economic contraction by 5.2 percent, with some regional markets taking a harder hit than others. As the world battles Covid-19’s challenges and constraints and given the national mandates for border closures and factory shutdowns, global supply chains now face unprecedented stress and its vulnerabilities are now more pronounced, bringing global manufacturing and shipping to a halt and creating vast global shortages and delays.

In large parts, the inherent vulnerabilities in global supply chains stem from a worldwide overreliance on China. China, which joined the World Trade Organization in 2001, began its path toward record economic growth in the early 1990s, with an average growth rate of just over 10 percent. By 2018, China contributed 13.45 percent in global exports and was responsible for 28 percent of global manufacturing output (a three-fold jump from 8 percent in 2004). Unsurprisingly, the world’s second-largest economy was also the top exporter and manufacturer of goods worldwide and the leading global trading partner, making any disruption to its manufacturing hubs tremendously consequential to global supply chains. To put it in perspective, the world’s seven most advanced economies (G7) alone rely heavily on China for imports, bringing in goods and services worth nearly U.S. $1 trillion (roughly 2 percent of their GDP). The devastating impacts of Covid-19 have already caused a 3 percent decline...
in global merchandise trade in the first economic quarter of 2020 while dropping 18.5 percent in the second quarter.³

**The Great Global Awakening**

The Covid-19 pandemic that first ravaged China in late 2019 forced the shutdown of the country’s key manufacturing hubs in Hubei province and sent shock waves throughout the global supply chains. Consequently, this had second-order disruptive effects to production operations in low-cost centers such as Thailand and Vietnam all the way to manufacturing powerhouses in Europe and America. Shortages in personal protective equipment (PPE) and medical devices raised the alarm on the risks of centering manufacturing and imports of vital inputs and goods in one or a few countries. Production outages in China affected various industries around the world—including automotive, pharmaceuticals, electronics, and consumer goods—leading several countries to reevaluate their supply chains.⁴ The automotive industry, for example, will face an estimated $5.7 billion global economic trade impact from the pandemic.⁵ At the same time, the UN projects that among the worst affected by a reduction in the Chinese supply of intermediate inputs will be the European Union, the United States, Japan, South Korea, and Vietnam.⁶ The industries expected to be hit hardest in these countries include machinery, automotive, and communication equipment. Most prevalently, gaps in supply chains are shown by the shortages of pharmaceutical and medical supplies, particularly from China, the top global producer of active pharmaceutical ingredients.⁷ The largest producer of generic medicines, India, receives 70 percent of its raw materials from China and has felt significant setbacks in production as China’s shutdowns sent shocks along the entire supply chain.⁸

As production faltered at the start of 2020, China’s global exports fell by 17.2 percent between January and February, while shipping capacity from major Chinese ports decreased from 20 to 50 percent.⁹ Industries worldwide face an estimated economic impact of $2 trillion, with many particularly at risk due to their extremely complex, globally integrated supply chains.¹⁰ The current vulnerabilities have emerged despite decades of globalization that have produced complex supply chains where manufacturing processes are scattered among firms operating in different countries. Global supply chains are primarily driven by economic efficiency—reductions in tariff and non-tariff barriers enhance international trade, and declines in transportation costs make it easier for companies to ship and source from abroad. There is international

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consensus that severe vulnerabilities exist in global supply chains and that new ways of tackling these shortcomings are needed.¹¹

As part of preparing for potential disruptions in the future, governments need to evaluate whether it is in their interest to reorient supply chains of essential goods (e.g., pharmaceuticals) toward more strategically aligned countries. Countries in the Indo-Pacific present an opportunity in this respect. Bilateral aid agencies and multilateral development organizations are uniquely set up to aid the financing and development of supply chains within countries in the Indo-Pacific and reduce the overdependence on a single export market. The United States and its allies should leverage international resources to coordinate a response that fosters cooperation with other countries and should direct their aid agencies’ efforts toward supporting and preparing economies in the Indo-Pacific to become more significant players in global supply chains. The World Trade Organization (WTO) is already aligning itself with G7 countries in addressing supply chain disruptions and working to facilitate international trade.¹² Other international organizations, such as the World Bank or the International Monetary Fund, or regional financial institutions are fit to join the pledge as part of a synchronized international effort aimed at increasing global supply chain resilience.

In National Interest

Global supply chains function by coordinating between hundreds of contact points spread around the world, each carrying its own risk factors that affect U.S. economic and strategic interests. When those contact points cluster around a handful of foreign entities, any economy gets overexposed and becomes vulnerable enough to experience supply shock. For instance, a Cato Institute study of U.S. medical imports found that more than 97 percent of essential PPE such as gloves and hospital gowns were imported from China.¹³ Additionally, the United States imports 80 percent of its active pharmaceutical ingredients (APIs)—mostly from China and India—with 95 percent and 91 percent of its ibuprofen and hydrocortisone from China, respectively.¹⁴ It also relies on China for commonly used drugs, importing up to 70 percent of acetaminophen and about 40 percent of both heparin and penicillin.¹⁵ It is unsurprising as China produces total vinyl glove imports, and in 2019, it was the largest producer of medical face masks with 25 percent of the world supply.¹⁶

The United States, as with most countries around the world, painfully acknowledged its vulnerabilities caused by an overreliance on China in the early days of the Covid-19 pandemic. It is woefully dependent

¹⁵. Palmer and Bermingham. “U.S. Policymakers Worry.”
on a foreign political power to access data and perform oversight functions on a significant portion of the
supply chain management systems. Similar to the PPE sector, the U.S. economy has supply chain-related
vulnerabilities in other strategic sectors, including the semiconductors, communications, and technology
sectors. Timely policy action is therefore necessary to preserve these sensitive sectors from exogenous
supply shocks.

Notwithstanding the national security and strategic imperatives, there is a growing desire within the
business community to pursue diversification outside of China. It is worth noting that, in part, these
desires have also been fueled by several other factors including a more complex bureaucratic regime,
increased political interference, the recent policy moves taken in the context of the U.S.-China trade wars
(including the $550 billion tariffs imposed by the United States and the $185 billion retaliatory tariffs
introduced by China), and the Chinese government’s desire to become a high-skilled service-oriented
economy. One of the most prominent incentives of Chinese manufacturing was the competitively low
production costs offered by the economy due to the modest operating and labor costs. In 1990, China
had an average monthly wage of $55. By 2018, that increased to $990, an eighteen-fold jump that was
still three times higher than Vietnam and nearly double that of Mexico. As China continued to grow its
middle class over the past 14 years, its minimum wages have also quadrupled, even as wages remained
relatively unchanged in most OECD countries. Now that China is on the verge of not being considered
a low-cost manufacturer, countries and firms around the world have been in a moment of reckoning,
recognizing the higher economic costs of relying on China as a hub.

At the start of 2020, low-skill labor-intensive light tradeable sectors, such as apparel, footwear, furniture,
toys, and textiles, saw labor and labor costs consuming nearly two-thirds of their income revenue.
Unsurprisingly, many firms in these sectors have already made plans to leave China. Meanwhile, more than
83 percent of North American businesses and about 90 percent of European firms have also announced plans
to diversify their global supply chains. The country’s once attractive low-wage/low-cost ratio is now rapidly
disappearing to the misfortune of its manufacturing sector and has most significantly impacted traditional
low-value industries that need low-skilled labor such as textiles and garments. The ongoing pandemic has
not only made this thinking more widespread but has also added a national security and strategic interest
element to the risks of overexposing the economy to Chinese supply sourcing. As a result, there is a growing
momentum among several leaders of the world’s biggest economies to diversify their sourcing, production,
and distribution to countries and allies with similar interests and greater security.

https://www.brookings.edu/blog/order-from-chaos/2020/08/07/more-pain-than-gain-how-the-us-china-trade-war-hurt-america/.
18. Wayne M. Morrison, China’s Economic Rise: History, Trends, Challenges, and Implications for the United States (Washington, DC:
3db289fa10030f.pdf.
manufacturing-outside-china.
According to the World Bank’s Doing Business 2020 report, India and Pakistan ranked amongst the world’s top 10 most improved economies, whereas five economies in East Asia and the Pacific are among the top 25 global performers. In half a century, countries such as Indonesia, Thailand, Bangladesh, Vietnam, the Philippines, and Malaysia have undergone remarkable economic transformations through fostering economic openness and industrialization. However, except for Thailand and Malaysia, these countries do not participate deeply in global value chains, creating ample room for engagement opportunities.

When founded in 1971, Bangladesh’s economy was contracting at a rate of 14 percent. Nearly half a century later, Bangladesh has made remarkable progress to become one of the most promising emerging markets in the Indo-Pacific. The South Asian nation had a 10-year average of 7 percent between 2010 and 2020 and—until Covid-19 struck—was forecast by Asian Development to have an 8 percent growth in 2020, putting it ahead of most Asian economies, including India. While known for its $34 billion-dollar garment industry, more than 53 percent of the economy is driven by microfinance and the IT sectors.

Bangladesh has the right endowments to become a key manufacturing hub. With nearly 60 percent of its 162 million population belonging to the adult working age (15-64 years), Bangladesh has a significant demographic advantage. It is strategically located between South and Southeast Asian and has three operational shipping ports, with a fourth one (the Matarbari port near Cox’s Bazar) under construction with support from the Japanese government. With one of the lowest average wages in the region, Bangladesh has the potential to become a manufacturing hub.

India is a long-established democracy with the fifth-largest economy in the world. India offers a stable rule of law regime that provides a level of transparency to companies not found in China, giving India a competitive advantage. In recent years, India has made itself competitive in multiple sectors by undertaking fundamental reforms, including reduced corporate tax rates, simplified indirect tax structure, passing a new bankruptcy law, simplifying bureaucracy around foreign investments, and pushing states to improve their business environments.

Even before the start of the Covid-19 pandemic, many global firms had been eyeing India as a viable alternative to China for manufacturing. But since the beginning of the pandemic, firms have accelerated their plans, with leading multinationals already opening up new factories over the summer, committing investments totaling up to $20 billion. India still needs to undertake further structural reforms to emerge as a leader in manufacturing and becoming a vital link in a de-risked global supply chain system. To that end, in addition to some foreign aid, India also needs sound technical assistance and expertise to reform its governance to modernize the laws around labor and land, accelerate infrastructure investments, and deepen access to capital markets.

Between the Asian Financial Crisis of the 1990s and the Boxing Day Tsunami of 2004, Indonesia has had to endure incidents that were devastating to everyday life. Yet, the archipelago nation has made remarkable progress in the past three decades to become the largest economy in South East Asia and the third-fastest growing economy in the G20. With a median age of 28 years, Indonesia has a critical demographic advantage owing to its large youth population. Naturally, the expanding workforce creates an excellent potential for the country to increase its economic output.

Indonesia is ripe for new investment given its stable political situation, high growth levels, young population, and macroeconomic policy that has liberalized the foreign direct investment regime. The government has set an ambitious plan to place Indonesia in the list of 10 biggest economies in the world by 2030, and it regards manufacturing as the main driver. Given Indonesia’s economic makeup, the key sectors that will benefit from increased manufacturing include automotive, beverages and food, chemicals, electronics, and textiles.

Vietnam is yet another economic success story in the region. Vietnam has transformed itself in the past three decades through consistent economic growth that has led to a significant reduction in poverty. The adoption of an export-led approach to economic growth and its openness to foreign investment and trade has already made the country a beneficiary of shifting global supply chains. Additionally, labor costs in Vietnam are twice as low in comparison to those in China, making it appealing to foreign investors looking for inexpensive labor supply. The country offers tax incentives, deregulated its markets, maintained political stability, a vibrant and young workforce, and is also strategically located in the region.

Vietnam’s openness to trade is marked by the 13 free trade agreements it has ratified. Further, Vietnam ratified a trade deal European Union Vietnam Free Trade Agreement with the European Union in June 2020, which eliminates 99 percent of tariffs on goods between Vietnam and the European Union. Industries that would be candidates for consideration in efforts to reorient supply chains include textile, automotive, electronics, and food and beverages. Given these macroeconomic trends, Vietnam has positioned itself to benefit from globalization and can be a valuable player in building resilience in global supply chains.
A Bipartisan Five-Point Plan of Action

The de-risking of global supply chains requires concerted efforts from all stakeholders, especially governments of countries that can be viable alternatives. In considering alternatives, investors and businesses should pay particular attention to countries in the Indo-Pacific region. Home to over half of the world’s population and some of the fastest-growing emerging markets, this region is of vital strategic importance to the United States and its allies in the region and offers an opportunity to develop more resilient supply chains. In the last decade, countries in the region have made significant progress in improving the business environment by implementing regulatory reforms, fostering democracy, strengthening the rule of law, and finding new ways to boost government transparency. It is unwise to expect the global manufacturing sector to completely exit China.\textsuperscript{20} However, as countries around the world seek to restore the health of their communities and their economies, the United States should consider the following bipartisan five-point plan of action that can help minimize our dependence on China for supplies and sourcing significantly:

1. **BUILD CONSENSUS THROUGH COORDINATION**

   Changes to global supply chains have long-term consequences. Therefore, it is vital that any policy action from the U.S. government is not motivated by short-term considerations. Moreover, unilateral actions for the sake of political expediency will create the wrong incentives and force other partner countries to act similarly, the outcome of which will create more redundancies and frustrate both firms and consumers. Instead, the United States has several coordinating and conciliatory platforms at its disposal that it can leverage to forge ahead a universally accepted framework for supply chains, ensuring greater prudence and minimum costs.

   Of these, the WTO and the G7 both serve as the useful multilateral arenas where core principles for international trade and supply chains can be developed. The United States holds the presidency for the forty-sixth G7 Summit, which, at the time this document was published, was scheduled to take place shortly after the 2020 U.S. presidential elections. Trade is a crucial component of G7 activities, and ministries of member countries have expressed their commitment to maintain global production and secure the functioning of supply chains.\textsuperscript{21} In March 2020, the G7 issued a statement at the onset of the pandemic, emphasizing that it “will address disturbances to international supply chains and continue its work to facilitate international trade” as part of its effort to respond to the economic impact of the pandemic.\textsuperscript{22}

   Some G7 countries have already taken measures in this regard—Japan has set aside $2 billion to support companies that move production out of China while Germany has called for an international response to protect the rules-based world trade through building supply chain resilience.\textsuperscript{23} This provides the United States ample opportunity to build on the momentum and

\textsuperscript{22} “G7 Leaders’ Statement,” The White House, March 16, 2020, https://www.whitehouse.gov/briefings-statements/g7-leaders-statement/.
to lead a coalition of like-minded donor countries as it identifies bilateral and multilateral policy actions to help firms diversify their supply chains and partner with a range of other developing countries.

2. **EMPHASIZE DIVERSIFICATION OF SOURCING, PRODUCTION, AND SHIPPING**

In recent months, the insecurity created by the pandemic-induced supply shock has put the spotlight on protectionist and populist rhetoric advocating for the onshoring of industries.\(^{24}\) In the short term, such moves are politically feasible and (to an extent) can be realized.\(^{25}\) However, CSIS finds such moves to be neither a prudent nor a pragmatic response to the insecurities of the global supply chains. Firms are typically rational and profit-driven actors, and a rush toward onshoring will only

- **increase production costs:** onshoring will require firms to set aside their fiduciary responsibilities to produce most profitably and efficiently—given the technological feasibilities—and instead increase the overall costs\(^{26}\)

- **burden consumers:** firms often pass on the added costs to the consumer by increasing the selling price

- **hurt innovation:** with reduced profits and sales, firms will find it hard-pressed to finance their research and development that fuels innovation.

Moreover, onshoring does not change the reality that a supply chain system overreliant on a singular economy is overexposed in risk. In other words, localizing production does not make economic sectors immune from supply shocks as bottlenecks created by poorly designed supply chain management systems can also hurt the consumer. For instance, when 13 meat slaughterhouses in the United States responsible for one-fourth of the national hog-slaughtering capacity temporarily shuttered their operations in April 2020, it created meat shortages that lasted for a few weeks.\(^{27}\)

Consequently, de-risking happens fundamentally when the sourcing, production, and shipping of goods and services are diversified across a range of economies. By doing so, firms will be able to limit the chances of a single manufacturing hub or shipping route creating a supply shock due to a pandemic, natural disaster, civil unrest, or other unexpected events. Furthermore, it also deters a handful of countries from functioning as a cartelized oligopoly—particularly in the context of specific industries of strategic importance such as medical gear production, pharmaceuticals, and semiconductors.

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26. It is important to note that any change in supply chains (whether onshoring, nearshoring, or simply changing suppliers) will likely result in an increase in costs.

3. DEVELOP CAPACITY FOR NEW COUNTRY ALTERNATIVES

Considering the long-term consequences of investing in new sourcing, production, and distribution country centers, firms will inevitably assess their incentives in making any changes to supply chain management systems feasible. Accordingly, firms need a business-friendly economic environment (which China provided through an authoritative and unaccountable bureaucracy). Even though many countries in the Indo-Pacific region have improved in recent years, they still do not measure up as viable alternatives to the business environment offered by China.

To offset these differences and enable a sustainable pathway for industries to diversify their supply chains outside China, donor countries should work with new host countries and realign their development priorities with the intent to build their market capacities; improve macroeconomic fundamentals; strengthen the rule of law to simplify legal codes on land acquisition, labor rights and relations, intellectual property rights, tax codes, insurance, and bankruptcy policies; and expand judicial capacity.

As a prerequisite to any capacity building exercises, countries must scale up their infrastructure development initiatives with investments focused not only on physical transportation networks (such as roads, railways, and ports) but also on digital and electronic systems that will power information and communication technologies. Inadequate and low-quality infrastructure will only serve as a bottleneck to sustainable global economic growth. The impact of infrastructure on economic growth is best captured by a 2015 study of Asian markets by the Asian Development Bank (ADB), which estimated that a 10 percent increase in:

- paved roads resulted in a 5 percent increase in economic growth
- internet access resulted in a 2 percent increase in economic growth
- phone connections resulted in a 1 percent increase in economic growth

In its past analysis, CSIS has also highlighted how different development finance tools can be leveraged to mobilize sustainable private capital investments that can finance the multitrillion-dollar infrastructure gap in the Indo-Pacific region.

4. INVEST IN TRADE FACILITATION INITIATIVES

Beyond creating an enabling environment for the manufacturing process, official development assistance (ODA) should be leveraged to make targeted investments for trade facilitation in developing countries that are vying to become alternative players to China in a de-risked global supply chain system. Once the goods are produced, they need to be delivered in a timely and efficient manner. But countries that have antiquated government controls over customs, goods movement, and transnational trade (exports), create deadweight loss within the economy. A study by the WTO finds that if the Trade Facilitation Agreement is implemented around the world

in good faith, an estimated U.S. $1 trillion can be gained while boosting global exports by $3.6 trillion.\(^{31}\) In a globally integrated economy, inefficiencies at any level (from sourcing to product delivery) will ultimately cost the entire system. Trade facilitation can help harmonize various processes and standards and promote the use of digital technologies to make governance more efficient and less prone to corruption while consolidating much of trade (export) control functions into a single-window clearance system.\(^{32}\)

5. **EASE MSME TRANSITION COSTS WITH DEVELOPMENT FINANCE**

Finally, firms will incur transition costs, no matter what the destination is. Acquiring new land, getting regulatory clearances, constructing new factories, and establishing relationships with local communities are some examples of initiation that require significant upfront investments that not all firms might have readily available for deployment in liquid assets (primarily the micro, small, and medium enterprises [MSMEs]). A survey conducted by the International Trade Center found that more than half (55 percent) of 4,467 MSMEs surveyed in 132 countries had sourcing challenges in the immediate aftermath of the supply shock caused by the Covid-19 lockdown in China, with one-fifth of the MSMEs at risk of permanent closures within three months.\(^{33}\) The sector, which already had a U.S. $5 trillion financing gap pre-pandemic and is currently experiencing liquidity challenges, does not have the cash on hand to absorb the costs of diversifying its supply chains.\(^{34}\) In such contexts, development finance institutions (DFIs) and multilateral development banks (MDBs) have a critical role to play.

DFIs, who have been active as players for the better part of the past century and have gained prominence as stakeholders of global development in recent years, and MDBs can help the MSME sector make the transition by offering them flexible and blended finance support by use of the following tools:

- using conventional tools such as concessional loans and grants to provide direct and subsidized financial assistance through the use of ODA\(^{35}\)
- setting up enterprise funds to make equity investments in the private sectors of developing countries\(^{36}\)
- strategically using credit guarantees to help firms transfer their credit risks developed due to the current economic climate, providing guarantees to commercial lenders and banks to support trade and develop an export-import capacity in some of the more challenging markets\(^{37}\)

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• setting up syndicated loans (or other structured financing vehicles) to limit the exposure of financial institutions when considering credit for MSMEs

Conclusion

The world is still struggling to understand the full impact of Covid-19 on public and socioeconomic health. There is a global race to develop the first successful vaccine against this deadly virus, with dozens of countries experimenting with hundreds of vaccine candidates. Yet solving the health aspects of this crisis is only part of the answer. Any attempt to restore normalcy in the economy must prioritize the reorientation of global supply chains and building resiliency within. By resisting their temptation to pursue short-term measures and making modest amounts of public resources available as risk capital, policymakers will ensure that the global community will once again benefit from U.S. leadership as it rebuilds its own economy more sustainably.

Daniel F. Runde is a senior vice president, director of the Project on Prosperity and Development, and holds the William A. Schreyer Chair in Global Analysis at the Center for Strategic and International Studies (CSIS) in Washington, D.C. Sundar R. Ramanujam is a research associate for the Project on Prosperity and Development at CSIS.

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