OPINION PIECE

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How more resilient supply chains could reshape global trade

In May 2021, a cyberattack shut down the operations of Colonial Pipeline, a major gas pipeline along the East Coast of the United States. Almost two months earlier, a combination of weather and underappreciated fluid dynamic forces had left a giant super cargo ship wedged sideways in the Suez Canal, bottling up a critical global trade route (Greeley, 2021). In February 2021, unusually low temperatures and a power outage in Texas disrupted a number of petrochemical plants, creating shortages of key plastics and resins for a range of industries. And a global shortage of semiconductors in the wake of demand volatility from COVID-19 has caused automotive companies around the world to curtail production.

These incidents are not just a string of bad luck, but rather the latest reminders of the potential fragility of global supply chains, an issue that the COVID-19 pandemic has catapulted to the top of CEO agendas. Industry value chains often span thousands of companies, and their configurations reflect specialization, access to consumer markets around the world, long-standing relationships and economies of scale. But a shock to any node in the network can be amplified in unpredictable ways.

Disruptions to global supply chains, once seen as rare occurrences, now must be considered probable. Research from the McKinsey Global Institute (MGI) (McKinsey Global Institute, 2020) finds that the average manufacturing company can expect to see production disrupted for up to two weeks every two years, and for periods of one to two months every 3.7 years. These disruptions are costly: over the course of a decade, the average company can expect to lose nearly half of one year's profits from supply chain disruptions.

Companies are actively considering ways to reduce vulnerabilities and enable prompt reactions. While no one can predict the next "black swan" event,[24] there are many ways to make value chains more resilient, including by holding more inventory of critical components or adding redundancy among suppliers, simplifying product designs and sharing components across products, digitizing the supply chain to improve transparency regarding potential risks and enabling more nimble responses, and regionalizing production closer to where goods are sold. The pandemic has also prompted policymaker action around the world focused on goods and technologies deemed critical for national economic security.

As a result of both economic calculations of companies and changes in the policy landscape, global trade flows may shift. MGI research estimates that 15 to 25 per cent of global goods trade could shift to different countries over the next five years in a scenario where value chains become more regionally oriented. This scenario does not mean that globalization is dead, or even that global trade flows would diminish. It is possible that a broader set of countries will participate in GVCs in the years ahead. Moreover, more international cooperation will be needed – not less – to monitor and mitigate the shocks that are global in nature, such as pandemics and climate change. The global economy and trading system held up better than many expected in the face of a devastating pandemic. Now we have a chance to build on that system, not abandon it.