Undermining global value chains

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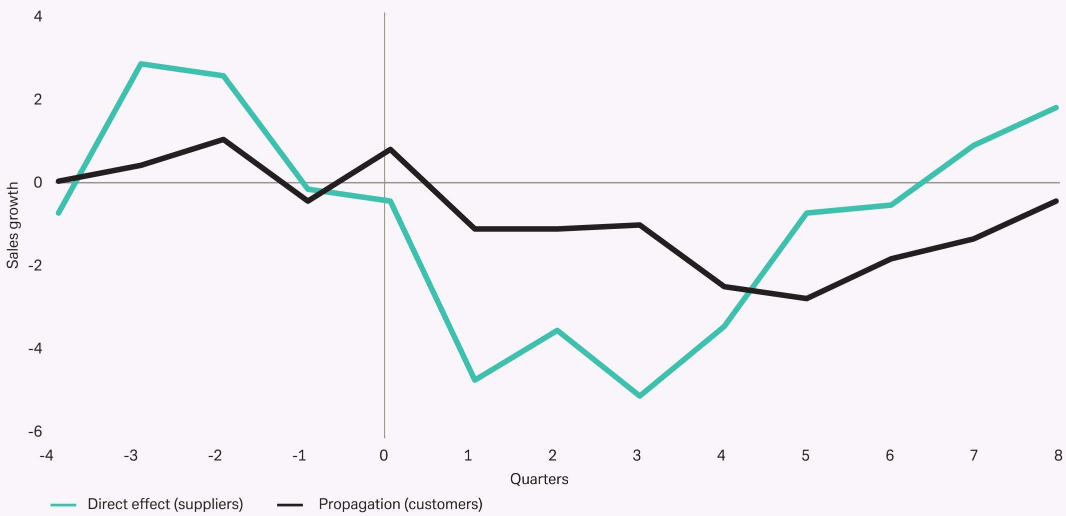
Sudden, sharp disruptions to global value chains are not new. Consider how the Japanese earthquake and tsunami in 2011, and the financial crisis a few years earlier, both caused havoc in the world's interconnected supply chains. As companies and governments formulate their plans for both near-term economic recovery and longer-term resilience, they can incorporate some of the lessons of these past episodes.

Given the speed at which the covid-19 pandemic has severely disrupted global value chains, it can be thought of as something akin to a natural disaster in its effects on supply and demand. This can give companies a guide as to how long the impact may last. The chart below compares the growth in sales (relative to the same quarter in the previous year) and at different quarters surrounding a major natural disaster. The figure also shows the impact of a natural disaster on directly-affected suppliers, who provide sub-components to a firm, and their customers. The chart shows that disruptions can lower sales for more than six quarters after a natural disaster.

Natural disasters propagate to business partners, with long-lasting effects



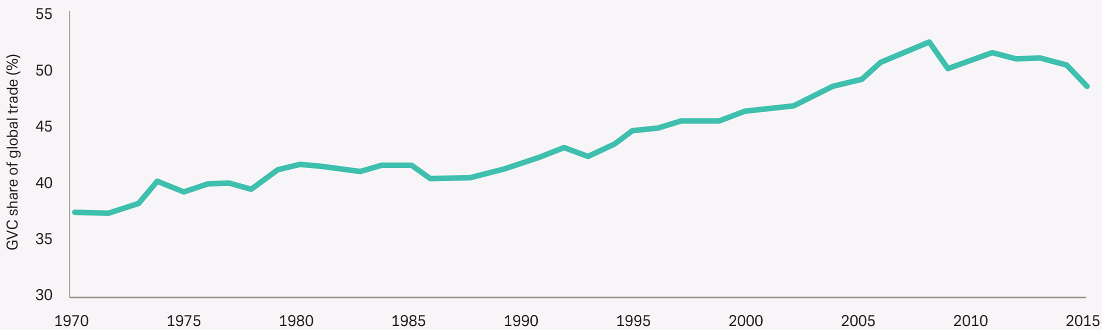
Source: Barrot and Sauvagnat, QJE 2016. Barrot, Jean-Noël and Sauvagnat, Julien. "Input Specificity and the Propagation of Idiosyncratic Shocks in Production Networks." The Quarterly Journal of Economics 131, 3 (May 2016): 1543–1592.

There are three factors that can amplify the shock to global supply chains. The first is when there is a synchronisation of shocks, in other words, several disasters happening at once. The second is when restrictions on the movement of people come into play. Today, these restrictions are the result of government-enforced quarantines and border closures. In some ways, this is akin to the experience of some natural disasters which supressed movement as transportation systems failed.

International tensions and global value chains

The third factor that can amplify value chain shocks – and is one of the highest risk factors today – is protectionism and export restrictions. A pushback against globalisation after covid-19 would not be new. In fact, some developed countries have been turning inward for the past decade. Usually this is due to political viewpoints related to the rise of nationalism and economic protectionism. The graph below depicts this resistance to GVCs over the past decade.

Global value chain trade



Sources: WDR 2020, World Bank.

The covid-19 pandemic could further accelerate this trend. Some political leaders who hold nationalist and protectionist views could exploit the pandemic by arguing that countries should, for example, ban immigration under the pretext of reducing health risks and protecting national labour markets. Some policymakers have already started blaming globalisation as the "original sin" for many economic and social ills. United Nations Secretary-General Antonio Guterres described how "rising ethno-nationalism [and] populism" could be co-opted to "provide a pretext to adopt repressive measures for purposes unrelated to the pandemic."

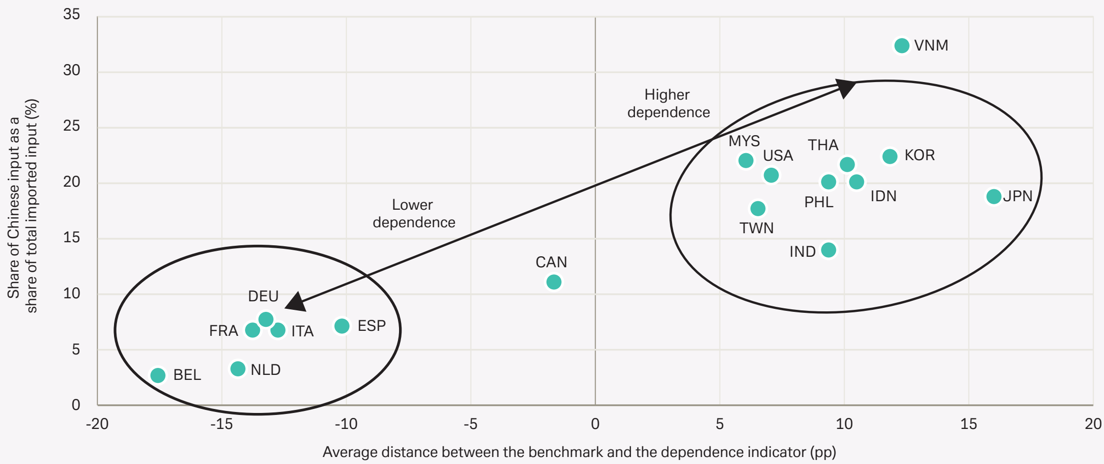
In the most urgent initial phase of the covid-19 outbreak, one limitation of GVCs became starkly apparent. Some protectionist leaders argued that GVCs were responsible for the shortage of critical personal protective equipment needed by health care providers. Of course, this argument was used by some to mask a lack of preparation. But their argument is not completely ill-founded. Offshoring domestic capacity has made it harder to ramp up local supply for N-95 masks and ventilators. Export restrictions imposed by some countries have strangled this further and increased prices. Furthermore, as some governments in advanced countries look to encourage companies to reshoring some economic activity, they point out that this process could be accompanied by an increase in domestic employment.

What protectionist leaders fail to recognise with these short-term adjustments are the benefits of GVCs and globalisation during healthcare crises and natural disasters. Indeed, international diversification can help when a pathogen spreads in one region, or when a natural disaster impacts one country. In such cases, globalised supply chains can enable nations to provide economic and relief assistance to hard-hit regions, helping them to recover and regain resilience.

In support of this view, EU Trade Commissioner Phil Hogan said, "Strategic autonomy does not mean that we should aim for self-sufficiency… We have to look at how to build resilience based on how we can diversify, not be totally reliant on one geographical entity for supplies of everything."

As we consider the effects of effective and ineffective reshoring of global value chains, each country's interactions with China will be crucial. Indeed, as China has become critical to supply chains over the last 30 years almost every country has become more dependent on outsourcing to the country. So it is the extent of each country's dependence on China that will determine how easy or difficult it may be to change strategy. Analysing the dependence of a country's supply chain on China is complex, however, one factor we examine is the level of general imports less intermediate inputs. This gives us an idea of the dependence of first-order supply chain effects.As the following chart shows, European supply chains are less dependent on China than are those in the US, Canada, Japan, and all the major Asian countries. As a result, the direct impact of the covid-19 will likely be lower for the euro area than for other major countries.

Country exposure (dependency) to China



Sources: Deutsche Bank, OECD
The Benchmark is the China export share in those particular sectors where China as a revealed comparative advantages (for more see the above). The dependencies indicator is the ratio of imports from China for a particular product on the the total imports of that product (for more see above).

It is important to remember that evidence from past episodes may not apply to all situations. The covid-19 pandemic is different than many other disasters, for three reasons. First, this pandemic (compared to local epidemic) has presented many countries with simultaneous supply and demand shocks. That fact has already led to some perverse outcomes for companies. For example, in January and February, when many countries believed covid-19 would be contained within China, some retailers stocked up on inventory to mitigate the risk of a Chinese supply shock. Unfortunately, that strategy backfired as a synchronised demand shock in March left those retailers with elevated levels of inventory right at a time when cash preservation was critical.

The second reason that covid-19 is defying some historical examples is that the pandemic has hit many countries and global economic centres almost simultaneously whereas other shocks have only impacted individual countries, regions, or cities. The third reason is that the duration of this pandemic's health impact remains uncertain, thereby making it difficult to implement economic policy.

In response to these unusual shocks to the global supply chain, the most agile companies have managed to develop contingency plans for their products, services, and components. It is likely that the pandemic will force managers to rethink their supply chains and give more consideration to disruption risks vs. costs. Companies could start manufacturing products and components in places where they are closer to consumers and customers.

As companies strive to boost the resilience of their supply chain, the issue appears set to become a big issue for investors. Indeed, it is likely that investors may will give greater weight to the environmental, social, and governance scores (ESG) of large companies, with respect to their 'operational resilience'. This means that some will be incentivised to move away from just-in-time (JIT) approaches. This is where design occurs in one country while product assembly and shipping is managed by numerous partner companies in different regions. Prominent examples abound in the automotive and electronics industries.

Do not write off JIT manufacturing completely. Although large companies will likely retract from it, small and new companies simply cannot afford the cost of improving their resilience. And because they are not subject to the same ESG scrutiny as big companies, it is likely some small firms will retain their JIT strategies.

Furthermore, people have short memories. While it is hard to imagine now, when the virus subsides, history shows that people will begin to look forward, not back. Companies will gradually recommence trying to gain the edge over their competitors and move back to JIT. Against the backdrop of higher costs in large businesses that prioritise resilience, startups will no doubt be founded with a JIT business model. And this model will work, at least until there is another major global supply chain problem.

Inequality and the value of GVCs

As some companies and countries move away from JIT manufacturing, it will become apparent just how this international division of production has been supported by the relatively low cost of labour in emerging economies, along with advancements in communication and low transportation costs.

The economic benefits of this approach are undeniable. The unprecedented growth in international trade has increased the purchasing power of consumers in developed countries. Meanwhile, employees in emerging countries working in export sectors have benefited from an increase in their standard of living linked to higher wages.

In the aggregate, humanity has arguably experienced its best quarter century in history—at least in economic terms. Since 1980, over a billion people have been lifted out of extreme poverty. Infant mortality has halved. Globalisation has helped the literacy rate grow 80 per cent over the past 20 years, while developing countries have seen life expectancy grow to 65 years. These trends are even more remarkable when we realise that the world's population grew by almost 2bn since 1980.

GVCs have played a direct role in these remarkable global socioeconomic improvements. As wealthy nations and multinational companies have increasingly shifted work to developing nations, the world has steadily narrowed the gap between low- and high-income economies. Indeed, a one per cent increase in GVC participation boosts per-capita income levels by more than one per cent. That is about twice as much as income growth as that generated by conventional trade, says the World Bank.

If the covid-19 pandemic encourages political leaders to respond with protectionism and nationalism, it is true that we will see the repatriation of manufacturing processes, and perhaps some employment gains, at least in the short term. However, developing nations will likely see a downturn in their economic growth and increased unemployment. This, in turn, will increase the inequality between advanced and developing nations.

That would be a great shame. Although the progress of globalisation over the last 40 years has certainly resulted in some adverse outcomes, that progress has nonetheless resulted in massive improvements in health, education, and poverty around the world. To backtrack on this now would not only stall that progress for developing countries, but it will reduce the purchasing power of people in advanced countries. So while there are certainly lessons in 'economic resilience' that must be enacted as the world recovers from covid-19, if the world gives up on globalisation, we will all be worse off.