Economics, Politics, and the Evolution of Global Supply Chains

World trade grew steadily in the four decades before the 2008 global financial crisis. In the 1990s, the ratio of trade in goods and services to GDP was 38 percent for the world, 20 percent for the US, and 22 percent for China. By 2006, the ratios for the world and the US had grown to 60 percent and 27 percent respectively. China's had reached 65 percent on the back of China's rise as a key cog in global supply chains.

In Global Supply Chains: The Looming "Great Reallocation" (NBER Working Paper 31661), Laura Alfaro and Davin Chor discuss how trade policy shifts, technological advances, and perceptions of different kinds of risk have altered cross-border production and supply chain arrangements, especially over the past five years. They summarize US import and export profiles using data from UN Comtrade and also assemble data from other sources to characterize multinational activity and foreign direct investment.

Other high-income countries have historically provided the bulk of US imports. The European Union and the United Kingdom have provided about 20 percent of US imports since 1994. China and Mexico took US import share from Japan and Canada in the 1990s with the passage of NAFTA and trade shifts towards low-wage countries. Japan has to some extent replaced trade with multinational activity as a mode for accessing the US market, with both Canada and Japan remaining closely engaged with the US economy through foreign direct investment.

Since 2017 though, there have been substantial shifts in the source-country composition of US imports. The Chinese share of US goods imports peaked at 21.6 percent in 2017. A fall in China's share to 16.5 percent in 2022 has coincided with gains in the import shares of Vietnam and Mexico. At least some of the reallocation of US sourcing patterns seems to have been driven by US-China trade friction. But the increase in the roles of Vietnam and Mexico as sources of US imports has come with some costs, as the unit prices of goods from Vietnam and Mexico have risen between 2017 and 2022.

China's share of US goods imported declined from 21.6 percent in 2017 to 16.5 percent in 2022 while Vietnam's and Mexico's shares have increased.

The researchers compute a measure of product "upstreamness" — how close a product is to finished — and use it to profile how US imports have changed over time. Examples of products close to final consumer use are toys, clothes, furniture, and automobiles, while products such as chemicals, petroleum, and minerals go through multiple steps before reaching their final consumers.

US exports tend to be farther from final use than its imports. In the last decade, increases in agricultural and petroleum product exports have solidified this position. However, even when petroleum and agricultural products are excluded, US exports are used earlier in the production process while imports are relatively finished and close to final consumption, reflecting the US position as an exporter of upstream machinery and intermediate inputs for overseas assembly.

In a potential reversal of the long-run decline in US manufacturing activity, a slight rise in the "upstreamness" of imports has been observed over the past five years, which suggests that more of the finishing stages of production may be occurring in the US. Establishment and employment counts in manufacturing sectors have also increased.

While the US may be reallocating its direct sourcing and imports towards Vietnam and Mexico, it does not necessarily mean that it has become less dependent on China, as it remains connected with China through third countries. While China's share of US imports has fallen, its share of Europe's imports has risen, and it has increased its trade with, and foreign direct investment in, both Vietnam and Mexico.

— *Linda Gorman*