



U.S. Strategies for Global Supply Chain Resilience

October 2024

WASHINGTON | CORE

On October 23, 2024, Washington CORE discussed the Critical Emerging Technology (CET) policy and industry landscape for the Bioengineering Science Technology Graduate Program at Georgetown's Medical School, led by Professor Tomoko Steen. WCORE presented it from the perspective of US Strategies on Supply Chain Resilience, specifically focusing on the country's decoupling from China in several key sectors. The presentation aimed to give a comprehensive overview of how geopolitical tensions, national security concerns, and economic policies have driven the US to rethink its reliance on Chinese supply chains and instead focus on partnerships with trusted allies.

Decoupling from China Across Key Sectors

The economic relationship between the US and China has evolved significantly since the early 2010s. The two nations had a symbiotic economic partnership, with China emerging as a critical player in global manufacturing and supply chains. However, growing concerns over intellectual property theft, technology transfer, and China's increasing influence in sensitive sectors led to rising tensions. By 2016, the US began to shift its strategy, focusing on protecting its supply chains from potential risks posed by Chinese involvement. This decoupling, while driven by national security concerns, is also part of a broader effort to diversify global supply chains and allow the US to maintain a competitive edge in emerging technologies.

The US has prioritized decoupling from China in critical industries, including telecommunications, semiconductors, transportation infrastructure, biotech, and agriculture.



Telecom

Chinese telecom companies like Huawei and ZTE have been blocked from US networks due to national security concerns and fears of espionage, and the FCC initiated the 'Rip and Replace' program to remove Chinese equipment from US infrastructure. Alternative suppliers, particularly from Sweden, Finland, and India, are now stepping in to fill the void, ensuring a more secure telecommunications infrastructure.



Semiconductors and Chips

China previously played a key role in assembling lower-end chips, but US concerns about IP theft and potential military applications led to the 2022 CHIPS Act, prohibiting US firms from working with Chinese firms in sensitive technologies. As a result, countries like Taiwan and South Korea have emerged as crucial partners in reshoring semiconductor production, and the Chip 4 Alliance was formed to secure supply chains in the semiconductor industry.



Transportation Infrastructure

Chinese companies, particularly CRRC, had significant contracts in US rail and transit sectors, but concerns over potential surveillance through Chinese-made rail cars have resulted in new restrictions. Hitachi Rail has emerged as a key player in filling the gap left by Chinese firms, winning large contracts to supply advanced rail systems due to both its technological capabilities and the US's desire to reduce its reliance on Chinese supply chains.



Biotech and Pharmaceuticals

National security concerns over Chinese biotech firms like BGI Genomics and WuXi AppTec prompted the Biosecure Act, which restricts Chinese access to US biotech data and federal funding. Many US companies had relied on these firms for the low-cost manufacturing of active pharmaceutical ingredients (APIs). However, Chinese firms' access to sensitive healthcare information raised fears of espionage or even bioweapon development.



Agriculture and Food

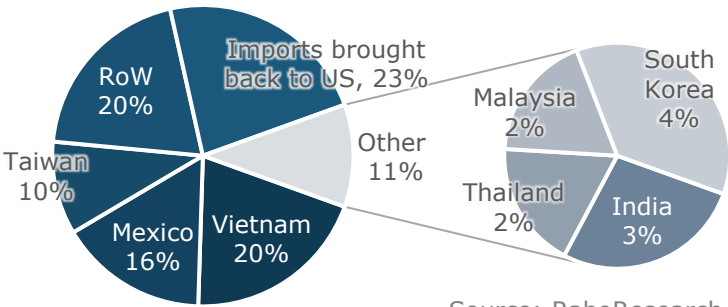
The US has grown increasingly concerned about the foreign ownership of agricultural assets, particularly by Chinese companies, which own some large processing facilities like Smithfield Foods. Much of the agricultural decoupling stems from state-level actions; for instance, North Dakota recently blocked a proposed Chinese-owned corn mill in Grand Forks due to its proximity to a military base and the potential national security risks.

Challenges in Decoupling

While the strategy of decoupling is designed to safeguard national security and build more resilient supply chains, the process has involved significant challenges. Global supply chains are deeply intertwined, and efforts to move away from China have led to increased production costs and supply shortages in critical industries like semiconductors and pharmaceuticals.

US businesses have faced substantial cost increases due to the shift to alternative suppliers. These adjustments have also caused delays and shortages in industries that were heavily reliant on Chinese manufacturing. Other low-cost manufacturing countries like India and Vietnam often lack China's infrastructure, manufacturing capacity, and cost advantages. As a result, the supply chain realignment is expected to be a long-term process with rising costs in the short run for many US businesses.

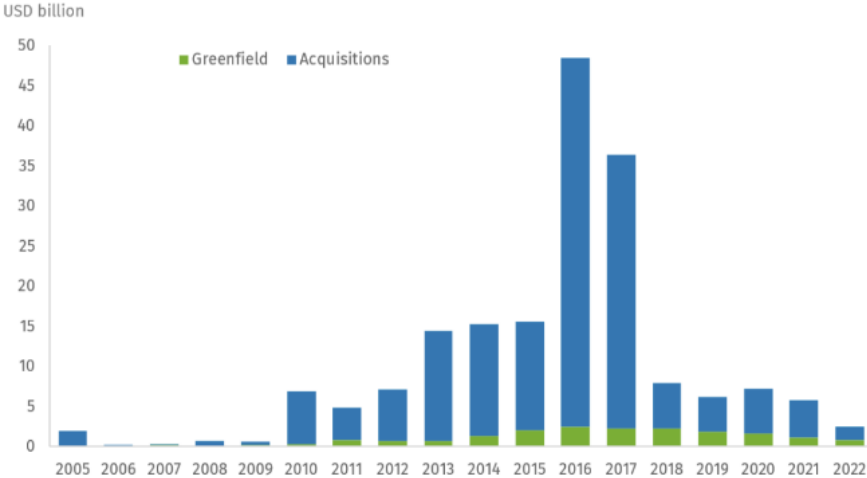
Relocation of former manufacturing imports from China



Source: RaboResearch

Reshaping Global Investments

FDI of Chinese companies within the US (2023)



Source: Rhodium Group. Data represents the combined value of direct investment transactions by mainland Chinese companies in the US, including greenfield projects and acquisitions that result in significant ownership control (>10% of equity). *2021 and 2022 data is preliminary and includes estimates.

The decoupling of US and China is shaping global foreign direct investment (FDI) patterns. Europe has largely followed the US's lead, with countries like Italy and the UK increasingly restricting Chinese investments in sensitive sectors, particularly technology and infrastructure.

The Asia-Pacific region has also seen a realignment, with countries like Japan, South Korea, and India reducing their reliance on China and strengthening their partnerships with the US in key industries.

As these nations prioritize secure supply chains, high-tech sectors like renewable energy and AI-driven innovations are also being

impacted. Countries like South Korea and Japan are becoming key players in the development of AI and clean energy technologies, as investments are increasingly flowing towards nations that align with US-led efforts to reduce reliance on China.

The ongoing decoupling process, while essential for national security, presents significant challenges in terms of cost, supply chain complexity, and the global economy. However, with the support of allied nations like Taiwan, South Korea, India, and European countries, the US is navigating these challenges to build a more resilient and secure economic foundation.

WASHINGTON | CORE

Washington CORE, L.L.C. is an independent consulting & research firm providing strategic research, analysis and advisory services. Founded in 1995, Washington CORE leverages in-depth research capabilities coupled with extensive global networks in both the public and private sectors, to deliver clarity and insight to prepare our clients for success in an ever-changing global landscape.

Please visit <https://www.wcore.com> for more information.



Folake Amoda is currently a Research Analyst and Project Coordinator at Washington CORE. Her role encompasses an extensive array of research topics, ranging from decarbonization business strategies and environmental policies in major economies to wastewater technologies, nuclear emergency responses, ESG financing, costly cell and gene therapy treatments, and emerging information and communication technologies.

Employing a multifaceted approach, she also conducts comprehensive literature reviews and interview-based research, alongside insightful case studies, across these domains. Ms. Folake holds a BA in International Affairs from the University of Georgia and is fluent in Yoruba, English, and Portuguese.