

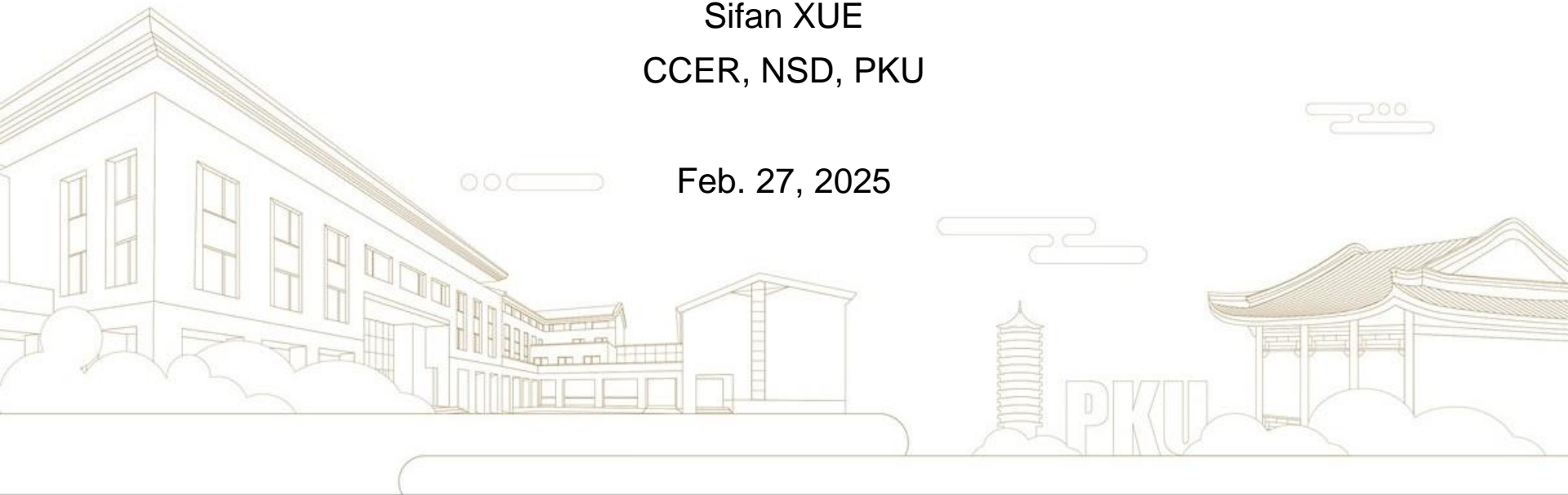


National School of Development

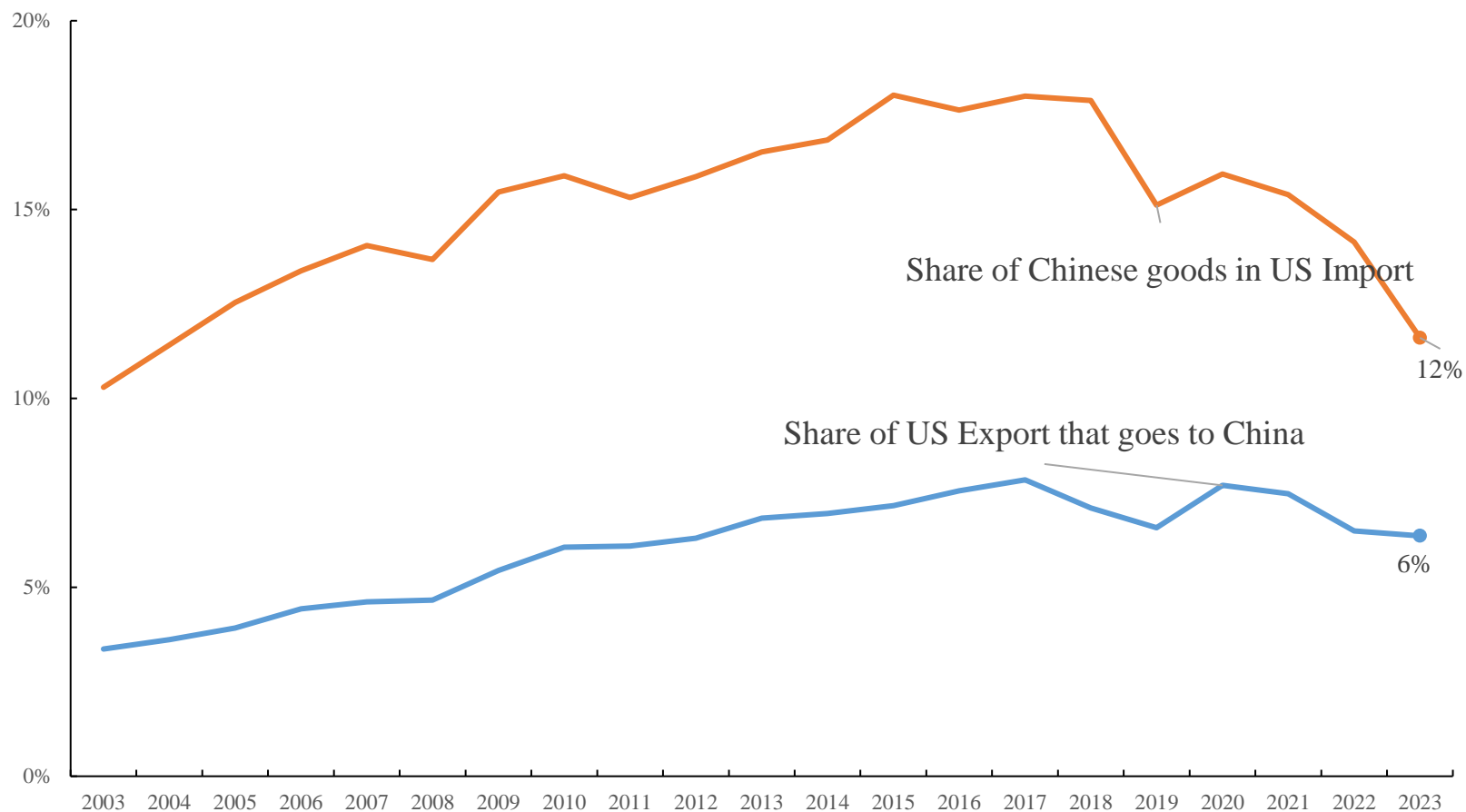
The Facts and Economic Impacts of the US-China Trade War

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China-US Trade



The “China Shock”

- Dubbed by the the literature for China’s trade expansion
 - Manufacturing sector employment in the United States has been falling steadily since the 1960s.
 - From 2000 to 2008, the period of the China shock, manufacturing sector employment fell even more rapidly.
 - Research studying the economic consequences of the China shock on the US economy finds that *a part of* the employment loss in manufacturing was a consequence of China’s trade expansion, which itself was due to either changes in trade policy or changes in productivity in China.

Aggregate Gains from Trade are Widely Agreed upon by Trade Economists

Table 1 Aggregate gains from US–China trade (1995–2011)

	Total gains	Contribution of trading partner (China, United States)	Contribution of the rest of the world
United States	3.39%	17.21%	82.79%
China	4.58%	9.79%	90.21%

Source: Caliendo and Parro (2023)

Distributional Effects

- Autor, Dorn, and Hanson (2013):
 - Local labor markets that were more exposed to the China shock experienced a larger decline in the manufacturing employment share of the working-age population relative to labor markets that were less exposed.
 - Suppose that the least exposed CZ was not affected by the China shock. The actual import exposure increased by \$1,839 per worker between 2000 and 2007, which implies that US manufacturing employment per population fell by 1.1 percentage points, or approximately 55% of the observed decline in manufacturing employment, during the period.
- Caliendo, Dvorkin, and Parro (2019): 0.36 percentage points

Other Effects

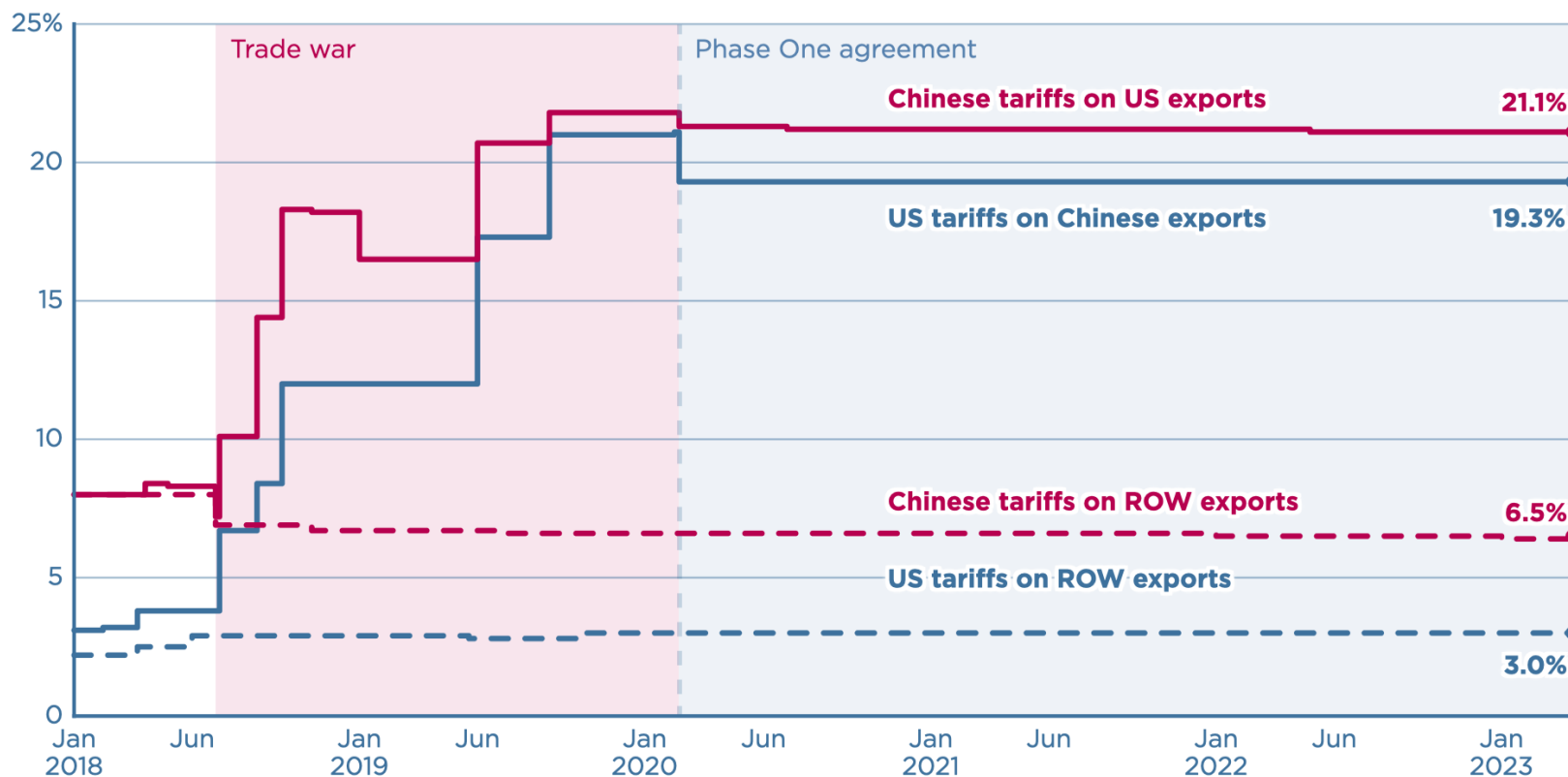
- Nonmanufacturing employment: positively affected
- Innovation: very mixed
- Welfare:
 - Galle et al. (2022) find that a modest but nonnegligible number of groups representing 15.9% of the population suffer welfare losses and that those losses can be up to five times as great as the average gains. The authors find that *in the aggregate* the China shock increases US welfare by 0.22%.
- The findings of the distributional effects of the China shock are economically relevant and have influenced US–China trade relations, e.g., attitude toward globalization and on political outcomes.
 - Autor et al. (2020): a shift to the right in media-viewing habits and political beliefs, more competitive congressional elections, greater polarization in the ideological orientation of campaign contributors, and net gains in the number of conservative Republican representatives.

The 2018–2019 Trade War

- Somewhat unprecedented tariff changes in terms of the scope and magnitude
 - The United States largely targeted China, raising tariffs on thousands of products from China, targeting roughly \$350 billion of imports from China.
 - In response to these tariff increases, China retaliated over several tariff waves, targeting about \$100 billion of US exports
- Many quantitative research on the effects of trade protectionism driven by this trade war.

US-China Trade War Tariffs: A to-be-Update Chart

a. US-China tariff rates toward each other and rest of world (ROW)



Source: Chad Bown PIIE Website Articles

Complete Pass-through

- Amiti et al. (2019), Fajgelbaum et al. (2019), Cavallo et al. (2021).
 - Estimate the effects of the trade war on US prices and quantities. Find that the tariff changes were almost entirely passed through to domestic prices, leaving relative export prices unchanged.

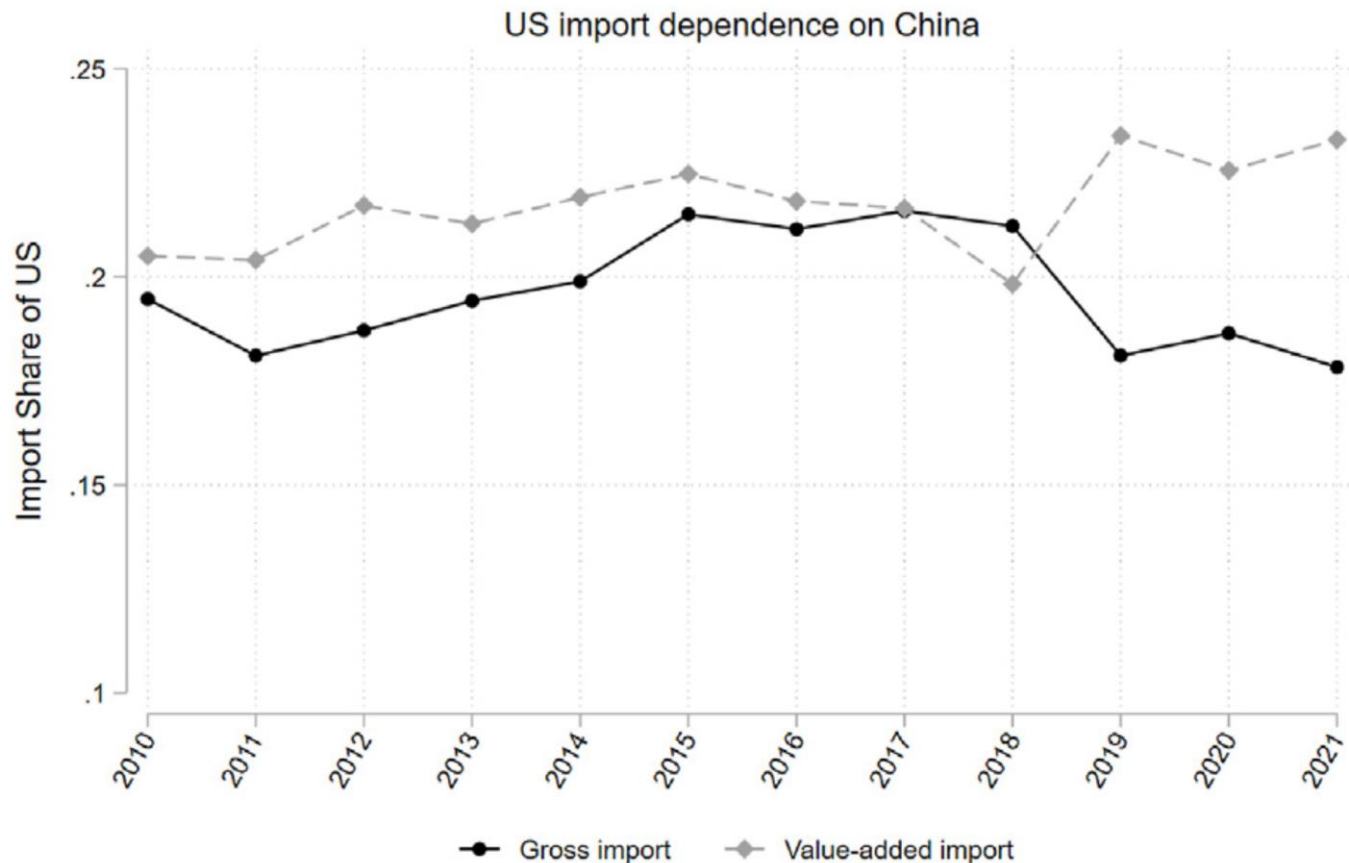
Welfare

- Caliendo & Parro (2022) find that aggregate US households' welfare declines 0.1% due to the trade war, and significant distributional effects on welfare across space.
 - Most states are worse off, with Alabama being the hardest hit, whereas a few southern states, such as Texas, Oklahoma, and Arkansas; New Mexico in the Southwest; and Washington, Idaho, and Oregon in the Northwest are slightly better off.
 - Find persistent effects of the trade war on employment and wages across locations.

Has the 2018–2019 Trade War Reversed the Distributional Effects of the China Shock?

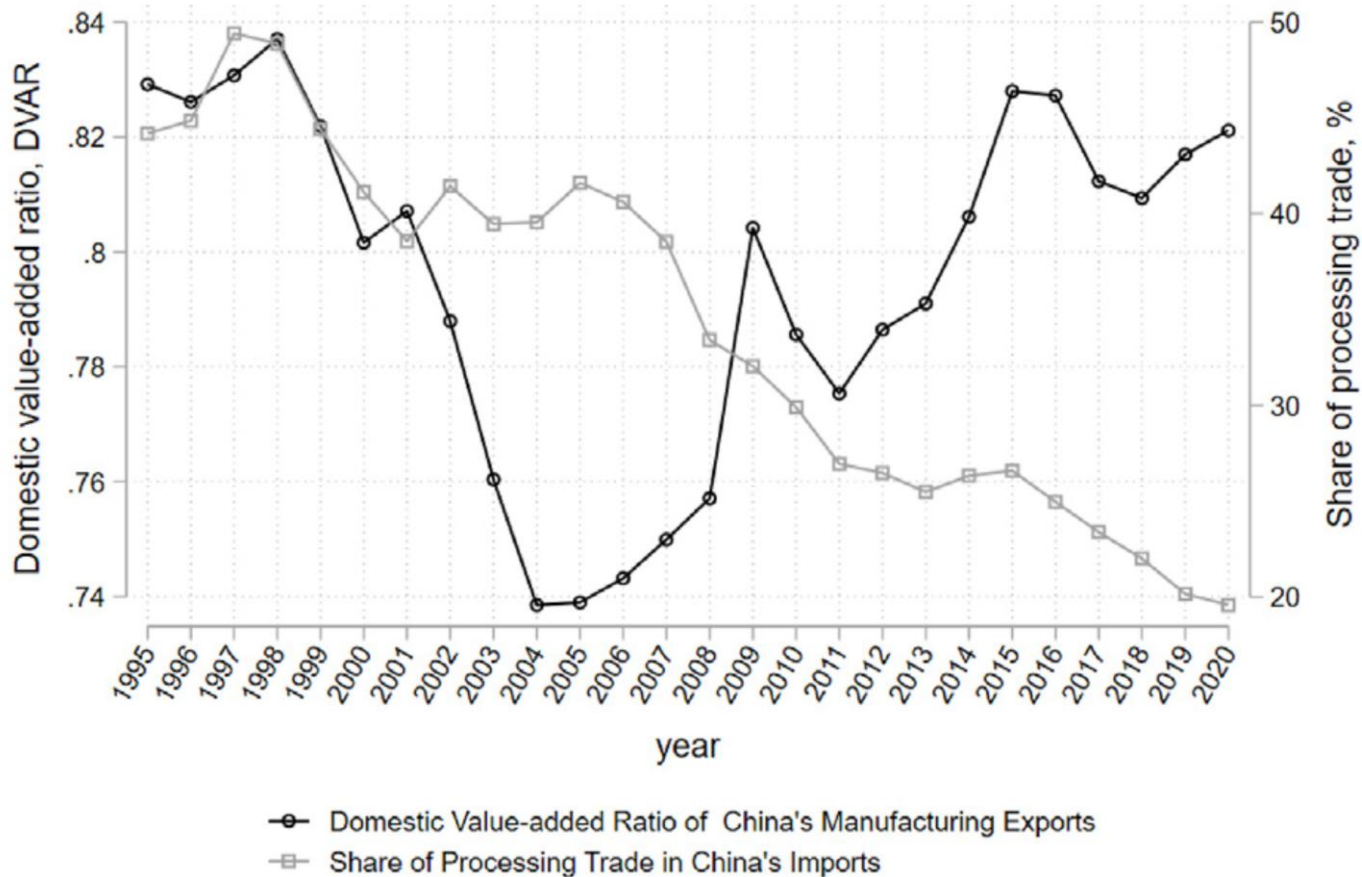
- Caliendo and Parro (2023): We previously noted that the backlash against US–China trade relations that resulted in the recent trade war was motivated in part by the distributional effects of the China shock and in particular by the employment losses in the manufacturing sector.
- To what extent the trade war reversed the distributional effects of the China shock across US labor markets?
- The recent trade war generated welfare losses and very small effects on employment and was ineffective in reversing the distributional effects and decline in manufacturing employment due to the China shock.

Has the 2018–2019 Trade War Reduced US Supply Chain Dependence on China?



Source: Ma and Ning (2024)

A “Pursued Era” by China



Source: Ma and Ning (2024)

A “Pursued Era” by China

- Ma and Ning (2024): The production of labor-intensive products from the US, Europe, Japan, and South Korea was transferred to the Chinese mainland due to their rising labor costs, while their comparative advantages in capital-intensive and even technology-intensive manufacturing industries were gradually lost due to the free flow of capital and technology.
- For products in which the share of the US in world exports decreased, the share of China increased.
- Revealed comparative advantages (RCA) of China's export had been improved in 2000–2017 in the HS-4 products in which the US used to have revealed comparative advantages.

China-US Trade War Product Structure

- The “301 tariffs” imposed by the US initially focused on industries related to China’s “Made in China 2025” initiative, such as aerospace, information technology, and auto parts.
- Over time, they expanded to cover more industries, including not only high-tech products but also mid- to low-end manufacturing sectors like textiles, apparel, plastics, and rubber.

Tech Competition

Policy Tools	Legal Basis	Implementation	Announcing Time
Entity List	Export Administration Regulations (EAR) (US) Part 744	The US has included more than 611 organizations, enterprises, and individuals to the Entity List	2018.8
Government Intervention in Business	2020 National Export Control Law and relevant laws	Prohibits the sales of products by Huawei, China Mobile, BYD, ZTE, and other companies related to national security concerns	2018.7
Coordinate with Allies to Decouple with China	National Defense Production Act	Requires ally businesses to cease supplying certain products to Chinese companies like Huawei	2020.9
"Poison Pill"	2022 Chips and Science Act and 2022 Inflation Reduction Act	Multinational enterprises that enjoy subsidies under relevant US legislation are prohibited from investing in China.	2022.8
Technology Blockade		Establishes a "Next G" alliance to research 6G technology, restricted to China	2021.10
Technology Exchange Restriction	Foreign Investment Risk Review Modernization Act and relevant announcements	Prohibits Chinese investment in US enterprises, and restricts exchanges of Chinese technical personnel	2018.11
Investment Ban	National Emergency State	Restricts investments in China and specific sectors under US and related control	2023.8

Core Technology, Supply Chain Safety

- On November 30, 2022, US Secretary of Commerce Gina M. Raimondo delivered a speech, highlighting that there are three types of technologies that will be particularly important in the next decade:
 - Computing-related technologies, including microelectronics, quantum information systems, and artificial intelligence;
 - Biotechnology and biomanufacturing;
 - Clean energy technologies. “We will continue to take action to protect our advantage and maintain as large a lead as possible in these foundational technologies.”
- She emphasized the need to:
 - Protect US core technologies through strategically updated export control policies and investment screening frameworks.
 - Reassess investments in key technological areas.
 - Strengthen protection of critical supply chains, clearly stating the need to relocate the core parts of the supply chain back to the domestic market or to “friendly countries.”

Industrial Policy

- Legislative:

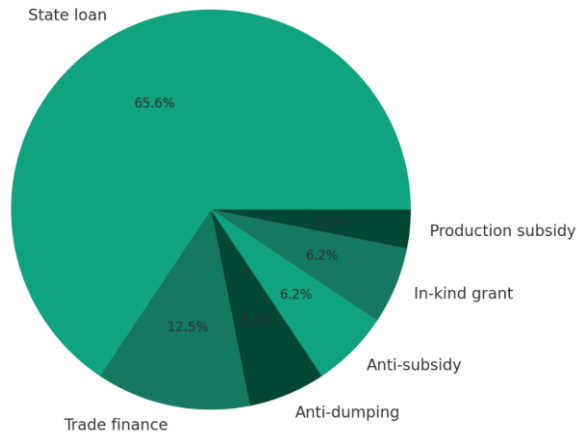
- The 2022 Inflation Reduction Act: Requires the use of domestically sourced critical minerals and battery components in the production of electric vehicles, and mandates that the “final assembly” of electric vehicles must occur in North America.
- The Chips and Science Act: Authorizes \$52.7 billion to attract the semiconductor industry back to the US.
- US President E.O. 14017: Reviews risks in the supply chains of information and communication technology, defense, energy, agriculture, public health, and transportation industries, and proposes corresponding countermeasures.
- US President E.O. 14105: On August 9, 2023, restrictions were imposed on US investments in China in three areas: semiconductors and microelectronics, quantum information technology, and artificial intelligence.

- Institutional:

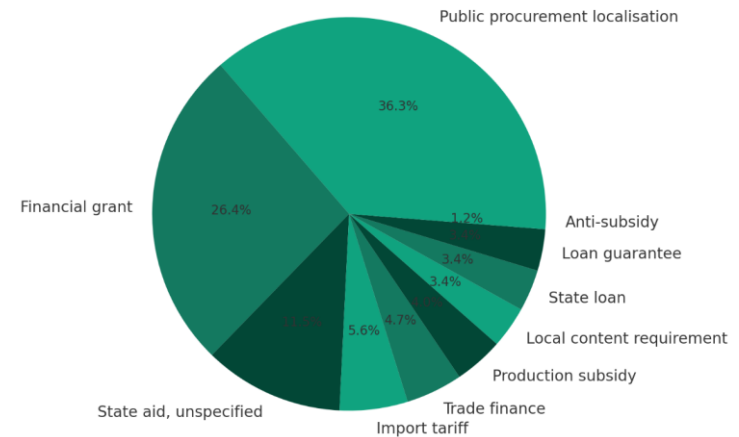
- November 15, 2022: The US-China Economic and Security Review Commission released its annual report, recommending the establishment of the Economic and Security Preparedness and Resilience Office to continuously monitor supply chain resilience indices and dependence on China in key sectors.
- The Department of Commerce issued the “Strategic Plan: 2022-2026”: This plan highlights the role of the MEP (Manufacturing Extension Partnership) program, which helps small and medium-sized businesses find local suppliers for their supply chains.
- January 6, 2023: The US and Japan signed a memorandum to establish a working group to promote human rights and international labor standards in supply chains.

Restrictive Trade Policies

U.S. Red Trade Policies Toward China in 2008 (By Intervention Type)



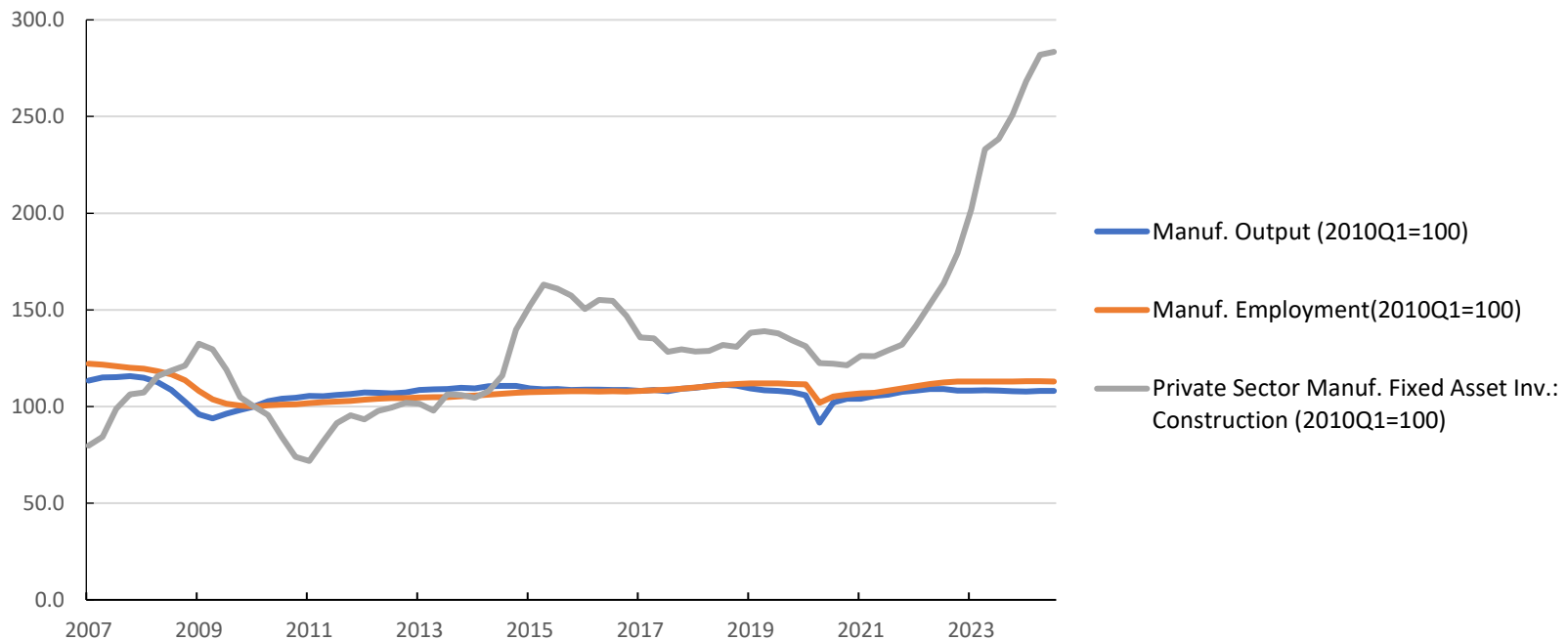
U.S. Red Trade Policies Toward China in 2021 (Top 10 By Intervention Type)



- The Global Trade Alert (GTA) database categorizes all trade policy measures into 9 major categories and 56 types.
- In 2008, there were only 6 trade policies related to China. By 2021, this number had risen to 16, with the forms of sanctions against China becoming more diverse.
- Newly introduced trade measures include: public procurement localization, import tariffs, localization requirements, fiscal subsidies, loan guarantees, and others.

US Manufacturing Reshoring

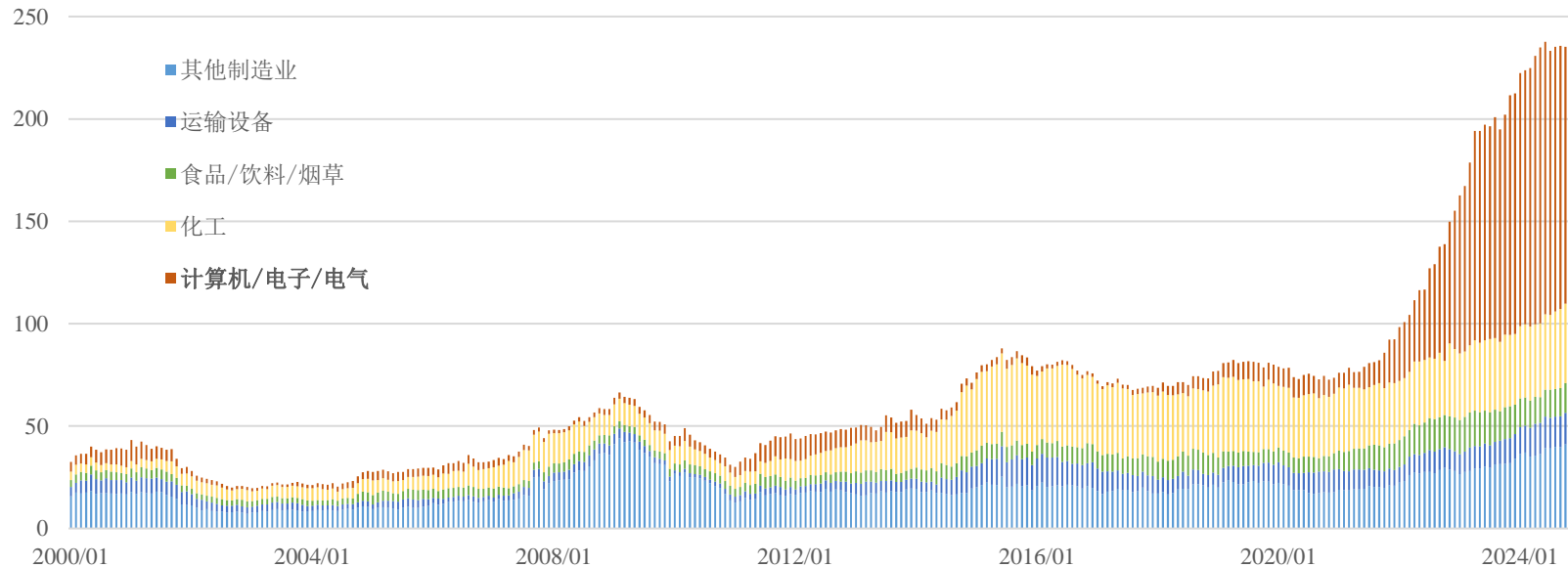
- The growth in US manufacturing output and employment has not been significant, but investment in the manufacturing sector has expanded substantially.



- Data Source: US Census Bureau, US Bureau of Labor Statistics

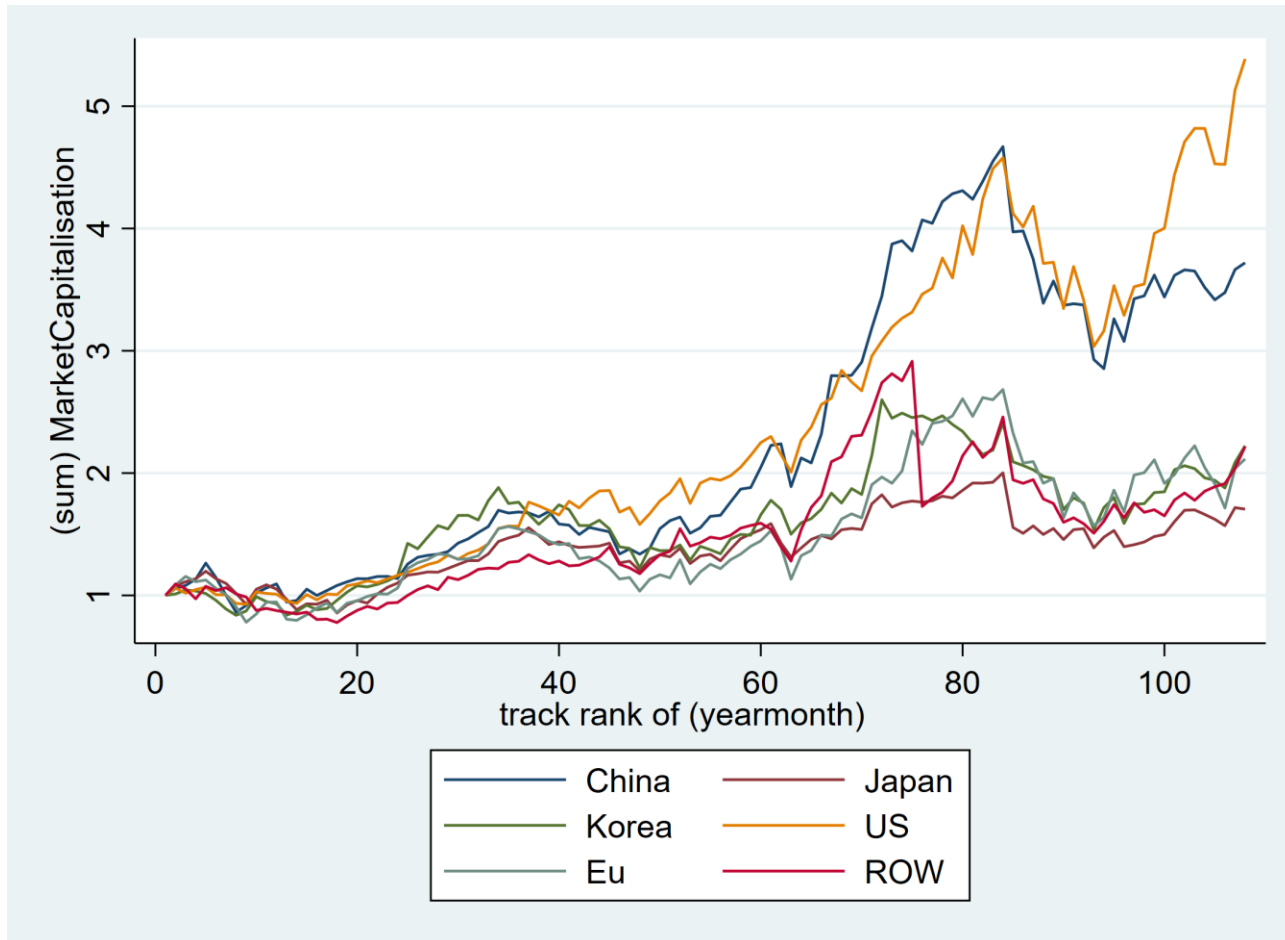
US Manufacturing Reshoring

- In manufacturing investment, the computer/electronics/electrical industries dominate, showing a trend of semiconductor industry



- Figure: US Private Sector Manufacturing Subsector Construction Investment (January 2001 - November 2024, Monthly Data)
- Note 1: Data are seasonally adjusted annualized figures, in billions of dollars.
- Note 2: Construction spending primarily refers to expenditures related to the construction of buildings, excluding purchases of production equipment, etc.
- Data Source: US Census Bureau

Semiconductor Firm MktCap



Source: ORBIS, firm list constructed by me

Trump 2.0 Trade





Trump's trade war timeline 2.0: An up-to-date guide








Filter by category: **Fentanyl and immigration** **Steel and aluminum** **Retaliation**







Filter by country: **Canada** **China** **European Union** **Mexico** **Austria** **France** **Italy** **Spain**

Turkey **United Kingdom** **World**

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Date	Country	Category	Description
Jan 20, 2025			America First Trade Policy Memorandum The White House releases a memorandum outlining trade priorities for the administration, directing departments and agencies to complete studies by April 1, 2025.
Feb 1, 2025	 Canada  China  Mexico	Fentanyl and immigration	Tariffs on Canada, Mexico, and China Trump issues executive orders and a fact sheet announcing tariffs on Canada, Mexico, and China coming February 4. The orders would also end duty-free de minimis treatment of low-value packages from these countries. Hear more on what happened
Feb 1, 2025	 Canada	Fentanyl and immigration Retaliation	Canada retaliates Canada announces two rounds of tariffs, including those imposed immediately following the US tariffs, targeting US exports including orange juice, peanut butter, wine, spirits, beer, coffee, appliances, apparel, footwear, motorcycles, cosmetics, and pulp and paper.

2025	 Mexico	Immigration	<p>minimis treatment of low-value packages from these countries.</p> <p>Hear more on what happened</p>
Feb 1, 2025	 Canada	Fentanyl and Immigration Retaliation	<p>Canada retaliates</p> <p>Canada announces two rounds of tariffs, including those imposed immediately following the US tariffs, targeting US exports including orange juice, peanut butter, wine, spirits, beer, coffee, appliances, apparel, footwear, motorcycles, cosmetics, and pulp and paper.</p>
Feb 3, 2025	 Mexico	Fentanyl and Immigration	<p>Tariffs on Mexico on hold</p> <p>Mexico's Sheinbaum posts on X that US tariffs are on hold for one month after Mexico agrees to send more National Guard members to the southwest border and the US agrees to work on reducing weapons shipments to Mexico. The White House confirms in an executive order.</p>
Feb 3, 2025	 Canada	Fentanyl and Immigration	<p>Tariffs on Canada on hold</p> <p>Canada's Trudeau posts on X that the tariffs are on hold for 30 days, as Canada implements its plan to secure the northern border to address fentanyl trafficking. The White House confirms in an executive order.</p>
Feb 4, 2025	 China	Fentanyl and Immigration	<p>Tariffs on China go into effect, end of duty-free packages from China</p> <p>The US imposes 10 percent tariffs on imports from China announced February 1. The US also ends de minimis treatment of low-value packages from China receiving zero tariffs. See also: Federal Register notice 1 and notice 2)</p> <p>Hear more on</p>
Feb 4, 2025	 China	Fentanyl and Immigration Retaliation	<p>China retaliates</p> <p>China announces tariffs, export controls, and unreliable entity designations, and threatens new antitrust investigations into Google in response to US tariffs imposed on February 4. Chinese tariffs take effect on February 10.</p>
Feb 5, 2025	 China	Fentanyl and	<p>Duty-free packages from China restored</p> <p>The US amends the February 1 executive order to temporarily restore duty-free</p>

Feb 4, 2025	 China	Fentanyl and immigration Retaliation	<h3>China retaliates</h3> <p>China announces tariffs, export controls, and unreliable entity designations, and threatens new antitrust investigations into Google in response to US tariffs imposed on February 4. Chinese tariffs take effect on February 10.</p>
Feb 5, 2025	 China	Fentanyl and immigration	<h3>Duty-free packages from China restored</h3> <p>The US amends the February 1 executive order to temporarily restore duty-free treatment of low-value shipments from China (Federal Register notice).</p>
Feb 10, 2025	World	Steel and aluminum	<h3>Tariffs on steel and aluminum</h3> <p>Trump issues one proclamation imposing 25 percent import tariffs on steel and a separate proclamation imposing 25 percent tariffs on aluminum as of March 12, 2025, adjusting the Section 232 tariffs on those metals first imposed in March 2018. (The aluminum proclamation is dated February 11. See also: White House fact sheet, Steel Federal Register notice, Aluminum Federal Register notice)</p> <p>Hear more on steel and aluminum</p>
Feb 13, 2025	World		<h3>Reciprocal Trade and Tariffs Memorandum</h3> <p>The White House releases a memorandum, fact sheet, and statement defining the problem and outlining the Trump administration's plan to counter nonreciprocal trading arrangements.</p>
Feb 21, 2025	 China World		<h3>America First Investment Policy Memorandum</h3> <p>The White House releases a memorandum and fact sheet on the administration's policy toward inbound foreign direct investment, especially from adversaries such as China, that included a "fast track" policy for investment from specified partners and allies.</p>
	 Austria  Canada  European Union		<h3>Defending American Companies and Innovators From Overseas Extortion and Unfair Fines and Penalties Memorandum</h3> <p>The White House releases a memorandum and fact sheet articulating concerns with</p>

2025

World

aluminum

2020, adjusting the Section 232 tariffs on those metals first imposed in March 2018. (The aluminum proclamation is dated February 11. See also: White House fact sheet, Steel Federal Register notice, Aluminum Federal Register notice)

[Hear more on steel and aluminum](#)

Feb 13,
2025

World

Reciprocal Trade and Tariffs Memorandum

The White House releases a memorandum, fact sheet, and statement defining the problem and outlining the Trump administration's plan to counter nonreciprocal trading arrangements.

Feb 21,
2025

 China
World

America First Investment Policy Memorandum

The White House releases a memorandum and fact sheet on the administration's policy toward inbound foreign direct investment, especially from adversaries such as China, that included a "fast track" policy for investment from specified partners and allies.

Feb 21,
2025

 Austria
 Canada
 European Union
 France
 Italy
 Spain
 Turkey
 United Kingdom

Defending American Companies and Innovators From Overseas Extortion and Unfair Fines and Penalties Memorandum

The White House releases a memorandum and fact sheet articulating concerns with foreign treatment of US digital companies, especially by the European Union, and requesting the US Trade Representative to re-examine any digital services taxes (DSTs) of Austria, France, Italy, Spain, Turkey, and the United Kingdom under Section 301 of the Trade Act of 1974 and consider a formal USMCA dispute against Canada.

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