

TRB Standing Committee on International Trade and Transportation (AT020)

**Mid-Year Meeting
July 10, 2024**

Nearshoring Implications to US/Mexico Cross-Border Trade

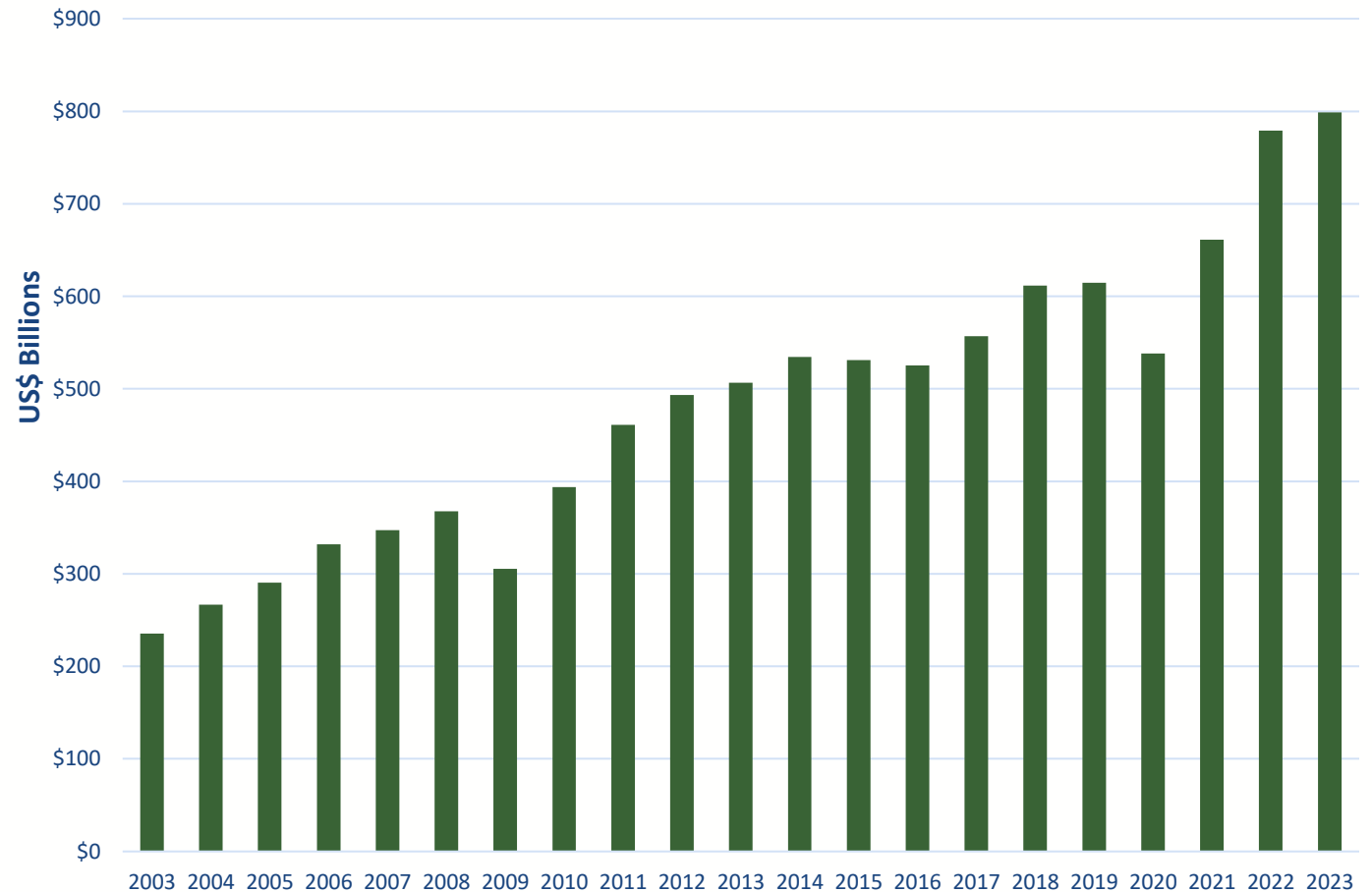
Juan Carlos Villa
Texas A&M Transportation Institute

Agenda

- **US/Mexico Trade**
- **Offshoring, Nearshoring and Ally-Shoring**
- **Global Supply Chains**
- **Foreign Direct Investment in Mexico**
- **Implications for Cross-Border Trade**

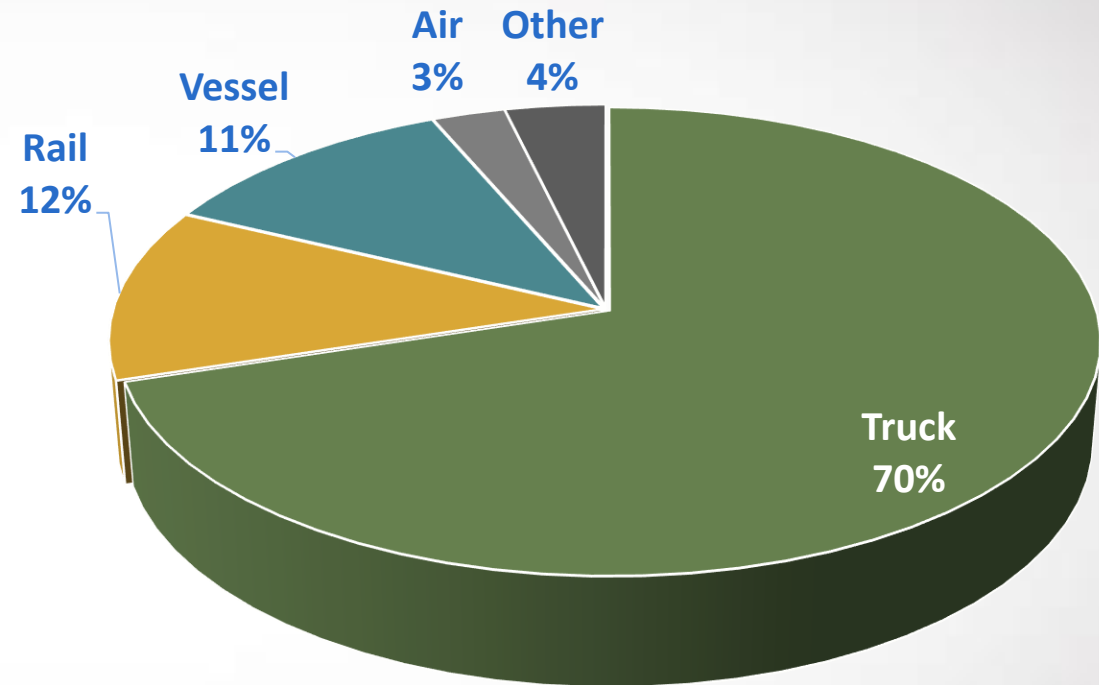
US/Mexico Trade

- US-Mexico trade grew 239% in the last 20 years.
- Except for the 2008-2009 recession and 2020-2021 COVID periods, trade has grown constantly.

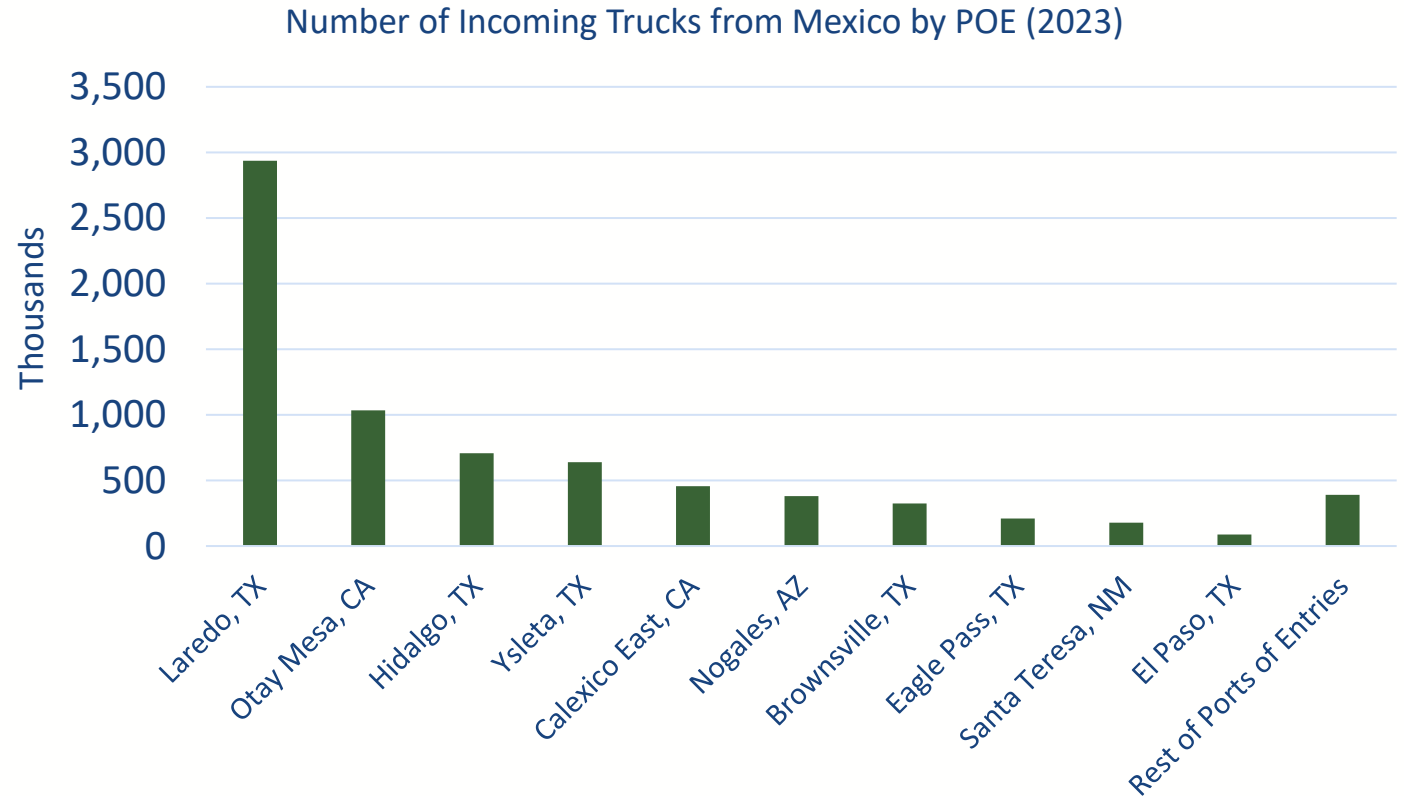


US/Mexico Trade by Mode

- Truck is the dominant mode with 70% of the total trade by value.
- Rail is the second mode with 12% and increasing proportion.
- Vessel has 11% of the market, handling mainly petroleum products.



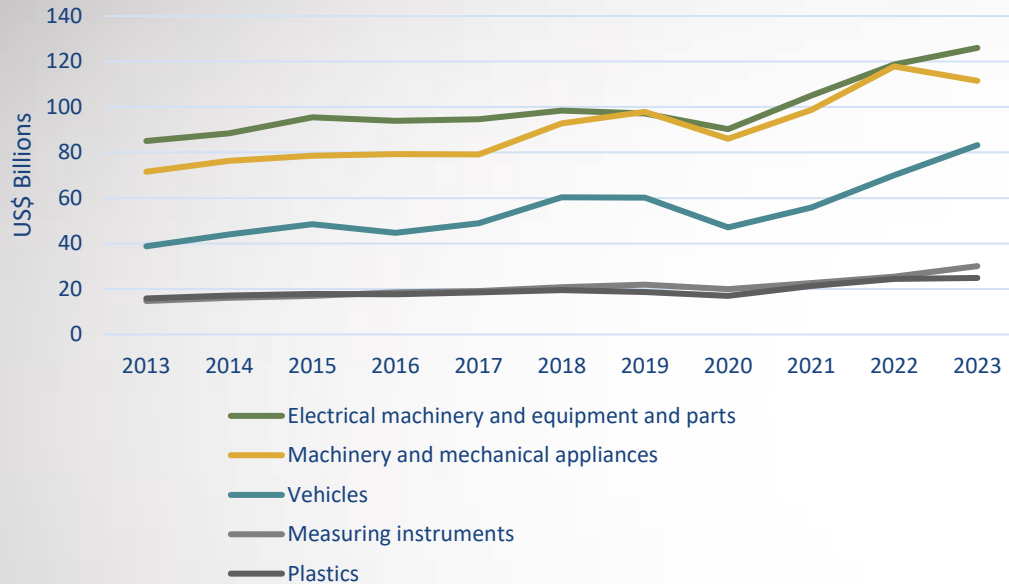
US/Mexico Trade Port of Entry



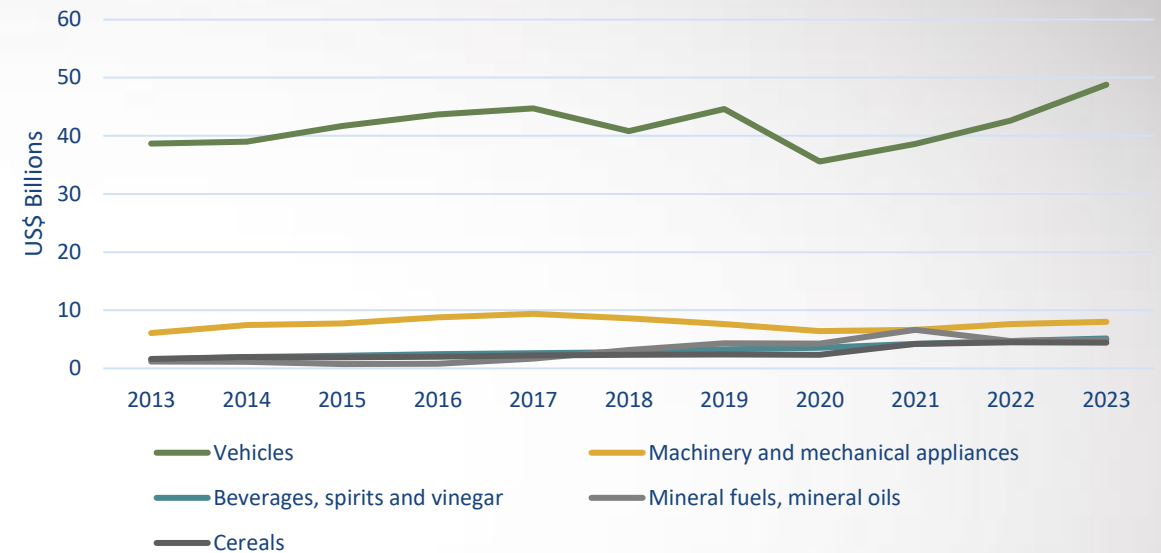
- Laredo POE handled 40% of the total incoming trucks, followed by Otay Mesa with 14%.
- Ten POEs handled 95% of the total trucks entering the US from Mexico

US/Mexico Top Trade Commodities

Top 5 Commodities by Truck



Top 5 Commodities by Rail



- Electrical machinery and parts is the top commodity by truck, followed closely by mechanical appliances handled by both modes.
- Vehicles is the top commodity handled by rail and third by truck

Offshoring, Nearshoring, and Ally-Shoring

Offshoring

- Establish suppliers in other destinations, usually in Asia, to reduce costs.

Nearshoring

- Strategy of outsourcing production to third parties in nearby countries with a similar time zone.
- Global production relocation process.

Ally-Shoring

- The process by which countries rework critical supply chains and source essential materials, goods, and services among and between trusted democratic partners and allies.



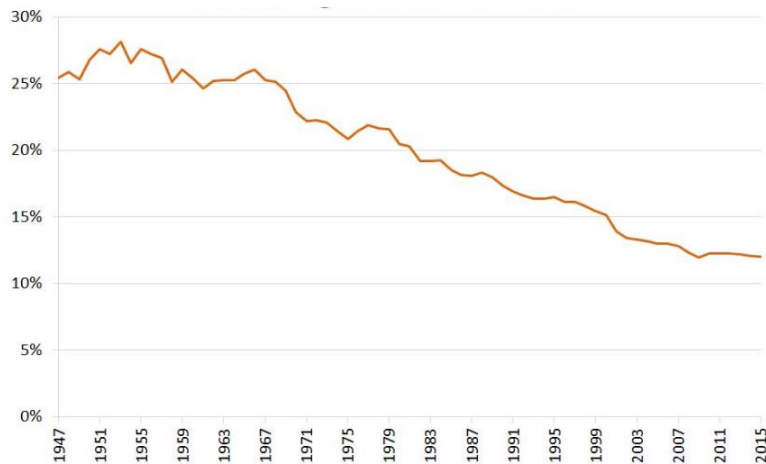
Source: MIT Sloan Management Review. Nearshoring: What it is and what are the benefits for companies. April 15, 2023

Global Supply Chains

Offshoring:

Large corporations transferred production processes to countries with lower production costs. Tax and labor conditions with lower costs were sought.

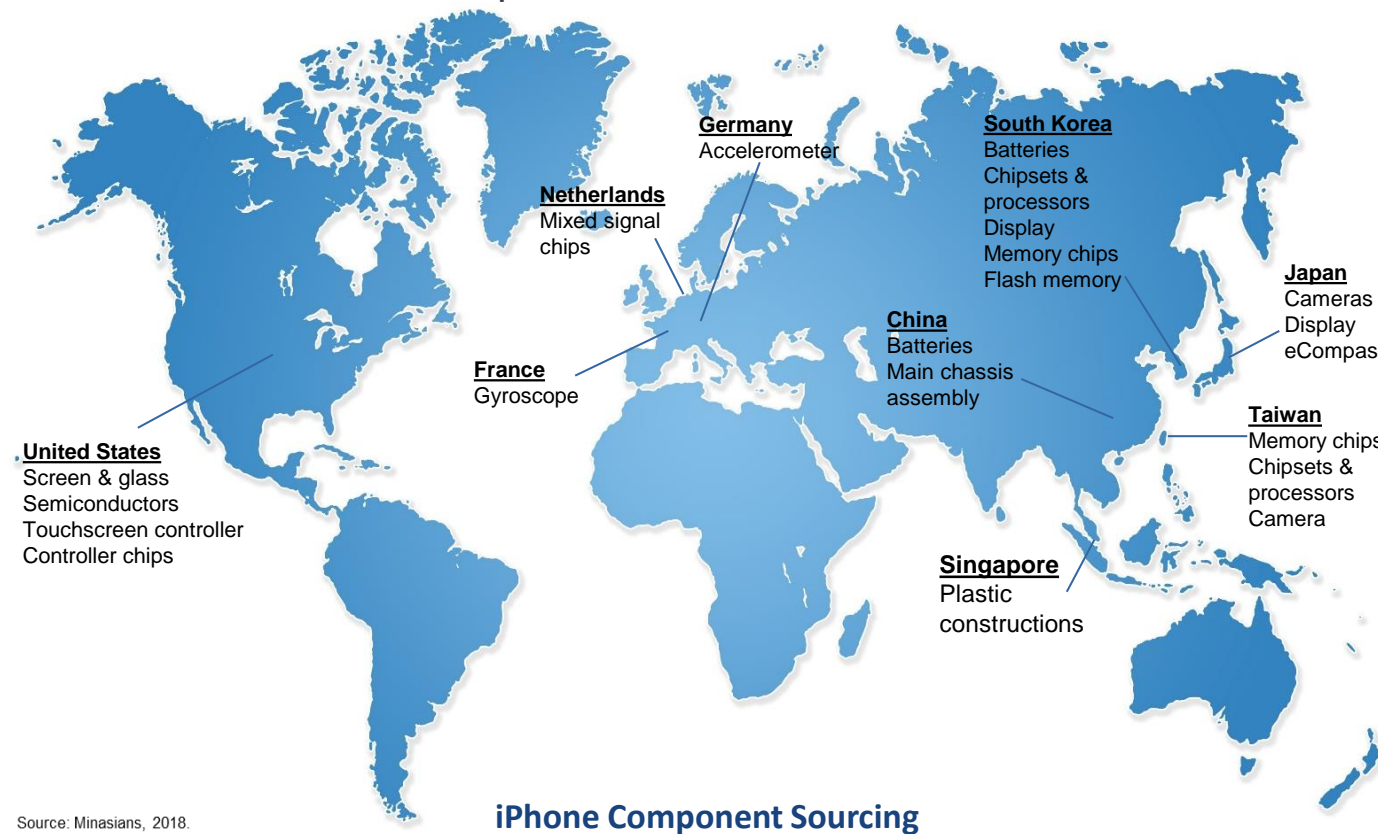
Share of US Manufacturing in Nominal GDP



Source: Bureau of Economic Analysis

Just-in-time, Super-Lean Supply Chains

- Low or no inventories
- Low storage costs
- Maximize profits



Supply Chain Disruptions

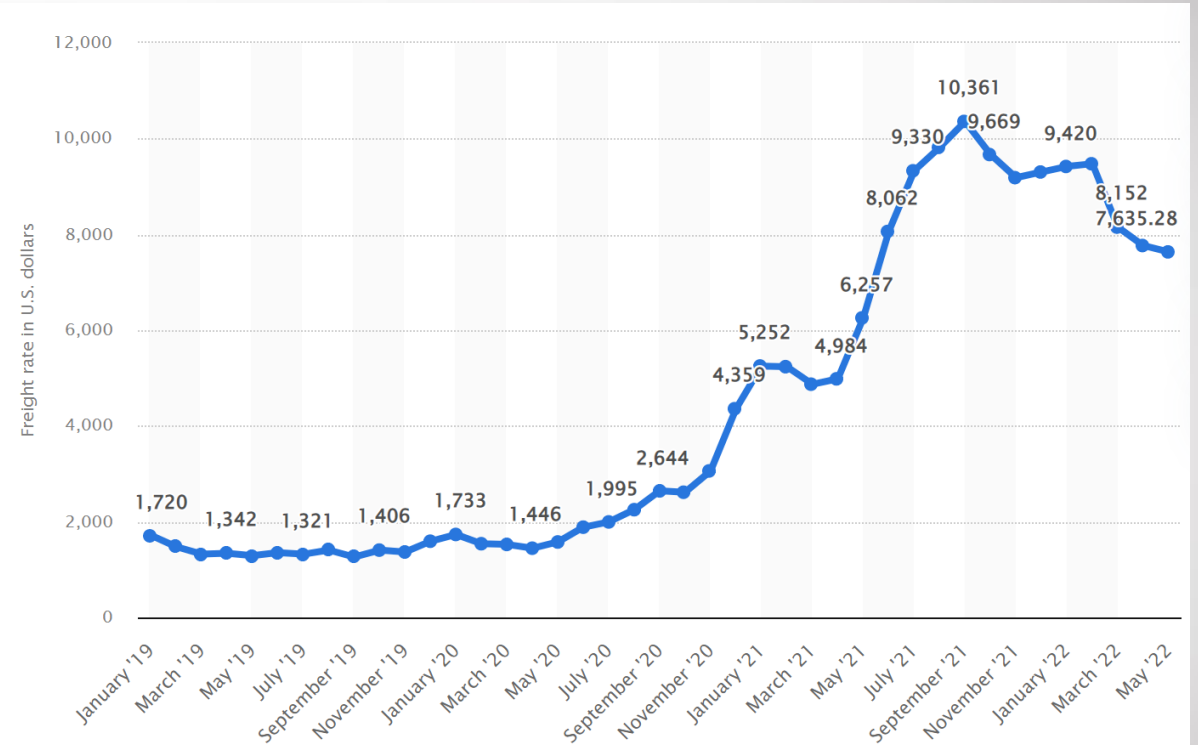
COVID shook the offshoring model with great global repercussions

- Congested ports
- Lost containers
- Exorbitant transportation fees
- Empty shelves

Ships on standby at the Port of Los Angeles



Global Container Rate Index.



Advantages of Nearshoring in Mexico

Taking advantage
of USMCA

Low
transportation
costs

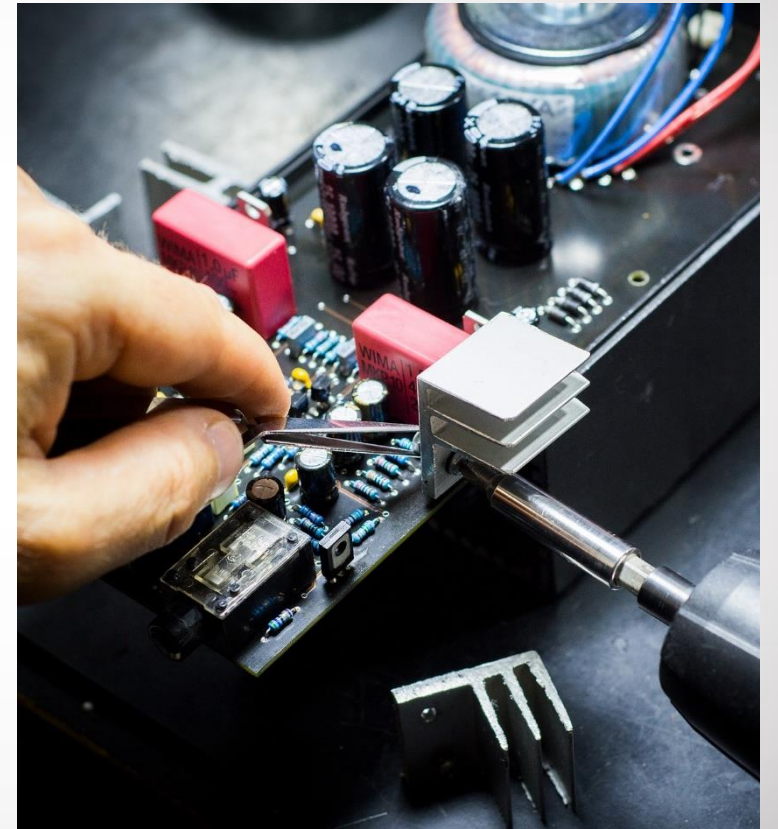
Rising labor costs
in China

High US tariffs on
Chinese products

Mitigating supply
chain risks

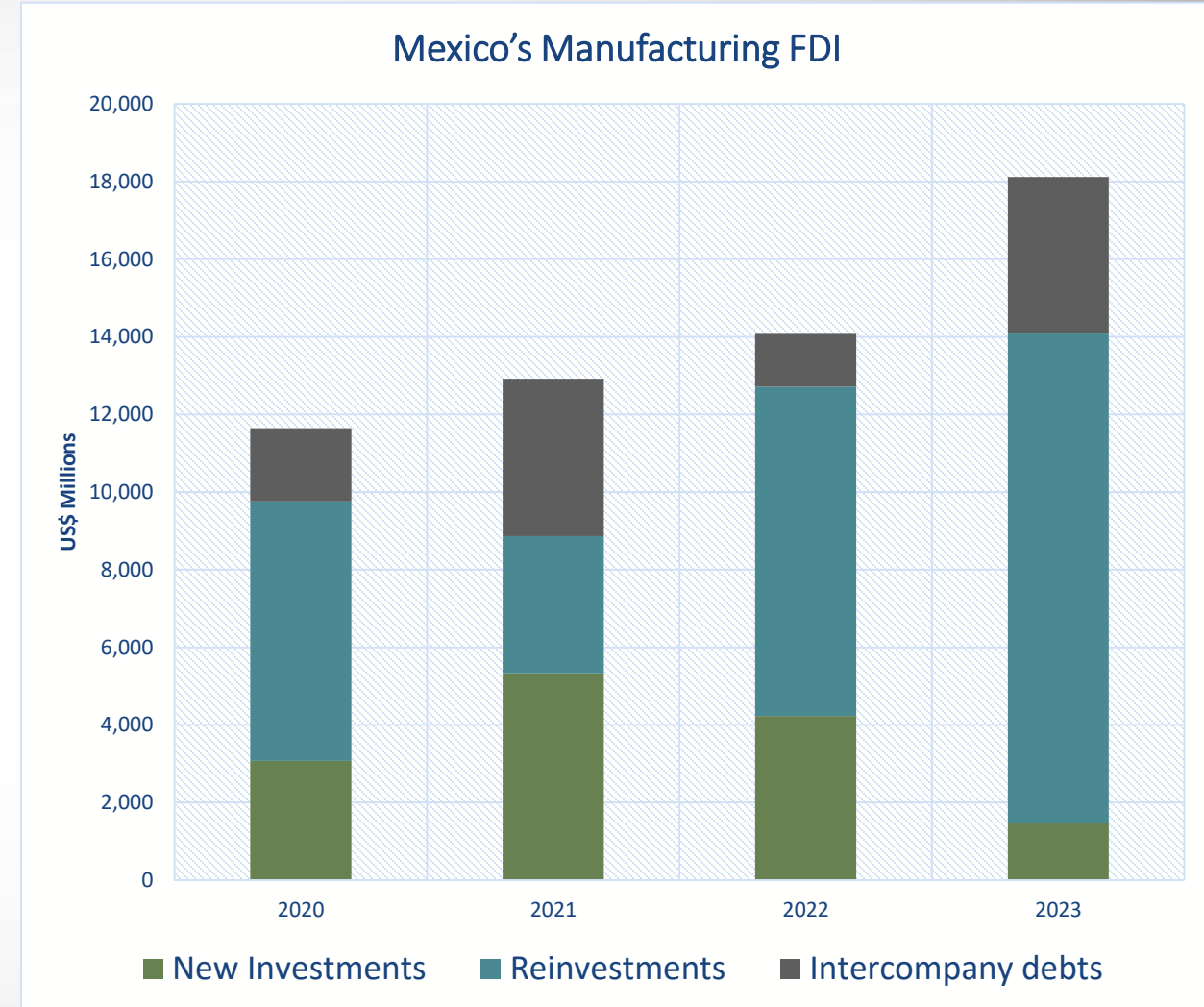
Corporate
environmental
policies

Socio-political
tensions between
the US and China



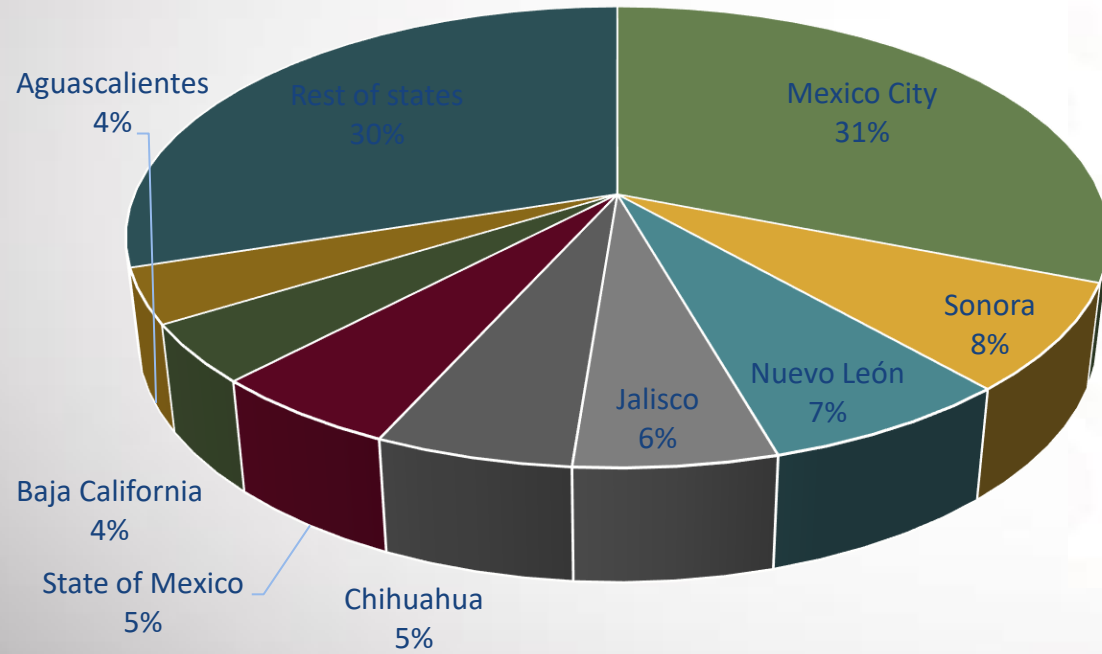
Foreign Direct Investment

- FDI in manufacturing has increased sharply since 2020, reaching \$ 18 billion in 2023, 55% growth since 2020.
- In 2023, FDI in manufacturing sector **increased by 28%** compared to the previous year. The highest growth since the pandemic hit.
- Reinvestments contribute with the highest proportion of FDI



Source: Mexico's Secretaría de Economía

2023 FDI by State

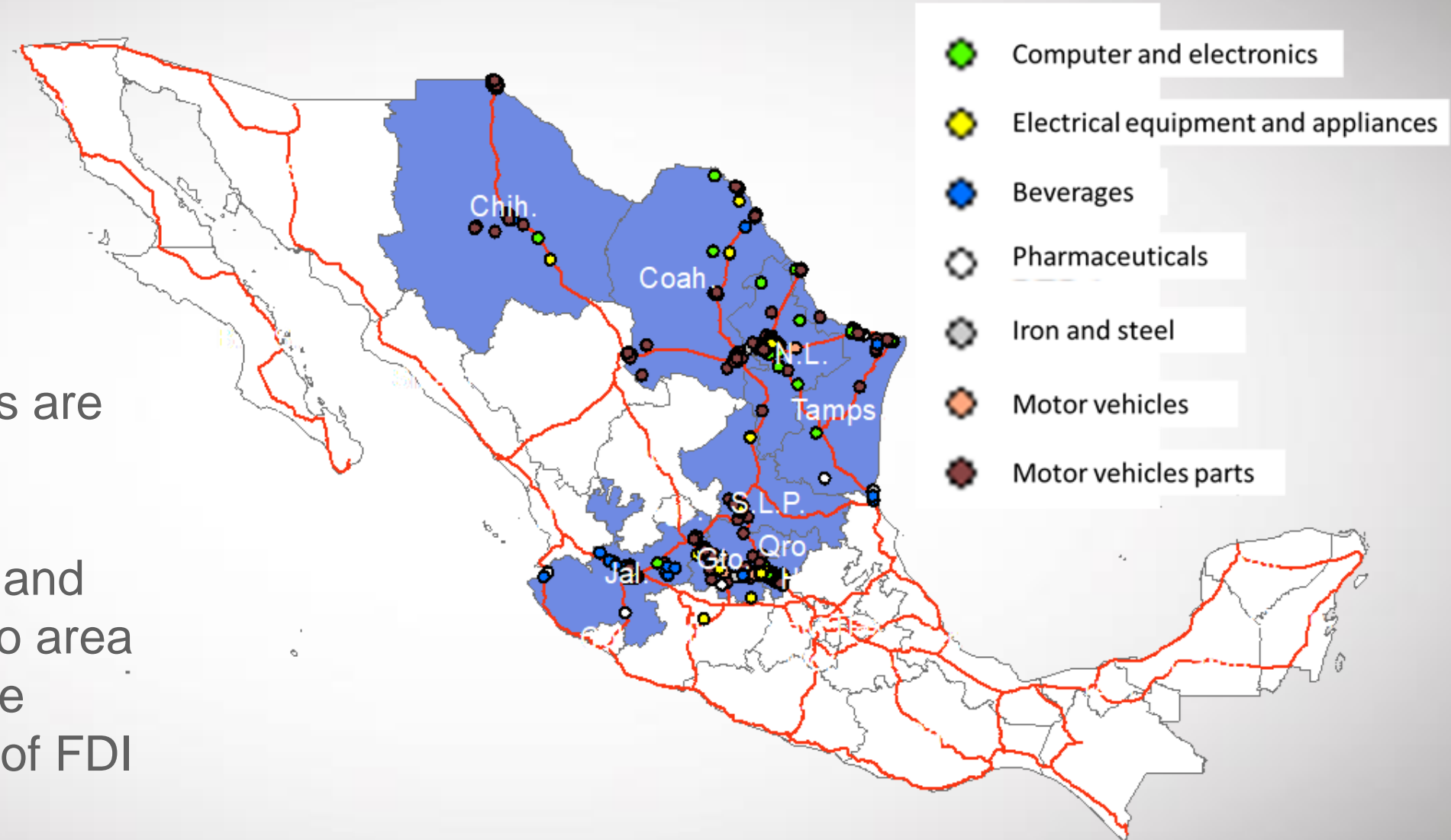


Source: Mexico's Secretaría de Economía

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Key Nearshoring Industries in Selected States

- Industry clusters are growing
- Central Mexico and Monterrey metro area are receiving the largest amount of FDI

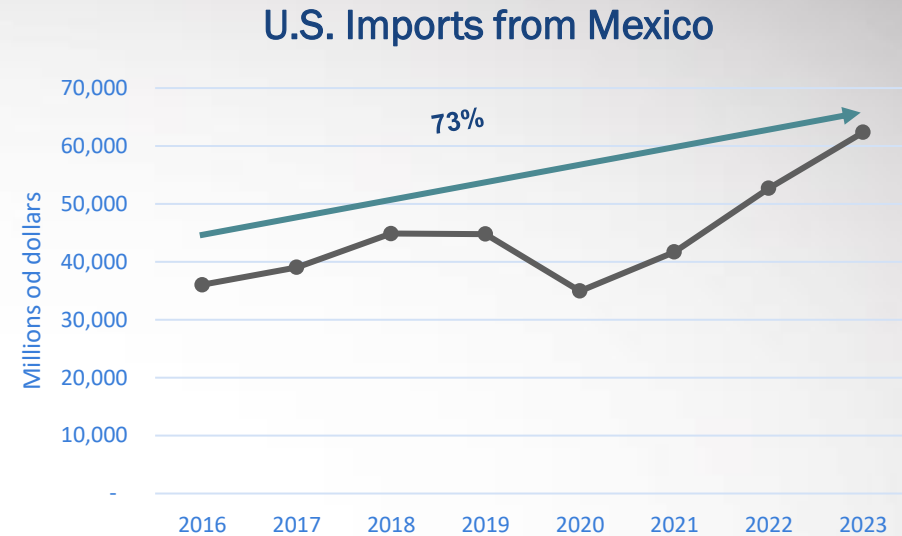


Impacts on Cross-Border Trade

- **Automobile and truck manufacturing imports by truck** – the largest nearshoring related sector in the country – increased by **73%** since 2016.
 - **FDI in this sector grew 63%** between 2022 and 2023.



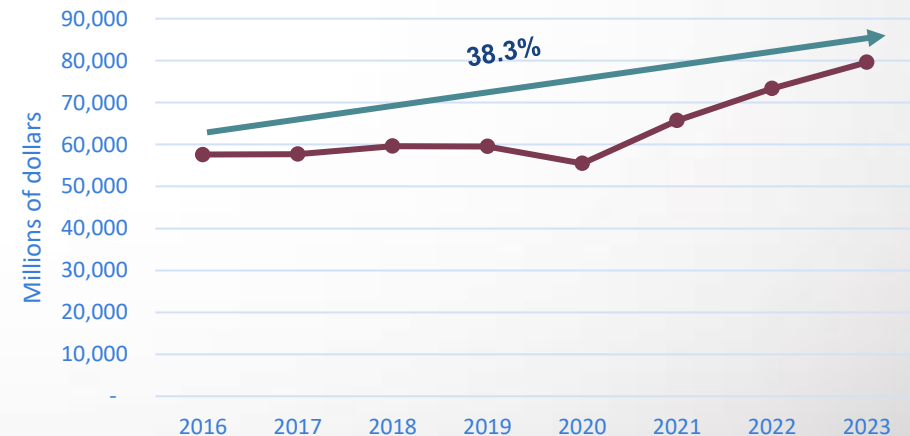
Automotive and Autoparts



- The second largest sector imported by the U.S. from Mexico: **Electrical machinery and parts** has grown **38.3%** in the period 2016-2023.



Electrical Machinery and Parts



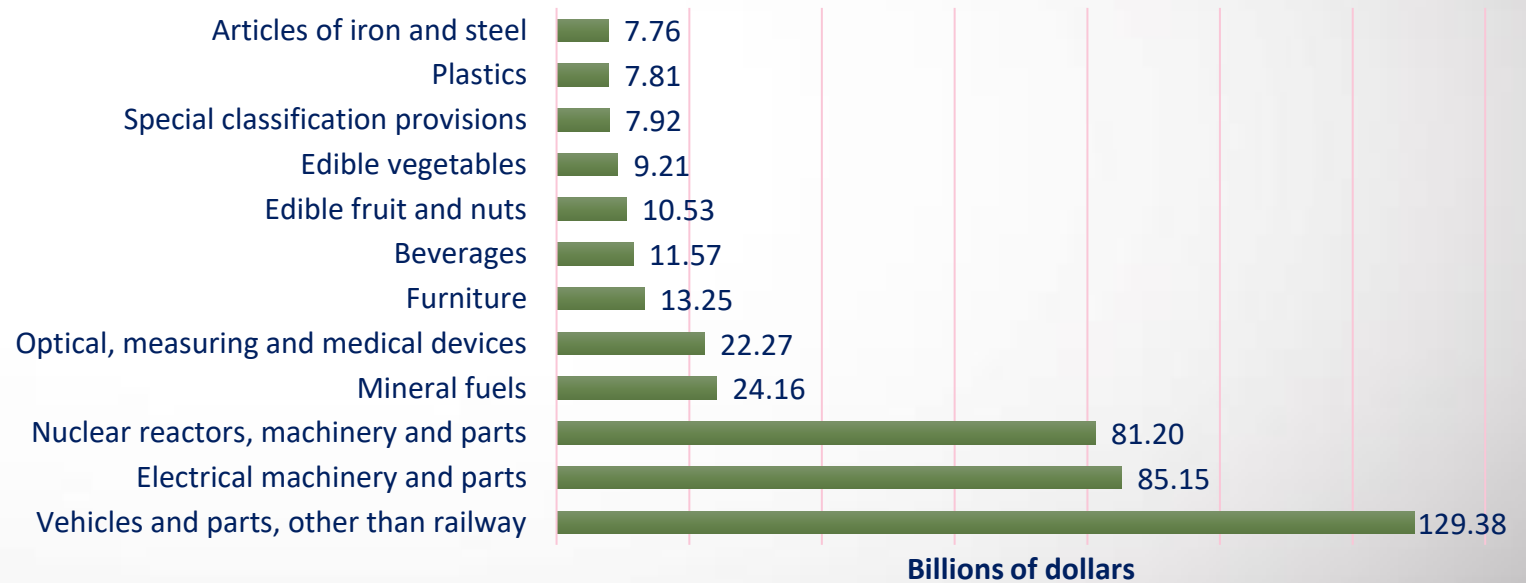
FDI and Trade

Industries that received the most FDI in Mexico in 2023

1. Motor vehicle manufacturing	\$5.14B
2. Beverage manufacturing--	\$2.44B
3. Iron and Steel	\$2.15B
4. Autoparts	\$2.02B
5. Pharmaceutical industry	\$1.63B
6. Computer and Electronics	\$1.57B
7. Electrical equipment, Appliances and Components manufacturing	\$0.83B

- In 2023, **50.14%** of Mexico's FDI was in the **manufacturing sector**.
- From the top 12 commodities that are traded between U S and Mexico, six industries received the most FDI.

Top 12 Commodities Imported from Mexico by the U.S., in 2023



Source: Bureau of Transportation Statistics. [TransBorder Freight Data](#) | Bureau of Transportation Statistics ([bts.gov](#))

Implications for Cross-Border Trade

- The process of relocating global production to Mexico is already impacting several aspects of the country's economic development --.
- The trade surge due to nearshoring will exacerbate the already congested commercial border crossings and their serving roadways.
- The pace for adding capacity to the existing infrastructure is significantly slower than the ongoing nearshoring progress.
- The impacts on the transportation and logistics system require innovative solutions to make the movement of goods more efficient – Technology, Data, AI, Human Resources.

Thank You!

Questions/Comments

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