Reshoring Initiative[®]

Bringing Manufacturing Back Home

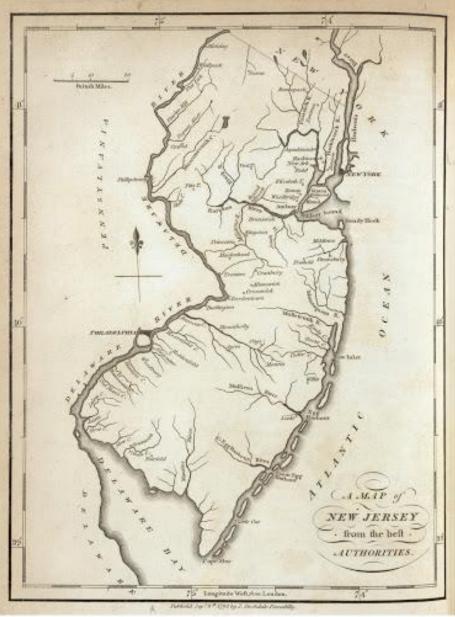
Reshoring & Sustaining the U.S. Industrial Base

APEX

Harry Crane Moser Reshoring Initiative







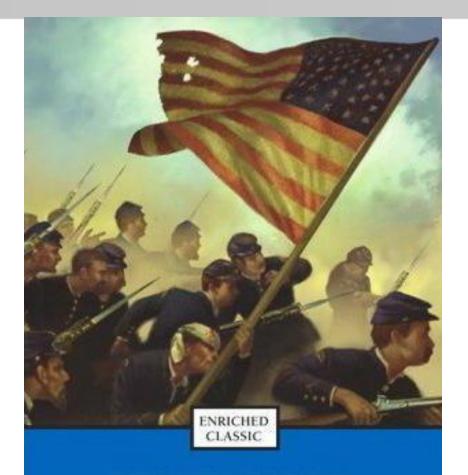
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THE RED BADGE OF COURAGE

STEPHEN CRANE

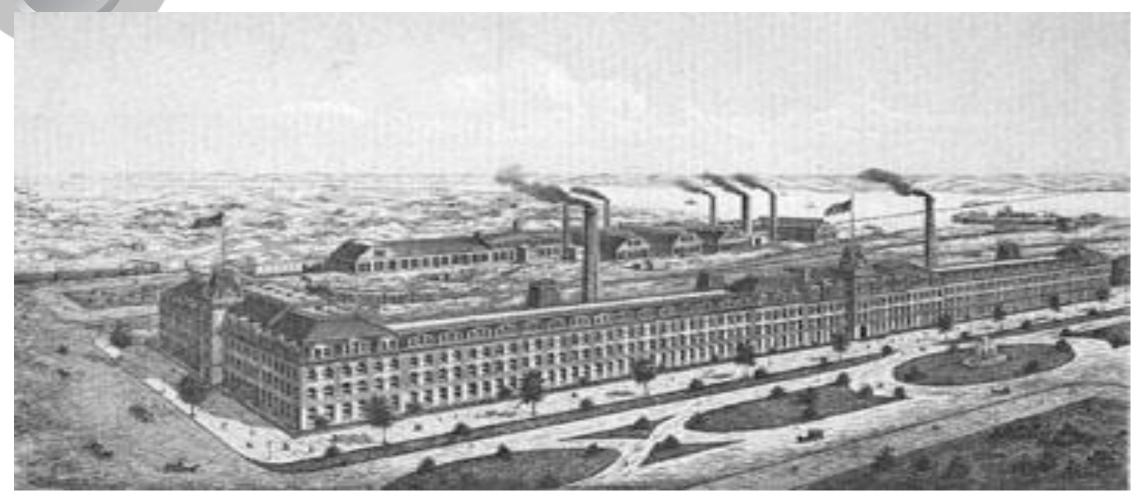
Grandpa Crane







Singer Sewing Machine Co.

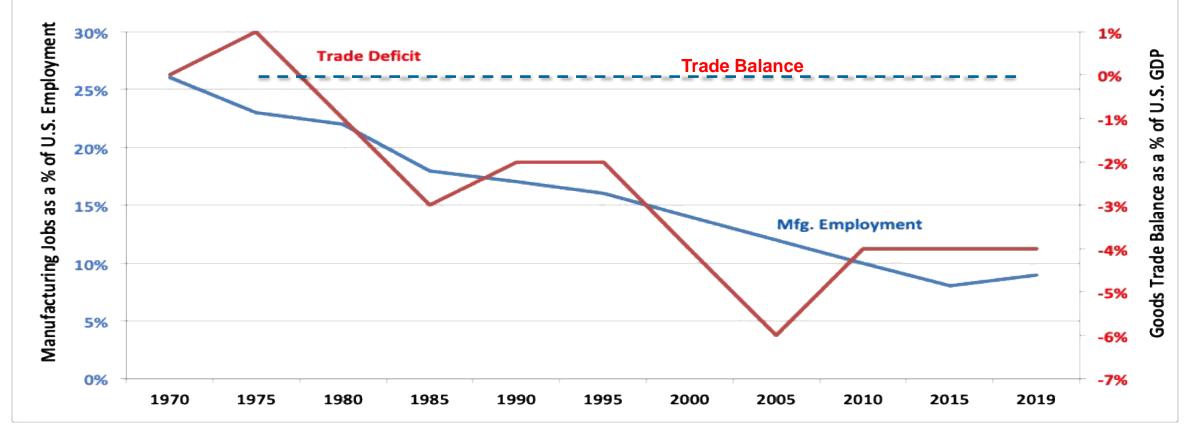






Trade Deficit Drove Jobs Down

U.S. Goods Trade Balance and Manufacturing Jobs 1970-2019



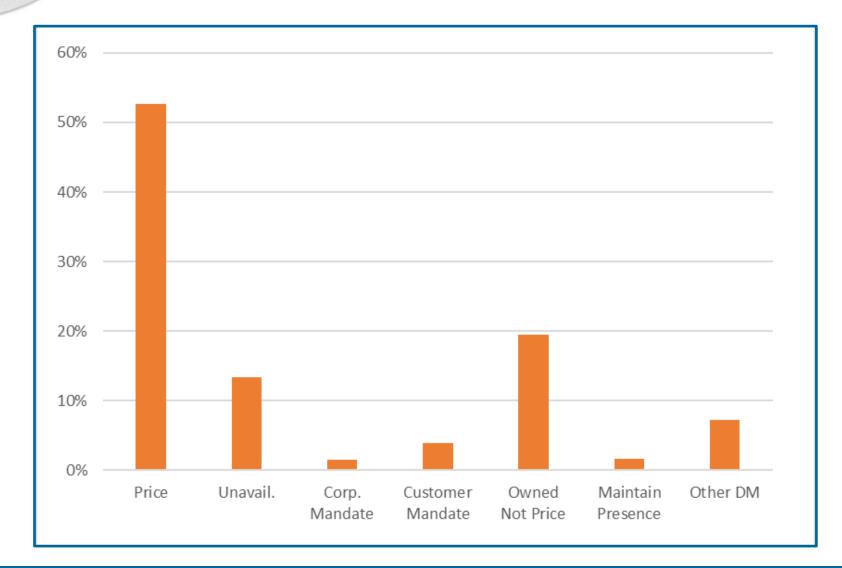


- More than half a century of supply chain globalization has been shaped by:
 - The invention of the modern intermodal shipping container (1950s)
 - The North American Free Trade Agreement (1990s)
 - China entering the World Trade Organization with subsequent U.S. trade policy changes (2000s)
 - The pursuit of low-cost, scalable consumer goods production

Internet & CNC

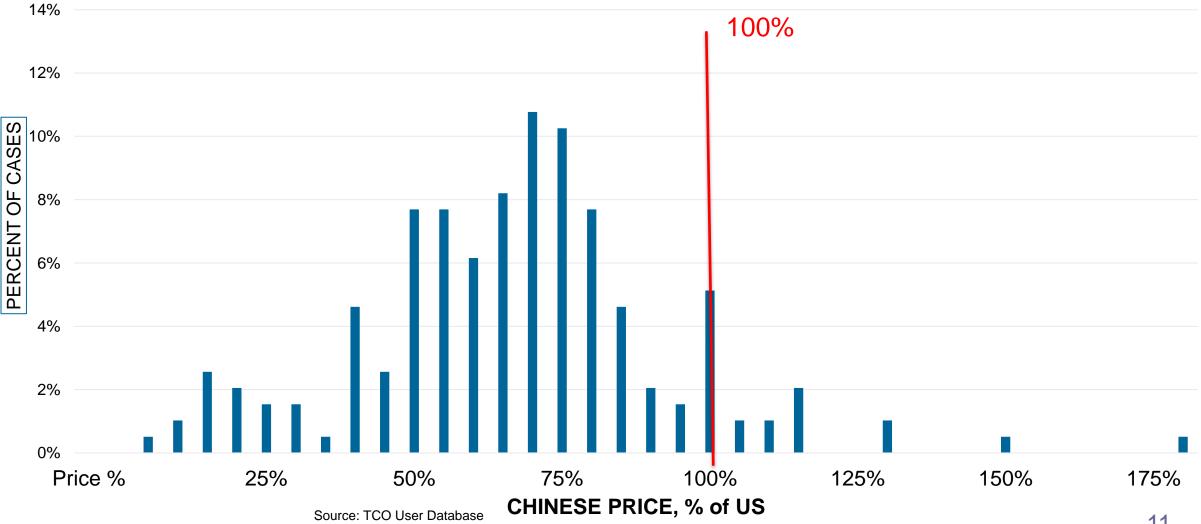
Source: **NAIOP Research Foundation**, Feb. 2024, "Forging the Future: Manufacturing Growth and Its Effects on North American Industrial Markets" https://www.naiop.org/globalassets/research-and-publications/report/forging-the-future-manufacturing-growth/naiop-2024-forging-the-future.pdf

Price Drives Offshoring



China FOB Price % of US

% Cases vs Price China % of US

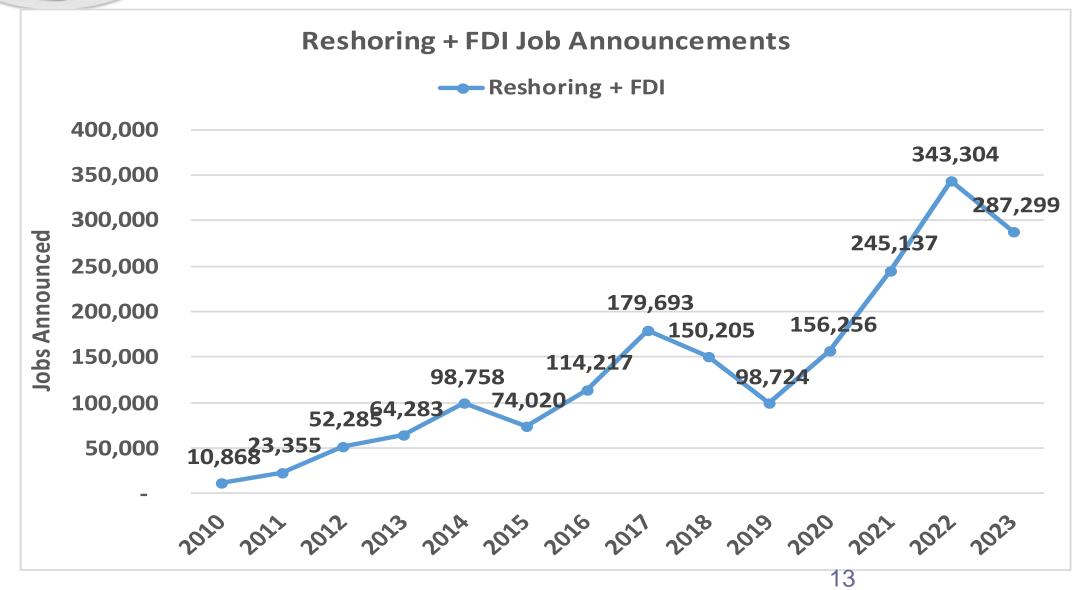


Restoring Balance

- Reshoring/Onshoring: U.S. companies bringing back manufacture of products that will be sold or assembled here.
- FDI (Foreign Direct Investment): Similar logic. Different owner.
- Localization: Producing near the consumer.
- Nearshoring: Mexico or Canada.
- Friendshoring: Other allies

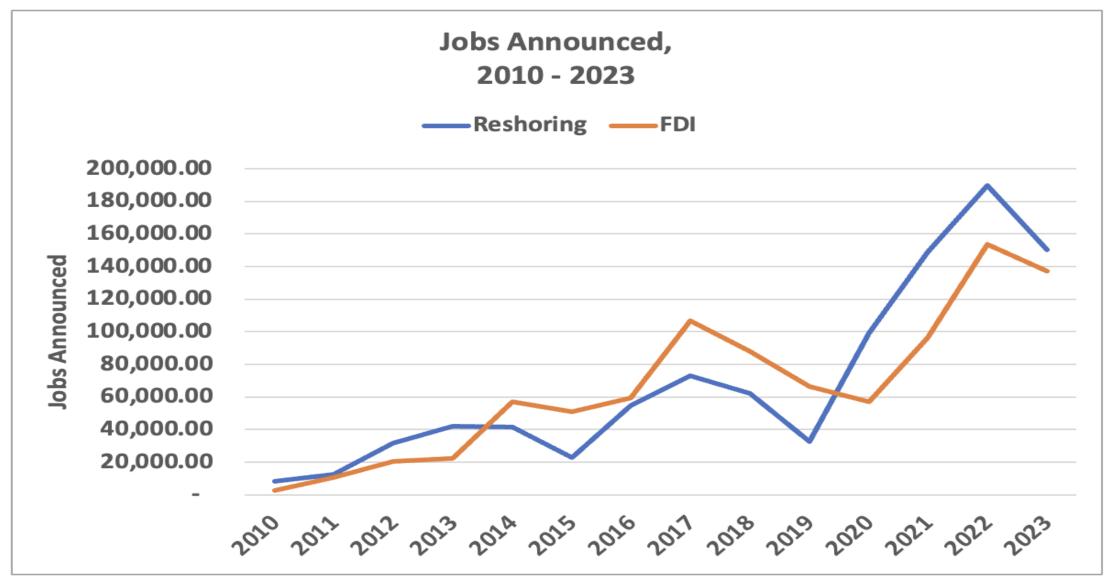


Reshoring + FDI Jobs Announced per Year



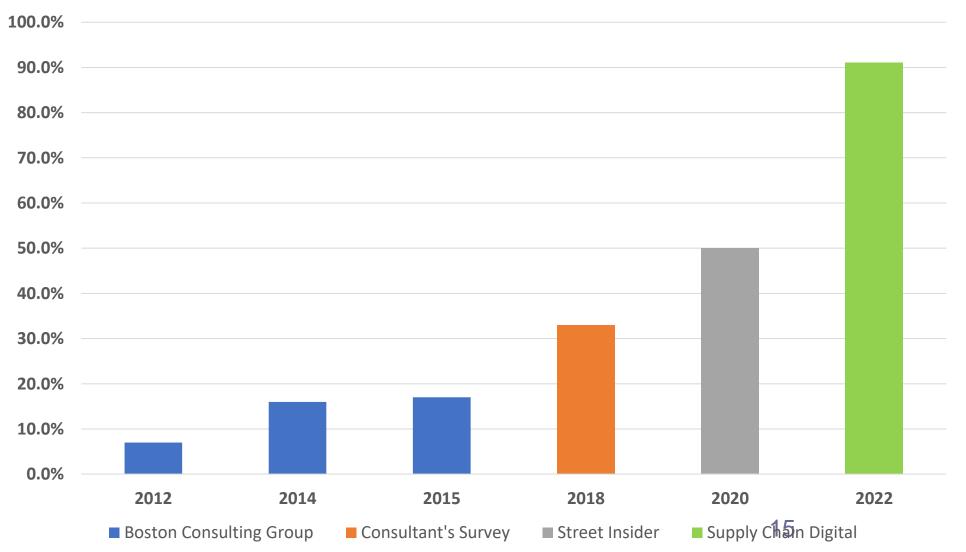
Source: Reshoring Library

Jobs Announced per Year





Percent of Companies Actively Reshoring



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2010 to 2020: Total Costs other than Price







Hard







Risks & Strategic













2021 & 2022: Dependencies





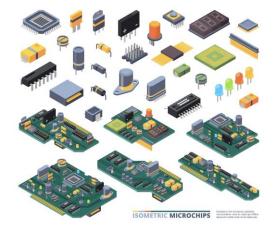












Disruptions







Geopolitical Tensions With China Threaten Supply Chains

- Commentary: Paul Bingham, director of transportation consulting in the economics and country risk division of S&P Global.
- "you'd be foolish to depend on a steady supply at a low cost from China, given what might happen geopolitically"
- "By diversifying supply chains you're buying insurance, which is really what it boils down to, so that your business can survive if there is ever an enormous disruption in the relationship with China."

Source: Freight Waves and American Shipper, October 14, 2022, "Global trade at the crossroads: Risks from geopolitics, inflation loom", https://www.freightwaves.com/news/global-trade-at-crossroads-geopolitical-risks-loom-inflation-abounds

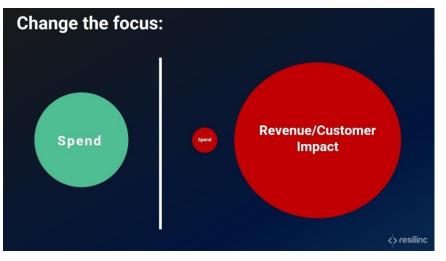
"A Chinese move against Taiwan, and the likely Western response, "is a contingency that everyone is planning for.

Tim Adams, chief executive of the Institute of International Finance

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Source: Bloomberg, Jan 15, 2023, "Energy, Chips, Taiwan: Flashpoints for 2023 in a Fractured World" https://www.bloomberg.com/news/features/2023-01-16/five-global-issues-to-watch-in-2023-chip-shortage-energy-chinataiwan?cmpid=BBD011623_TRADE&utm_medium=email&utm_source=newsletter&utm_term=230116&utm_campaign=trade#xj4y7vz kg

Supply Chain Focus Reset: From Cheapest Price To Revenue Impact



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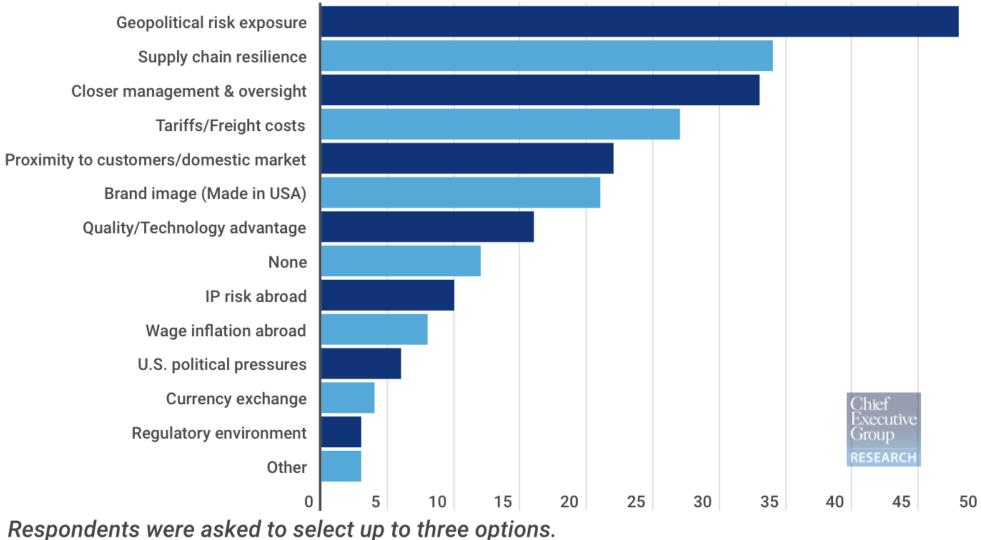
"Change in mindset, from focusing the most attention on suppliers with the largest spend to focusing on those supplying products with the greatest potential to cut into your company's topline. Revenue impact needs to be the new way to segment and define critical suppliers."

- Revenue impact = the new way to define critical suppliers
- Shift focus from largest spend to revenue impact
- Protect continuity of supply = protecting profits
- Shift from cost savings bonus targets to revenue impact bonus targets

Source: World Economic Forum, Oct. 18, 2022, "Resilient supply chains: Why every supplier counts" https://www.weforum.org/agenda/2022/10/supply-chain-resilience-manufacturing/

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What do you see as the main drivers for reshoring operations? (Select only the top 3)



Source: Chief Executive, May 2023, "Reshoring Revolution: A Special Report" https://chiefexecutive.net/special-report-reshoring-revolution/



Study: Geopolitical Risk Has

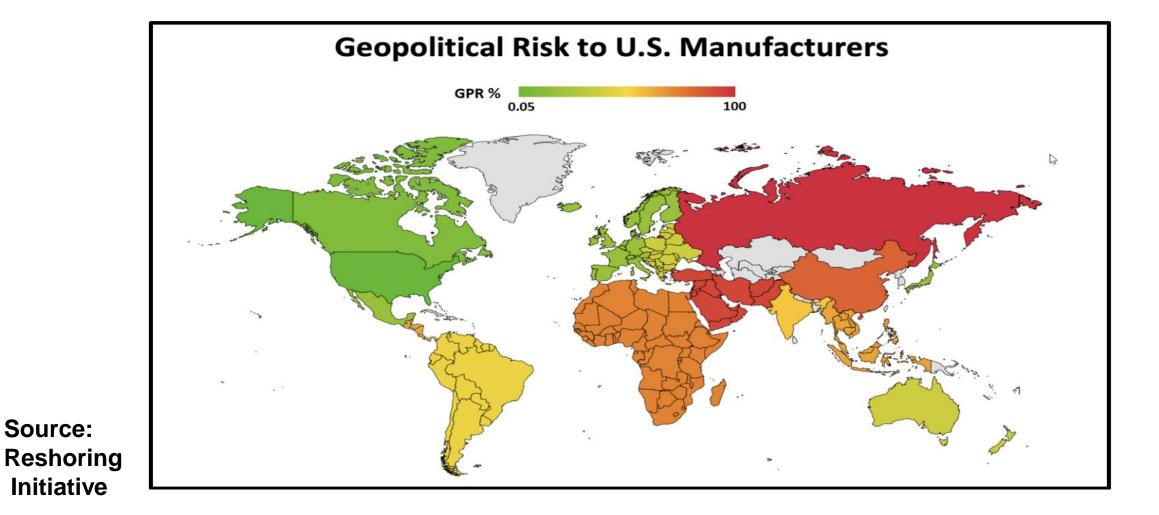
Skyrocketed Study: Oxford Analytics, April 2023 - 50 global companies

- 93% reported losses linked to political instability, up from 35%/2020
- 68% bought political risk insurance, covering war, civil wars, coups, gov't expropriations, up from 25%/2019
- 48% predict deglobalization will significantly strengthen, up from 16% / 2022
- 42% predict decoupling from China will significantly increase, up from 12% / 2022

Source: Foreign Policy, "Companies Thought They Could Ignore Geopolitics. Not Anymore." https://foreignpolicy.com/2023/04/19/geopolitics-business-war-risk-ukrainerussia-china-investment/?utm_source=PostUp&utm_medium=email&utm_campaign=FP This Week&utm_term=40880&tpcc=FP This Week; Oxford Analytica, April 18, 2023, "2023 Political Risk Survey Report" https://www.wtwco.com/en-US/insights/2023/04/2023-political-risk-survey-report

Risk of Decoupling: % Probability/Year







- WWII: U.S. was self sufficient / underutilized capacity. Singer example.
- Now:
 - Low defense inventories, older equipment, labor shortage
 - Import 50% of consumption, 25% of that from China and Taiwan
 - In case of war: Dependent on imported material and equipment. Must rapidly increase production ≈30% to replace key imports and supply defense materiel



- "It is cheaper to sustain a favorable order than rebuild one that has been shattered."
- "The US must find, in wars that are already occurring, the urgency needed to prepare for what may come."
- "Use what wars in Ukraine and the Middle East have revealed about a deteriorating global order — and a feeble defense industrial base — to impel the larger rearmament program that can ease those tradeoffs by expanding America's overall production capacity."

Hal Brands, Henry Kissinger Distinguished Professor

at Johns Hopkins University's School of Advanced International Studies

Source: Bloomberg, March 17, 2024, "It's Looking a Lot Like World War II Out There" <u>https://www.bloomberg.com/opinion/features/2024-03-17/it-s-looking-like-world-war-ii-out-there-with-russia-china-</u> <u>iran?cmpid=BBD031824_BIZ&utm_medium=email&utm_source=newsletter&utm_term=240318&utm_campaign=bloombergdaily</u>



Increase Industrial Capacity

• At a given GDP/level of consumption, the only way to increase production is to reshore. To substitute domestic products for imports.

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ESG is a Corporate Issue. Reshoring is a Solution

• Environmental:

- Cleaner electricity generation
- Much less transport and disposal
- Fewer but higher value goods

• Social:

- No forced labor
- Restore hollowed-out middle-class
- Local communities, workplace safety

• Governance:

• Align stakeholder interests: community, employees, suppliers, shareholders

Minimal corruption

Manufacturing: Once Again A Core Competence

 "Globalization is in retreat ... Governments and firms are examining connections to minimize exposure to possible causes of economic damage and social turmoil" - wrote UK-based Barclays economists Christian Keller and Akash Utsav, July 13 2022

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Source: Wall Street Journal, July 25, 2022, "Wall Street Expects Companies to Bring Workers, Supply Chains Home" <u>https://www.wsj.com/livecoverage/stock-market-news-today-25-7-22/card/wall-street-expects-companies-to-bring-workers-supply-chains-home-</u> CM IIIwW23yZbbdaNTblo

"Globalization Hurts The Vulnerable"

On Globalization: *"We want to encourage as much flows of ideas around the world as we can, but we don't have to worry so much about the flows of objects because we don't get much benefit from the trade in the objects. It's the trade in ideas that is essential for faster growth."*

On the impact of globalization on high school graduates: *"High school educated are dying younger, they are dying from deaths of despair. These are underlying indicators that tell us life is not getting better, it is getting worse for a large fraction of people here in the US."*

Nobel Laureate Paul Romer, economics professor at Boston College

Source: Bloomberg, February 22, 2024, "Nobel Laureate Paul Romer Says Free Trade Hurts the Vulnerable" <u>https://www.bloomberg.com/news/articles/2024-02-22/nobel-laureate-paul-romer-says-free-trade-hurts-the-</u>

vulnerable?cmpid=BBD031324_TRADE&utm_medium=email&utm_source=newsletter&utm_term=240313&utm_campaign=trade

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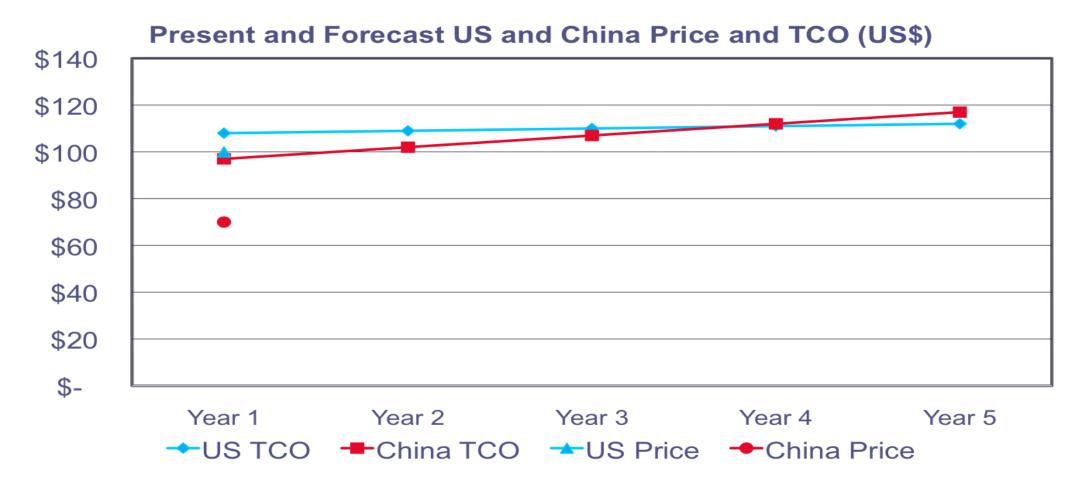
Companies: "U.S. is too Expensive" We Respond: Not if Companies Use TCO

60% of manufacturers:

- Apply "rudimentary" total cost models
 - Wage Arbitrage: Wage cost comparison
 - PPV (Purchase Price Variance): vs. existing domestic source
 - Landed Cost: Assumes slow, cheap freight
- Ignore 20% or more of the total cost of offshored products
 Also applies to BOP, call centers & IT

Use of TCO: Free Online





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Chinese Price and

TCO, % of **U.S**.

Chart Title

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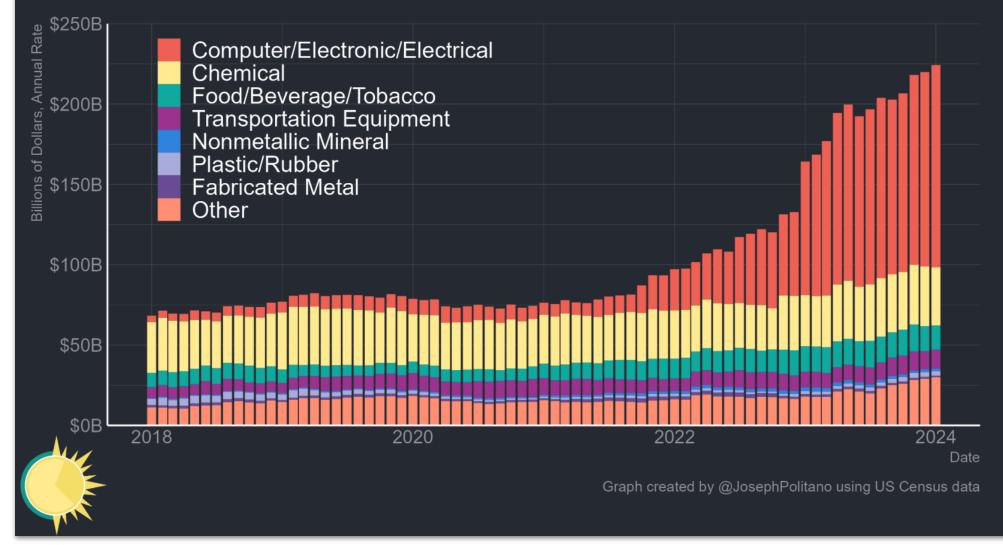


- 30% mfg. cost difference is hard to overcome. ROI negative
- 5% TCO difference. Much easier. ROI positive

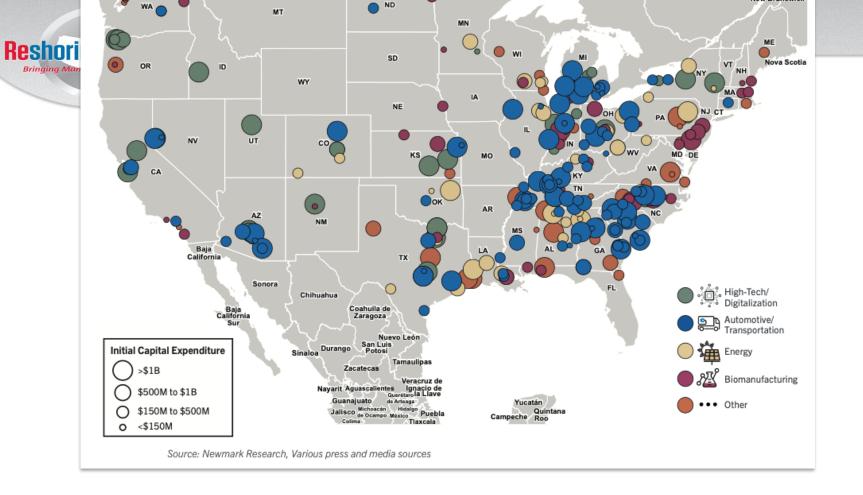
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US Manufacturing Construction Spending

Computer/Electronic Manufacturing Makes Up More Than 50% of Manufacturing Construction



Source: Source: March 1, 2024; Graph created by @JosephPolitano using US Census data, https://twitter.com/JosephPolitano/status/1763611580292292637/photo/1



Source: NAIOP Research Foundation, Feb. 2024, "Forging the Future: Manufacturing Growth and Its Effects on North American Industrial Markets" https://www.naiop.org/globalassets/research-and-publications/report/forging-the-future-manufacturing-growth/naiop-2024-forging-the-future.pdf

How to Benefit



- Use TCO for buying and selling smarter
- Import Substitution Program
- Promote:
 - Reshoring on your website
 - Helping customers achieve JIT
- Apply for Metalworking Reshoring Award

Apply for National Metalworking Reshoring Award

• 2024: Main Stage IMTS

Apply

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2021 Winner: Acme Alliance



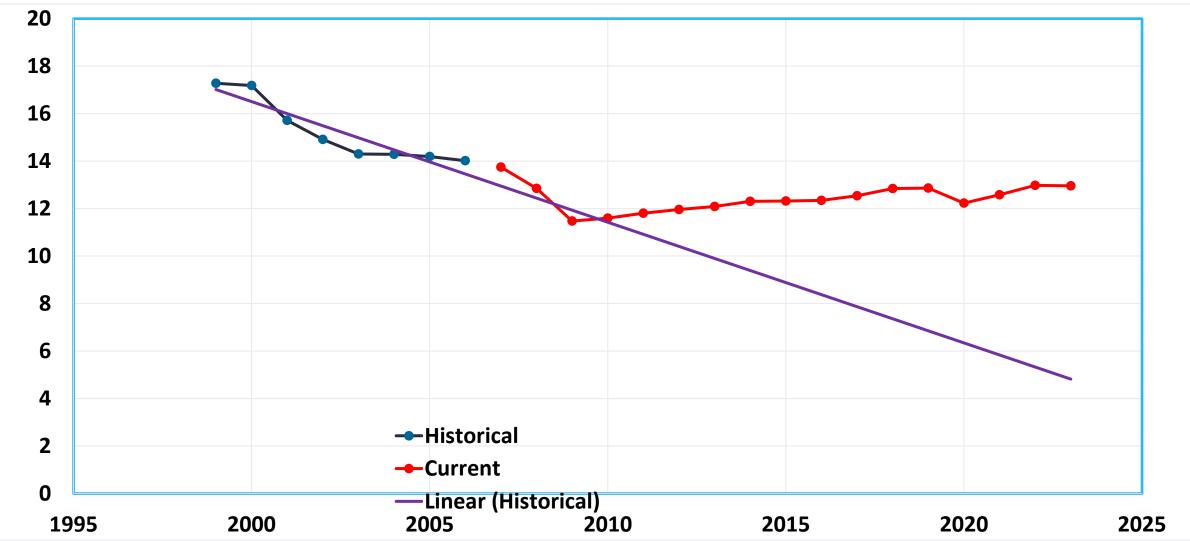
National Metalworking RESHORING AWARD



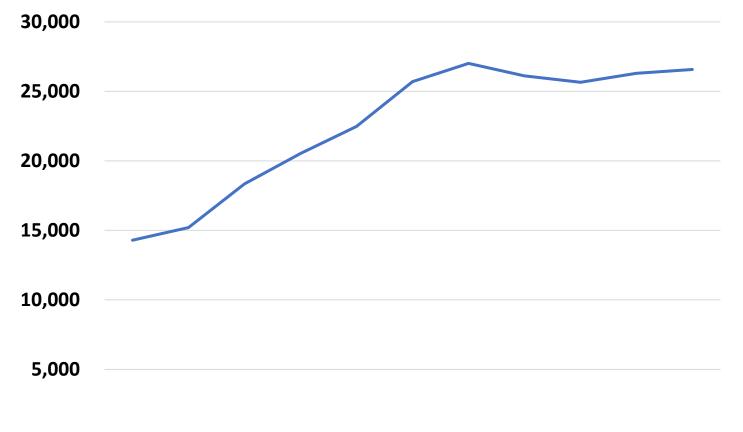
- Do you receive many components or products from China, Taiwan and nearby countries?
- Do your U.S. suppliers?
- Are any subject to the 25% Section 301 tariff?
- If all products from China, Taiwan and nearby countries stop coming, how severe would the impact be?
- Are you planning on reshoring any of those products now as insurance?
- If not, why not?

Reshoring Initiative Mfg. Employment is Beating the Trend by 7 Million

BLS Manufacturing Employment, Millions







2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

Source: BLS. <u>https://www.apprenticeship.gov/data-and-</u> <u>statisticstps://https://www.apprenticeship.gov/apprenticeship.gov/data-and-statistics</u>

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"Underemployment Is A Large And Persistent Problem"

"In spite of a historically tight labor market, the underemployment of college graduates remains stubbornly high. Overall, 52 percent of graduates are underemployed a year after graduation. Even a decade after graduation, 45 percent of graduates are underemployed"

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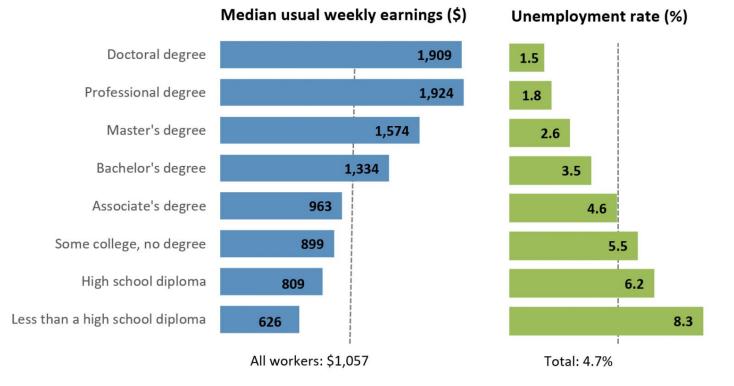
Source: Source: Strada Education Foundation, The Burning Glass Institute, February 2024, "Talent Disrupted, College Graduates Underemployment and the Way Forward" https://stradaeducation.org/wp-content/uploads/2024/02/Talent-Disrupted-1.pdf?utm_source=StradaEducation.org&utm_medium=Website&utm_campaign=TalentDisrupted&utm_content=DownloadButton

U.S. Must end "College for Everyone"

Education pays

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Earnings and unemployment rates by educational attainment, 2021



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers. Source: U.S. Bureau of Labor Statistics, Current Population Survey.



- 2022 study from the American Apprenticeship Initiative Evaluation
 - "more than 90% reported that their apprenticeship programs led to improvements in their talent pipelines and increased employee loyalty."
- Reshoring: Loyalty to workforce \rightarrow Loyalty to employer

Ray Dalio Founder, Bridgewater Associates

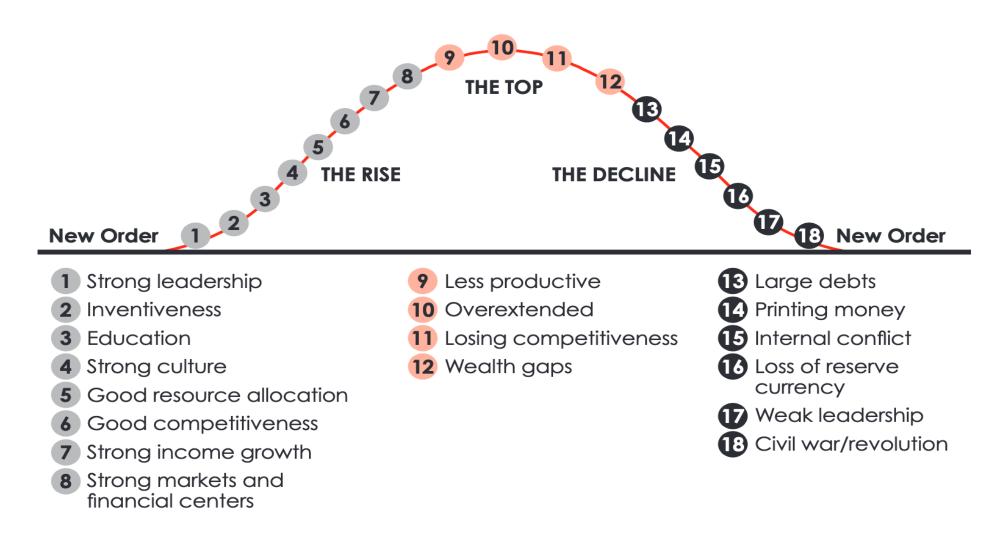




Key Determinants of Change

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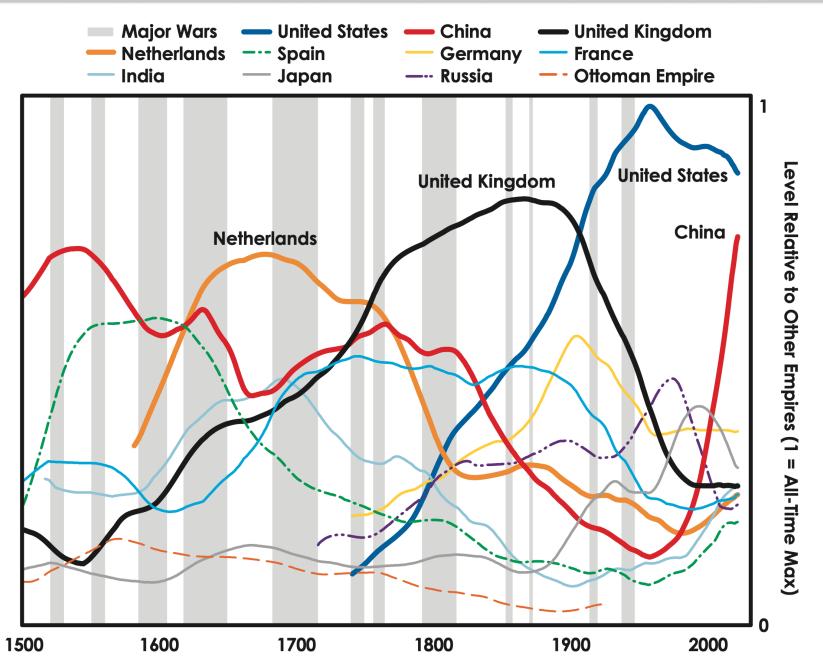
THE CHANGING WORLD ORDER



Source: Dalio, R.: Principles for dealing with the changing world order. 46 2021.

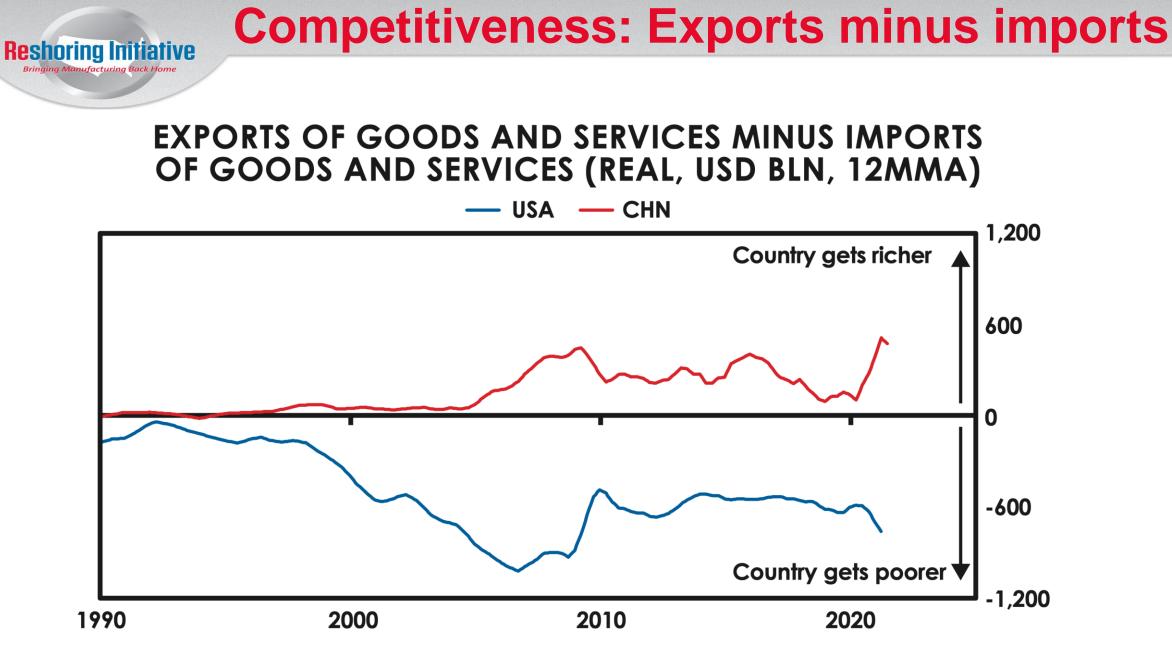
Relative Standing of Great Empires





Source: Dalio, R.: Principles for dealing with the changing world order. 2021.

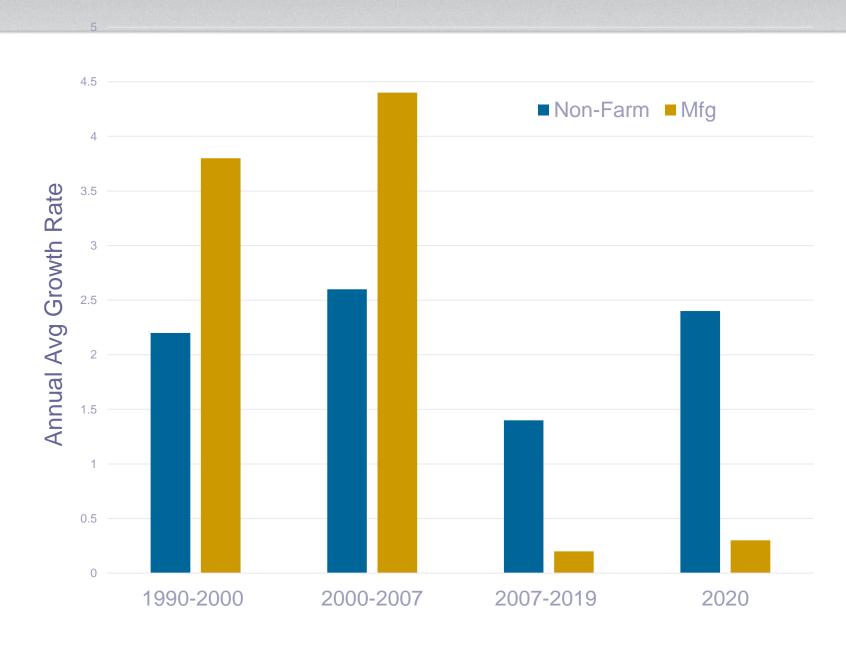
47



Source: Dalio, R.: Principles for dealing with the changing world order. 48 2021.

US Productivity

Non-Farm Business & Manufacturing % Change



Reshoring Initiative Bringing Manufacturing Back Home Low Productivity: Impact of U.S. Trade Deficits

- Last 20 to 30 years:
 - China grew fast, attracted foreign investment and technology, has modern infrastructure and factories, confident
 - U.S. grew slowly, low capacity utilization, older factories, malaise

Xfinity Series Race 3:30pm June 22 New Hampshire Motor Speedway.







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Ride the Reshoring Wave!

Contact: Harry Moser Founder and President 847-867-1144 harry.moser@reshorenow.org www.reshorenow.org Useful links: <u>Total Cost of Ownership Estimator™</u> <u>Skilled Workforce</u> <u>Import Substitution Program</u> <u>Supply Chain Gaps</u>