



Contemporary Trade Issues

OLLI, Santa Clara University
May, 2022
Adina Ardelean, Ph.D.

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National Economic Education Delegation

- **Vision**
 - One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.
- **Mission**
 - NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.
- **NEED Presentations**
 - Are **nonpartisan** and intended to reflect the consensus of the economics profession.

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Who Are We?

• Honorary Board: 54 members

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
 - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
 - o Akerlof, Smith, Maskin

• Delegates: 645+ members

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

• Global Partners: 48 Ph.D. Economists

- Aid in slide deck development

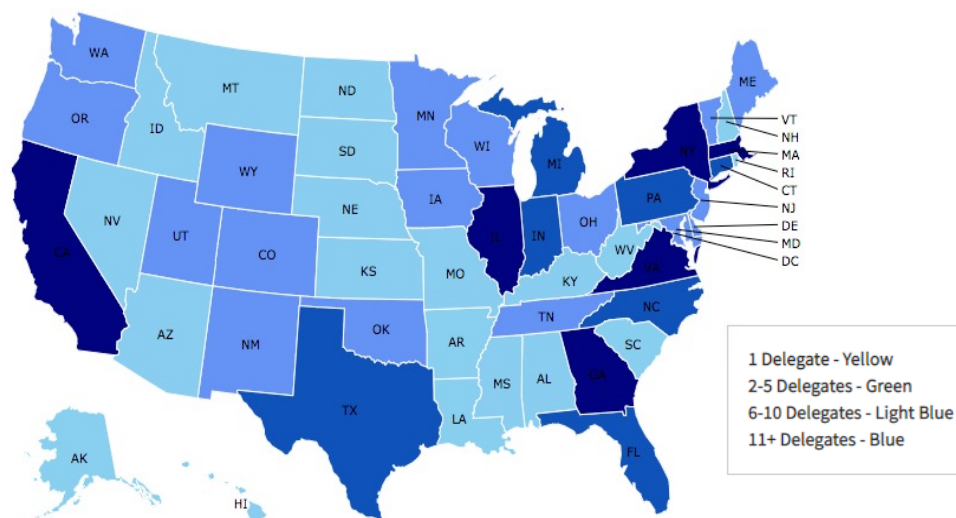


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Where Are We?



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Credits and Disclaimer

- **This slide deck was authored by:**

- Peter Eppinger, University of Tübingen
- James Lake, Southern Methodist University
- Michael Plouffe, University College London
- Swati Verma, ISID, New Delhi

- **This slide deck was reviewed by:**

- Alan Deardorff, University of Michigan
- Ed Leamer, UCLA

- **Disclaimer**

- NEED presentations are designed to be nonpartisan.
- It is, however, inevitable that the presenter will be asked for and will provide their own views.
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Trade Summary

- **Trade and growth are positively related.**
- **Gains from trade can be widespread (lower prices for consumers).**
- **Losses from trade can be highly concentrated.**



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Outline

- Distributional Impact of International Trade
- Recent U.S. Trade Policy



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DISTRIBUTIONAL IMPACTS



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Intuition on Distributional Impacts

• Jobs

- U.S. imports more of some goods
 - Reduces jobs on those industries
- U.S. exports more of other goods
 - Creates jobs in those industries
- *Are there different kinds of workers in these different industries?*
- *Creates adjustment costs*

• Prices

- LOWERS the price on imported products
- RAISES the price on exported products
- *Who buys which products?*



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What Does the Data Say? Trade Benefits Some Workers

• Trade liberalization raises wages at “most globalized” firms

- Wages higher because
 - lower tariffs on imported inputs used by firm
 - lower tariffs on products sold by exporting firms



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What Does the Data Say? Trade Hurts Some Workers

- **Some parts of US highly exposed to import competition.**
 - Workers tend to be “stuck” in these locations and/or industries and lose jobs.
 - And, their communities lose customers.
- **Effects of Chinese import competition: 1990-2007**
 - Higher unemp, lower labor force participation & wages in exposed locations
 - o Accounts for nearly 25% of manuf employment decline
- **Effects of NAFTA-led US tariff cuts on Mexico**
 - For workers without a college degree
 - o Up to 8% point lower 1990s wage growth in highly exposed locations
 - o Up to 17% point lower 1990s wage growth in highly exposed industries



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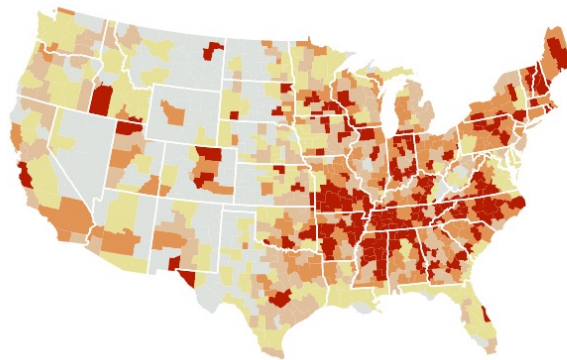
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China Shock

Most-affected areas of the U.S.

Colors show which areas were most affected by China's rise, based on the increase in Chinese imports per worker in each area from 1990 to 2007. Hovering over each area on the map will show a demographic breakdown of that area, below, and its most-affected industries, at right.

Most-affected 20% Second-highest 20% Middle 20% Second-lowest 20% Least-affected 20%



Most-affected industries

Most-affected industries, based on number of areas* Impact per worker†

Furniture and fixtures	196 areas	\$44k
Games, toys, and children's vehicles	114 areas	\$488k
Sporting and athletic goods	106 areas	\$82k
Electronic components	87 areas	\$65k
Plastics products	84 areas	\$71k
Motor-vehicle parts and accessories	79 areas	\$12k
Electronic computers	68 areas	\$207k



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Source: <https://chinashock.info/>

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What Are The Effects of Offshoring on Employment and Wages in the U.S.?

- **Two main effects on US workers expected in theory:**

1. Negative relocation effect → Job losses and lower wages
2. Positive productivity effect: Cost savings increase competitiveness
→ Job growth and higher wages
→ *Ambiguous net effect* in theory

- **Extreme example for the productivity effect: Apple Inc.**

- Has offshored most production activities and become a “factoryless” firm
- Employs 80,000 US workers in R&D, design, marketing,... (and growing)

- **Other concerns: inequality (skill bias), national security**



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Empirical Evidence on The Effects of Offshoring

- **Offshoring of manufactured goods and components**

- ... might have positive or negative employment effects → mixed evidence
- ... tends to reduce domestic wages in offshored occupations
- ... hurts low-skilled workers more and can increase income inequality
- ... boosts industry output and firm productivity

- **Offshoring of services**

- ... is a much smaller phenomenon (little data)
- ... seems to have more favorable, non-negative employment effects



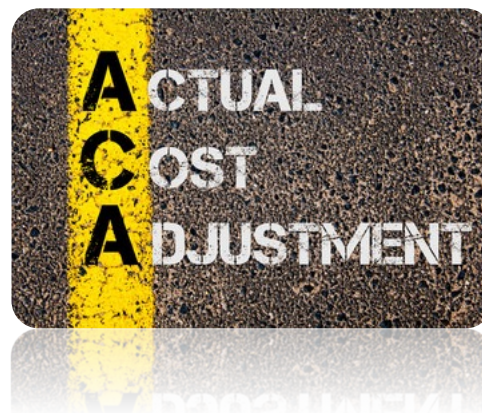
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Costs of Trade

- We have known for almost 80 years that trade with low-wage countries will lower the earnings of low-wage workers as a group in the U.S.A. (Stolper-Samuelson 1941)
- Perhaps more importantly, however, is that the adjustment costs, or what some call transition costs, are much larger than previously thought. People do not like to move and getting laid off can be very traumatic.
- Recent economics studies have estimated the costs of trade across many different groups.
 - Inequality
 - Adjustment costs



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Understanding Adjustment Costs

• FIRMS

- Searching for new workers
- Training
- Adjusting to the new employees/integration
- Firing costs/severance pay



• WORKERS

- Psychological costs of leaving a job, friends
- Loss of firm-specific or industry-specific skills
- Search costs for a new job
- Relocation costs (e.g. moving to a new location)



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Estimates of Adjustment Costs

• FIRMS

- Estimates from developed countries suggests that costs are high
- High adjustment costs cause firms to hire and fire in large groups, rather than gradually
- Estimates from developing countries suggest that firm-level adjustment costs are much lower than in developed countries

• WORKERS

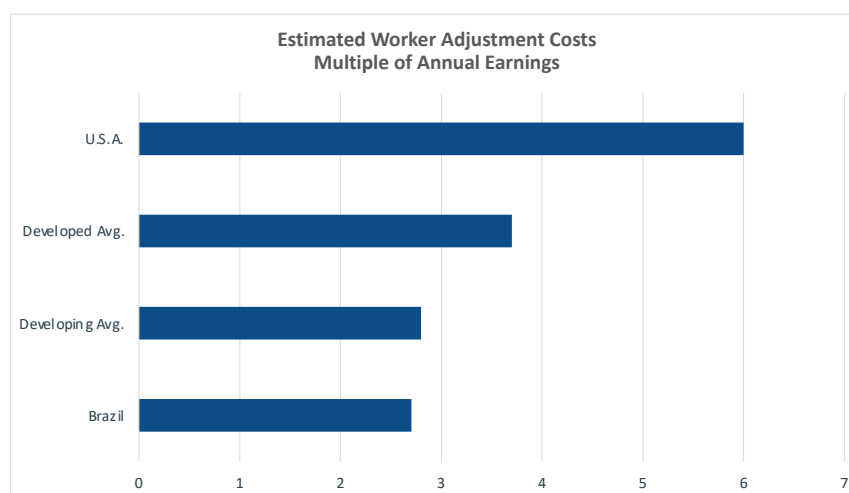
- New estimates in the last 10 years
- Estimate costs by looking at wage differences and how many workers do NOT move. Adjustment costs must be at least that high



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Estimated Costs to Workers of Changing Jobs



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Characteristics of Adjustment Costs

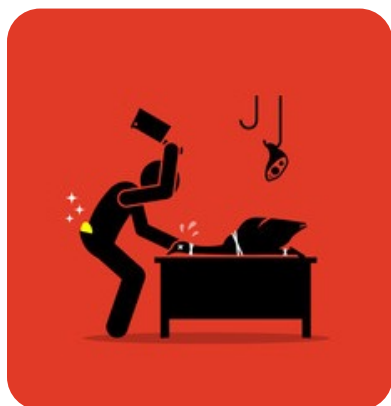
- **Some regions get hit especially hard when imports increase**
 - Production of some goods is highly concentrated geographically
 - USA: Detroit (autos), El Paso (apparel), South Carolina (Textiles)
 - Local unemployment rates can be very high, even when national rates are low
- **Term “adjustment costs” understates impact on affected workers**
 - “Adjustment” may take a generation or more. Kids may take different jobs than parents
 - For affected workers, the effect may be permanent
 - Wages are never recovered
 - Psychic costs of job loss can be very long-lasting and affect families
- **Adjustment costs can reduce gains from trade significantly**



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Why Adjustment Costs Matter



- Adjustment costs can undermine the popular support for trade
- Falling popular support for trade in the face of concentrated losses threatens to “kill the goose that lays the golden egg”
- Adjustment costs reduce welfare
- Adjustment costs suggest potential for efficiency gains. If we can make (labor) markets more efficient, then the whole economy could realize significant gains



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Distributional Impacts of Trade: Unemployment

- **Generally, trade theory has nothing to say about unemployment.**
 - Trade is primarily about reallocating resources
 - Some sectors expand, other sectors decline
 - o Labor, capital, land etc. move from import-competing to exporting sector
 - Typical assumption in trade theory models...
 - o this reallocation happens costlessly and immediately
- **However, recent empirical evidence suggests otherwise.**
 - Workers can face very large costs of moving between sectors or locations
 - Rising exposure to import competition can...
 - o Increase unemployment, reduce labor force participation

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Trade is Not a Driving Force of Unemployment

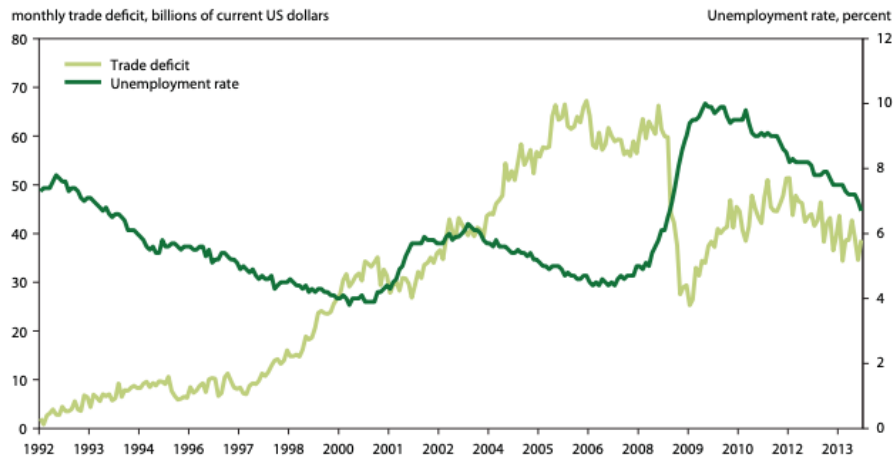
- Import competition may contribute to factories closing and job loss, but there are many other factors that also contribute to job loss.
- The national unemployment rate is driven by business cycles, and not by trade.
- Over the same period shown in the graph, trade has been rising.



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Trade Deficit and Unemployment

Figure 2 US trade deficit and unemployment rate, 1992–2013



Source: Federal Reserve Bank of St. Louis, <http://research.stlouisfed.org/>.



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Source: Hufbauer et al. (2014) "NAFTA at 20: Misleading Charges and Positive Achievements", PIIE

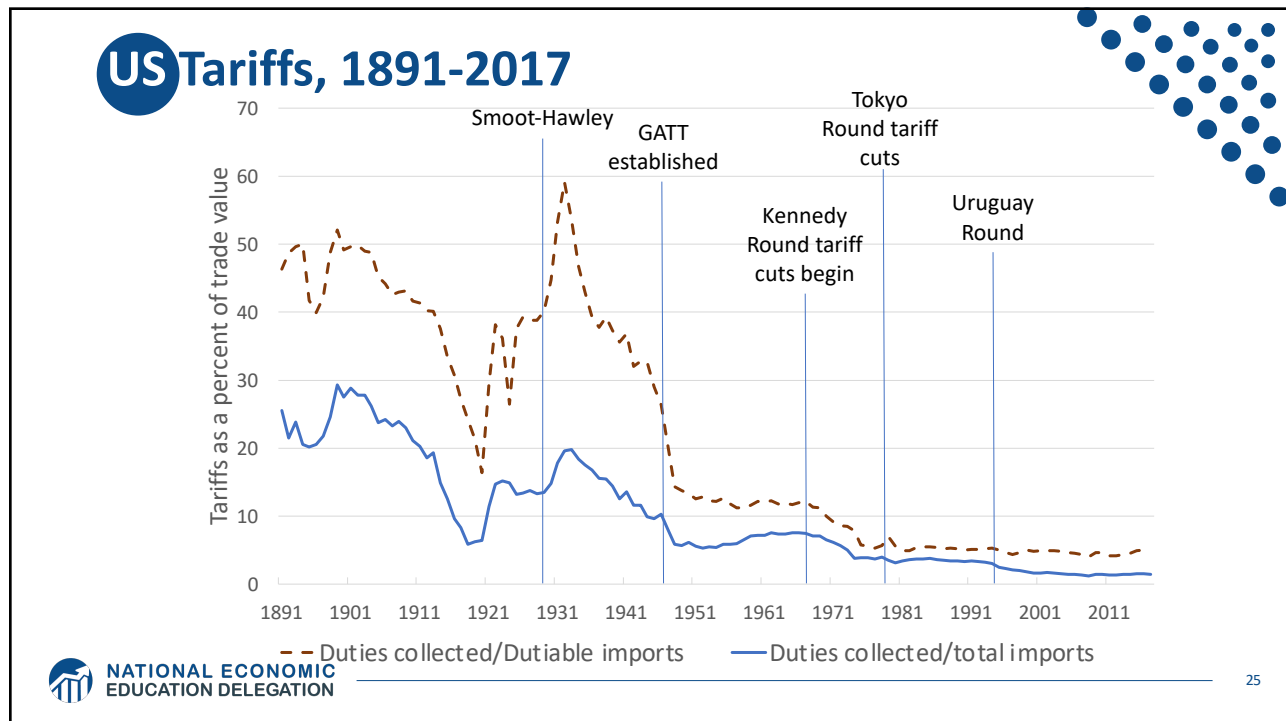
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U.S. Trade Policy



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US Trade Policy

- Barriers against import surges and imports of unfairly traded products
- Bilateral and multilateral trade agreements to increase market access for U.S. exports
- Leadership in GATT/WTO
- Non-discrimination

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US Trade Policy in Practice: Congress

- **Constitution gives Congress exclusive power over trade policy**
 - Frequently passes “Miscellaneous tariff bills” (MTB)
 - o Temporarily remove tariffs on thousands of products
 - o Sept 2018 MTB: chemicals, footwear, toasters, 1600 other products
 - Tariff Act of 1930 implemented the Smoot-Hawley tariffs
 - o 50% increase in US tariffs
 - o Highest US tariffs over 1828-2018 period
- **Congress has delegated much authority to the Executive**
- **Main historical uses of Executive authority**
 - Negotiating reciprocal trade agreements (e.g. WTO and FTAs)
 - o 1934 Reciprocal Trade Agreements Act, now “trade promotion authority”
 - Temporary trade barriers (TTBs) via Tariff Act of 1930



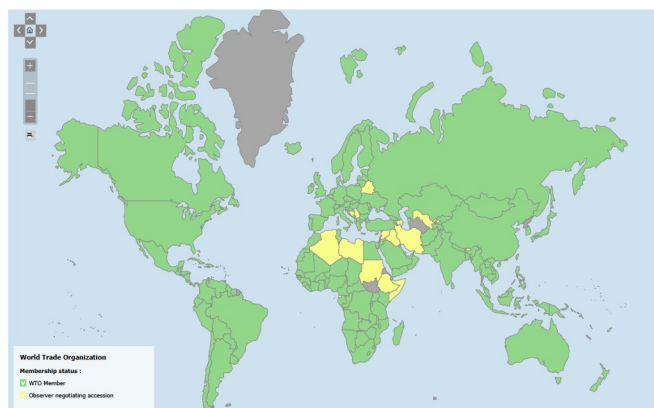
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- **Multilateral Trade Agreement**
 - 164 member countries
 - Includes: China since 2001, Russia since 2012, Not Iran, N. Korea
 - Headquarters: Geneva, Switzerland
- **First established in 1947 as G.A.T.T. (23 member countries)**
- **Last completed round of negotiations: Uruguay Round in 1994.**



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US Trade Policy in Practice: Congress & WTO

- **Congress passed legislation committing US to WTO rules**

- 1994 Uruguay Round Agreements Act
- WTO built on 1947 GATT rules

- **Basic rule: Most Favored Nation (MFN) principle**

- Impose same tariff, the “MFN tariff”, on all WTO members
- Committed to upper bounds on these MFN tariffs
 - Average 2017 US MFN tariff (upper bound or applied): 3.4%



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US Trade Policy in Practice: Congress & WTO

- **Key exceptions to principle of MFN tariffs**

- **Free Trade Agreements (FTAs, e.g. NAFTA)**

- Eliminate tariffs between FTA members (for nearly all products in US FTAs)
 - Other rules: non-tariff barriers, product standards, trade disputes
- US trade with FTA partners: 35% of imports, 42% of exports

- **Below MFN tariffs for developing countries**

- “GSP” program & other similar programs

- **TTBs**

- TTB tariffs can violate non-discrimination and upper bounds



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WTO Dispute Settlement

- **Streamlined process to resolve trade disputes between member countries**

- WTO “panels” and “Appellate Body” decide
- 612 cases initiated since 1995
- US has won 132 cases and lost 168 cases.
- Unable to decide cases since December 10, 2019 when
 - o President Trump blocked appointments to Appellate Body
 - o President Biden has not changed this.



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The Role of Trade Agreements

- **Promote trade by**

- Reducing tariffs
- Blocking policies that discriminate against imports

- **They also do more, mostly to serve business interests:**

- Permit anti-dumping duties to deter competition
- Protect intellectual property
- Allow investor action against governments

- **Recent U.S. Trade Agreements:**

- KORUS (March 15, 2012)
- USCMA: renegotiation of NAFTA (July 1, 2020)



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NAFTA

- **Went into effect on January, 1, 1994.**
- **Overall trade and cross-border investment has increased.**
- **Tight integration of North American supply chains.**
- **The effect on jobs and wages:**
 - At most 5% of annual job churn, ~ 200,000 jobs
 - 188,000 new jobs each year due to increased exports to Mexico.
 - New jobs pay 7-15% more than the import-competing jobs.
 - No significant effect on US wages in the manufacturing sector.
- **Increased imports benefited consumers and US firms, raising their productivity.**
- **Modest positive impact on U.S. GDP.**



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Source: Hufbauer et al. (2014) "NAFTA at 20: Misleading Charges and Positive Achievements", PIIE

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USCMA

- **Stricter environmental policies and requirements for wages**
- **Encouraged digital trade and curbed state-owned enterprises**
- **Additional requirements for autos to qualify for NAFTA's low tariffs:**
 - The North American content requirements in cars increased from 62.5% to 75%.
 - 70% of producer's steel and aluminum purchases must originate in North America
 - A certain percent of qualifying vehicles must be produced by employees making an average of \$16 per hour.
- **Increased U.S. access to Canadian dairy market by about 3.6%.**
- **Eliminated investor-state disputes between US and Canada.**



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US Trade Policy in Practice: Bureaucracy

- **Until recently, most frequent use of new US tariffs: TTBs**
 - Anti-dumping duties (AD)
 - Tariffs imposed on foreign firms selling below fair value
 - Countervailing duties (CVD)
 - Tariffs imposed on foreign firms receiving foreign government subsidies
- **ADs and CVDs processes managed by bureaucracy**
 - Congress delegated this power in Tariff Act of 1930
 - Department of Commerce and USITC both have veto power
 - USITC: US International Trade Commission
 - ADs and CVDs imposed on 928 occasions 1980-2016
 - Sep 2018: USITC rules against ADs in the Boeing-Bombardier CS100 dispute
 - Aug 2018: AD on large diameter welded pipe from Canada & other countries
 - Sept 2018: CVD on Vietnamese laminated woven sacks

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US Trade Policy in Practice: Executive

- **Trump administration use of executive authority**
- **Safeguard tariffs (Trade Act of 1974, Section 201)**
 - If USITC agree import surge → major injury to industry: Executive power for temporary tariffs
 - Tariffs on imports of \$8.5bn solar panels, \$1.8bn washing machines
 - Historically: rare, used 11 previous times, last was 2002 Bush steel tariffs
- **National security tariffs (Trade Expansion Act of 1962, Section 232)**
 - If Commerce Department investigation finds evidence, Executive can impose tariffs
 - Tariffs on \$48bn of steel & aluminum imports
 - Historically: excluding oil imports, only used once
 - 1986 Reagan administration: metal-cutting and metal-forming machine tools

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US Trade Policy in Practice: Executive

- **Unfair trade practices tariffs (Trade Act of 1974, Section 301)**

- USTR established by the Trade Expansion Act of 1962
- and elaborates policies for the President and conducts negotiations
- USTR investigates unfair trade practices by foreign countries
 - o Aug. 2017: investigation into Chinese practices over US IP and technology
- Historically: used systematically pre-WTO, but rarely since WTO (122 since 1974; 1 since 2001)



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Summary of recent applications of barriers against import surges and imports of unfairly traded products

- **Trade Act of 1974**

- Section 201 (surges): solar cells, washing machines
- Section 301 (non-market activity): China forced technology transfer

- **Trade Expansion Act of 1962**

- Section 232 (national security): steel and aluminum

- **Trade Act of 1930**

- Anti-dumping and countervailing duties (cover about 80% of steel from China)



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Trump's Trade Actions

Panel A: Tariffs on U.S. Imports Enacted by U.S. in 2018

Tariff Wave	Date Enacted	Products	2017 Imports		Tariff (%)	
		(# HS10)	(mil USD)	(%)*	2017	2018
Solar Panels	Feb 7, 2018	8	5,782	0.2	0.0	30.0
Washing Machines	Feb 7, 2018	8	2,105	0.1	1.3	33.9
Aluminum	Mar-Jun, 2018	65	17,685	0.7	2.0	12.0
Iron and Steel	Mar-Jun, 2018	753	30,523	1.3	0.0	25.0
China 1	Jul 6, 2018	1,668	33,510	1.4	1.2	26.2
China 2	Aug 23, 2018	429	14,101	0.6	2.7	27.6
China 3	Sep 24, 2018	9,076	199,264	8.3	3.4	13.4
Total		12,007	302,970	12.6	2.6	17.0



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[Fajgelbaum et al. \(2019\), The Return to Protectionism, NBER Working paper # 25638, March 2019](#)

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US Trade Policy in Practice: Retaliation

• National security tariffs on steel & aluminum

- EU, CAN, MEX, CHN have retaliated with tariffs
- Proportionate to their US exports of steel & aluminum
- Targeted retaliation
 - o Industries reliant on foreign markets (e.g. pork)
 - o Farmers (fruits & nuts), household goods (ketchup, mowers)
 - o Politics: KY bourbon, WI ginseng & Harleys, CA Levi jeans

• Unfair trade practices tariffs on China

- o EX: Soybeans and cars (largest and 3rd largest US exports to China), chemicals, medical equip, oil



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Retaliation to Trump's Trade Actions

Panel B: Retaliatory Tariffs on U.S. Exports Enacted by Trading Partners in 2018

Retaliating Country	Date Enacted	Products	2017 Exports		Tariff (%)	
		(# HS10)	(mil USD)	(%)*	2017	2018
China	Apr-Sep, 2018	1,997	60,522	3.9	7.8	22.7
Mexico	Jun 5, 2018	232	6,746	0.4	9.5	27.4
Turkey	Jun 21, 2018	240	1,554	0.1	9.9	30.1
European Union	Jun 22, 2018	303	8,244	0.5	4.0	29.3
Canada	Jul 1, 2018	323	17,818	1.2	2.1	20.1
Russia	Aug 6, 2018	162	268	0.0	5.0	36.7
Total		3,135	96,045	6.2	6.5	23.3



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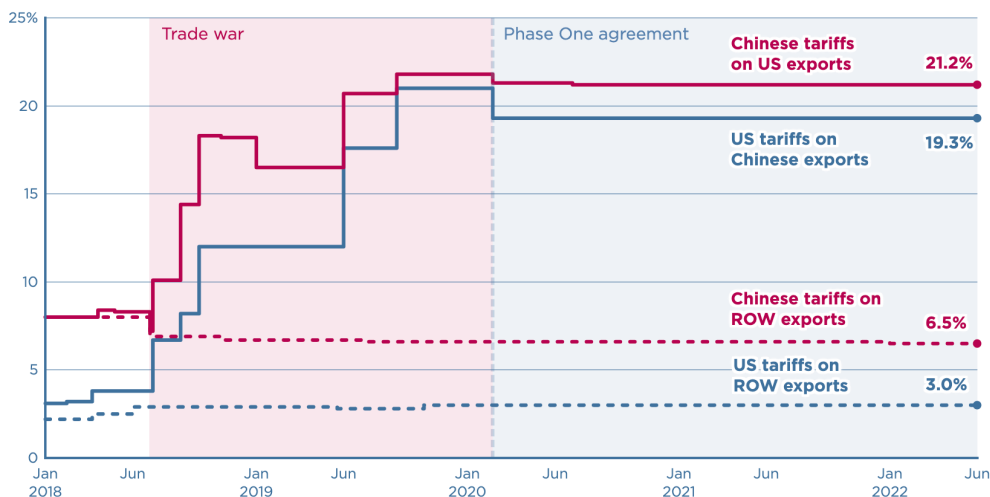
[Fajgelbaum et al. \(2019\), The Return to Protectionism, NBER Working paper # 25638, March 2019](#)

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US-China trade war tariffs: An up-to-date chart

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



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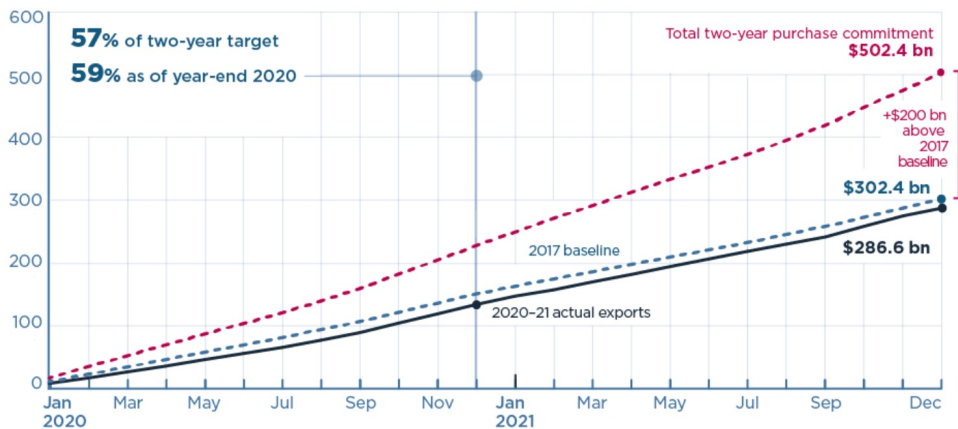
Source: Chad. P Brown, Peterson Institute of International Economics

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US-China phase one tracker: China's purchases of US goods and services in 2020 and 2021

US monthly goods and services exports to China covered by the phase one deal, billions USD, January 2020 through December 2021



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Source: Chad. P Brown, Peterson Institute of International Economics

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Effects of Tariffs - Prices

- **Tariffs are taxes on imports.**
- **Tariffs raise prices in the importing country.**
 - Final goods (consumers)
 - Intermediate goods (producers who use imported inputs)
 - Rising prices distort consumption and production decisions
- **Tariffs can lower prices of the imported good in the exporting country.**
 - The rise in the importing country is much larger than the fall abroad.
 - It depends on the size of the importing country.
 - Trump's tariffs caused US prices to rise, without any fall in prices abroad.



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Effects of Tariffs – Producers and Workers

- **The price increase in the importing country:**
 - benefits domestic producers of the tariffed good.
 - harms buyers of the higher-priced good
 - o Households
 - o Firms that use the good as input: which raises the price of other goods, hurting their buyers
 - increases employment in the protected industry
 - decreases employment in industries that use the protected product as input.
- **Tariffs lower overall welfare, while generating very large gains for small groups**
- **Tariffs are generally considered to be an inefficient way to help those people who are hurt by trade**



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Effects of Tariffs – Tires

- **In September 2009, President Barack Obama imposed new safeguard duties on car and truck tires imported from China**
 - The existing tariffs of 3-4% were increased by an additional 35% the first year, 30% in the second year, and 25% in the third year.
- **The price of tires increased and U.S. importers shifted their source of supply away from China to U.S. tire producers and other countries such as Indonesia.**
- **One study estimates that:**
 - Consumers lost \$1,112 million per year
 - The U.S. tire producers gained \$295 million per year
 - 1,200 jobs were “saved” in the American tire industry where the average worker’s compensation is \$40,000 per year
 - The consumer cost of each job “saved” is about \$926,000 per year.
 - 3,731 jobs lost in the retail sector.



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Hufbauer G. and Lowry S. (2012) US Tire Tariffs: Saving Few Jobs at High Cost, PIIE Policy Brief PB12-9

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Effects of Tariffs – Washing Machines

- In 2018, President Trump imposed global safeguard duties on washing machines.
- The price of washing machines increased in the U.S increased by 12%.
- The prices of dryers (bundled with washing machines) also increased, even if they were not subject to tariffs.
- The estimated effects:
 - Main beneficiaries: Whirlpool (reported 200 new jobs added).
 - Consumers lost \$1.55 billion.
 - Tariff revenue increased by about \$82 million.
 - The consumer cost per job “created” was about \$817,000 per year.
- LG and Samsung relocated washing machine production to the U.S.
 - LG: Clarksville, Tennessee, 2019 – 600 new jobs
 - Samsung: Newberry, South Carolina, 2018 – 1,000 new jobs



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Flaen et al. (2020) “The Production Relocation and Price Effects of US Trade Policy: The Case of Washing Machines”, AER, 110(7)

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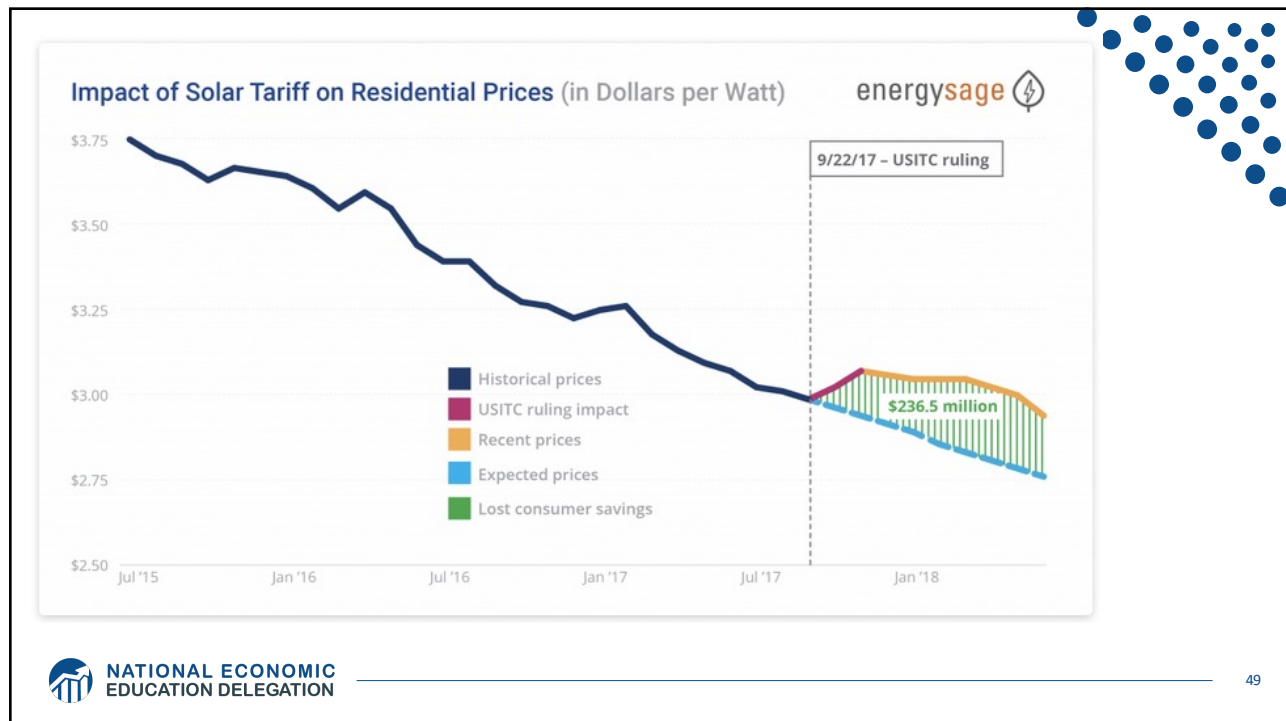
Effects of Tariffs – Solar Panels

- In 2018, President Trump imposed global safeguard duties on solar panels at the request of US companies that faced intense import competition from China.
- US-based companies benefited:
 - Suniva (Chinese-owned manufacturing in Georgia),
 - SolarWorld (German-owned, later French-owned),
 - 14 US manufacturing firms: CBS Solars
- Consumers were hurt by higher prices of solar panels
- Solar panel installers were hurt, led by Solar Energy Industry Association:
 - Loss of jobs and delay and cancellations of investment in solar energy



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Effects of Tariffs

- Tariffs invite retaliation, lowering demand for our exports.
- Tariffs on only one country's exports (e.g. China) shift imports from other, more costly countries (e.g. Vietnam) rather than increase domestic production.
- Import protection can increase U.S. employment, but the change is more than offset by employment loss due to higher input prices in other industries and retaliation.

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US Trade Policy in Practice: Winners and Losers

• National security tariffs on steel & aluminum

- Winners: US steel producers (Nucor, United States Steel, AK Steel) & workers
 - o BEA: 140,000 jobs in steel producing industries
- Losers #1: US consumers, including steel-consuming US firms
 - o BEA: 2 million jobs in US industries where steel \geq 5% of inputs
- US industries targeted by foreign retaliation

Industry	Countries	Share of US exports
Pork	China, Mexico	44%
Apples	China, Mexico, India	37%
Nuts	China, India	12%
Whiskies (e.g. KY bourbon)	EU, Canada, Mexico	53%
Mineral water, coffee, ketchup	Canada	About 50%



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Effects of Tariffs – Exporters

• The decrease in price in the exporting country:

- Harms sellers
- Benefits buyers there or in other countries
- Shifts sales to other countries.



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Effects of U.S. – China Trade War

- Consumers paid higher prices (complete pass-through of tariffs to prices)
- Recent estimates suggest that the U.S. wages (adjusted for inflation) decreased, on average, by 1% across all U.S. counties.
- Overall lower aggregate real income in both U.S. and China (not by large magnitudes relative to GDP).

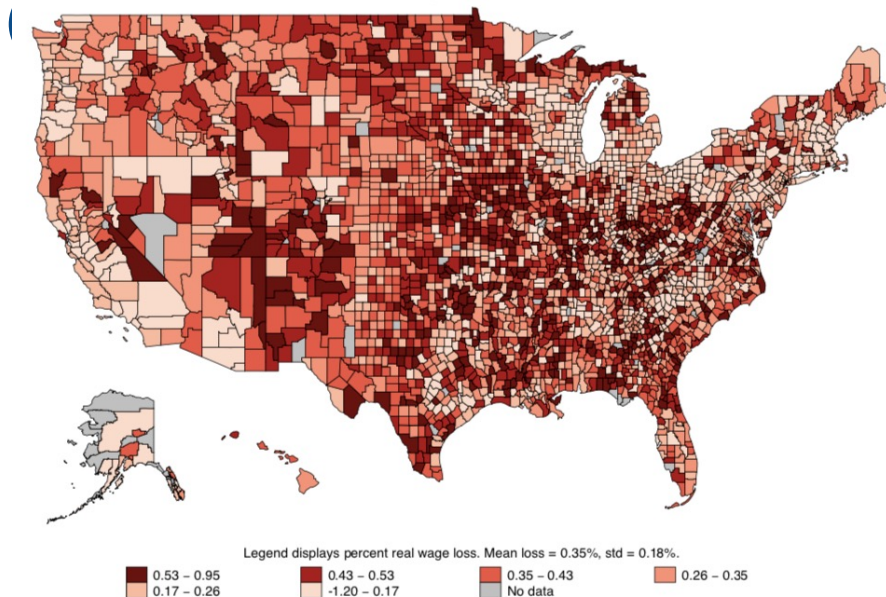


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Fajgelbaum P. and Khandelwal A. (2021) "[The Economic Impacts of the US-China Trade War](#)"

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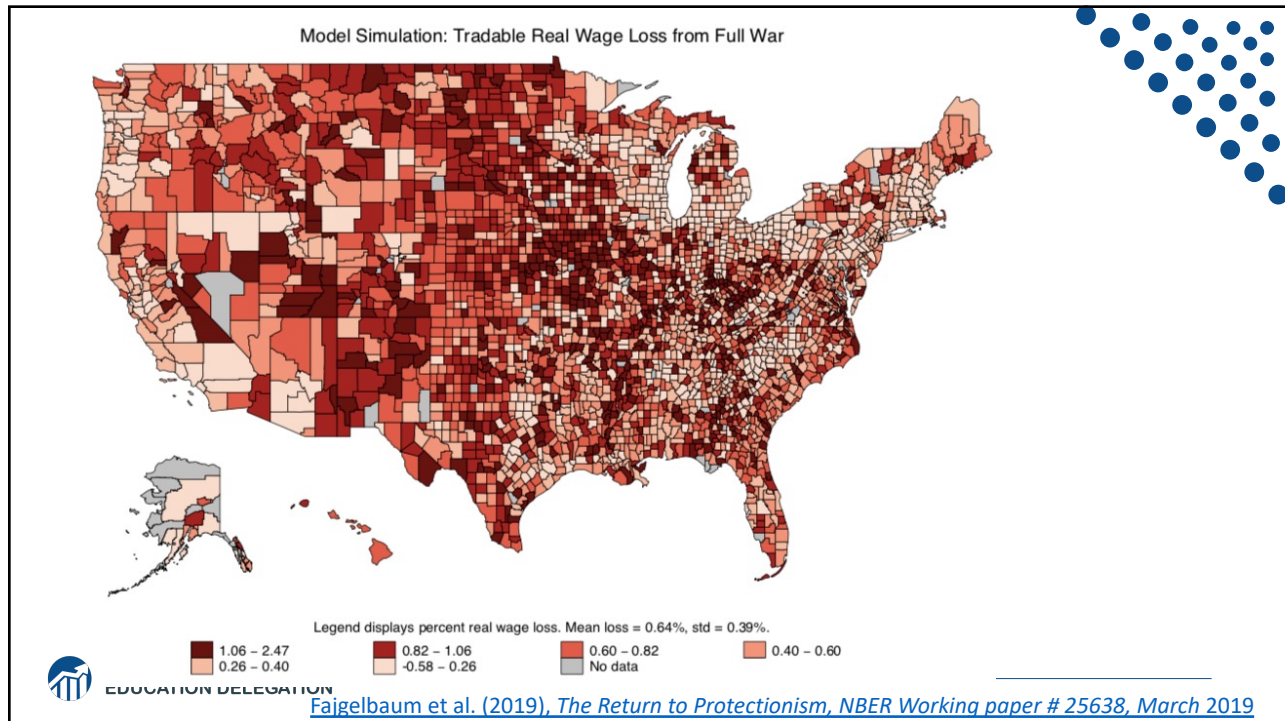
Model Simulation: Tradable Real Wage Loss from U.S. Tariffs (without retaliations)



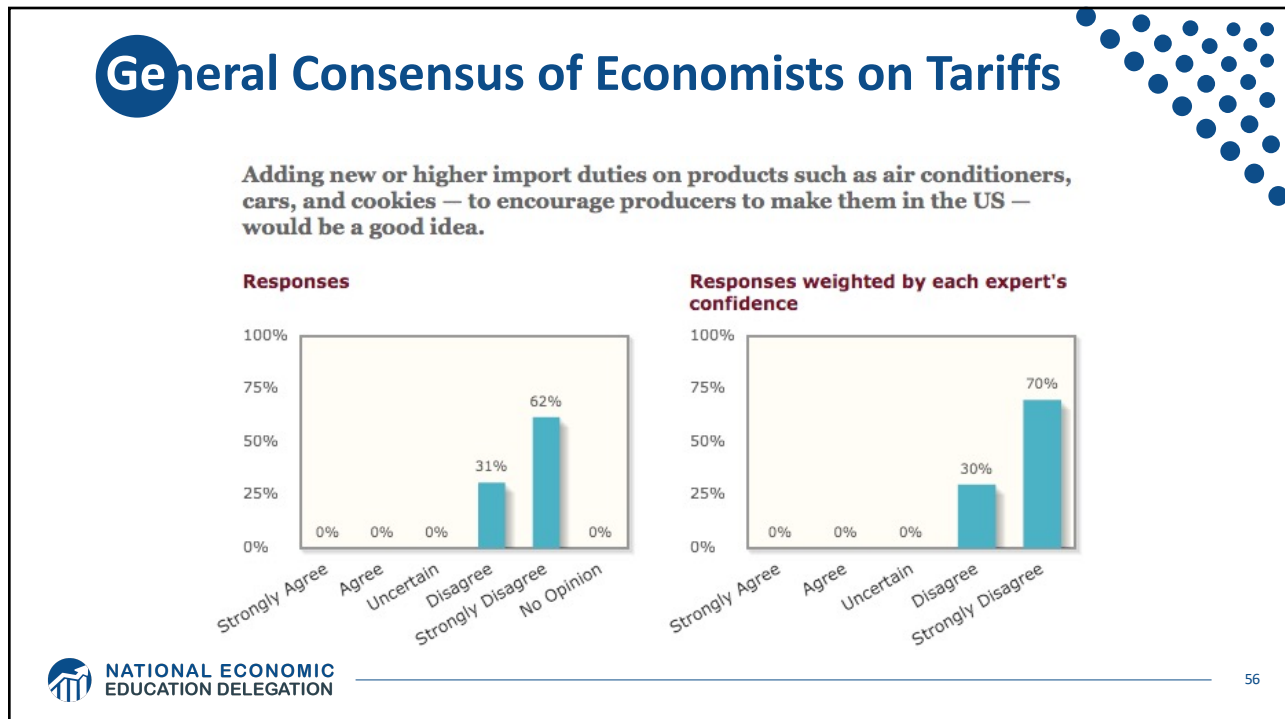
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Fajgelbaum et al. (2019), *The Return to Protectionism*, NBER Working paper # 25638, March 2019

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Arguments for Tariffs

- **If economists are so opposed to tariffs, why are they used?**
 - National Security
 - Government revenue
 - Infant Industry
 - Strategic trade policy
 - Political Economy of Protection
- **Some of valid arguments for tariffs depend on information that is unavailable or available only to the protected industry**
- **Even when net beneficial, tariffs are politically hard to remove.**



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Directed Support: Adjustment Costs

- **The most efficient way to help those hurt by trade is through direct payments**
- **Trade Adjustment Assistance (TAA) is an example of an attempt at this principle**
 - TAA includes some retraining funds and extended unemployment benefits
 - Not generally considered to be very successful
 - Underfunded
 - Hard to determine who is hurt by trade and not other factors
- **Larger direct payments would be most effective and efficient**



**TRADE
ADJUSTMENT
ASSISTANCE
FOR FIRMS**



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Summary

- Trade is beneficial, but it can generate losses and adjustments costs for some groups in the economy.
- Tariffs reduce trade overall, thus imposing widespread losses to both producers (who use imported inputs) and consumers (who buy lower-priced imported goods).
- More direct policies can be more efficient and save gains from trade.



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The Future of Globalization?

- **Globalization Reversal or Slowbalization?**
 - During 2022 IMF and World Bank Spring Meetings:
 - **Jerome Powell, Fed Chairman** noted that it is unclear if the world is witnessing a reversal of globalization, but the pace of globalization is certainly slowing down.
 - **Kristalina Georgieva, IMF Managing Director** argued that it is too early to “buy a coffin” for globalization. The world has achieved so much because of the integrated global economy, and it is irresponsible to make the world poorer.
- **A New Global Map:**
 - Globalization needs to be more agile and resilient to shocks:
 - Less reliance on single sources by firms
 - Europe’s embrace of “open strategic autonomy” or U.S.’s “friendshoring”
 - Greater protections for those who are hurt.



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Thank you!

Any Questions?

www.NEEDelegation.org

Adina Ardelean

<atardelean@scu.edu>

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