

# Impacts of the U.S.-China Trade War

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# Introduction

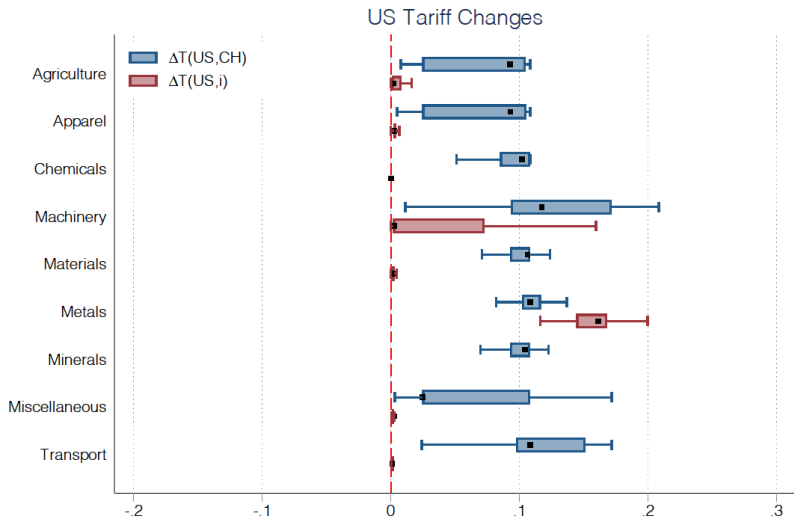
- **The US championed global economic integration in the post-war era**
- **This approach dramatically changed in 2018**
  - ▶ First, the U.S. raised tariffs on washing machines, solar panels, steel
  - ▶ Then, it increase tariffs on China across almost all sectors
- **The main trade partners retaliated against these tariffs**
  - ▶ Russia, Canada, Mexico, the EU,...
  - ▶ But mostly China
- **Tariffs continued to raise until late 2019 and currently remain high**
  - ▶ 60% of China-US trade is subject to tariffs of 20%
  - ▶ In contrast, US and China tariffs on rest of the world are 3% and 6%
- **This was the largest and most sustained return to protectionism since '30 Smoot-Hawley**

# U.S. Tariffs

**Panel A:** Tariffs on U.S. Imports Enacted by U.S.

Tariff Wave	Date Enacted	Products	2017 Imports		Tariff (%)	
		(# HS-10)	(mil USD)	(%)*	2017	Post-War
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	32.2
Aluminum	Mar-Jun, 2018	93	17,685	0.7	2.0	12.0
Iron and Steel	Mar-Jun, 2018	757	30,655	1.3	0.0	25.0
European Union	Oct 18, 2019	226	11,819	0.5	4.8	28.7
China	Jul '18 - Sep '19	16,403	352,563	14.7	4.1	26.4
<b>Total</b>		<b>17,495</b>	<b>420,608</b>	<b>17.6</b>	<b>3.7</b>	<b>25.8</b>

# U.S. Tariffs across Sectors



# Retaliatory Tariffs

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

Retaliating Country	Date Enacted	Products	2017 Exports		Tariff (%)	
		(# HS-10)	(mil USD)	(%)*	2017	Post-war
Mexico	Jun 5, 2018	232	6,746	0.4	9.4	27.9
Turkey	Jun 21, 2018	248	1,554	0.1	8.8	31.6
European Union	Jun 22, 2018	303	8,244	0.5	4.4	28.9
Canada	Jul 1, 2018	325	17,818	1.2	2.1	20.2
Russia	Aug 6, 2018	165	268	0.0	5.2	37.2
India	Jun 16, 2019	65	1,280	0.1	13.2	27.5
China	Apr '18 - Sep '19	7,757	98,016	6.3	8.7	19.5
<b>Total</b>		<b>8,400</b>	<b>133,926</b>	<b>8.7</b>	<b>7.7</b>	<b>20.8</b>

# This Talk

## “The Return to Protectionism” (Quarterly Journal of Economics, 2020)

- 1 Aggregate effects U.S. real income
- 2 Regional effects across counties and political leaning

# Tariffs: Brief Conceptual Review

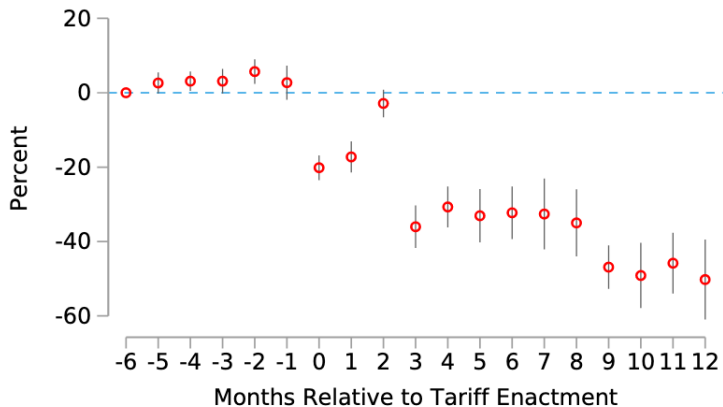
- **Tariffs = tax on imports**
- **Consumers: should be worse off...**
  - ▶ by the value of imports times increase in import prices
  - ▶ depends on whether import price (before tariff) falls
- **Producers: should be better off...**
  - ▶ by the value of exports times increase in producer prices
  - ▶ depends on retaliations
- **+ Government revenue**

# Tariffs: Brief Conceptual Review

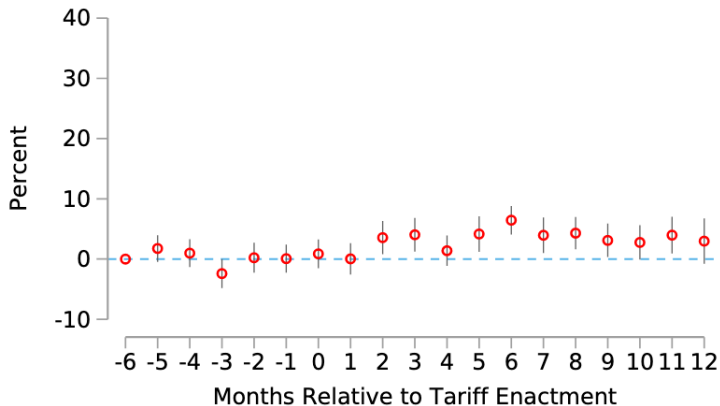
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- **+ Government revenue**
- **U.S. gains if import prices (before-tariffs) fall relative to export prices**
  - ▶ Analogy: optimal behavior of a monopsonist/monopolist



## Consumers: Total Imports Fell...

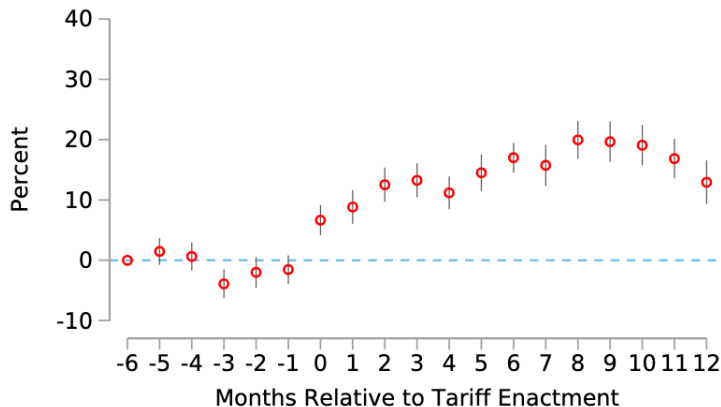


## ...but Import Prices (Before Tariffs) Did Not Fall!



→ China did not lower export prices to US

# So, Tariff-Inclusive Import Prices Increased 1-1 with Tariffs



→ US imports buyers worse off

# Cost to Consumers

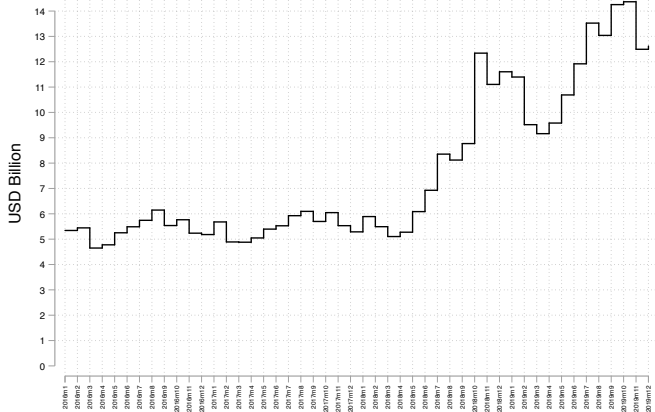
**Import GDP share (15%) X Targeted imports (17%) X Tariff increase (25%) =  
0.61% GDP**

# Benefit to Producers

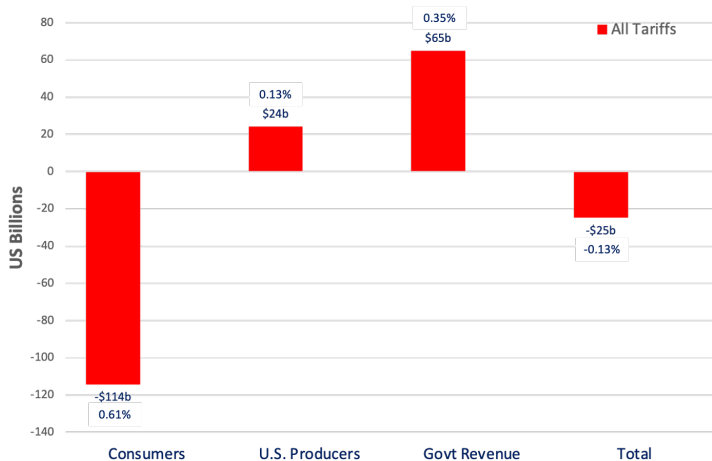
- Use a model of the full economy to estimate producer effects
  - ▶ Multiple sectors and regions
  - ▶ Input-output linkages
- Benefit to producers:

**Export GDP share (13%) \* Increase in Producer Prices (1%) = 0.13% GDP**

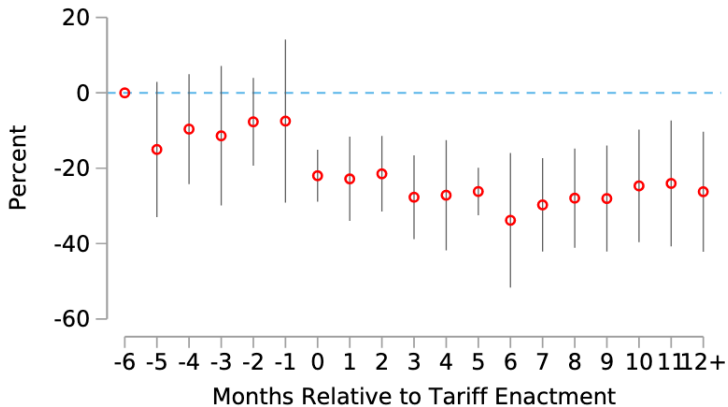
# + Tariff Revenue



# Total Effect

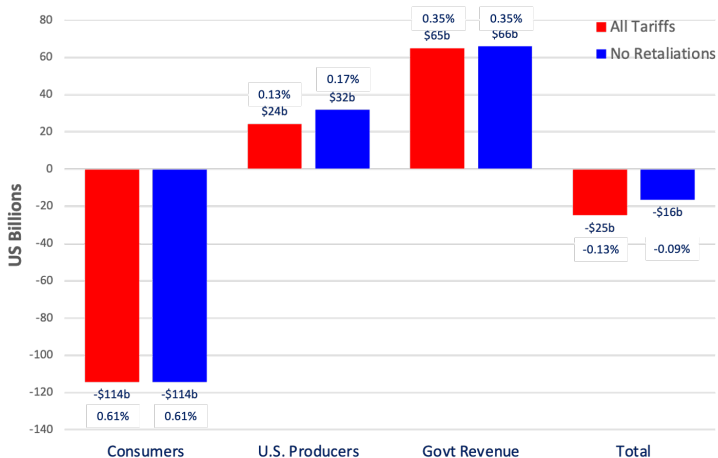


## Producers: Exports fell due to Retaliation

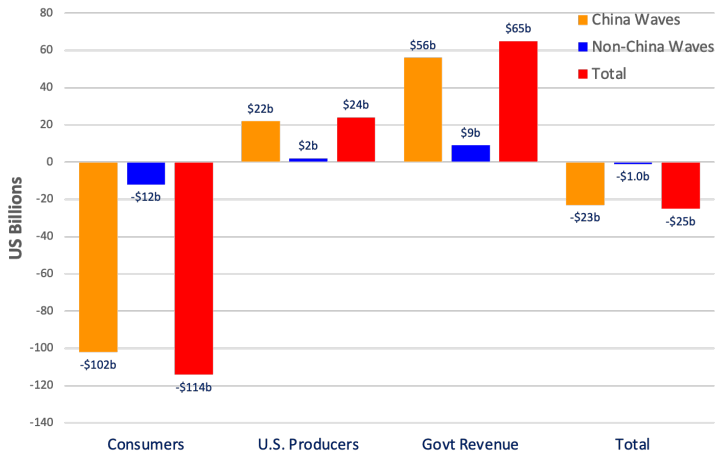




# Total Effect - With and Without Retaliations



# Total Effect - China vs. Non-China Waves



# Regional Impacts in the News: Imports

## The New York Times



## Chicago Tribune

As tariffs begin, Northwest Indiana auto workers and farmers share concerns



## THE WALL STREET JOURNAL

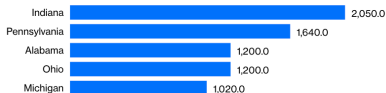
In a Pennsylvania Steel Town, Donald Trump's Tariff Is a Winner

### U.S. Steel to Expand Under Tariffs

Metal maker to restart construction at Alabama plant as higher profit

#### Swing State Steel

States with the biggest number of metal-refining furnace operators and tenders



## Bloomberg Businessweek

You can't find a clearer example of the steel industry's disagreement over the Trump tariffs than in **Canton, Ohio**, where the tariffs are pitting Timken against Timken. TimkenSteel Corp., which makes steel

# Regional Impacts in the News: Exports

## The New York Times



### A Farmers Tough Year on the Trade War's Kansas Front

From planning to harvest, the grain belt's rhythms and prospects have been disrupted by the government's tariff battle with China.

### *Trump's Trade War Leaves American Whiskey on the Rocks*



## The Washington Post

North Dakota soybean farmers, caught in the trade war, watch the season run out on their crop

## Des Moines Register

PART OF THE USA TODAY NETWORK

Iowa farming's \$2.2 billion trade loss could ripple through state's economy

## THE WALL STREET JOURNAL.

### Take Our Cheese, Please: American Cheese Makers Suffer Under New Tariffs

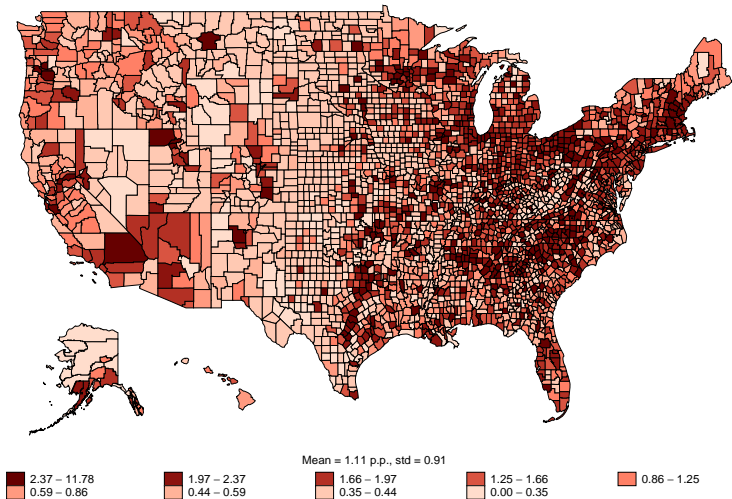
Chinese, Mexican tariffs on U.S. cheese and whey are hurting farmers and driving up stockpiles



# County-Level Import Tariff Changes

Panel A: Tariff Increase on US Imports, 2017-2018

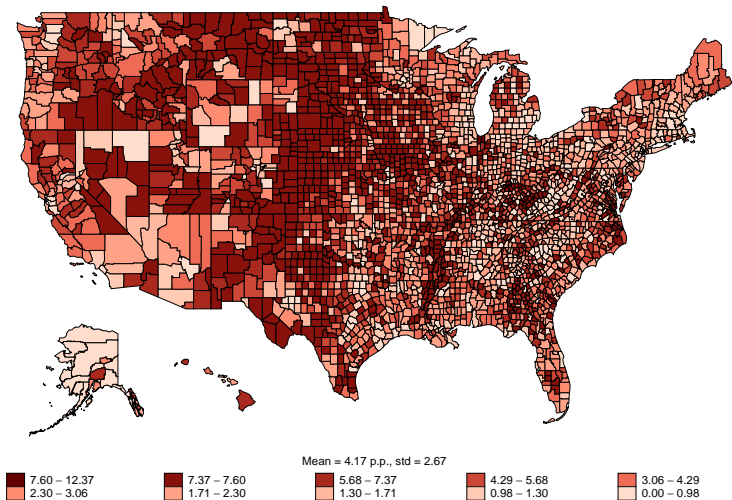
Weighted by Variety-Level US Import Share and County-Level 2016 Tradeable Sector Employee Wage Bill



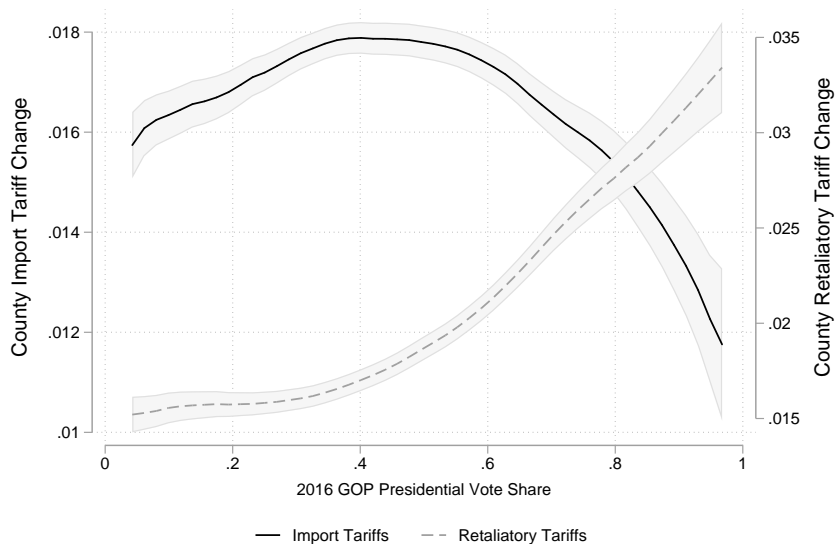
# County-Level Retaliatory Tariff Changes

Panel B: Tariff Increase on US Exports, 2017-2018

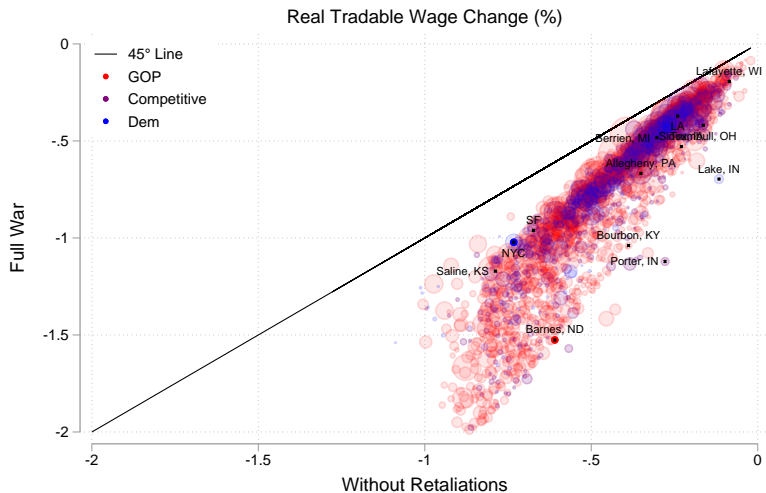
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# U.S. Tariffs, Retaliation, and 2016 GOP Presidential Vote Share



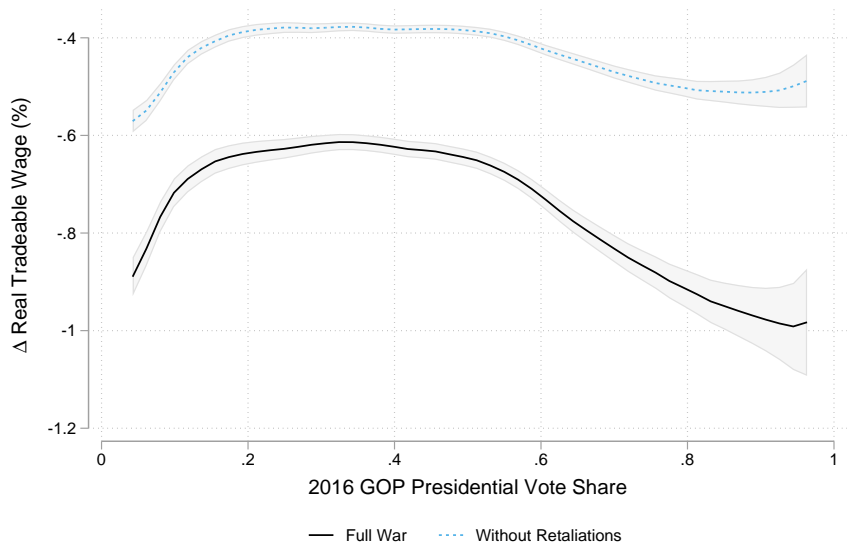
# Real Wage Change (Full War vs No Retaliation)



- Real wage decline across counties: avg. 1.0% (s.d. 0.5%).



## Tradeable Wages and 2016 GOP Vote Share



# Conclusion

- ① **Large and sustained declines in imports and exports**
- ② **No before-tariff import price decline**
  - ▶ Complete pass-through of tariff to tariff-inclusive prices
- ③ **Small negative aggregate effect**
  - ▶ But larger consumer loss
- ④ **Higher import protection provided to electorally competitive counties**
  - ▶ but...Republican counties most negatively affected due to retaliation
- **Caveats**
  - ▶ dynamic effects, uncertainty and investment