



Michigan Trade and Trade Wars

Alan V. Deardorff
University of Michigan

*For presentation at the Ann Arbor Public Library
 May 7, 2019*



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National Economic Education Delegation

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- One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.

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- 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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The Michigan Front in the Trade War: Michigan's Role in International Trade and Its Vulnerability to Recent Trade Policies

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Outline

- Features of Michigan's Trade
- President Trump's 2018 Trade Actions
 - Trade War
 - ~~Solar Panels~~ and Washing Machines
 - Steel and Aluminum
 - Cars (threat)
 - China
 - Free Trade Agreements
 - ~~Korea-US Trade Agreement Amended~~
 - NAFTA → USMCA



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Features of Michigan's Trade



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Features of Michigan's Trade

- **Michigan**

- Trades more than most states
- Mostly exports and imports cars and car parts
- Trades most with Canada and Mexico



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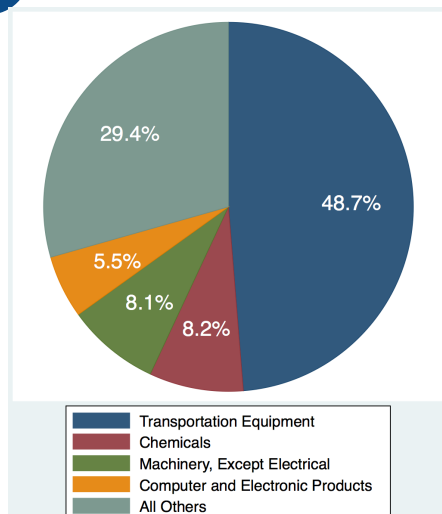
Top US Trading States: 2017 (Exports + Imports)

By Value, \$bil.			By Average* Rank		Per GDP		
1	California	613	1	Michigan	1	Louisiana	40.1
2	Texas	528	2	Texas	2	Michigan	39.3
3	New York	205	3	Louisiana	3	Kentucky	38.5
4	Illinois	201	4	Illinois	4	Texas	32.1
5	Michigan	200	5	Kentucky	5	Tennessee	32.1
6	New Jersey	147	6	Tennessee	6	South Carolina	31.4
7	Florida	130	7	New Jersey	7	Indiana	26.2
8	Georgia	129	8	Indiana	8	Illinois	24.5
9	Washington	126	9	South Carolina	9	New Jersey	24.4
10	Pennsylvania	122	10	California	10	Washington	24.1

*Weighted average, with weights 1/3 on Value and 2/3 on Per GDP



Michigan Exports, by Product: 2017

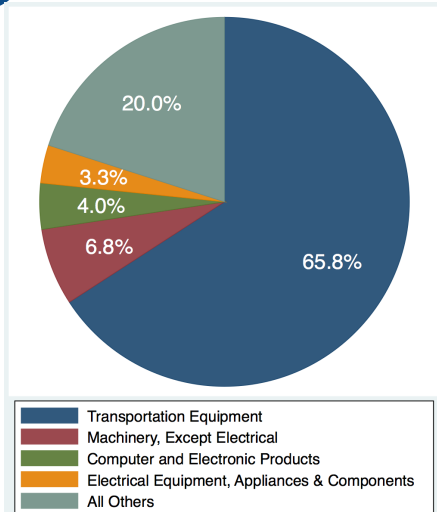


Product	Value (\$ B)
Transportation Equipment	\$29.2
Chemicals	\$4.9
Machinery, Except Electrical	\$4.9
Computer and Electronic Products	\$3.3
All Others	\$17.6
Grand Total	\$59.9

Source: International Trade Administration



Michigan Imports, by Product: 2017



Product	Value (\$ B)
Transportation Equipment	\$92.3
Machinery, Except Electrical	\$9.5
Computer and Electronic Products	\$5.6
Electrical Equipment, Appliances & Components	\$4.7
All Others	\$28.1
Grand Total	\$140.2

Source: International Trade Administration

Michigan's Rank in 2017 Trade with

Top 5 Exporters to North America per GDP	
North Dakota	9.8
Michigan	7.3
Texas	7.3
Indiana	5.2
Kentucky	4.9

Top 5 Importers from North America per GDP	
Michigan	19.7
Montana	8.0
Vermont	7.3
New Hampshire	7.2
Texas	6.6

China	Value (\$ B)	Per GDP
		11
		20
Per GDP		2
Per GDP		1
Per GDP		11
Per GDP		20
Per GDP		22
Per GDP		13

Rank by GDP: #14

Trump's 2018 Trade Actions



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Trump's 2018 Trade Actions

• Most were tariffs on imports

- Taxes levied by US on imports from others
- Taxes levied by others (in retaliation) on US exports

• Normal effects of tariffs

- Raise prices for importers
- Lower prices for exporters
- Cause substitution
 - o To other products
 - o To other countries (if not on all)

Net economic effect
is almost always
negative

Two recent studies of the 2018 Trade War
found that exporter prices did not fall.



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Trump's 2018 Trade Actions

These slides will list only actions actually done.
Most had plans and threats announced in the days and weeks beforehand.

Trump's 2018 Trade Actions

- **Jan 22, 2018: Safeguard tariffs**
 - 30% on solar panels
 - 50% on washing machines

Tariffs on Washing Machines

Tariffs on Washing Machines

• Who benefits?

- Whirlpool, Benton Harbor, MI, which requested the tariffs
 - o Whirlpool brands include Amana, Maytag, & more
- Other US manufacturers, such as GE, Electrolux and Frigidaire (Swedish), Equator, Speed Queen
- In 2017, Samsung and LG announced plans to build factories in South Carolina and Tennessee

Tariffs on Washing Machines

• Who is hurt?

- Consumers

- Washers (and dryers!) both increased in price by about 12% (per Flaaen et al. 2019)
 - Note that the tariff was levied on washers only, not dryers]
 - "consumers bore between 125 percent and 225 percent of the costs" (NYT 4/21/19)
- US appliance prices (I don't have graph for washing machines alone) rose 8.1% over the 12 months to Nov 2018



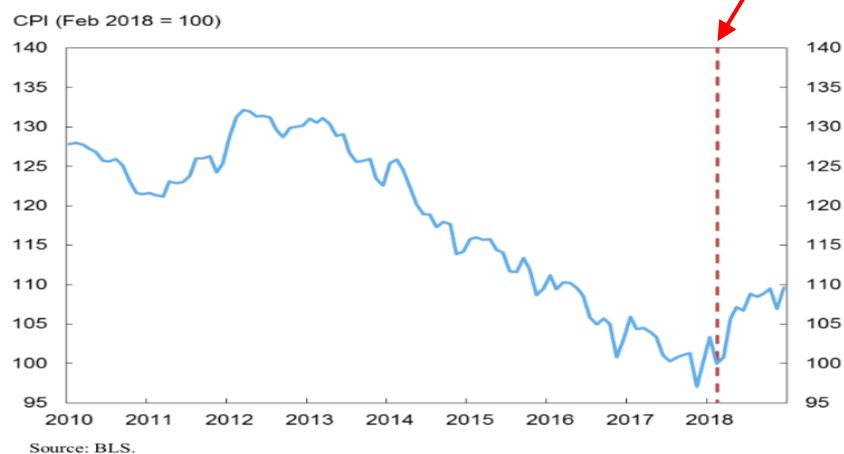
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Tariffs on Washing Machines

Figure 2: Major Appliance CPI



Source: Amiti, Redding, and Weinstein, "The Impact of the 2018 Trade War on U.S. Prices and Welfare," CEPR Discussion Paper DP13564, March 1, 2019.



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Tariffs on Steel and Aluminum

Trump's 2018 Trade Actions

- Jan 22, 2018: Safeguard tariffs
- **Mar 1, 2018: Announces “national-security” tariffs on steel and aluminum**
 - 25% on steel, 10% on aluminum
 - Announced for all countries
 - Some delayed (EU, Canada Mexico)
 - Others later exempted (S. Korea)

Tariffs on Steel and Aluminum

• Responses to metals tariffs

- Retaliation by China, EU, Canada, & others
- WTO disputes
 - May-Aug: Complaints filed against US
 - Jul: Complaints filed by US



Tariffs on Steel and Aluminum

• Who benefits?

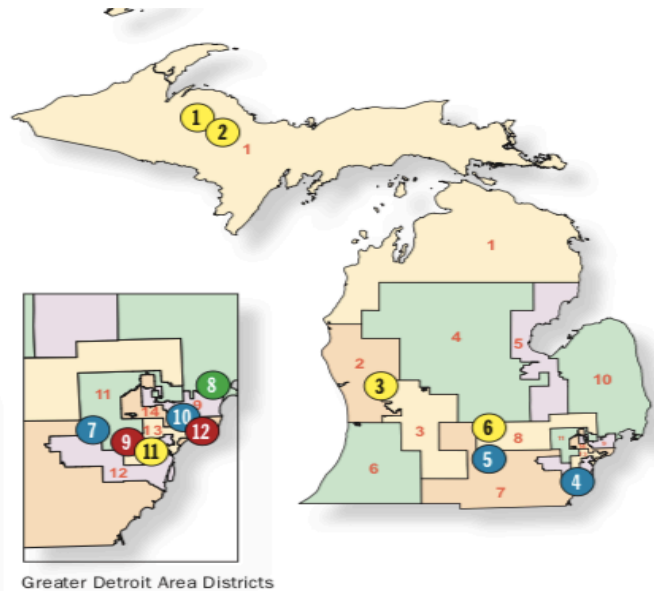
- US producers of steel and aluminum
 - Steel: AISI lists 12 producers in Michigan
 - AISI = American Iron & Steel Institute
 - Aluminum: Thomas lists 76 suppliers in Michigan



Steel Produced in Michigan

AISI MEMBER FACILITIES	12
JOBS GENERATED	7,291
TOTAL JOBS SUPPORTED BY THE STEEL INDUSTRY	49,600*
POPULATION	9,895,622
GOVERNOR	Rick Snyder (R)
SENATORS	Debbie Stabenow (D) Gary Peters (D)

* Both steel and supported
Sources: BLS, 2015; Economic Impacts Report, 2012

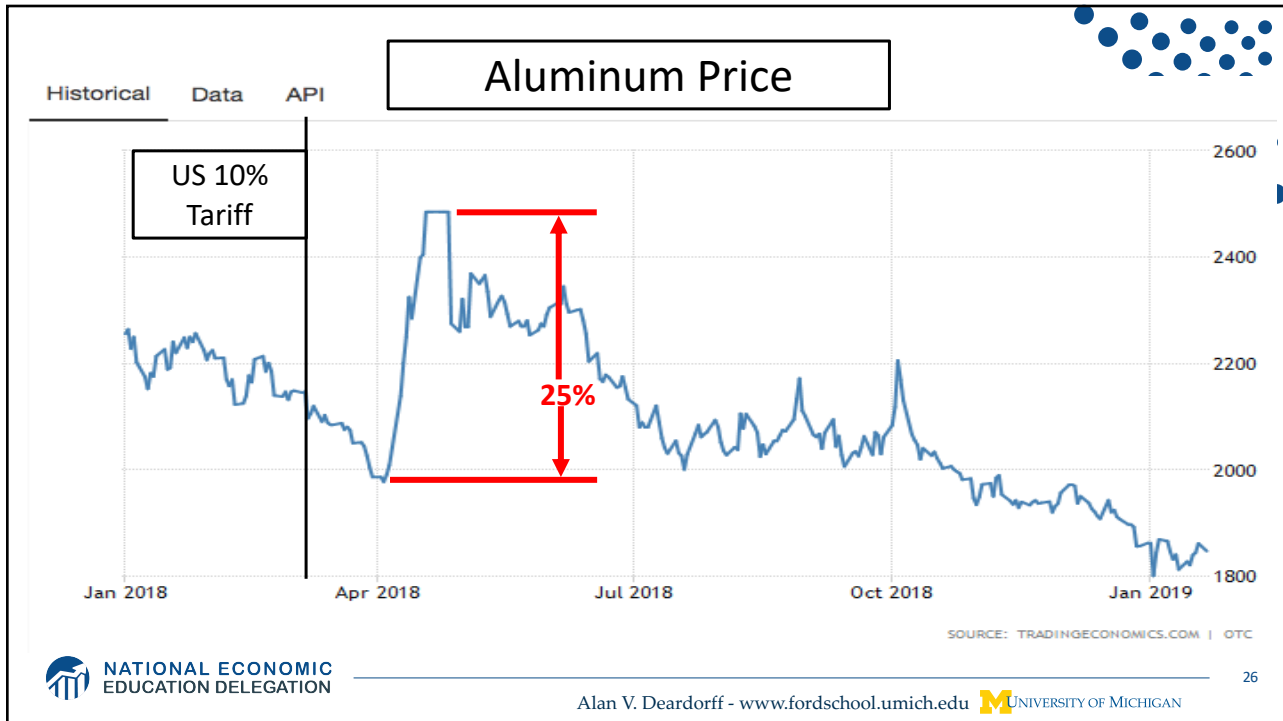
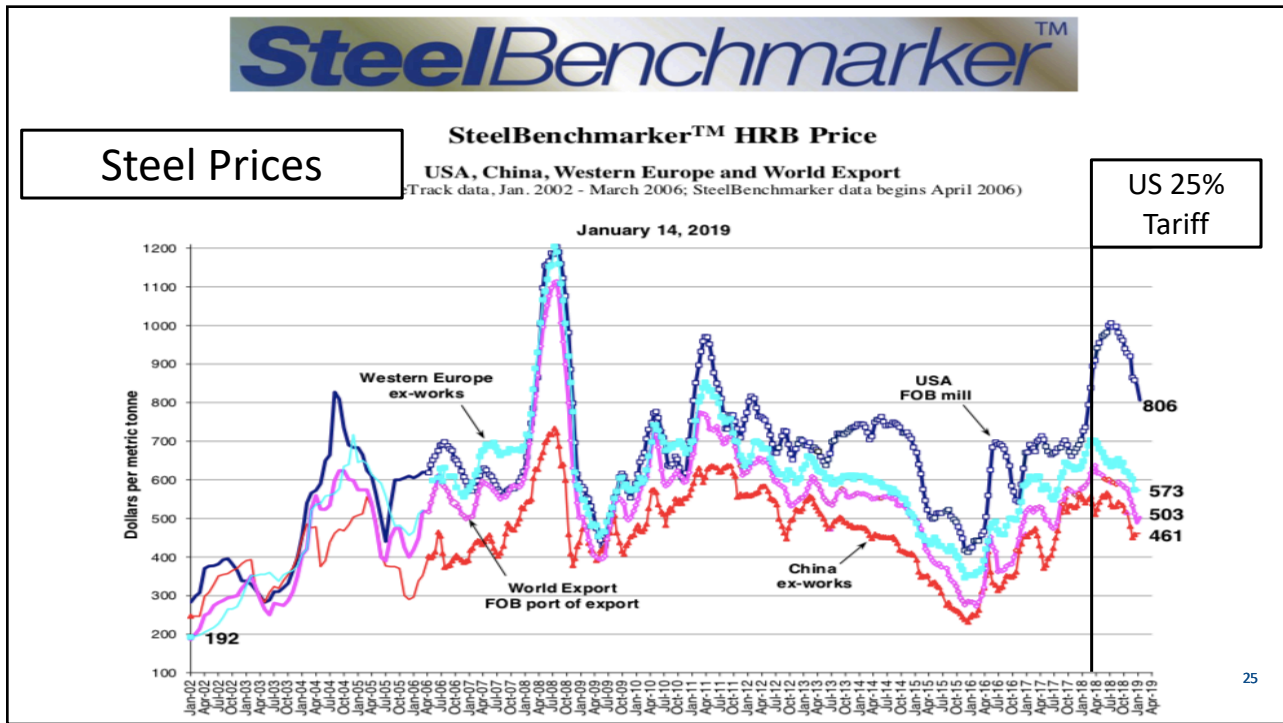


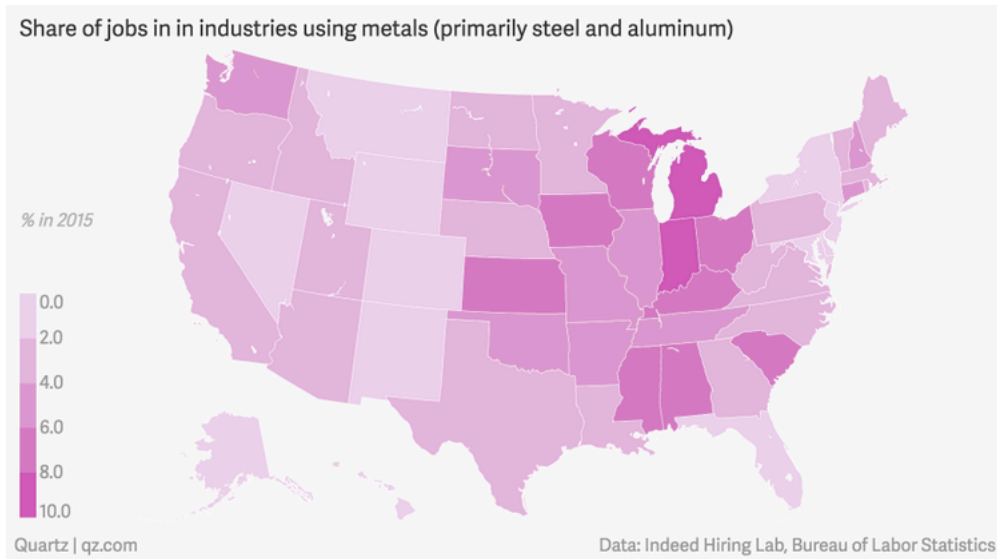
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Tariffs on Steel and Aluminum

•Who is hurt?

- US users of steel and aluminum pay higher prices
 - Most obviously the car companies but many others





Source: Kopf (2018)

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Tariff on Cars and Car Parts

Trump's Trade Actions

- Jan 22, 2018: Safeguard tariffs
- Mar 1, 2018: Announces tariffs on steel and aluminum
- **May 23, 2018: Initiates Commerce Dept investigation of car and car part imports**

Tariff on Cars and Car Parts

- **Who would benefit?**
 - US car companies?
 - Most (e.g., GM) are opposed
 - I can't find objection from Ford, but others list Ford among those who object
 - US auto workers?
 - UAW has spoken in favor of "target measures" with with understanding that broad tariffs or quotas "could cause harm" including "mass lay-offs for American workers."

Tariff on Cars and Car Parts

• Who would be hurt?

- Most car companies, including GM
- US car buyers



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Tariff on Cars and Car Parts

Estimated Effects on Car Sales and Prices of 25% Tariff

Tariff on:	Sales impact (units)	Average Price Increases (\$/unit) on vehicles sold in US		
		All	US-assembled	Imported
All imports	-2.0 M	\$4,400	\$2,270	\$6,875
Canada & Mexico exempted	-1.2 M	2,450	1,135	3,980

Source: Center for Automotive Research



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Tariff on Cars and Car Parts

Estimated Effects on Employment & GDP of 25% Tariff

Tariff on:	Total US Employment	US GDP
All imports	-714.7 K	-\$59.2 B
Canada & Mexico exempted	-197.2 K	-15.3B

Source: Center for Automotive Research



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Tariff on Cars and Car Parts

Estimated Effects of a 25% Tariff on Revenue & Employment in New Car Dealerships

Tariff on:	Dealership Revenues		Dealership Employment	
	Total	Per D'ship	Total	Per D'ship
All imports	-66.5 B	-4.0 M	-117.5 K	-7
C & M exempted	-39.1 B	-2.3 M	-50.5 K	-4

Source: Center for Automotive Research



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Tariff on Cars and Car Parts

- **Where we stand:**

- Commerce Dept. sent report to Trump Feb 17
 - Not public, but said to include several options for tariffs
 - Trump has 90 days to decide
- FT Jan 22: “president was leaning towards slapping tariffs on automotive imports, in the hope of forcing Brussels to further open the EU market to American farm products.”



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China



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Trump's Trade Actions

- Mar 1, 2018: Announces tariffs on steel and aluminum
- May 23, 2018: Initiates Commerce Dept investigation of car and car part imports
- **Jul 6, 2018: First tariffs on China, \$34 billion**
 - On \$34 billion of China exports to US
 - Based on unfair trade practices in intellectual property (IP)



China

- **Concerns about China's IP practices pre-existed Trump**
 - Theft of technology secrets
 - Forcing investors in China into joint ventures and sharing technology
- **Prior to Trump, complaints had been voiced by US and EU, but nothing had been done**
- **US initiated investigation under Section 301 of US trade law (unfair trade practices)**
 - Aug 18, 2017: Investigation initiated
 - Mar 22, 2018: Report finds unfair trade and recommends tariffs
- **Since then, Trump has announced and then implemented multiple rounds of tariffs**



Trump's Trade Actions

- Mar 1, 2018: Announces tariffs on steel and aluminum
- May 23, 2018: Initiates Commerce Dept investigation of car and car part imports
- Jul 6, 2018: First tariffs on China , \$34 billion
- **Aug 23, 2018: Second tariffs on China, \$16 billion**
- **Sep 24, 2018: Third tariffs on China, \$200 billion**

China

- **This is a “Trade War”:** Tariffs and retaliation
 - US tariffs on \$34 billion Jul 6 were matched that day by China tariffs on \$34 billion of US exports
 - US tariffs on \$16 billion Aug 23 were matched that day by China tariffs on \$16 billion of US exports
 - US tariffs on \$200 billion Sep 24 were less-than-matched by China on \$60 billion of US exports
 - Trump said he'd use tariffs on still more (\$267 billion), approaching all of China's exports to US
 - Did not do that; delayed for China-US trade talks

China

• What's the point?

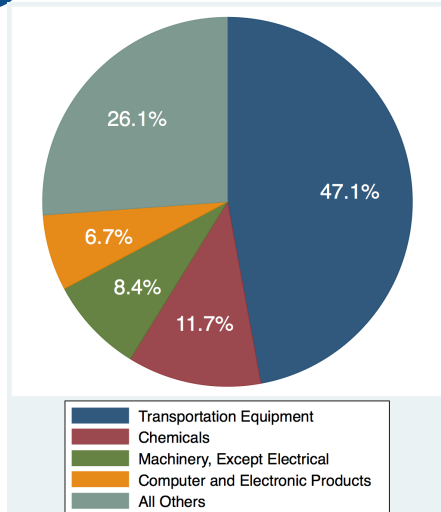
- To get China to stop its IP practices?
- To reduce the US bilateral trade deficit with China?
- To stop China's rise as an economy and as a world power?

• Who will "win"?

- Nobody! Everybody loses from tariffs
- Trump says it's "easy to win" because he measures success from trade deficit



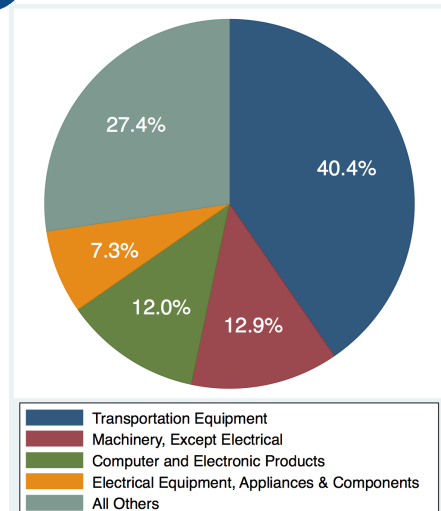
Michigan Exports to China, by Product: 2017



Product	Value (\$ B)
Transportation Equipment	\$1.7
Chemicals	\$0.4
Machinery, Except Electrical	\$0.3
Computer and Electronic Products	\$0.2
All Others	\$1.0
Grand Total	\$3.7

Source: International Trade Administration

Michigan Imports from China, by Product: 2017



Product	Value (\$ B)
Transportation Equipment	\$3.9
Machinery, Except Electrical	\$1.2
Computer and Electronic Products	\$1.1
Electrical Equipment, Appliances & Components	\$0.7
All Others	\$2.6
Grand Total	\$9.6

Source: International Trade Administration

China

• Bottom line for Michigan

- Trade war with China does not appear to hurt Michigan any more than most states
- Michigan's exports to China won't respond much to China's tariffs
 - o (Compare to soybean exporters, who compete with Brazil)
- Michigan's imports from China are mostly similar to other states'
 - o Some can be bought from other countries



Trade War



Trade War

• Effects of the 2018 Trade War

- US average tariffs rose, in 6 waves
- Prices of imports in US rose
- Quantity of imports fell
- Number of imported varieties fell

Source: Amiti, Redding, and Weinstein, "The Impact of the 2018 Trade War on U.S. Prices and Welfare," CEPR Discussion Paper DP13564, March 1, 2019.

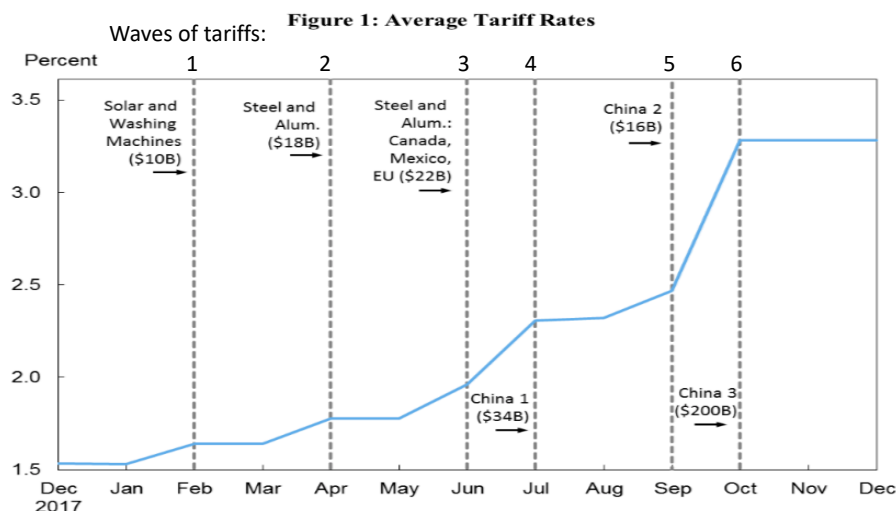


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Trade War



Source: US Census Bureau; USTR; USITC; authors' calculations.

Source: Amiti, et al. 2019.



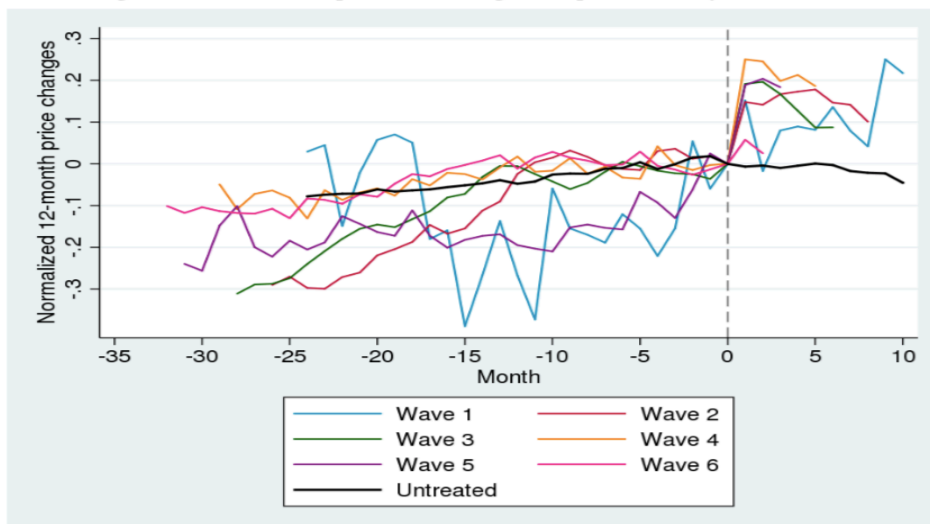
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Trade War

Figure 3: 12-month Proportional Change in Import Prices by Tariff Wave



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Source: Amiti, et al. 2019.

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Trade War

• Effects of the 2018 Trade War

- Effects varied across US
 - US tariffs hit Michigan, hard
 - Foreign tariffs did not hit Michigan hard
 - Real wages fell most in states other than Michigan

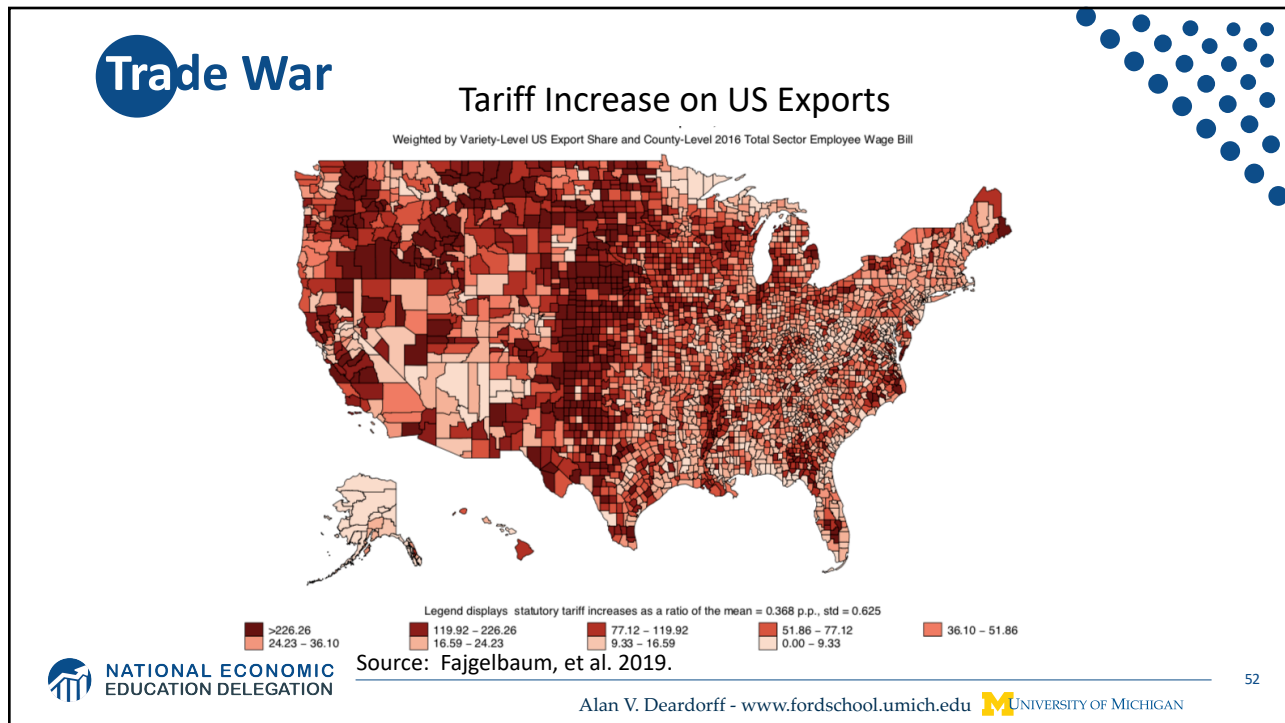
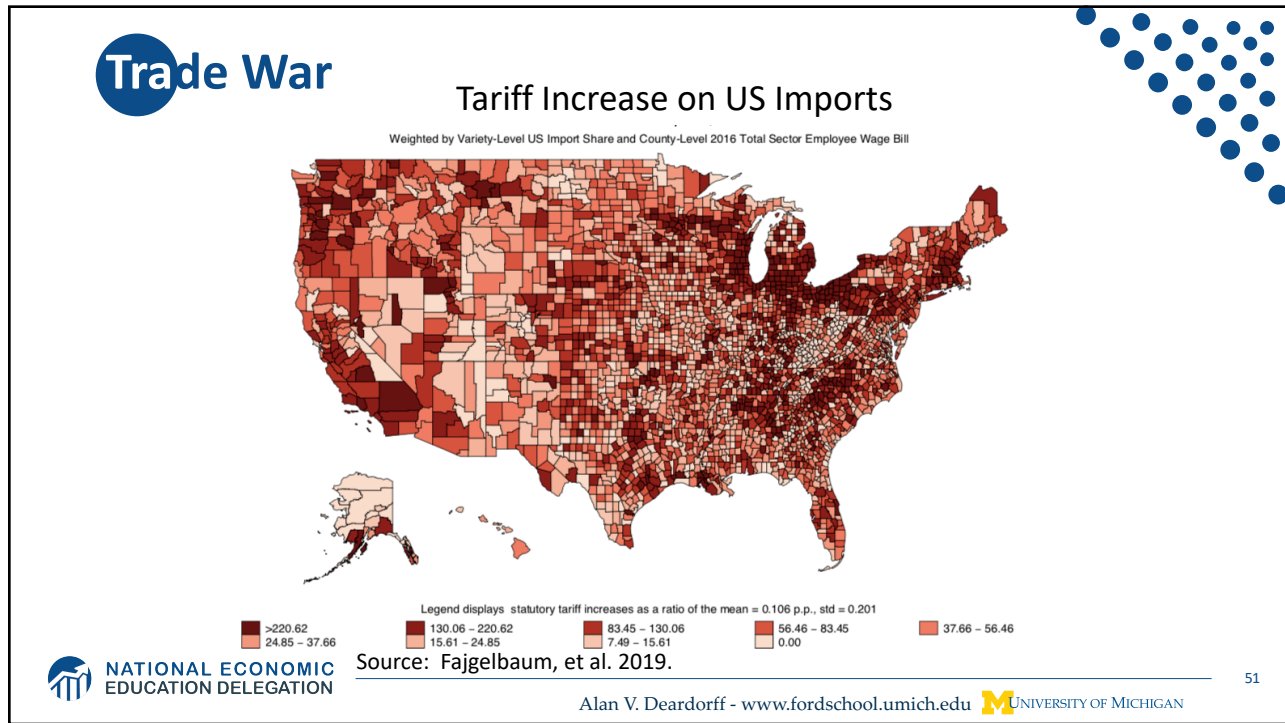
Source: Fajgelbaum, Goldberg, Kennedy, and Khandelwal,
"The Return to Protectionism," March 3, 2019.



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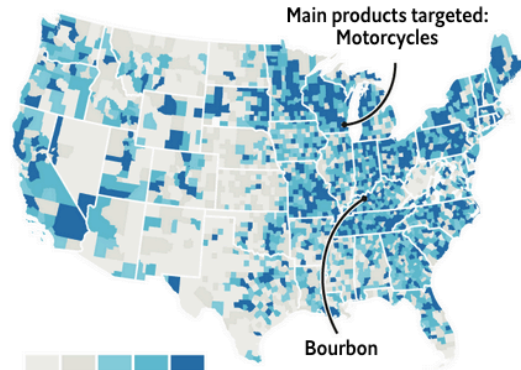


Trade War Tariff Increases on US Exports: EU vs China

America's trading rivals have aimed tariffs at Trump voters: Europe in the Rust Belt, China in the Great Plains

Share of counties' exports affected by retaliatory tariffs, %

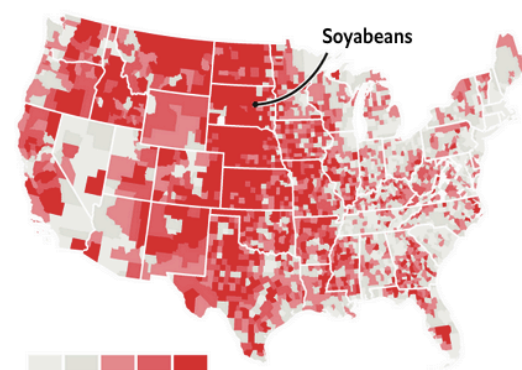
The EU's tariffs



0 2 3 4 6 10%

Source: *Economist* 4/27/19

China's tariffs



0 1.0 2.5 5.0 8.0 22%

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Trade Talks



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Trade Talks

• China-US Trade Talks, I

- Talks began in May 2018, in response to Trump's threat of tariffs
 - China promised to import more from US and allow more foreign investment
 - Said to have "averted trade war"
 - But then talks broke off in early June
- Trade war with China Jul, Aug, Sep 2018



Trade Talks

• China-US Trade Talks II

- Oct 2018: US and China postured about renewing trade talks
- Nov 1, 2018: New round of talks began with phone call from Trump to Xi
- Dec 2, 2018: G20 Summit dinner agrees truce: No more tariffs while talks continue
- Talks are still underway, but said to be approaching a deal



Trade Talks

• China-US Trade Talks II: Calendar

- Nov 9: He & Mnuchin talk by phone
- Jan 7-9: Talks in Beijing
- Jan 30-31: Talks in DC
- Feb 11-15: Talks in Beijing
- Feb 21-24: Talks in DC
- Mar 28-29: Talks in Beijing
- Apr 3-5: Talks in DC
- Apr 23-?: Talks in Beijing
- May 8-?: Talks in DC

Source:



China-US Trade Talks II: Headlines

- Nov 29, WSJ: U.S., China Exploring Preparatory Trade Talks
- Dec 4, WSJ: Trump Names Lighthizer as Trade Representative
- Dec 30, FT: China and US hail 'positive' start to trade talks
- Jan 7, WP: Trade talks open in Beijing as U.S.-China dispute deepens
- Jan 9, FT: China and US set to resume trade talks after talks in Beijing offer few details
- Jan 22, FT: US and China start preparatory trade talks
- Jan 24, FT: US says US 'miles' from a trade deal with China
- Jan 29, WSJ: Big Divides Remain as US-China Trade Talks Resume
- Jan 31, FT: US-China trade talks 'going well'
- Feb 6, FT: US-China Trade Deal Nearing
- Feb 13, WSJ: US-China Trade Deal Nearing
- Feb 15, FT: US-China trade talks end with little sign of progress
- Feb 16, WSJ: Chinese, U.S. Trade Negotiators Inch Toward a Broad Agreement
- Feb 21, FT: A potential new snag in the US-China trade talks
- Feb 23, WSJ: China Trade Talks Extended to Close the Deal
- Feb 28, WSJ: U.S. Drops Threat of 25% Tariffs on Goods in Sign That Accord Is Near
- Mar 4, WSJ: U.S., China Close In on Trade Deal
- Mar 18, NYT: Trade Fight with China Enters Overtime, With Tariffs a Costly Sticking Point
- Mar 28, FT: US-China trade talks could stretch for 'months'
- Apr 3, FT: US and China draw closer to final trade agreement
- Apr 14, NYT: Mnuchin Says China Trade Deal Nearing Final Round
- Apr 26, NYT: Trump Says Xi Jinping of China Will Visit Soon, Sturring Anticipation of a Completed Trade Deal



Trade talks open

Exploring deal

Accord is near

Closer to final trade agreement

'Miles' from a trade deal

Trade deal nearing

Talks could stretch for 'months'

Little sign of progress

Anticipation of a completed trade deal

Trade Talks

• China-US Trade: Issues of Negotiation

- Government subsidies to state-owned companies
- Chinese purchases of U.S. farm and energy products and services
- China's market-opening efforts in sectors such as financial services and manufacturing
- Improving its protection of U.S. intellectual-property rights
- Pressure on U.S. companies to share technology
- Industrial policies that favor state-controlled companies
- Currency stability
- Regulatory relief for foreign companies in China
- How to enforce any agreements on the above
 - Reimpose tariffs, or
 - Leave them in place



Trade Talks

• What Might a China-US Trade Deal Include?

- US wants (per FT, 3/25/19):
 - Huge Chinese purchases of US exports, to reduce US trade deficit
 - Liberalization of market access for US goods and services
 - Reform of Chinese industrial policy, especially "forced transfers" of IP
 - US permitted to use punitive tariffs if these are violated, without China retaliating or complaining to WTO
- China wants:
 - Removal of US tariffs



Trade Talks

• Latest News

- On Sunday May 4, Trump tweeted that he would
 - Raise tariffs on Friday from 10% to 25% on the \$200 billion from last year
 - Impose 25% tariffs on the rest of China exports if China does not accept his demands
 - Reason: China backtracking on promise to reduce subsidies
- China's negotiators are coming to DC anyway



NAFTA → USMCA



Trump's Trade Actions

- Aug 23, 2018: Second tariffs on China, \$16 billion
- Sep 24, 2018: Third tariffs on China, \$200 billion
- Sep 24, 2018: Amended KORUS signed
- **Sep 30, 2018: USMCA agreed**
 - NAFTA renegotiation had completed previously with Mexico
 - Now Canada signed on, and name changed (by Trump) to USMCA
 - USMCA: U.S.-Mexico-Canada Trade Agreement



NAFTA → USMCA

- **NAFTA is**
 - Free Trade Agreement (FTA)
 - Zero tariffs on goods traded by US, Canada, Mexico
 - Only if they satisfy Rules of Origin (ROOs)
 - Additional provisions regarding many things
 - Services trade
 - Foreign direct investment
 - Intellectual property rights
 - Dispute settlement
 - Government procurement



NAFTA → USMCA

• USMCA will be (if approved)

- FTA with stricter ROOs
- Some changes in NAFTA's additional provisions
- New rules for environment, labor, financial services, digital trade
- Weakening of Canada's dairy barriers
- Discouragement of trade with China
- Provision for renegotiation (sunset)

NAFTA → USMCA

• Most important for Michigan: Tighter ROOs for cars and car parts

- North American content increased from 62.5% to 75%
 - Intended to reduce inputs from outside N. America, likely benefiting Mexico
- New requirement that 40-45% of content must be from labor paid \$16/hr or more (but does not rise with inflation)
 - Intended to reduce inputs from low-wage Mexico, benefiting US and Canada

NAFTA → USMCA

• Effects of tighter ROOs

- If ROOs are
 - Satisfied: Higher costs of production
 - Not satisfied: Tariffs on traded inputs and final products
- Either way
 - Prices rise
 - Demand falls
 - Products become less competitive internationally
- Effects on demands for labor ambiguous throughout



NAFTA → USMCA

• Will USMCA be ratified?

- Needs ratification in all three countries
- In US, there are problems
 - Democrats want changes
 - Stronger enforcement of labor provisions
 - Remove tariffs on steel and aluminum
 - Approval requires a report from USITC, delayed by government shutdown, but was issued Apr 18
- Trump threatens to issue six-month withdrawal notice from NAFTA



NAFTA → USMCA

• USITC Report Main Findings

- Positive impact on US real GDP and employment
 - Raise GDP by 0.35%
 - Raise employment by 0.12 %
- Most significant effects from
 - Reduced uncertainty in digital trade
 - Rules of origin in auto sector
- Auto sector
 - Increase in US production
 - Small increase in prices and reduced demand

NAFTA → USMCA

• News from Michigan

- April 24, MLive:

Trump's trade deal wins big praise from Michigan's Big Three automakers





Conclusion




Conclusion

- **Trump's trade actions in 2018**
 - In all states, but especially Michigan
 - Raise prices to consumers
 - Raise costs to producers
 - Alienate other countries



Conclusion

• May they serve any purpose?

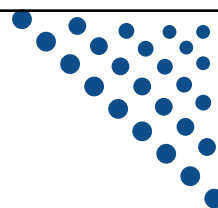
- Not to reduce trade deficit(s)
 - Tariffs may reduce both exports and imports
 - They do not change overall trade balance
 - Mar 6, 2019, NYT:
 - “The United States trade deficit in goods ballooned to its largest level in history, reaching \$891.3 billion in 2018, despite President Trump’s repeated promise to reduce that figure.”

Conclusion

• May they serve any purpose?

- Perhaps to motivate other countries to change policies for the better
 - US is negotiating with
 - China, to change their IP policies and increase imports from US
 - EU and Japan to open to more imports of agricultural goods from US

Thank you!



Any Questions?

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