# Osher Lifelong Learning Institute, Winter 2020 What Economists Know About Important Policy Issues

### Lecture 4: Trade and Globalization

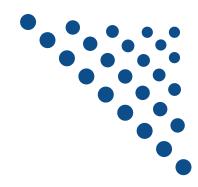
February 19, 2020

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National Economic Education Delegation



## **Course Outline**



### What Economists Know About Important Policy Issues

- Week 1 (1/22): US Economic Update

- Week 2 (1/29): Government Budgets

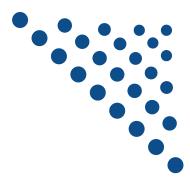
- Week 3 (2/5): Climate Change

- Week 4 (2/19): Trade and Globalization

- Week 5 (2/26): Income Inequality







### **Trade and Globalization**









## **Credits and Disclaimer**

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- Globalization
- International Trade
- Foreign Direct Investment
- Trade Policy



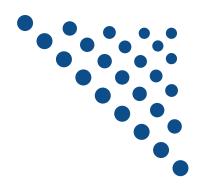
## What is Globalization?

- The growing interdependence of the world's:
  - Economies
  - Cultures
  - Populations

- Brought about by cross-border flows of:
  - Goods and services
  - Technology
  - Investment
  - People
  - Information



## What Drives Globalization?



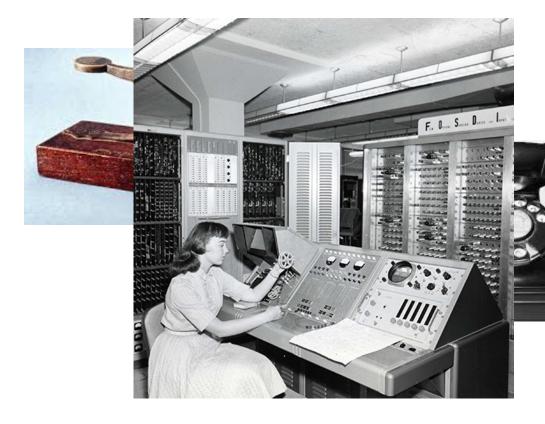
- Transportation
- Technology
- International Cooperation

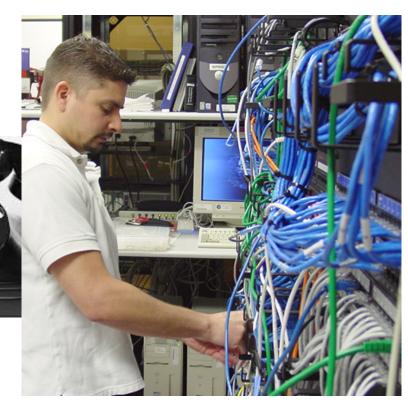


**Transportation** 



## Technology







**International Cooperation** 



1995

## World Trade Organization (WTO)

:he

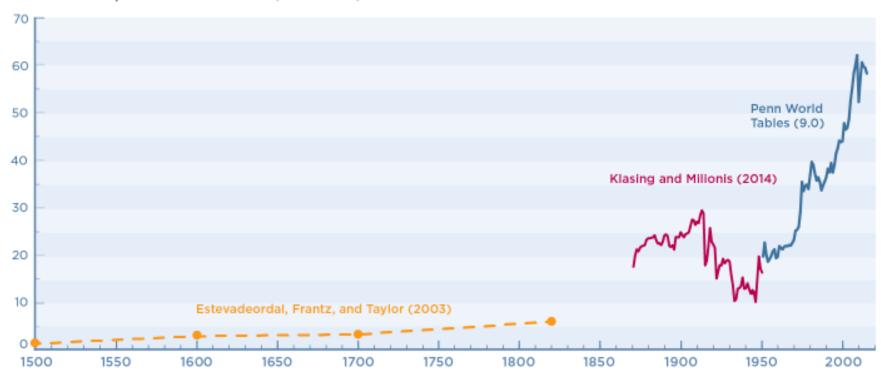
The modern trading system governed by rules is established, replacing the GATT.





### Trade has skyrocketed in the past century

World trade as percent of world GDP (1500-2014)

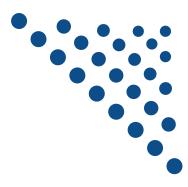


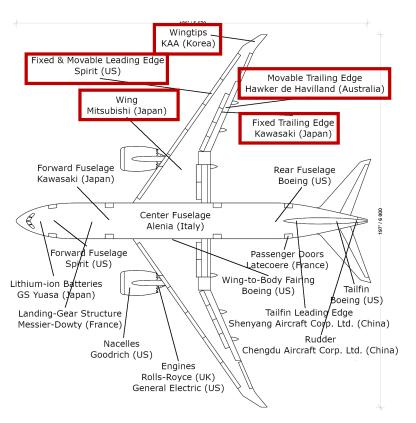
Note: This chart displays data from three sources. Data from 1500 to 1820 is the average of the upper and lower bound and only includes the years 1500, 1600, 1700, and 1820. Data not available from 1821-1869.



Sources: See chart, "Globalization over 5 centuries," at https://ourworldindata.org/trade-and-globalization for full citations.

## **An** example: The Boeing 787 Dreamliner

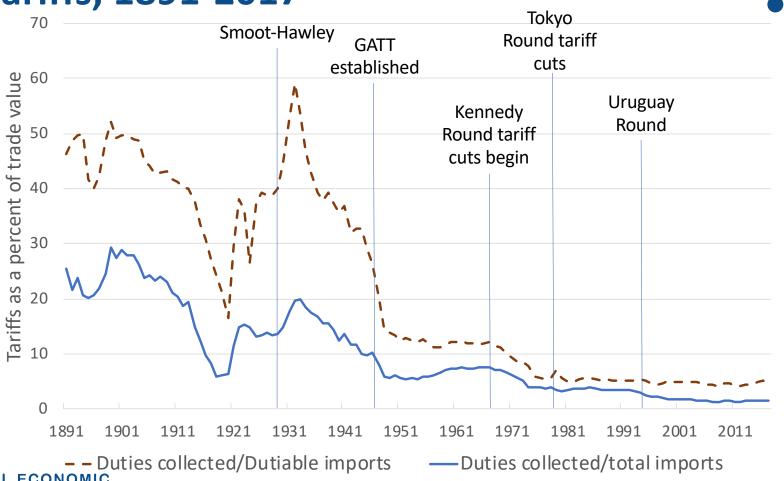




- Parts and components from suppliers all over the world:
  - Japan
  - Italy
  - China
  - Australia
  - ...

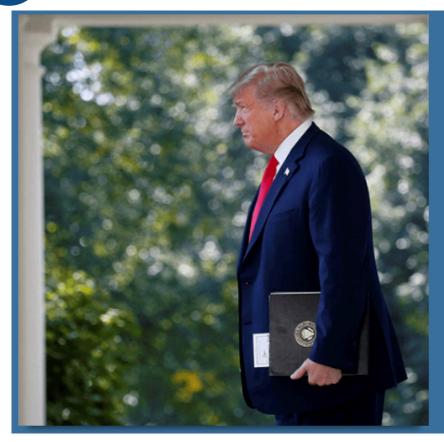


## **US** Tariffs, 1891-2017





## International Cooperation – Ending?



2017 - 2018

### **President Donald Trump Repudiates Trading System**

Trump withdraws from the Trans-Pacific Partnership (TPP), threatens to abandon NAFTA (then later negotiates a preliminary deal that <u>adds new restrictions</u>), and criticizes WTO rules as unfair to the United States. His administration imposes tariffs against China and US allies, which escalates into a tit-for-tat trade war.





## **International Trade**

**Exports and Imports** 



## **Exports and Imports**



- Exports: goods or services sold to another country
- Imports: goods or services bought from another country

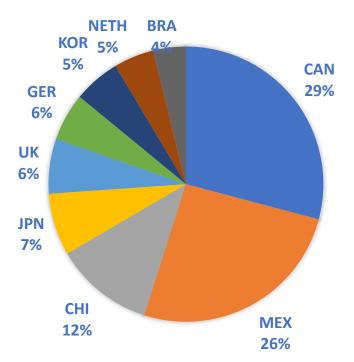
US exports (2016 shares)				US imports (2016 shares)			
Goods		Services		Goods		Services	
Planes	4.5%	Bus/Fin/Ins	34%	Cars	8.2%	Bus/Fin/Ins	34%
Crude Petroleum	4.3%	Travel	27%	Crude Petroleum	4.7%	Travel	24%
Cars	4.2%	Royalties	17%	Computers	4.1%	Transport	19%

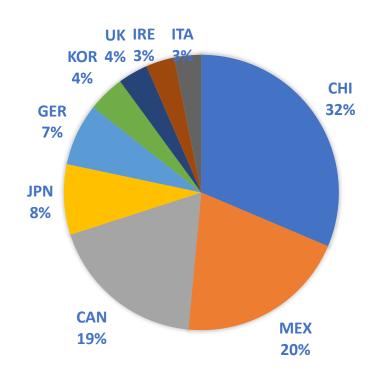


## Top US Trade Partners (Goods, 2018)







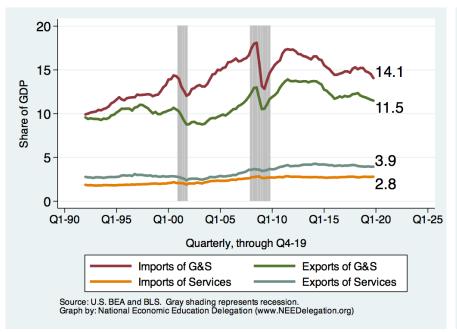




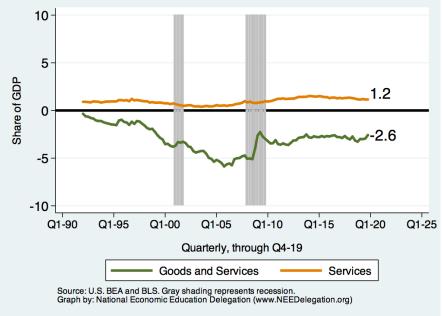
## **Importance of US Trade**



### US trade as % of GDP



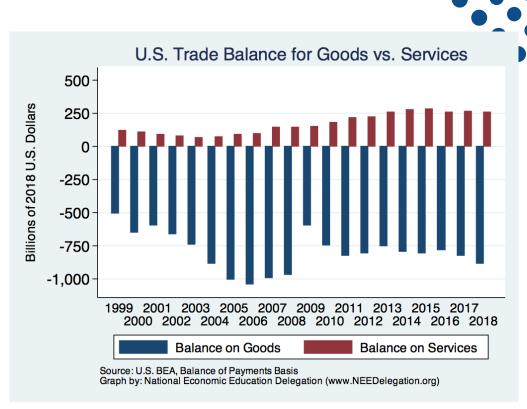
### US trade balance as % of GDP





## U.S. Trade Deficits: 2018

- Overall, a nearly \$627 Billion trade deficit (3% of GDP)
- Goods trade deficit over \$887
   Billion
- Services trade surplus of about \$260 Billion





## Why Do Countries Trade?



- Competition
- Varieties
- Efficiency



## Why Might Efficiency Differ Across Countries?

## ntries?

#### Labor

- Skilled or unskilled

### Technology

- Some countries have firms that produce some goods well
- Other countries have firms that produce other goods well

#### Environment

- Cold/Warm

Wet/Dry

Sunny/Cloudy

#### Land

- Rocky, soil, fertile, barren
- Tundra, desert, grasslands, forest



## Comparative Advantage – Key Notion



- Two kinds of advantage: absolute and relative
- E.g., Babe Ruth vs Madison Bumgarner

- Babe Ruth: ERA – 2 Batting average - .350

- Madison Bumgarner ERA – 3 Batting average - .185

- Babe is better at both
  - Absolute advantage
- If only one can bat and one can pitch, who does what?
  - Relative advantage



## Relative Advantage



- Babe has an absolute advantage in both activities.
  - He is better at both pitching and hitting
- Is he RELATIVELY better at one than the other?
  - Pitching: Babe is 33% better (era of 2 vs 3)
     Hitting: Babe is 100% better (.350 vs .185)
- Babe has a relative advantage in hitting
  - So: Babe should hit and Madison should pitch
- Relative advantage determines comparative advantage
  - Babe has a COMPARARTIVE ADVANTAGE in hitting
  - Madison has a COMPARATIVE ADVANTAGE in pitching



## Same Holds True for Countries





- Every country has a good or a set of goods that it is RELATIVELY better at producing.
  - Those are the goods that it will export.
  - It will import the other goods.
- There are exceptions.
  - Varieties and competition
  - May find countries trading the same goods back and forth.



## Trade Contributes to Growth



### • EFFICIENCY:

 Allocates production across countries efficiently so that countries can specialize in what they are best at producing.

### Varieties

- More choice for consumers.
- Better inputs for our production.

### Competition

- Brings in cheaper goods.
  - Makes consumers better off.

### Economies of Scale

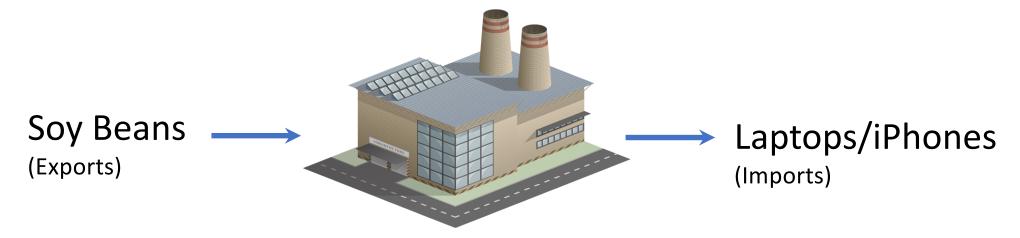
- Trade makes some industries bigger, more cost efficient. Lowers prices.





## **How to Think About Imports**

• Think about international trade as the introduction of a new technology.





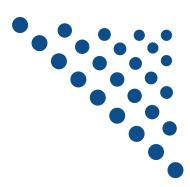
## What Does the Data Say? Trade Lowers Prices for Consumers



- Effect of import surge from China: 2000-2007
  - Prices would be about 10% higher without this import surge.
  - Benefits for U.S. consumers of \$100,000 per lost manufacturing job.
- Do rich or poor benefit more from lower import prices?
  - Evidence is mixed.



## Why is the public turning against trade?



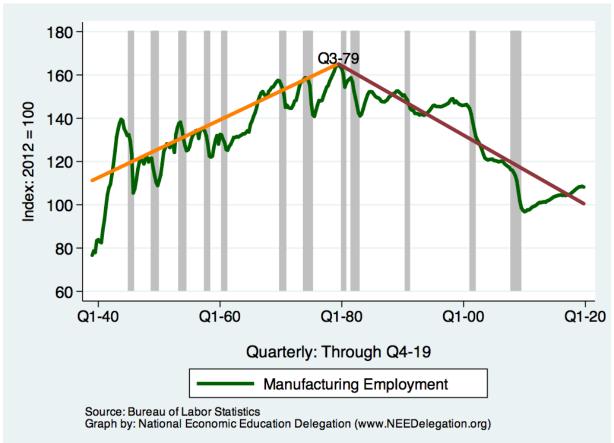
- Gains from trade are very large for the economy, BUT
  - Not always noticeable by consumers.
     Not clear why prices are falling at WalMart?
  - Individual might save \$50, but
  - \$50 x 300 million = \$15 billion!
- Costs of trade are very high for some workers and groups
  - these costs have not been sufficiently appreciated or addressed by policymakers





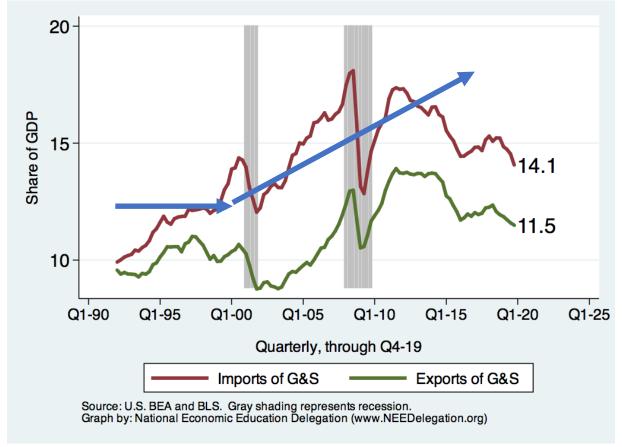


### The Basic Issue: Inverted V of Jobs in Manuf.



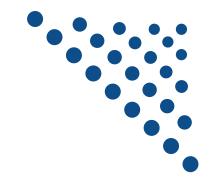


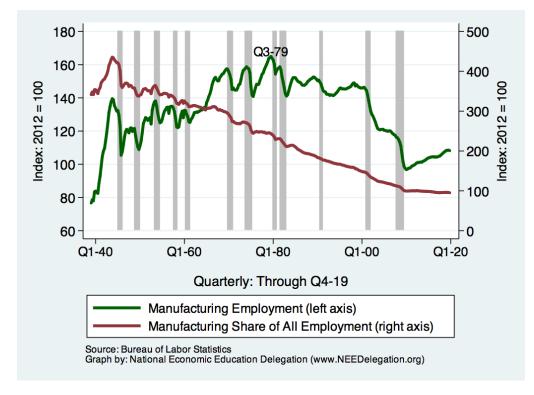
"International Trade is Surely a Contributor!"





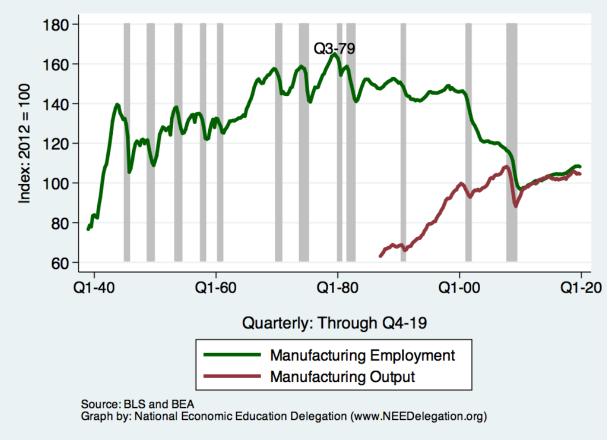
## But There is No V in the Fraction of Jobs in Manufacturing







## And Manufacturing Output Keeps on Growing of





## **Another Problem: Trade Deficit**



- Massive Trade Deficit
  - 2.9% of US GDP
  - \$893 Billion in 2018 for goods
- Massive Trade Deficit with China
  - 2/3 of US Trade Deficit



## **How to Think About the Trade Deficit**

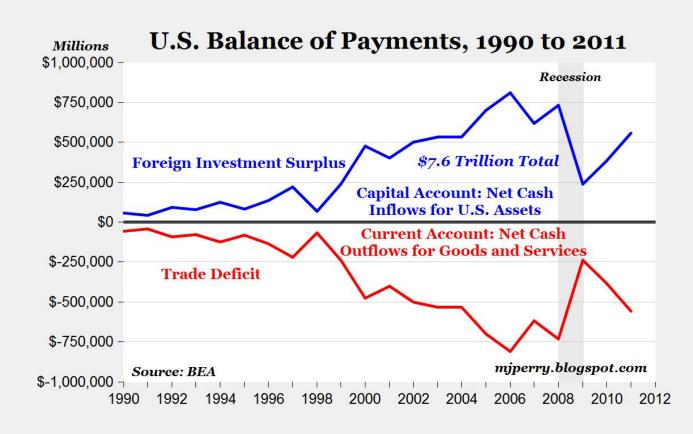


- A trade deficit is when:
  - VALUE of imports > VALUE of exports.
- Why does this happen?
- International transactions include:
  - Imports and exports of goods and services

- Current Account
- ALSO: imports and exports of assets (investments)
- Capital Account
- The TRADE DEFICIT only looks at the Current Account



### Trade and Investment Flows Balance Out





## **Exc**hange Rates Prevent an Overall Deficit



- As the trade deficit grows:
  - The price of the dollar declines.
- As the price of the dollar declines:
  - Investing in the United States becomes more attractive.
- As investing in the US is more attractive:
  - The financial account surplus grows.
- The financial account surplus offsets the trade deficit.
- Balance on international accounts is restored.



#### Balanced Budgets & Increased Savings

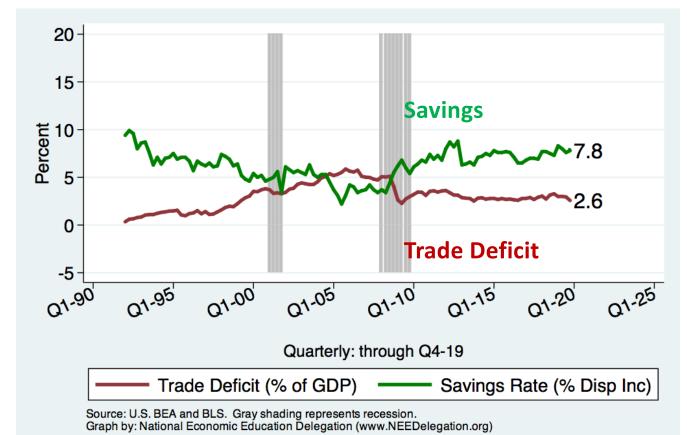


- Reducing federal borrowing would reduce pressure on trade deficits.
- More savings would mean more domestic investment and less borrowing from abroad.





#### **US** Savings and the Trade Deficit



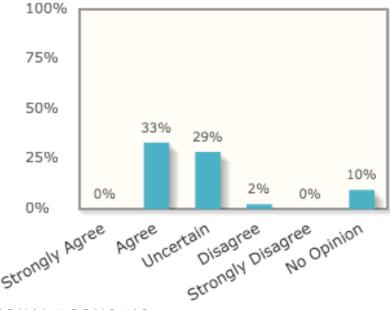


### General Agreement Among Economists

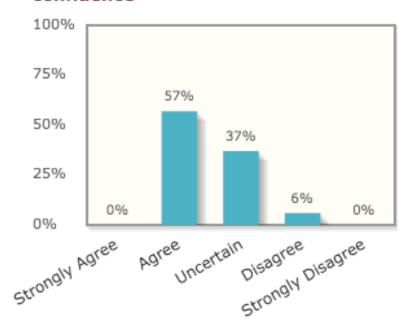


If the US reduced its fiscal deficit, then its trade deficit would also shrink.

#### Responses



#### Responses weighted by each expert's confidence



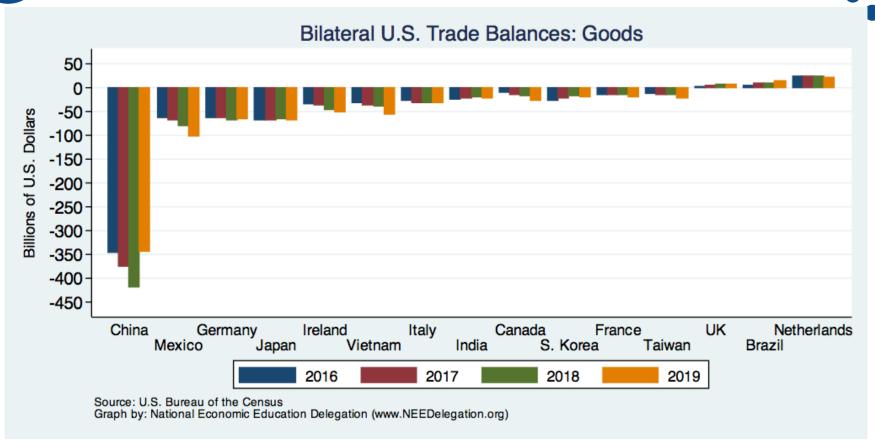


Trade With China: 63% of US Trade Deficit





#### **Bil**ateral Trading Relationships





#### Bilateral Trade Deficits are Unimportant



- Natural result of an overall trade deficit.
- Likely result from specialization.
- Can be exaggerated by mismeasurement of bilateral trade flows.
  - Value added vs total value
- Are unlikely to be a result of foreign country's trade policies.



# Not That Trade Has Been Absolved of all Ills:

#### **DISTRIBUTIONAL IMPACTS**



### 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?



# What Does the Data Say? Trade Benefits Some Workers



- Trade liberalization raises wages at "most globalized" firms
  - Wages higher because
    - o lower tariffs on imported inputs used by firm
    - o lower tariffs on products sold by exporting firms



# What Does the Data Say? Trade Hurts Some Workers



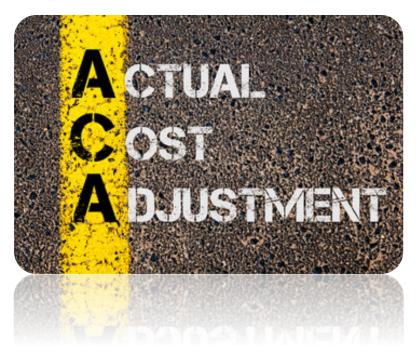
- Some parts of US highly exposed to import competition.
  - Workers tend to be "stuck" in these locations and/or industries.
  - So they suffer
- Effects of Chinese import competition: 1990-2007
  - Higher unemp, lower labor force participation & wages in exposed locations
    - Accounts for nearly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



# **Costs of Trade**



- Trade with low-wage countries will lower the earnings of low-wage workers as a group in the U.S.A
- Perhaps more importantly, however, is that the adjustment costs are big.
  - People do not like to move, and getting laid off can be very traumatic, wages likely fall.
- Costs of trade.
  - Inequality
  - Adjustment costs





### **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)







### **Estimates of Adjustment Costs**



#### FIRMS

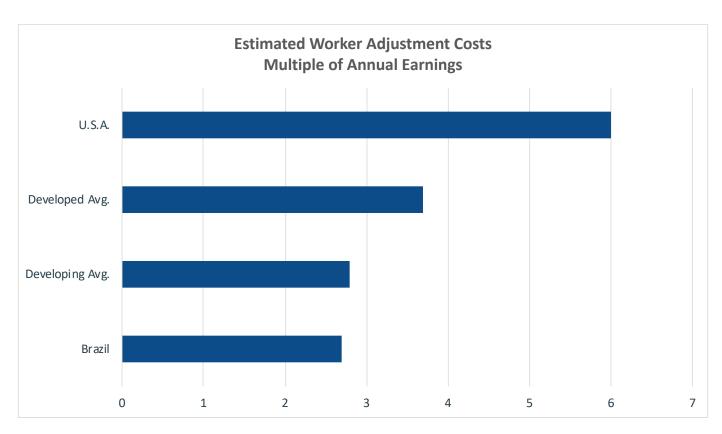
- Estimates from developed countries suggests that costs are high
- High adjustment costs cause firms to hire and fire in large groups, rather than gradually
- Estimates from developing countries suggest that firm-level adjustment costs are much lower than in developed countries

#### 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



#### **Estimated Costs to Workers of Changing Jobs**





# 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





# **Policy Solutions**



# **Tariffs**



- Tariffs temporarily reduce imports of particular goods.
- Tariffs raise prices.
  - Final goods (consumers)
  - Intermediate goods (producers who use imported inputs)
- Tariffs invite retaliation, lowering demand for our exports.
- Tariffs lower overall well-being.
- Tariffs are generally considered to be <u>an inefficient way</u> to help those people who are hurt by trade.

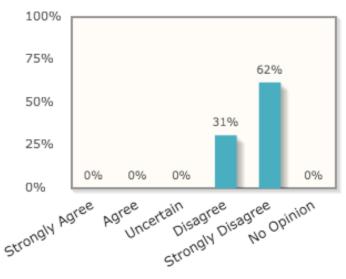


#### General Consensus of Economists on Tariffs

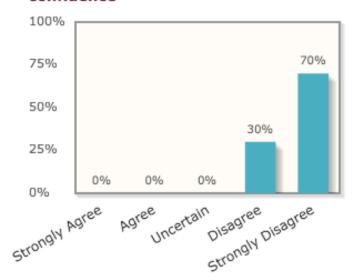


Adding new or higher import duties on products such as air conditioners, cars, and cookies — to encourage producers to make them in the US — would be a good idea.

#### Responses



#### Responses weighted by each expert's confidence





### **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





## Balanced Budgets

- Reducing federal borrowing would reduce pressure on trade deficits.
- Size of debt nearly 21 trillion in 2018 means that some combination of cutting spending and raising taxes would be necessary.
- Reducing the debt would also reduce the large share of the federal budget that is directed towards interest payments and free up money for other things.
- Reducing the debt also increases our economic security because it could reduce foreign debt exposure.







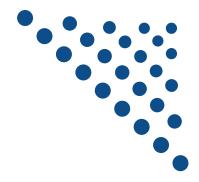
# Trade Summary



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



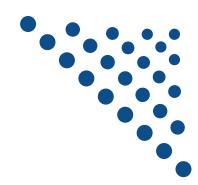




#### Trump's Trade Wars: Where Do We Stand?



# Trump's 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

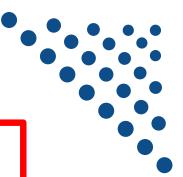
- Raise prices for importers
- Lower prices for exporters
- Cause substitution
  - To other products
  - To other countries (if pot on all)

Net economic effect is almost always negative

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



### Trump's Trade Actions



- May 18, 2017: NAFTA renegotiation begun
- Sep 30, 2018: USMCA agreed
  - USMCA: U.S.-Mexico-Canada Trade Agreement
- Jan 17, 2020: US Senate ratifies USMCA
- Jan 29, 2020: Trump signs USMCA



## Trump's 2018 Trade Actions



- Jan 22, 2018: Safeguard tariffs
  - 30% on solar panels
  - 50% on washing machines (Actually normal trade actions)



# **US**Trade Policy in Practice: Winners and Losers

- Tariffs: basic insights from trade theory
  - US tariffs = tax on US imports. So, higher consumer prices in US
  - Winners: US producers and (at least some of) their workers
  - Losers: US "consumers", including any "consuming" firms and their workers
- Safeguard tariffs on solar panels & washing machines
  - Presumed winners: US solar panel & washing machine producers
    - o Suniva, SolarWorld, Whirlpool...
    - But #1: China cuts consumption subsidies → massive fall in Chinese demand
    - But #2: LG and Samsung relocating washing machine production to the US
  - Losers: US "consumers" of solar panels and washing machines
    - "Consumers" can be firms
    - o Solar panels: 85% of employment in distribution and installation



### Trump's 2018 Trade Actions



- 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)
    - Canada & Mexico exempted much later



### **US**Trade Policy in Practice: Winners and Losers

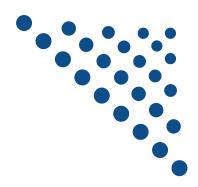
#### National security tariffs on steel & aluminum

- Winners: US steel producers (Nucor, United States Steel, AK Steel) & workers
  - 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 >= 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%



### Tariffs on Steel and Aluminum

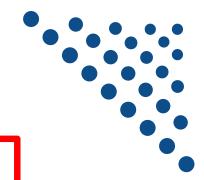


#### Responses to metals tariffs

- Retaliation by China, EU, Canada, & others
  - Tariffs on US
- WTO disputes
  - May-Aug: Complaints filed <u>against</u> US
  - Jul: Complaints filed by US



# Trump's Trade Actions



- May 23, 2018: Initiates Commerce Dept investigation of car and car part imports
  - Feb 17, 2019: Commerce approves tariffs
  - Feb 2020: Still pending, waiting for Trump



### **US**Trade Policy in Practice: Winners and Losers

- Proposed national security tariffs on autos & auto parts
  - US car producers are winners... wait, they're actually losers!
    - Large consumers of imported autos and auto parts
    - Large exporters & fear foreign retaliation
    - Strong opposition from GM, BMW, Toyota, Honda, Nissan, Mitusbishi...
  - US auto parts producers are winners... wait, they're actually losers!
    - Lower production of autos means less demand for auto parts
    - Strong opposition: auto parts association (MEMA)
  - Losers: US consumers
    - Estimated price increases for new cars of 10-20%
  - Winners: auto workers union (UAW) supports tariffs
    - o Auto & auto parts firms say they'll scale back US production
    - Union claims these firms will scale up US production



#### 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?
  - OUAW has spoken in favor of "target measures" with the understanding that broad tariffs or quotas "could cause harm" including "mass layoffs for American workers."





# China Tariffs

- 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

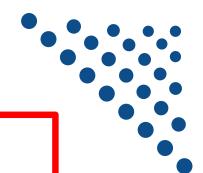


#### Trump's Trade Actions

- 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
- May 10, 2019:
  - Tariffs on \$200 billion rise from 10% to 25%
- Sep 1, 2019: Fourth tariffs on China, \$112 billion
  - & plan for \$160 billion Dec 15



#### Trump's Trade Actions



- Dec 13, 2019: Trump cancels Dec 15 increase
  - Says "Phase One Deal" is coming
- Jan 15, 2020: Phase One Deal signed

(More on that in a moment)



## China Tariffs

#### • 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 said it's "easy to win" because he measures success from trade deficit







## Trade War







#### • Effects of the 2018-19 Trade War

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

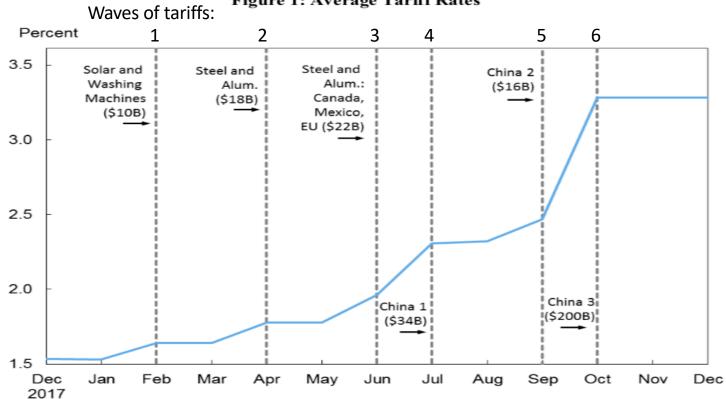
Source: Amiti, Redding, and Weinstein, "The Impact of the 2018 Trade War on U.S. Prices and Welfare," CEPR Discussion Paper DP13564, March 1, 2019.







Figure 1: Average Tariff Rates

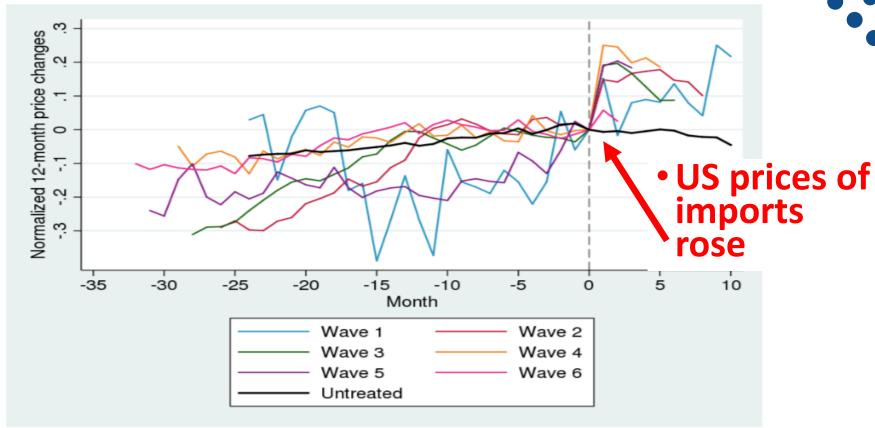


Source: US Census Bureau; USTR; USITC; authors' calculations.



## Trade War

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





## Trade War: Chinese Retaliation

#### United States

- March 9: US Tariffs on steel and aluminum
- April 3: US tariffs on \$50 bn in imports from China
- April 5: considering tariffs on another \$100 bn
- June 15: another \$50 bn
- August 2: another \$200 bn
- August 23: another \$30 bn
- October 30: US hints at tariffs on remaining Chinese imports

#### China

- March 23: tariffs on \$3bn of imports from the US
- April 4: Tariffs on \$50 bn in imports from US
- June 19: tariffs on \$50 bn US goods
- August 3: another \$60 bn
- August 23: another \$30 bn
- China is out of ammunition

#### Did the US Win?





## **How to Think About the Trade War**

- Will it stimulate a solution to the underlying problems?
  - Intellectual property theft.
  - Trade deficit
- Will it help low skilled workers? Those most affected by imports.
  - Possibly, but at what cost?
- Will it foster greater cooperation between the United States and China?
  - Future trade agreements.
  - Future trade disputes
  - Other international issues
- What about other economic implications?
  - uncertainty







#### Purchases

- China promised to increase purchases compared to 2017, with 2-year totals of
  - \$77.7 billion of manufactures
  - \$52.4 billion of energy products
  - \$32 billion of agriculture (e.g., soy, meat, seafood)
  - \$37.9 billion of services





#### Intellectual Property

- China will increase IP protections
- No commitment to stop cybertheft

#### Technology Transfer

 China to stop forcing US companies to hand over technologies

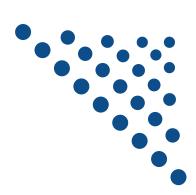
#### Food and Agriculture

February 11, China announced it is - China to loosen some barriers to imports letting MasterCard in.

#### Financial Services

- China & US both open to more competition





- Macroeconomics & Exchange rates
  - Both pledge not to devalue currencies



- Officials to meet regularly to address violations
- If not resolved, either side can
  - Impose punitive measures (e.g., tariffs)
  - Without "counter-response" (if in good faith)

#### New negotiations for "Phase Two"

- Will happen, but with no time line





#### Tariff Cuts?

- Not mentioned in the agreement
- China may (and actually, already has) cut some tariffs, perhaps as a means to increase imports
- US has not, at least formally, promised anything
- Tariff cuts are said to wait for Phase 2 deal, probably not until after November election







# Conclusion





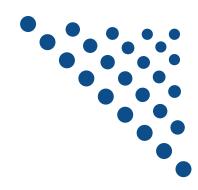


#### Trump's trade actions:

- Raise prices to consumers
- Raise costs to producers
- Alienate other countries







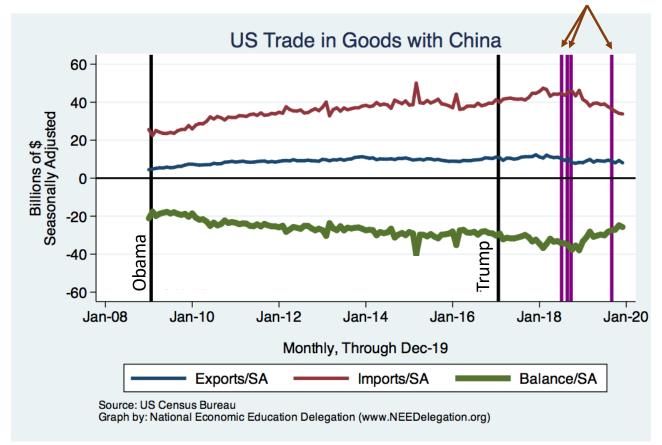
#### • May they serve any purpose?

- Not to reduce trade deficit(s)
  - Tariffs may reduce both exports and imports
  - oThey do not change overall trade balance



## Trade Deficit Effects: It's Working!







Maybe....Maybe Not...







## Unintended Consequences: Falling Exports Trump |







## Conclusion

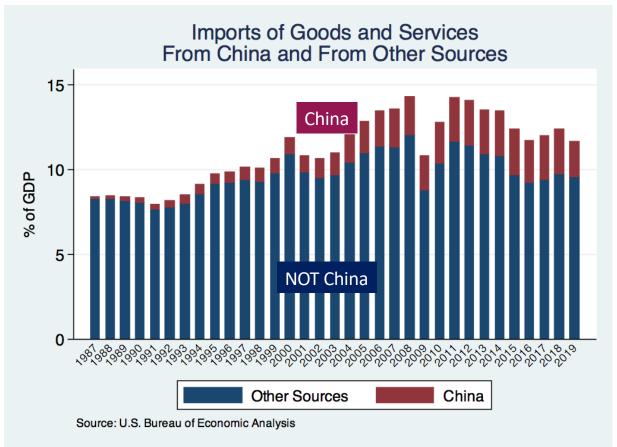


#### • May they serve any purpose?

- Perhaps to motivate other countries to change policies for the better
  - US has negotiated with
    - China, to change their IP policies and increase imports from US (Phase One Deal)
    - EU and Japan, to open to more imports of agricultural goods from US (Nothing yet)
    - Mexico, to limit migration



### China: The Problem? The Solution?









## **Any Questions?**

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