

Ecole Polytechnique, 2ème Année, Eco-434 Economie Internationale
PC 1 – Introduction et faits stylisés sur la mondialisation

What is Globalization?

And how has the global economy shaped the United States?

Source : Peterson Institute for International Economics

(<https://piie.com/microsites/globalization/what-is-globalization.html>)

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After centuries of technological progress and advances in international cooperation, the world is more connected than ever. But how much has the rise of trade and the modern global economy helped or hurt American businesses, workers, and consumers? Here is a basic guide to the economic side of this broad and much debated topic, drawn from current research.

Globalization is the word used to describe the growing interdependence of the world's economies, cultures, and populations, brought about by cross-border trade in goods and services, technology, and flows of investment, people, and information. Countries have built economic partnerships to facilitate these movements over many centuries. But the term gained popularity after the Cold War in the early 1990s, as these cooperative arrangements shaped modern everyday life. This guide uses the term more narrowly to refer to international trade and investment among advanced economies, mostly focusing on the United States.

The wide-ranging effects of globalization are complex and politically charged. As with major technological advances, globalization benefits society as a whole, while harming certain groups. Understanding the relative costs and benefits can pave the way for alleviating problems while sustaining the wider payoffs.

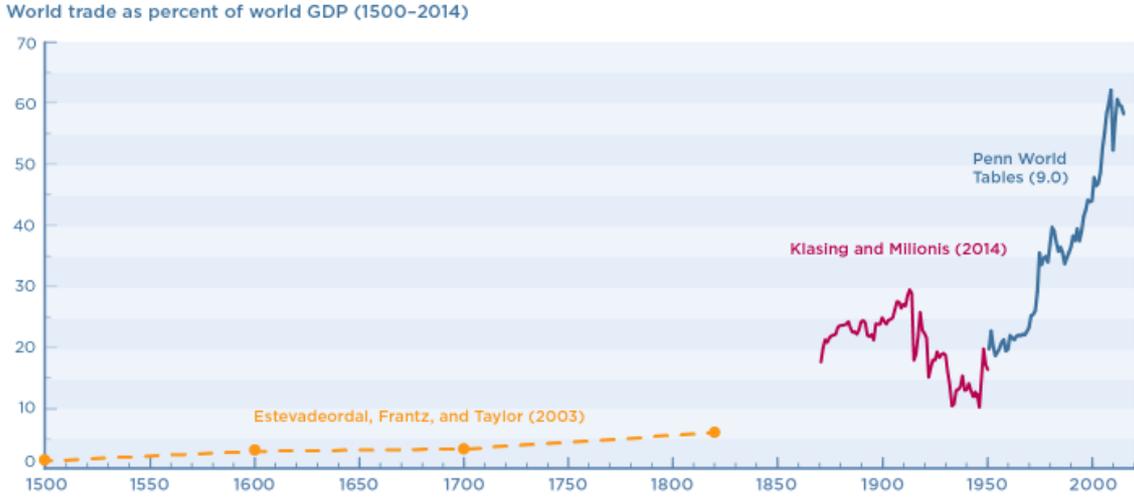
THE HISTORY OF GLOBALIZATION IS DRIVEN BY TECHNOLOGY, TRANSPORTATION, AND INTERNATIONAL COOPERATION

Since ancient times, humans have sought distant places to settle, produce, and exchange goods enabled by improvements in technology and transportation. But not until the 19th century did global integration take off. Following centuries of European colonization and trade activity, that first “wave” of globalization was propelled by steamships, railroads, the telegraph, and other breakthroughs, and also by increasing economic cooperation among countries. The globalization trend eventually waned and crashed in the catastrophe of World War I, followed by postwar *protectionism*, the Great Depression, and World War II. After World War II in the mid-1940s, the United States led efforts to revive international trade and investment under negotiated ground rules, starting a second wave of globalization, which remains ongoing, though buffeted by periodic downturns and mounting political scrutiny.

Appendix A.1 illustrates the main steps in the history of globalization from 1800 to 2017.

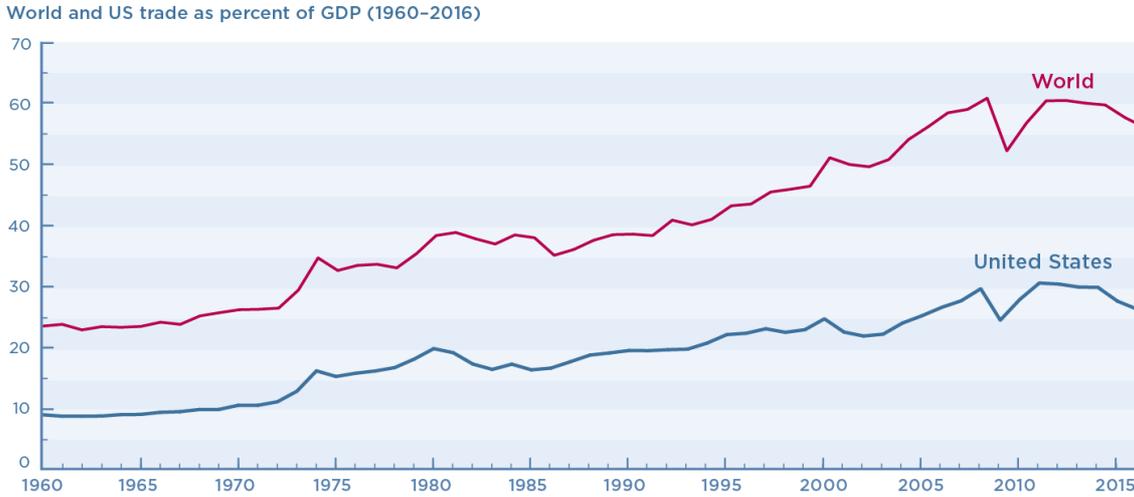
GLOBALIZATION IN CHARTS

Trade has skyrocketed in the past century



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.

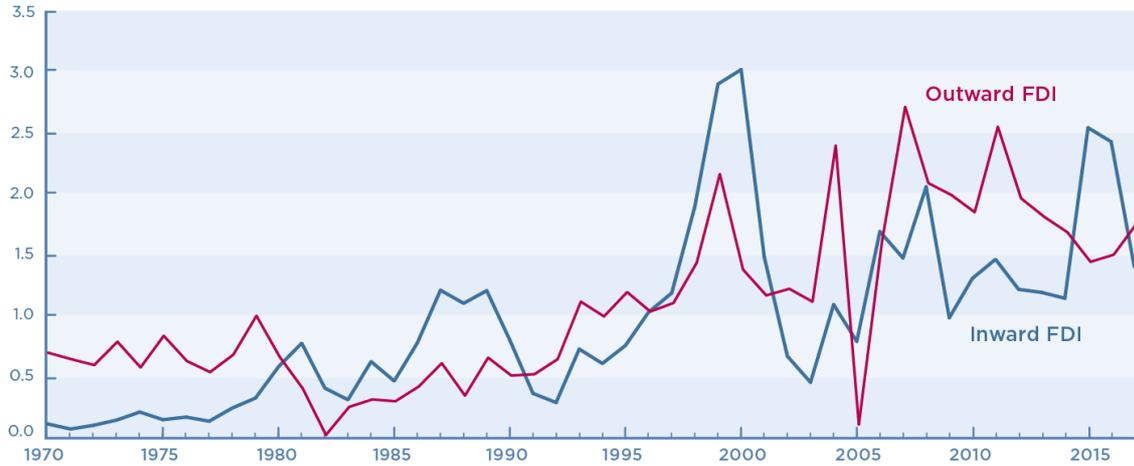
Trade grew to a third of the US economy and over half of the world's economy



Sources: World Bank: World Bank DataBank and International Debt Statistics; International Monetary Fund: International Financial Statistics and Balance of Payments databases; GDP estimates from World Bank and Organization for Economic Cooperation and Development.

Investments coming into the United States and going abroad have grown

US foreign direct investment (FDI) as percent of GDP (1970-2017)



Source: UNCTAD Statistics.

US import taxes dropped considerably post-World War II

Average US tariff rates on dutiable imports (1790-2016)

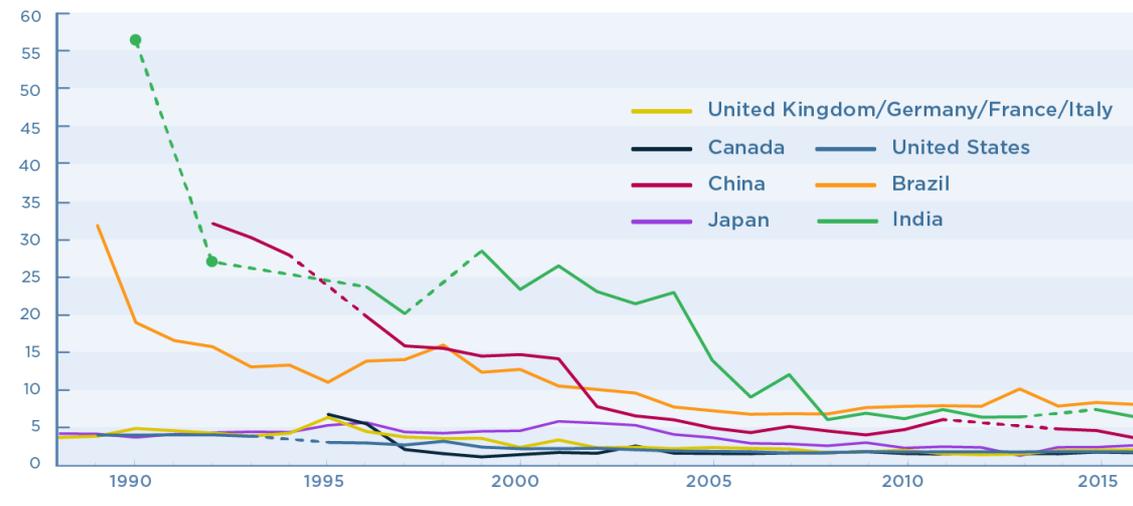


Note: Rates are weighted by trade value. Dotted line indicates years when data are not available.

Source: US International Trade Commission. Compiled by Douglas A. Irwin.

Major economies dropped tariff rates and kept them low

Average applied tariff rates (1988–2016)



Note: Shows world's ten largest economies, 2016. Rates are weighted by trade value. Dotted lines indicate years when data are not available.

Source: World Bank DataBank.

China, India, and Brazil dropped their rates to enter the World Trade Organization (WTO).

Global supply chains dominate world trade

World trade in intermediate vs. final goods as percent of GDP (1970–2014)



Source: Agustín Carstens, "Global market structures and the high price of protectionism," remarks at the Federal Reserve Bank of Kansas City's 42nd Economic Policy Symposium, Jackson Hole, Wyoming, August 25, 2018 (<https://www.bis.org/speeches/sp180825.pdf>).

Global supply chains are production networks that assemble products using parts from around the world (known as *intermediate goods*). Today, **80 percent of world trade** is driven by supply chains run by multinational corporations. Trade in intermediate goods is now nearly twice as large as trade in final goods and is especially important in advanced manufacturing, like autos.

China has become the biggest source of US imports

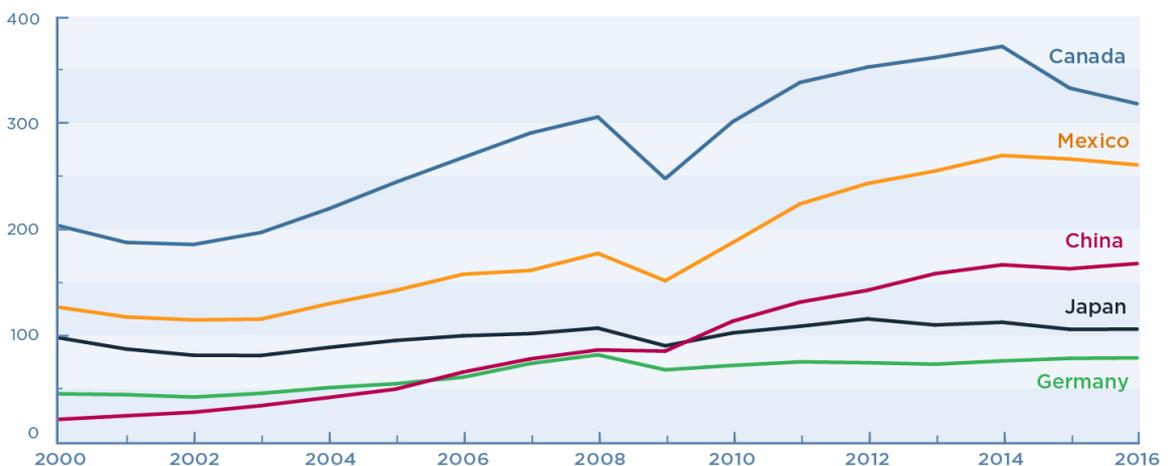
Top sources for US imports of goods and services, billions of dollars (2000–2016)



Sources: UN Comtrade; top trading countries from US Census (<https://www.census.gov/foreign-trade/statistics/highlights/top/top1807yr.html>).

Canada and Mexico remain best customers of US exports, with Chinese market growing

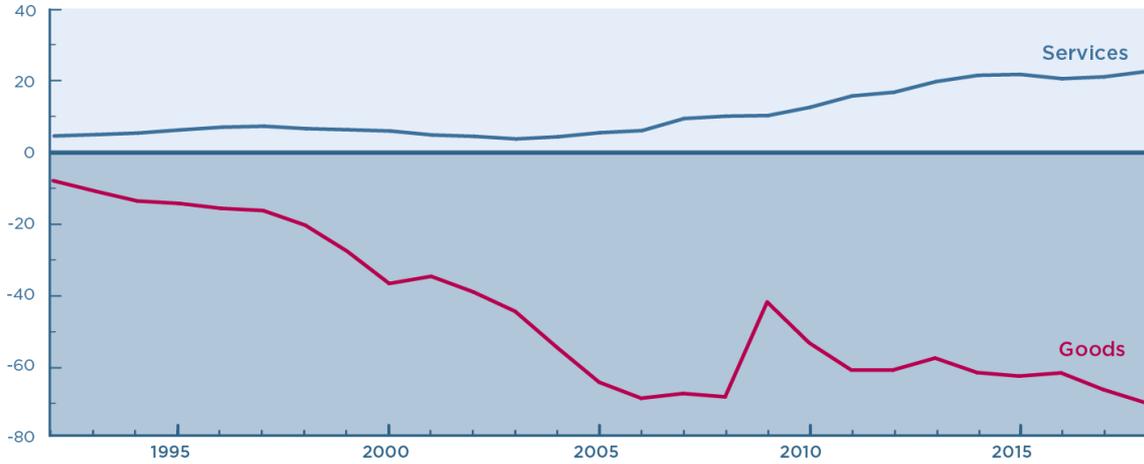
Top destinations for US exports of goods and services, billions of dollars (2000–2016)



Sources: UN Comtrade; top trading countries from US Census (<https://www.census.gov/foreign-trade/statistics/highlights/top/top1807yr.html>).

United States has growing trade surplus in services and deficit in goods

US trade balance in goods vs. services, billions of dollars (1992–July 2018)



Note: Annual values are averages of monthly values.

Sources: US Bureau of Economic Analysis and US Bureau of the Census, "Trade Balance: Goods, Balance of Payments Basis [BOPGTB]" and "Trade Balance: Services, Balance of Payments Basis [BOPSTB]," retrieved from FRED, Federal Reserve Bank of St. Louis, on September 12, 2018 (<https://fred.stlouisfed.org/series/BOPGTB>).

The surplus in services suggests the competitive strength of US services in the global market. The United States had an overall trade deficit of \$447 billion in 2017, according to the US International Trade Commission, as a result of Americans [spending more than they earn](#) and financing the difference with foreign credit. For more, watch the video, "[Is the US Trade Deficit a Problem?](#)" and *Appendix A.3*.

Appendix A.2 replicates some of these graphs for other (mostly European) countries.

GLOBALIZATION AS A TOOL FOR PROSPERITY AND PEACE

After World War II, the United States helped build a global economic order governed by mutually accepted rules and overseen by multilateral institutions. The idea was to create a [better world](#) with countries seeking to cooperate with one another to promote prosperity and peace. Free trade and the rule of law were [mainstays of the system](#), helping to prevent most economic disputes from escalating into larger conflicts. The institutions established include:



IMF
**International
Monetary Fund**

Established 1944
189 member countries

Works to stabilize the system
and help countries facing
balance of payment and debt
crises.



UN
United Nations

Established 1945
193 member countries

Seeks to prevent conflict with
global security norms and
assistance for humanitarian
crises.



World Bank

Established 1945
189 member countries

Founded to help reconstruct postwar Europe, it now provides loans and policy advice to developing countries.



WTO

World Trade Organization

Established 1948, as the
General Agreement on Tariffs
and Trade (GATT)

Replaced 1995, by the WTO
164 member countries

Sets rules for international trade and adjudicates trade disputes. Member countries agree to WTO rules, but can also negotiate free trade agreements with each other. The United States has trade deals with 20 countries.



NATO

**North Atlantic
Treaty Organization**

**Established 1949
29 member countries**

Bulwark of Western security
alliance.

Appendix A4 discusses the risk that leaving the multilateral system would entail.

EFFECTS OF GLOBALIZATION

MORE GOODS AT LOWER PRICES

Globalization encourages each country to specialize in what it produces best using the least amount of resources, known as *comparative advantage*. This concept makes production more efficient, promotes economic growth, and lowers prices of goods and services, making them more affordable especially for lower-income households.

See Chapter 2 of this course

SCALED UP BUSINESSES

Larger markets enable companies to reach more customers and get a higher return on the fixed costs of doing business, like building factories or conducting research. Technology firms have taken special advantage of their innovations this way.

See Chapter 3 of this course

BETTER QUALITY AND VARIETY

Competition from abroad drives US firms to improve their products. Consumers have better products and more choices as a result.

INNOVATION

Expanded trade spurs the spread of technology, innovation, and the communication of ideas. The best ideas from market leaders spread more easily.

JOB CHURN

Globalization supports new job opportunities but also contributes to job displacement. It does not significantly change the total number of positions in the economy, as job numbers are primarily driven by business cycles and Federal Reserve and fiscal policies. Nevertheless, a [Peterson Institute study](#) finds 156,250 US jobs were lost on net each year between 2001 and 2016 from expanded trade in manufactured goods, which represents less than 1 percent of the workers laid off in a typical year.¹ Low-wage workers in certain regions are most affected. Many of them also face lower earnings or have dropped out of the workforce. Bigger factors than trade driving job displacements are labor-saving technologies, like automated machines and artificial intelligence. Better-paying positions have opened up in manufactured exports—especially in high-tech areas, such as computers, chemicals, and transportation equipment—and other high-skill work, notably in business services, such as finance and real estate.

See Appendix A5 on the impact of Chinese import competition on the local structure of employment and wages in France

¹ In 2016, 19.9 million workers were laid off or discharged (i.e., involuntary separations).

DECLINE IN GAP BETWEEN RICH AND POOR GLOBALLY, BUT WIDER INEQUALITY WITHIN UNITED STATES

Globalization has helped [narrow inequality](#) between the poorest and richest people in the world, cutting the number living in extreme poverty [by half](#) since 1990. But within many countries, including the United States, inequality is rising. A [consensus of scholarly work](#) holds that globalization has contributed marginally to rising US wage inequality, putting this factor at 10 to 20 percent. A leading explanation for [rising US inequality \[pdf\]](#) is that technology is reducing demand for certain low- and middle-wage workers and increasing demand for high-skilled, higher-paid workers. Wages have also stagnated, though economists are still debating the exact causes. Countries exposed to globalization have alleviated inequality to different degrees through tax and welfare systems. The United States has [done the least](#) among advanced economies to mobilize government policies to reduce inequality.

See Appendix A6 on the decline in international inequality and the rise in inequalities in OECD countries

GLOBALIZATION HAS DISPLACED SOME WORKERS, WHILE SUPPORTING HIGH-SKILL JOBS

Globalization changes the types of jobs available but has little effect on the overall number of jobs in the ever-changing US labor market. That being said, some workers have directly benefited from expanding global commerce, while others have not. Certain manufacturing and industry workers in specific geographic regions lost out, such as those in furniture, apparel, steel, auto parts, and electrical equipment industries in Tennessee, Michigan, and the mid-Atlantic states. A [widely cited study \[pdf\]](#) shows that between 1991 and 2007, lower-wage manufacturing workers within industries that faced import competition experienced large and lasting earnings losses, while higher-wage workers in these industries did not. The lower-wage workers may have lacked the skills and mobility to transition to other lines of work, whereas higher-wage workers relocated to companies outside manufacturing. [Studies show](#) that globalization has also diminished US worker bargaining leverage to demand higher wages.

Because US firms often beat international competitors at supplying high-skill services—like engineering, legal, consulting, research, management, and information technology—workers in these fields have benefited the most from globalization.²

Foreign-owned companies that do business in the United States have hired Americans at a faster rate than US private employers between 2007 and 2015. They also [pay better](#), do more research and development, export more, and invest more than the average US firm. The same is true, by comparison with local averages, of US firms that invest abroad. [One in five](#) American manufacturing workers is now employed by a foreign-owned company operating in the United States.

Demand will likely increase for more highly-skilled manufacturing workers, in areas such as engineering, management, finance, computer and mathematical occupations, and sales. The greatest areas of [job growth](#) now in the United States are in professional and business services, health care and social assistance, and educational services. More job training and education is needed to prepare workers for these jobs.

² *Business-service employment [expanded](#) more than 20 percent between 2006 and 2016. These jobs pay more than [20 percent](#) higher wages than the average manufacturing job.*

WHY SUPPORT GLOBALIZATION IF IT DISPLACES JOBS?

Economists look at the effects of globalization across the entire economy to weigh the pros vs. cons. Since the overall payoff is so much greater than the costs to individual workers or groups who have lost out, nearly all economists support having an open global market versus closing it off (see [example](#)).

Between 1950 and 2016 trade expansion

increased the size of the US economy by **\$2.1 TRILLION**

The equivalent to

\$7,000
per person

\$18,000
per household

every year

Effects on US manufacturing jobs (2001-16)

100,000
jobs gained every year,
including shifts from
other industries

200,000
jobs lost, moved elsewhere,
or replaced by other jobs
every year

out of
4 million
manufacturing job separations
for all reasons

Trade did *not* contribute to increased manufacturing unemployment

Year	Manufacturing imports as percent of GDP	Manufacturing unemployment rate
2002	8.5	5.5
2004	9.5	4.5
2006	10.5	4.5
2008	10.5	5.5
2010	11.5	11.5
2012	11.5	7.5
2014	11.5	5.5
2016	10.5	4.5

In fact, when manufactured imports rose relative to GDP, the manufacturing unemployment rate *declined*.

This demonstrates how the overall state of the economy is more important in determining job numbers than trade factors.

51 to 1

Payoff to US GDP compared to wage losses of affected workers, end of World War II to 2016

Wage losses are **TEMPORARY**
Limited in time to each cohort of affected workers

Gains are **PERMANENT**
Recurrent and accumulating year after year on a national scale

PIIE

Note: Trade expansion refers to the effects caused by additional manufactured imports and exports. *Source:* Gary Clyde Hufbauer and Zhiyao (Lucy) Lu, [The Payoff to America from Globalization: A Fresh Look with a Focus on Costs to Workers](#). For chart sources, see Figure 3 in Policy Brief. Total manufacturing job separations from Job Openings and Labor Turnover Survey, Bureau of Labor Statistics.

Other common arguments:

- *Globalization is like technological progress.* Both disrupt some livelihoods while enlarging the economic pie and opening up new and better-paying job opportunities. The internet, for instance, made many jobs obsolete but also created new higher-paying jobs and industries unheard of only a few decades ago.
- *Protectionism helps select groups but at a higher cost for everyone else.* Imposing tariffs on steel, for instance, helps certain domestic steel producers, but many more jobs depend on businesses that need some imported steel to make goods that are affordable. US consumers end up paying more for foreign goods because of the tariff and more for domestic goods because domestic producers often raise prices in the absence of foreign competition. Damage worsens when trading partners retaliate with their own tariffs on US exports. US agriculture is particularly vulnerable to retaliation.
- *The United States must keep open markets to stay competitive globally.* Other countries are continuing to open their markets to each other, forming regional supply chains that make production more efficient and products more affordable within their trading blocs (*See Appendix A6 on GVCs*). By not joining these deals, US exports have a difficult time competing. US businesses may also opt to move operations abroad to gain access to foreign markets.
- *Operating within a rules-based system allows for peaceful conflict resolution.* There are cases when unfair trade practices and abuses harm US producers. Maintaining international systems to address those problems is key to preventing mutually destructive trade wars—even real wars. Economic integration strengthens US security alliances, while trade wars weaken the ability of the United States to collaborate with allies.

CHINA IS NOT PLAYING FAIRLY, BUT BACKPEDALING ON GLOBALIZATION CREATES OTHER PROBLEMS

China’s rise has been one of the most dominant forces in the global economy. It entered the World Trade Organization in 2001 and undertook many reforms, cutting tariffs and other trade barriers. But it still has not completely transformed into a market-oriented economy as its trading partners expected. Many big Chinese companies have close ties with the government, and certain practices have skewed the playing field in trade. For instance, China unfairly demands that US intellectual property be [handed over](#) in certain cases as the price of doing business there. These practices discriminate against not only Americans but also US allies.

US administrations have taken different approaches to deal with these concerns. Negotiated under President Obama, the Tran-Pacific Partnership (TPP) agreement was intended to entice China to improve its practices by allowing the country in on the lucrative deal only if it agreed to new rules, but President Trump withdrew from the deal. Starting in March 2018, the Trump administration has imposed tariffs on China to change its behavior. So far, the country has only responded by retaliating with tariffs on US goods. There are ongoing efforts by the European Union, United Stated and Japan to negotiate new rules that would potentially be embedded within the WTO, but these talks are only in the early stages.

In addition to tariffs against China for unfair trade practices, Trump has imposed tariffs on almost all imported steel and aluminum after his administration identified those imports as national security threats. Most US steel imports are from allies, such as Canada and the European Union. Trump has also repeatedly threatened withdrawing from trade agreements and the WTO, among other “anti-globalist” actions.

Globalization has become so widely entrenched in the US and world economies that undoing its complicated web of activities - as the Trump administration’s tariffs and other barriers could do - could backfire and damage economic growth and national security alliances. Disrupting supply chains will likely hamper job growth, trade, and investment, raising costs for consumers and harming US global competitiveness.

Trade Actions	Risks
Engaging in a trade war, with escalating tit-for-tat tariffs	<ul style="list-style-type: none"> - Both countries lose economically when trade volumes decline - Costs rise, harming US competitiveness and making it harder for families to afford products - Retaliation hurts US exports
Withdrawing from free trade agreements, like NAFTA	<ul style="list-style-type: none"> - Disrupts global value chains that domestic businesses, workers, and consumers rely on to hold costs and inflation down

	<ul style="list-style-type: none"> - Can put the United States at a disadvantage since other countries continue to strike their own deals with each other that improve their competitiveness - Leads to higher tariffs on US exports, which would dampen sales and hurt US business and workers - Jeopardizes role of the United States as a world leader in international cooperation, making it more difficult to achieve solutions on national security, immigration, and the environment
Violating WTO rules or circumventing established processes	<ul style="list-style-type: none"> - Weakens rule-based trading system that the United States and much of the world relies on to keep foreign markets open and settle disputes
Promoting "Buy America" policies	<ul style="list-style-type: none"> - Causes more lost jobs than they create as other countries retaliate - Makes government purchases more expensive
Imposing tariffs to save US manufacturing jobs at specific companies	<ul style="list-style-type: none"> - Saves few jobs at a very high cost to taxpayers and consumers - With global value chains dominating world trade, it is difficult to hit another country and avoid hitting your own or your allies
Restricting imports from specific countries to try reduce bilateral trade deficits	<ul style="list-style-type: none"> - Does not improve the overall US trade deficit - Bilateral trade deficits are not an appropriate measure for economic improvement - Not a successful negotiating strategy for trade deals - Countries can and will retaliate

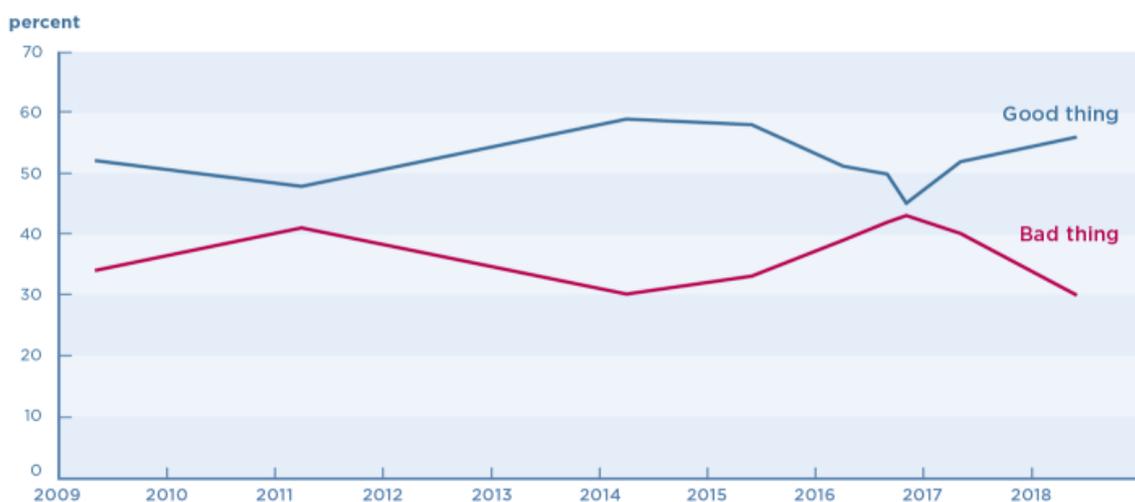
THE PUBLIC HAS MIXED VIEWS ON GLOBALIZATION

How do Americans feel about globalization? Listening to the debates can be confusing. Not surprisingly, polls vary widely depending on how and when the question is posed.

Globalization can be a [hard sell to the public](#) because the benefits are widely distributed and not as easily understood, compared with the personal costs to very specific companies or workers.

Survey Question:

In general do you think that free trade agreements between the United States and other countries have been a good thing or a bad thing for the United States?



Source: Pew Research Center.

Note : This Pew Research poll finds more support than not for free trade agreements. But a 2016 Bloomberg poll asked, "Do you think US trade policy should have more restrictions on imported foreign goods to protect American jobs, or have fewer restrictions to enable American consumers to have the most choices and the lowest prices?" This resulted in [65 percent](#) of respondents wanting more restrictions, the opposite of the sentiment expressed in the Pew poll.

The problem is compounded because policymakers have done [little to help](#) workers and communities adjust at a time when the wealthiest Americans have gained the most in recent years. In general, younger people are [more supportive](#) of free trade, as most have never known a world without the current system.

Before 2016, Republicans generally favored US trade deals and Democrats generally voted against them. President Trump canceled TPP and has threatened withdrawing from NAFTA, the Korea-US Free Trade Agreement (KORUS) (later revised and signed), and the WTO. His administration has negotiated the [US-Mexico-Canada Agreement](#) (USMCA) to replace NAFTA; the agreement now faces ratification in each country. Some GOP Congressional leaders have come out against Trump on certain

trade issues (see [example](#)) but so far have not created legislation to oppose his policies.

SUSTAINING GLOBALIZATION THROUGH POLICY ACTION

The global economy has yielded enormous economic gains for the United States, but problems undoubtedly remain. There are abuses within the system and rules [need to be updated](#). Trade agreements should account for the modern digital age. Disputes continue on the trade of certain goods—whether items are flooding other markets too much, how industries are being subsidized, lingering protections on specific goods or economic sectors, etc. Solving these types of issues, which will inevitably arise and change over time, is best done through negotiation and coordination with trading partners—applying due process—in order to prevent costly trade wars, where more and more barriers end up hurting all sides.

But trade negotiations can only go so far. Not enough has been done to help those who have lost out from trade competition. And the reality is that the problems people face today go far beyond the effects of globalization. Manual work is increasingly being automated, lowering demand for workers. [Wages are stagnant](#), as health care and higher education costs rise. Inequality is widening.

Domestic policies that support not just those left behind because of trade competition but all Americans will maximize gains while ensuring inclusive growth critical for national well-being and preventing erosion of multilateral systems that the United States helped build and that have served the country—and the world—well for most of the last century.

The global market still has great potential for the US economy. With anyone in the world now a text, click, call, or plane flight away, 95 percent of potential customers for goods and services are outside the United States, ready to buy goods and services from other countries if US producers are barred from their markets. If American producers want to reach those consumers, the United States must let producers from overseas reach American consumers, as they have over the years for cars, appliances, smartphones, and other products Americans want. **More open trade could add another \$540 billion to the US economy by 2025, equivalent to \$1,600 a year in income per person.**

Here are some of the crucial areas that economists have proposed the United States should focus on, as outlined in many studies at the Peterson Institute and other policy organizations. While these goals are simply stated and obviously will pose challenges to resolve, the stakes are high to rebuild trust in a global system that has helped secure prosperity and peace.

- Invest in better and more inclusive education to prepare people for tomorrow's economy

- Give all displaced workers sufficient financial and administrative support to find new jobs and some compensation for lost income
- Address growing inequality through the tax system and spending programs
- Make sure the healthcare system does not impede workers from finding new jobs or cause significant financial hardship
- Use free trade agreements to improve competitiveness of US businesses, increase total trade, and boost overall economic growth
- Work within the WTO and various free trade agreements to settle disputes, ensure fairness, protect intellectual property and investment rights, and promote reciprocity and growth. Improve the rules of the system rather than abandoning the rules
- Coordinate with allies to confront trade abuses
-