



Joint Economic Committee:

Hearing: “Trade Wars & Higher Costs: The Case Against Trump’s Tariffs”

Congressional Testimony

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December 18, 2024

Introduction

I am Jeff Ferry, the Chief Economist at the Coalition for a Prosperous America (“CPA”). I have held this position for nearly six years. CPA is a bipartisan national nonprofit research and advocacy organization representing domestic producers and workers across many sectors and industries of the U.S. economy. We are an unrivaled coalition of manufacturers, workers, farmers, and ranchers working together to rebuild America for ourselves, our children, and our grandchildren.

I joined CPA as its first economist in 2016 and subsequently established CPA’s economic research team. Our team launched an economic modeling initiative to model impacts of trade policy including tariffs, tax credits, and currency adjustments on the U.S. economy. One of our modeling papers won the 2019 Mennis Award for “Outstanding Paper of the Year” from the National Association of Business Economists. While at CPA, I have published nine papers in peer-reviewed journals covering topics such as economics, trade, and taxation. I also routinely author and contribute to articles for CPA’s website and other outlets containing economic analysis of trade and tax policies.

Prior to joining CPA, I founded multiple companies within the technology space. I received my bachelor’s degree in economics from Harvard University in 1975 and my Master of Science degree in economics from the London School of Economics and Political Science in 1976.

Dual Purposes of Tariffs: Revenue & Protection

From its beginning, the United States Congress believed that tariffs should be used for both (1) federal revenue purposes, and also (2) to protect domestic production. This consensus was embodied in the first sentence of the first U.S. Tariff Act, passed on July 4, 1789.

In 1815, at the request of the House of Representatives, U.S. Treasury Secretary Dallas authored a report on how to design tariffs for both revenue and protection. Dallas was charged with raising \$24 million in annual revenue to fund the federal government, while also promoting industrial self-reliance. Congress set a target for 70% of federal revenue to

come from tariffs. Dallas' plan guided America's industrialization, making it the world's factory by 1900, with the highest wages and individual prosperity the world had ever seen.

President-elect Trump campaigned on restoring tariffs for both purposes: as a major revenue generator and to protect American workers from direct labor competition with workers in poorer countries. See Agenda47: President Trump's New Trade Plan To Protect American Workers.

Tariffs for Revenue

In Fiscal Year (FY) 2024, the federal government spent \$6.75 trillion yet collected only \$4.92 trillion in revenue, resulting in a deficit of \$1.83 trillion. While CBP has not yet published its Travel and Trade Report for FY 2023 or FY 2024, in FY 2022, \$104.6B in tariffs were collected. This \$104.6B was just 2.1% of the \$4.9 trillion of federal revenue.

Despite this modest number, the \$104.6B in tariffs for FY2022 was a dramatic increase supported by the supplemental China tariffs launched in 2018. In FY2017, tariff revenue was only \$34.8B.

The China tariffs proved to be a tremendous source of revenue, bringing in approximately \$50B annually. This is approximately the same amount of revenue that the Treasury collects from the bottom fifty percent of American income tax payers.

Which is more regressive? Taking money directly out of the paychecks of the bottom of half of American tax payers, or charging a toll on imports from China?

In the leadup to the 2018 tariffs, the media was full of dire warnings about consumer price increases. These never happened. To take one high profile example, on June 16, 2018, Bloomberg published an article titled "A Buick SUV May Cost an Extra \$8,000 After China Tariffs". The article was referring to the Buick Envision, which GM has imported into the United States from China since 2015.

General Motors itself petitioned for a tariff exclusion for the Buick Envision, but was denied.

Despite all the warnings, the price of the Buick Envision didn't increase, even after its tariff went from 2.5% to 27.5%. In fact, as China rapidly devalued its currency, the Envision got cheaper. The Buick Envision Preferred Trim went from \$38,645 pre-tariff to \$34,695 post-tariff, and then, yet again for the 2021 model year, it fell another \$1,700 to an MSRP of \$32,995.

Some may pounce, claiming the tariff thus 'failed' because GM kept importing the Buick Envision from China. But this is not the case when you recognize the dual benefits and purpose of protection and revenue.

Indeed, the Buick Envision proved to be a tremendous example of a successful revenue tariff. It is very unlikely that GM absorbed the cost of the tariff and decided to continue with the imports. Ford was about to start importing its competitor, the EcoSport, from China, but cancelled that plan after the tariff. Much more likely is that GM's Joint Venture partner in China, SAIC Motors Inc., a Chinese state-owned enterprise (SOE), took the

margin hit. The tariff fell not on any American consumer nor American business, but rather on a Chinese SOE.

The 27.5% proved to be a mixed revenue and protective tariff. While GM continued its imports, and Ford cancelled its EcoSport import plans, Volvo discontinued its imports of the S60 from China, and after a brief stint of importing from Europe, moved production to South Carolina.

Before proceeding to discuss tariffs for protection in more detail, CPA is compelled to alert this Committee regarding the catastrophic expansion of the de minimis loophole.

In the government's FY 2023, CBP collected \$92.3 billion in duties, taxes, and other fees, a 17.46% decline from FY2022's \$111.9B.

This is a startling \$19.6B loss in revenue for the Treasury, and deserves scrutiny because merchandise imports were essentially the same: \$3.35T in FY 2022, then \$3.33T in FY2023 (a drop of 0.01%).

The most likely explanation for the drop in revenue collection is the volume of de minimis shipments which almost doubled, from 685M to 1,066M.

Under the de minimis loophole, imported merchandise is exempt not only from tariffs but also basic CBP user fees that go to the agency's operation costs.

De minimis is lawless anarchy at the ports, and it appears to have cost the Treasury almost \$20B in FY2023. This is a \$20B subsidy for Chinese e-commerce platforms like Shein and Temu, to the detriment of every American retailer who imports via normal, secure channels.

Tariffs for Protection and Production

Universal tariffs - that apply to all or most imports - protect American workers from being forced into unfettered wage competition with impoverished societies around the world. In so doing, tariffs boost domestic production, stimulate investment, create jobs, and facilitate long-term economic growth. Country-specific tariffs provide less protection, but can help foster more resilient supply chains.

Recent history demonstrates success with both. A 2023 report from the U.S. International Trade Commission (USITC) examined 12 industrial sectors affected by tariffs imposed during the Trump administration and found that domestic production increased across all sectors, ranging from 1.2% for computer equipment to 7.5% for household furniture. Collectively, these industries accounted for \$931 billion in output in 2021, with an average production increase of 4.1%.

One of the primary methods tariffs achieve this domestic production boost is through "tariff-jumping investments". High tariff rates effectively incentivize international companies to locate production within a country's borders.

For example, even though the Section 301 Tariffs were limited to a single country (China), they were still successful in driving investment in reshoring in certain manufacturing industries. Examples include:

- **Generac:** In 2021, this generator manufacturer shifted production of home generators from China to Trenton, South Carolina, creating 750 jobs.
- **GE Appliances:** This company relocated the production of four-door refrigerators from China to Louisville, Kentucky, adding 245 jobs.
- **Williams Sonoma:** In response to the tariffs, invested in expanding its Tupelo, Mississippi facility, creating 350 jobs to produce upholstered furniture previously manufactured in China. Between 2017 and 2023, Williams Sonoma's profits tripled, from \$309 million to \$950 million.

The goal of industrial policies like targeted tariffs are always primarily to build domestic industries to create growth, investment, employment, and an upward trend in worker incomes. To do this and address the U.S.'s cost disadvantage against most major competitors, tariffs should be applied globally and monitored to ensure they lead to increased domestic production. Global tariffs, like those applied to steel, have proven much more successful in stimulating U.S. industrial reshoring, investment, and job creation. Broader application of tariffs would amplify their impact, providing a competitive environment for U.S. manufacturers to thrive.

Economic Foundation

Criticism of tariffs often hinges on the belief that free trade inherently fosters economic growth. This assumption conflates short-term economic theories of free trade, developed by David Ricardo in 1817, with the long-term requirements for sustained national growth. Ricardo's theory assumes full employment and prioritizes immediate output maximization based on existing capabilities.

However, in reality, employment and industrial capacity are malleable and can be significantly boosted by effective trade policies. Long-term growth depends on strategically protecting and investing in industries that propel development over decades. The U.S. historically rejected strict adherence to free trade principles to prioritize long-term growth, exemplified by tariffs imposed during the 19th century, which spurred industrialization and ultimately positioned America as a global superpower.

Strategic use of tariffs would enable the U.S. to protect key manufacturing and technology industries from foreign competition, giving them time to mature or reshore and achieve economies of scale. For example, the information technology and semiconductor sectors benefited from early government interventions, subsidies, and protectionist policies, which laid the groundwork for U.S. dominance in these fields today.

Historical Success of Tariffs

The United States has a long and successful history in utilizing tariffs. In the 19th century, instead of relying only on its large expanse of arable land and comparative advantage in agriculture, the United States also invested in key industrial industries of the future.

Hostile actions of Britain and France during the Napoleonic wars led Presidents Jefferson and Madison to impose an embargo, followed by tariffs, in order to block British imports and stimulate U.S. development of industry. This not only allowed the United States to equip its army and navy with weapons and ships to defend itself, it also launched the U.S. into industrialization which made us the world's richest nation and a superpower.

This policy continued in the 1860s with tariffs on iron and steel. These tariffs protected nascent U.S. iron and steel manufacturers from dominant British competition. A \$28 per ton tariff on British steel enabled U.S. producers to innovate and eventually surpass British capabilities. By 1897, U.S. steel was not only cheaper but globally competitive, leading to exports back to Britain. Tariffs allowed industries to develop, pay higher wages, and create thousands of jobs.

According to economist [Frank Taussig](#), British steel rails sold in the U.S. at that time for \$31 a ton, about half the U.S. price of \$61 a ton. Britain was the world leader in steel technology and production. However, a U.S. tariff of \$28 a ton reduced imports and enabled U.S. producers to catch up, investing heavily in domestic production, technology, and economies of scale. By 1897, steel in the U.S. was down to \$19 a ton, \$2 cheaper than British steel, despite the fact that Carnegie Steel paid higher wages than its British competitors.

The agricultural sector also provides examples of tariff-driven growth. In the early 20th century, protective tariffs on farm equipment facilitated the rise of U.S. manufacturers like John Deere and International Harvester, which innovated machinery that revolutionized farming. These policies not only benefited manufacturers but also enabled farmers to access affordable and reliable equipment domestically.

China Shock Import Surge

This tariff industrial policy that built America was increasingly abandoned after the Second World War, with increasing trade liberalization leading to a wide-spread deindustrialization of the economy and the loss of millions of jobs.

As manufacturing jobs were outsourced in favor of cheaper production overseas, Americans lost millions of good-paying manufacturing jobs. According to a study by the National Bureau of Economic Research (NBER), much of this decline in manufacturing employment is directly caused by import competition. The study states, "Our central estimates suggest net job losses of 2.0 to 2.4 million stemming from the rise in import competition from China over the period 1999 to 2011."

While free trade economists argue that losses from free trade are offset by gains in 'comparative advantage' sectors, reality shows otherwise. Job losses were heaviest in industries most exposed to surging imports, and workers who lost their jobs found little to no good employment alternatives. According to the same NBER study, "Our estimates show

sizable job losses in exposed industries, and few if any offsetting job gains in non-exposed industries.”

These job losses were especially detrimental to U.S. income inequality due to the high wages of manufacturing jobs, especially compared to alternative jobs for those workers. This growing inequality also exacerbates other societal issues. The Institute for Fiscal Studies study also found that, “Regions with greater exposure to import competition experienced higher crime rates, a deterioration of health outcomes, [and] a dissolution of traditional family structures.”

However, despite the massive losses suffered by U.S. industry over the past decades, tariffs can successfully reshore American manufacturing, boost domestic investment, and recapture manufacturing jobs. And we’ve already begun to see some of the success of these policies.

2018 Section 232 Steel Tariffs

The 2018 steel tariffs led to significant investment in the U.S. steel industry. The steel tariffs led U.S. steel companies to invest in some 15 new steel facilities including steelmaking and steel mills, all over the U.S. Those new facilities have taken on thousands of new employees, mostly in “heartland” America, the very places where the local economies were blindsided by the surge in imports from China and other low-wage nations in the years after 2000.

Of all the Trump tariffs, the steel tariffs are the best example of the effect broad sector-wide tariffs can have. According to the ITC study on the Section 232 Steel tariffs, the 25% steel tariffs led to an increase in domestic steel output by \$1.5 billion. Furthermore, this manufacturing shift back to the U.S. did not significantly affect prices, which only increased 2.4% from 2018 to 2021, a fraction of the actual tariff rate. Overall, the steel tariffs led to a substantial rise in domestic market share as imports fell from over 30% of the market to 21%.

More significantly, in the wake of the tariffs, U.S. steel companies opened around 15 new mills and steelmaking facilities, at locations ranging from Florida to Texas to Arizona. Steel Dynamics’ new Sinton, Texas facility will employ 3,000 when it is fully operational. It is already producing steel, with some 600 employees working there. The resulting local economic benefits are evident. Local developers are planning to build some 400 new houses in the Sinton area to accommodate steelworkers and employees of the supplier firms setting up in the area. According to the company’s SEC filings, the median pay for a Steel Dynamics employee last year was \$119,460.

Solar Industry

The history of U.S. solar policy highlights the ability of tariffs and industrial policy to drive domestic investment but also reveals how damaging loopholes and exemptions can be to domestic producers, leading to surging imports and market distortions. In 2012, the Obama administration imposed 36% tariffs on Chinese solar panels, initially reducing imports by 15% between 2012 and 2014. However, the narrow focus on China prompted Chinese

manufacturers to shift production to Southeast Asia, circumventing the tariffs and causing imports to surge again. In 2018, the Trump administration implemented 30% global tariffs to address this surge. Unfortunately, these tariffs exempted bifacial solar panels (which capture sunlight on both sides of the panel). This led the industry to shift wholesale to importing and selling bifacial panels as they are only slightly more expensive than monofacial. As a result, the exemption significantly lowered the effective tariff rate to 11.71% in 2019, with further declines in subsequent years as bifacial imports soared.

In April 2022, the Department of Commerce initiated a circumvention investigation against solar producers in Cambodia, Malaysia, Thailand, and Vietnam. Producers in these four countries, which accounted for 75% of U.S. solar imports in 2020, were found to be circumventing the antidumping and countervailing duties imposed on Chinese cells and modules due to substantial supply chain links to Chinese solar production. However, in June 2022, President Biden announced a 24-month moratorium on new tariffs, allowing imports from these nations to continue tariff-free. This caused the effective tariff rate to plummet to 0.43% and imports to surge 86% in 2023. Consequently, solar panel imports exceeded total installations by 15.7 GW in 2023 and are projected to surpass installations by about 50% in 2024. This oversupply, driven by Chinese overproduction and subsidies, has flooded U.S. warehouses with cheap foreign solar panels, creating a supply glut that threatens domestic producers for years to come.

Despite these challenges, the Inflation Reduction Act of 2022 has provided a counterweight by incentivizing domestic solar manufacturing through Production Tax Credits (PTC) under Section 45X and Investment Tax Credits (ITC). These credits, tied to the production of solar panels, cells, wafers, and polysilicon, have sparked significant investment in domestic solar infrastructure, catalyzing a \$13 billion wave of solar manufacturing projects. While these measures have bolstered U.S. solar production, the industry's growth remains vulnerable to the continuing influx of imports.

The solar industry's experience demonstrates that while tariffs and industrial policies can drive substantial domestic investments, their effectiveness is easily undermined by loopholes and exemptions. To ensure sustainable growth, the U.S. must adopt robust, broad, and consistent tariffs, paired with effective policies like the 45X tax credits, to enable the domestic solar industry to compete globally and thrive long-term.

Washing Machine Industry

Tariffs imposed on large residential washing machines in 2018 provide another example of the success of tariffs. In January 2018, President Donald Trump imposed tariffs of 20% to 50% on large residential washing machines. The tariffs expired in February 2023. Six years later, we can make an assessment: the tariffs created over 2,000 jobs and provided economic growth for the two communities where Korean appliance makers built factories. They also provided economic support for Whirlpool, the leading U.S.-headquartered appliance maker and employer of 23,000 Americans, as well as GE Appliances, which is today Chinese-owned and employs 16,000 Americans at Louisville, Kentucky and other facilities.

In 2018, LG Electronics completed an investment of \$360 million in a new “smart factory” in Clarksville, Tennessee. LG hired 700 employees and began building washing machines there. In April 2021, it announced that it had produced 1 million washing machines at Clarksville. It said it was investing a further \$20.5 million and hiring 300 more employees, to bring its Clarksville headcount to “about 1,000.” In 2017, recognizing that the Trump administration was determined to clamp down on washer imports, Samsung announced plans to invest \$350 million to build a manufacturing facility in Newberry, South Carolina with 1,000 employees. In 2020, Samsung invested an additional \$120 million to expand the facility, which now employs 1,200.

We can also see the minimal impact tariffs have on prices with washing machines. Following the imposition of the washing machine tariffs, fearing high prices and potential shortages, the market panicked and sought to build up inventories. Because of this panic between January 2018, when the tariffs were imposed, and June, the Bureau of Labor Statistics’ price index for laundry equipment rose by 12.4%, a large jump. However, in the next 14 months, the index tumbled by 10.7%, until it was at almost the same level (91.1) as it was in January 2018. By January 2020, the CPI price index for laundry equipment was even down by 2.1%, even as total CPI inflation rose by 4.1% from January 2018 to January 2020. Even non-tariffed items such as new vehicles saw a larger increase in prices.

In short, sanity returned to the market, and all participants, from the manufacturers to the distributors to the retailers, saw that the tariffs would have almost no effect on the U.S. retail price for washers. In fact, washing machine prices are now below pre-tariff levels.

The appliance industry highlights how tariffs can compel foreign companies to establish domestic operations. This benefits U.S. workers, reduces supply chain vulnerabilities, and contributes to local economies. Over time, as domestic production scales up, efficiencies and competition drive prices back down.

Price Impacts

Critics often claim that tariffs drive up prices. However, actual data tells a different story. Between 2018 and 2020, after tariffs were introduced, consumer price increases were modest, with the CPI rising only 1.8% in 2019. Studies indicate that tariffs typically have minimal effects on retail prices, contributing to only 10-20% of the tariff value. This effect is well demonstrated in our previous two examples of steel and washing machines.

Tariffs have minimal long-term impacts on prices because they boost domestic production and enhance domestic manufacturing efficiency. Tariffs are not just a tax on goods. They are an incentive to invest and produce in America. As this effect begins to take place, increased domestic production leverages increasing economies of scale and greater technological investments to increase the efficiency of domestic manufacturing. This increased economies of scale and manufacturing efficiency holds down domestic prices as domestic supply replaces imports.

By contrast, recent inflationary pressures are primarily driven by supply chain disruptions and excessive fiscal and monetary policies, not tariffs. In fact, tariffs can greatly reduce the risk of these supply chain disruptions by relocating supply chains domestically. For

example, the COVID-19 pandemic exposed the risks of dependence on Chinese manufacturing for critical goods like personal protective equipment (PPE). Tariffs and other trade policies can mitigate such vulnerabilities by incentivizing local production.

Economic Modeling and Potential

CPA's modified GTAP model incorporates the discussed realities of tariffs, including their impact on employment and domestic production. Primarily, our model removes the misleading assumptions that insist on full employment both before and after a change in trade policy. Since almost all trade policies impact employment and unemployment, this assumption that trade does not impact employment is misguided. Our model also shows tariffs for what they truly are, an incentive to increase domestic production.

We used this economic model to simulate the effects of a 10% universal tariff on all U.S. imports. Our simulation suggests such a policy could significantly boost domestic production, real wages, and employment. The model forecasts:

- Economic growth of \$728 billion. (2.9%)
- 2.8 million additional jobs.
- Increased manufacturing output by 4.8%.
- A 5.7% rise in real household incomes, equivalent to \$4,252 per household.
- Modest price increases, much lower than income gains (equating to 0.5% per year over 6 years).

These effects mirror what the United States experienced during previous tariffs, most recently with the 2018 tariffs on steel and washing machines. The tariffs boosted manufacturing output, jobs, incomes, and total economic growth.

Our model also estimates that a 10% global tariff would generate \$263 billion in revenue, enabling a wide range of fiscal options for Congress. For example, the tariff revenue from a 10% global tariff would be enough to provide substantial tax cuts for lower- and middle-income households. The annual tariff revenue could provide a \$1200 tax refund to lower-income households and refunds of 3%-4% of income for middle-income households.

Conclusion

Tariffs are an essential tool for rebuilding the U.S. industrial base, fostering long-term economic growth, and reducing dependence on foreign imports. The evidence underscores their ability to create jobs, spur investment, and support American communities. Policymakers should consider expanding tariffs globally and ensuring they are carefully monitored to maximize their benefits for the domestic economy.

Historically and today, tariffs demonstrate their ability to shield nascent industries, recapture lost industries, create jobs, and strengthen national security. By implementing thoughtful tariff policies alongside complementary industrial measures, the U.S. can secure its industrial future, enhance economic independence, and build a more resilient economy for generations to come.