



Research

The Total Cost of U.S. Tariffs

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Executive Summary

- During his time in office, former President Trump unilaterally imposed numerous new tariffs on steel, aluminum, and a variety of imports, creating upward pressure on prices in the United States.
- While in office, President Biden has so far only replaced the tariffs on European steel and aluminum with a [tariff-rate quota system](#), but has kept in place the tariffs for most other countries, including [China](#).
- Based on 2020 import levels, these tariffs currently impact over \$400 billion of imports and exports and increase consumer costs by roughly \$51 billion annually.
- The tariffs are having a notable impact on trade levels, decreasing both imports and exports, which reduces consumers' options and further increases prices in the United States.
- Because the COVID-19 pandemic decreased global trade in 2020, the tariffs had a smaller impact compared to 2019 levels.

Introduction

One of President Trump's most prominent policy actions in office was to raise tariffs, which significantly harm the U.S. economy. Trade barriers such as tariffs increase the cost of both consumer and producer goods and depress the economic benefits of competition, inhibiting economic growth. Research suggests that the president's tariffs have been directly responsible for reducing both imports and exports, raising prices, and reducing national welfare. Research also suggests that the entire cost of the tariffs has been borne by U.S. importers.^[1] Since taking office, President Biden has replaced the tariffs on steel and aluminum from the European Union (EU) with a [tariff-rate quota](#) system (TRQ). He has elected to keep in place most of the other tariffs, including those on imports from [China](#).

The tariffs, when combined with corresponding retaliation, threaten over \$400 billion of traded goods annually. The following analysis calculates the overall impact these tariffs could have on the prices of goods in the United States.

The Economic Cost of Current Tariffs

This analysis focuses exclusively on the impact of tariffs unilaterally imposed by former President Trump and still in effect under President Biden. These include tariffs—either enacted or officially ordered—under Section 232 or Section 301. [Section 232](#) allows the president to impose trade barriers if the Department of Commerce finds that imports threaten U.S. national security. [Section 301](#) enables the president to impose tariffs or quotas when the United States Trade Representative (USTR) finds that other nations are engaging in unfair trade practices.

The table below lists the approximate value of imports that are currently subject to the tariffs initially imposed under former President Trump and now continued under President Biden. It additionally displays estimates of

how the tariffs could increase nationwide consumer costs, assuming that 100 percent of the costs from the tariffs will be passed on to consumers and that current import levels will not change. While this estimate is an upper-bound, it represents the upward pressure that is placed on all prices in the economy.

Altogether, the tariffs could increase nationwide consumer costs by \$51 billion annually. Previously, after former President Trump had already imposed the first three rounds of tariffs on approximately \$250 billion of U.S. imports from China, the president ordered new 10 percent tariffs to be imposed on the remainder of imports from China. Upon China announcing its intention to retaliate, the former president increased these new tariffs from 10 percent to 15 percent. The 15 percent levy was planned in two waves; tariffs on list 4A went into effect on September 1, 2019, and tariffs on list 4B were planned to go into effect on December 15, 2019. China’s retaliation also spurred former President Trump to order an increase in the third tranche of tariffs – 25 percent tariffs already in effect on roughly \$200 billion of imports – to 30 percent.

These tariffs were scaled down as a part of the president’s “[phase one](#)” trade deal with China. As a part of the deal, former President Trump reduced the tariffs previously imposed on September 1, 2019, from 15 percent to 7.5 percent, suspended the 15 percent tariffs planned to go into effect on December 15, 2019, and indefinitely suspended the increase on the third tranche of tariffs from 25 percent to 30 percent. Based on 2019 import levels, these actions together saved American consumers \$43.4 billion per year. The phase one trade agreement also included an agreement from China to purchase \$200 billion of additional U.S. exports (over 2017 levels) in the next two years, including \$77 billion of manufactured goods and \$32 billion of U.S. agriculture products, as well as provisions on intellectual property, technology transfer, agriculture, financial services, and currency. Because of the COVID-19 pandemic, however, China’s ability to fulfill these purchasing commitments has [come into question](#).

On January 4, 2020, former President Trump issued [a proclamation](#) expanding the Section 232 tariffs on steel and aluminum. Originally, the tariffs only applied to steel and aluminum inputs – products such as aluminum wire or steel pipes – that are used in the production of final goods. The new tariffs were expanded to cover related goods, e.g. nails, that are mostly (but not wholly) made of steel or aluminum. This action is expected to increase consumer costs by roughly \$123.3 million per year.

Table 1 shows the approximate value of imports subject to tariffs based on 2020 import levels. Without accounting for tariff exclusions granted at the request of U.S. businesses, the president’s remaining tariffs apply to approximately \$327 billion of imports, increasing annual consumer costs by \$51 billion. Based on 2019 import levels, the tariffs applied to approximately \$348 billion of imports and increased annual consumer costs by roughly \$55 billion. The estimates based on 2019 figures are higher compared to 2020 because the COVID-19 pandemic reduced global trade in 2020. The U.S. imported and exported less of the goods subject to the tariffs and resultingly paid less in tariffs.

Table 1: The Total Cost of President Trump’s Imposed Tariffs^[2]

Tariff	Value of Affected U.S. Imports (2020)	Tariff Rate	Additional Cost Burden
Section 232, Steel	\$3.9 B	25%	\$968.6 M
Section 232, Aluminum	\$4.1 B	10%	\$405.1 M

Section 232, Derivative Steel Articles[3]	\$376.9 M	25%	\$94.2 M
Section 232, Derivative Aluminum Articles[3]	\$197.1 M	10%	\$19.7 M
Section 301, List 1	\$20.9 B	25%	\$5.2 B
Section 301, List 2	\$9.8 B	25%	\$2.4 B
Section 301, List 3	\$112.8 B	25%	\$28.2 B
Section 301, List 4A	\$175.4 B	7.5%	\$13.2 B
Section 301, List 4B	\$164.4 B	Suspended	\$0
Total[4]	\$327.4 B	7.5 – 25%	\$50.5 B

An Excel file detailing the tariffs and the products they affect can be found [here](#).

On May 20, 2019, the United States removed the steel and aluminum tariffs on Canada and Mexico, reducing the value of affected imports by approximately \$13.0 billion. Based on 2019 data, this reversal reduced the additional consumer costs from the tariffs by \$2.4 billion per year. On August 6, 2020, the United States reinstated the aluminum tariffs on Canada, increasing consumer costs by \$575 million per year based on 2020 import data. Then on September 15, 2020, under threat of retaliatory tariffs from Canada, the United States again removed tariffs on Canadian aluminum.

On October 31, 2021, the Biden Administration replaced the steel and aluminum tariffs on the EEU with a new TRQ system. In exchange, the EU cancelled retaliatory tariffs on \$2-\$3 billion worth of U.S. imports. The TRQ will go into effect in 2022 and will allow a certain amount of steel and aluminum from the EU per year to enter the United States tariff-free. Once that amount is reached, the tariffs will go back into effect. To date, the Biden Administration has elected to keep the steel and aluminum tariffs in place for most other countries, and has elected to keep all the Section 301 China tariffs in place.

The Tariffs' Impacts on Trade

The tariffs have significantly affected U.S. trade levels. [Research](#) has found that the tariffs caused importers to shift away from China and reorganize supply chains. Even more, the president's tariffs have [decreased trade altogether](#) – both imports and exports – which raises prices and reduces options for both consumers and businesses in the United States. The following table examines how import levels have changed since the president first began imposing tariffs in 2018.

Table 2: Import Levels of Goods Impacted by President Trump's Tariffs, 2017-2020

Tariff (Date Imposed)	Value of Affected Imports
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	2017	2018	2019	2020
Section 232, Steel (Imposed March 2018; Canada and Mexico Exempted May 2019)	\$10.1 B	\$9.3 B	\$6.6 B	\$3.9 B
Section 232, Aluminum (Imposed March 2018; Canada and Mexico Exempted May 2019)	\$8.0 B	\$8.1 B	\$6.7 B	\$4.1 B
Section 232, Derivative Steel Articles ³ (Imposed February 2020)	\$396.2 M	\$481.2 M	\$471.8 M	\$376.9 M
Section 232, Derivative Aluminum Articles (Imposed February 2020)	\$232.7 M	\$246.3 M	\$225.9 M	\$197.1 M
Section 301, List 1 (Imposed July 2018)	\$31.9 B	\$30.5 B	\$22.9 B	\$20.9 B
Section 301, List 2 (Imposed August 2018)	\$13.8 B	\$14.7 B	\$8.5 B	\$9.8 B
Section 301, List 3 (Imposed September 2018; Raised May 2019)	\$187.7 B	\$206.9 B	\$128.0 B	\$112.8 B
Section 301, List 4A (Imposed September 2019; Lowered January 2020)	\$174.0 B	\$182.2 B	\$174.7 B	\$175.4 B
Section 301, List 4B (Not Imposed)	\$151.5 B	\$160.2 B	\$159.3 B	\$164.4 B
Total^[4]	\$426.1 B	\$452.4 B	\$348.1 B	\$327.4 B

An Excel file detailing 2017 to 2020 import levels of every product impacted by the tariffs can be found [here](#).

Table 2 confirms that the tariffs have had a clear impact on trade. From 2018 to 2019, the value of imports subject to tariffs decreased by \$104 billion, or 23 percent. The bulk of that can be attributed to a decrease in trade with China. Imports from China subject to tariffs fell by 23 percent from \$434.3 billion in 2018 to \$334.2 billion in 2019. Alternatively, imports of steel and aluminum goods subject to tariffs also fell by 23 percent, from \$18.1 billion in 2018 to \$14.0 billion in 2019.

Comparing these values to 2017 import levels shows that it takes time for businesses to reorganize supply chains. The Section 301 tariffs on China were imposed starting July 2018, but imports of tariffed goods from China increased by nearly \$30 billion from 2017 to 2018. Similarly, the steel and aluminum tariffs were imposed in March of 2018, but steel and aluminum imports remained roughly the same from \$18.7 billion in 2017 to \$18.1 billion in 2018. It was not until 2019 that the tariffs started having a noticeable impact on import levels, meaning that throughout 2018, importers were likely forced to pay the entirety of the tariffs themselves as they were unable to shift supply chains to avoid them.

Finally, to get a full picture of the tariffs' impacts, it is also important to consider the underlying trends of import levels overall – not just imports of tariffed goods. From 2018 to 2019, the value of overall imports in the United States fell by 2 percent, from \$2.6 trillion to \$2.5 trillion. This drop is a stark contrast from the previous year when overall import levels rose by nearly 10 percent, suggesting the president's trade policy negatively impacted trade flows overall. The data also show that importers have shifted away from importing tariffed

goods, and not just from China. From 2018 to 2019, imports of all goods on the Section 301 tariff lists – regardless of where they originated from – fell by \$120 billion. Likewise, imports of all goods under the Section 232 list fell by \$8.2 billion. These declines are larger than the tariffs’ acute impacts on imports from affected countries, suggesting that importers could not easily get the tariffed goods elsewhere. The COVID-19 pandemic further reduced U.S imports and exports while largely preserving the above dynamics. From 2019 to 2020, the value of overall imports in the United States fell by 6.5 percent, from \$2.5 trillion to \$2.3 trillion. The value of imports subject to tariffs also decreased 5.9 percent from 2019 to 2020.

Tariff Exclusions

After the President imposes tariffs unilaterally, U.S. businesses can petition for certain products to be excluded if the tariffs negatively impact their business. For an exclusion to be granted, the product must not be available in the United States or any third countries that are not subject to U.S. tariffs. Alternatively, the business requesting the exclusion must show that the tariffs causes it severe economic harm.

Since the tariffs were enacted, businesses have filed over 190,000 requests for their imports to be excluded from the Section 232 and Section 301 tariffs. This analysis only considers Section 301 exclusions. Section 301 exclusions are vastly more far reaching and easier to track than the Section 232 exclusions, which are smaller in nature and evaluated on a rolling basis.

Table 3 shows the dollar value of goods subject to exclusions from the Section 301 tariffs on China, valued at roughly \$132 billion. Data on the tariff exclusions are limited, however, as the categories for exclusions are broader than the exclusions themselves, meaning this study overestimates the dollar value of products subject to tariff exclusions.^[5]

All of these exclusions expired at the end of 2020, meaning throughout 2021, tariffs have been paid on these imports that were previously granted exclusions. USTR is currently in the process restarting the Section 301 exclusion system, which will last until early to mid-2022.^[1] Any exclusions that are granted in that time, will retroactively apply to imports since October 2021.

An Excel file detailing the products subject to Section 301 tariff exclusions can be found [here](#).

Table 3: Section 301 Tariff Exclusions as of May 4, 2020

Tariff Exclusion	Value of Affected U.S. Imports	Tariff Rate	Cost Savings
Section 301, List 1	\$10.4 B	25%	\$2.6 B
Section 301, List 2	\$7.4 B	25%	\$1.9 B
Section 301, List 3	\$66.6 B	25%	\$16.7 B
Section 301, List 4	\$47.6 B	7.5%	\$3.6 B

Total	\$132.0 B	25%	\$24.8 B
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Retaliatory Tariffs

In addition to raising costs for American consumers, tariffs have also resulted in significant retaliation by other countries against U.S. exports. Table 4 below details every retaliatory action taken against the United States thus far and the value of U.S. exports that are adversely affected.[6]

To date, six nations have levied retaliatory tariffs up to 70 percent on approximately \$73.2 billion of U.S. exports. These tariffs do not include retaliation by Canada and Mexico; following the reversal of U.S. steel and aluminum tariffs, both Canada and Mexico withdrew their retaliatory tariffs of 7 percent to 25 percent on approximately \$20 billion of U.S. exports. These tariffs also no longer include retaliation by the EU, as it cancelled its retaliatory tariffs in exchange for the United States replacing the aluminum and steel tariffs with a TRQ for EU imports.

Table 4 is taken from a [report](#) authored by the Congressional Research Service. On August 23, 2019 following former President Trump’s announcement of new tariffs on roughly \$300 billion of Chinese goods, the Chinese Ministry of Finance [announced](#) tariffs of 5 percent and 10 percent on roughly \$75 billion of U.S. exports. Of those, only a portion of imports were impacted for the first time, while the bulk are already subject to Chinese retaliation. China’s retaliation mirrors the president’s tariffs, with the first batch taking effect on September 1, 2019, and the second batch on December 15, 2019.

As a part of its “phase one” trade deal with the United States, China [announced](#) that it will be indefinitely suspending a portion of its retaliation against the United States. The suspension applies to the retaliatory tariffs scheduled to go into effect on December 15, 2019, as well as previous tariffs imposed on U.S. automobile and auto parts. China’s auto tariffs were [originally suspended](#) in December 2018 but [later reimposed](#) following a tariff escalation from President Trump.

Table 4: [Total Retaliation](#) to President Trump’s Imposed Tariffs

Country	Retaliation Rate	Value of Affected U.S. Exports (Billions)
Retaliation to Section 232 Tariffs		
China	15-25%	\$2.3
Turkey	4-70%	\$1.0
Russia	25-40%	\$0.2
India	10-50%	\$1.3
Retaliation to Section 301 Tariffs		
China Parts 1 – 4	5 – 25%	\$68.4
Total Retaliation		
Total	4-70%	\$73.2 B
* The bulk of these goods are already facing retaliation and now subject to tariff increases		

Upcoming New Tariffs

The Department of Commerce is currently performing Section 232 investigations into neodymium magnets. The Secretary of Commerce has until June 18, 2022, to complete this investigation. Within 90 days from that date, the president can decide whether to impose new tariffs on neodymium magnet imports.

On July 23, 2021, USTR declined to impose tariffs on imports from Vietnam as part of a Section 301 investigations into Vietnamese currency manipulation. There is still an ongoing investigation into Vietnamese timber, however.

There are also Section 232 investigations into uranium and titanium sponge imports. Both investigations led to the creation of working groups under the Trump administration to develop recommendations on how to help ensure access to uranium and titanium sponge. The working groups are currently reviewing comments submitted from the public at the beginning of 2021.

On June 5, 2020 USTR initiated new investigations into certain digital services taxes (DSTs) which were imposed by foreign countries, in addition to French DSTs. In March 2021, USTR ruled six countries have imposed an unfair and unreasonable digital services tax. Tariffs were finalized in March 2021 but eventually USTR suspended the tariffs until November 29, 2021, to allow for negotiations on a global digital tax scheme to proceed. A deal was reached, however, meaning the bulk of these tariffs have been [cancelled](#).

[1] For instance, see these three studies: <https://www.nber.org/papers/w25672>, <https://www.nber.org/papers/w25638>, and <https://www.nber.org/papers/w26610>.

[2] Data for this analysis were taken from the [U.S. Census Bureau](#) and the [International Trade Commission](#). All import data is from 2020.

[3] The categories of derivative steel and aluminum articles impacted by the tariffs are smaller than the HS codes provided, meaning this study overestimates the dollar value of these goods.

[4] Total does not include the value of goods in list 4B, which are not currently subject to tariffs.

[5] The dollar value of tariff exemptions was determined using HS10 codes, the narrowest classification available, but one that includes more goods than were specifically exempted. HS10 codes that appear multiple times on the tariff exemption announcement are only counted once.

[6] The value of U.S. exports subject to retaliation is based on 2018 trade levels.