Key Findings

- We estimate that the Trump administration’s imposition of tariffs, along with retaliatory actions taken by our trading partners, will reduce economic output, income, and employment.
- The Trump administration has so far imposed nearly $80 billion worth of new taxes on Americans by levying tariffs on thousands of products, which is equivalent to one of the largest tax increases in decades.
- Tariffs imposed so far by the Trump administration are estimated to reduce long-run GDP by 0.23 percent, wages by 0.15 percent, and employment by 179,800 full-time equivalent jobs.
- The administration’s outstanding threats to impose additional tariffs would, if acted upon, further reduce GDP by 0.24 percent, wages by 0.17 percent, and employment by 184,200 full-time equivalent jobs.
- The negative economic effects of imposed, threatened, and retaliatory tariffs threaten nearly a third of the projected long-term economic gains from the Tax Cuts and Jobs Act.

Introduction

The Trump administration has imposed and threatened several rounds of tariffs, and other countries have responded to these measures. Using the Tax Foundation Taxes and Growth Model, we analyze the effects of imposed, threatened, and retaliatory tariffs on the United States economy. Tariffs damage economic well-being and lead to a net loss in production and jobs and lower levels of income. Tariffs also tend to be regressive, burdening lower-income consumers the most.

According to the Tax Foundation model, the tariffs imposed so far by the Trump administration would reduce long-run GDP by 0.23 percent ($58.02 billion) and wages by 0.15 percent and eliminate 179,800 full-time equivalent jobs.

If the Trump administration acts on outstanding threats to levy additional tariffs, GDP would fall by an additional 0.24 percent ($59.40 billion), resulting in 0.17 percent lower wages and 184,200 fewer full-time equivalent jobs.
Other countries have announced intentions to impose tariffs on U.S. exports. If these tariffs are fully imposed, we estimate that U.S. GDP would fall another 0.04 percent ($9.79 billion) and cost an additional 30,300 full-time equivalent jobs.

If all tariffs announced thus far were fully imposed, U.S. GDP would fall by 0.51 percent ($127.21 billion) in the long run, effectively offsetting almost one-third of the long-run impact of the Tax Cuts and Jobs Act. Wages would fall by 0.35 percent and employment would fall by 394,300.

**Tariffs Raise Prices and Reduce Economic Growth**

Economists generally agree that free trade increases the level of economic output and income, and conversely, that trade barriers reduce economic output and income. Historical evidence shows that tariffs raise prices and reduce available quantities of goods and services for U.S. businesses and consumers, which results in lower income, reduced employment, and lower economic output.

Tariffs could reduce U.S. output through a few channels. One possibility is that a tariff may be passed on to producers and consumers in the form of higher prices. Tariffs can raise the cost of parts and materials, which would raise the price of goods using those inputs and reduce private sector output. This would result in lower incomes for both owners of capital and workers. Similarly, higher consumer prices due to tariffs would reduce the after-tax value of both labor and capital income. Because these higher prices would reduce the return to labor and capital, they would incentivize Americans to work and invest less, leading to lower output.

Alternatively, the U.S. dollar may appreciate in response to tariffs, offsetting the potential price increase on U.S. consumers. However, the more valuable dollar would make it more difficult for exporters to sell their goods on the global market, resulting in lower revenues for exporters. This would also result in lower U.S. output and incomes for both workers and owners of capital, reducing incentives for work and investment and leading to a smaller economy.

**Total Impact of Imposed and Announced Tariffs**

If all tariffs announced thus far were fully imposed by the United States and foreign jurisdictions, U.S. GDP would fall by 0.51 percent ($127.21 billion) in the long run. Wages would fall by 0.35 percent and employment would fall by 393,300.
Table 1: Total Impact of Imposed and Announced Tariffs

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tariff Revenue (Billions of 2018 Dollars)</td>
<td>$161.67</td>
</tr>
<tr>
<td>Long-run GDP</td>
<td>-0.51%</td>
</tr>
<tr>
<td>GDP (Billions of 2018 Dollars)</td>
<td>-$127.21</td>
</tr>
<tr>
<td>Wages</td>
<td>-0.35%</td>
</tr>
<tr>
<td>FTE Jobs</td>
<td>-394,300</td>
</tr>
</tbody>
</table>

Source: Tax Foundation Taxes and Growth Model, March 2018

The 0.51 percent reduction in long-run GDP is nearly one-third of the total long-run impact of the Tax Cuts and Jobs Act, which we estimated to raise GDP by 1.7 percent in the long run.

Figure 1.
Tariffs Imposed by the United States

The Trump administration has imposed several rounds of tariffs, which we estimate will amount to a total tax increase of nearly $80 billion. The administration has only reversed tariffs once, on steel and aluminum imports from Canada and Mexico, resulting in a decrease of approximately $2.6 billion of tariffs, and reduced tariff rates once, on imports from China as part of the two countries' Phase 1 trade deal, resulting in a decrease of approximately $8.4 billion of tariffs. Note that total revenue generated will be less than what the tariffs generate, because tariffs reduce real income, which offsets some tariff revenue by lowering other tax revenues.

Section 232, Steel and Aluminum

In March 2018, President Trump announced the administration would impose a 25 percent tariff on imported steel and a 10 percent tariff on imported aluminum.

If 2018 imports equaled 2017 levels, these tariffs could have cost U.S. firms nearly $9 billion. For example, the value of imported steel totaled just over $29 billion in 2017. If the 25 percent tariff were levied on the same level of imported steel, the tax would total roughly $7.3 billion. Similarly, if a 10 percent tariff were applied to the $16.8 billion worth of
aluminum imported in 2017, the tax would total nearly $1.7 billion.

In May 2019, President Trump announced that the U.S. was lifting tariffs on steel and aluminum on Canada and Mexico. Lifting these tariffs on Mexico and Canada reduces tariff revenue by approximately $2.6 billion. While they have already done some economic harm, the tax increase resulting from all U.S. tariffs will be less than it would have been had these tariffs remained in place.

Tariffs on steel and aluminum currently account for $6.4 billion of the nearly $80 billion in tariff revenue.

**Section 301, Chinese Products**

The United States is currently imposing a 25 percent tariff on approximately $250 billion of imports from China and a 7.5 percent tariff on approximately $112 billion worth of imports from China.

The United States Trade Representative began an investigation of China in August 2017, which concluded in a March 2018 report that found China was conducting unfair trade practices. The same day, President Trump announced tariffs on up to $60 billion of imports. The administration soon published a list of about $50 billion worth of Chinese products to be subject to a new 25 percent tariff. Stage one of the tariffs began July 6, 2018, on $34 billion worth of Chinese imports, and stage two, the remaining $16 billion, went into effect August 23, 2018. These tariffs amount to a $12.5 billion tax increase.

The administration imposed stage three of Section 301 tariffs in September 2018—10 percent on $200 billion worth of goods from China. This stage was scheduled to increase to 25 percent beginning in January 2019, but the increase was delayed until it was allowed to go into effect in May 2019.

The president has repeatedly threatened tariffs of varying rates on the remaining balance of imports from China.

- In August 2019, the administration announced plans to impose a new 10 percent tariff on approximately $300 billion worth of additional Chinese goods beginning on September 1, 2019. The administration followed this announcement with a schedule change and certain exemptions—imposing stage 4a, a 10 percent tariff on $112 billion of imports starting September 1, 2019, and stage 4b, on $160 billion on December 15, 2019.

- Then on August 23, the administration decided that stage 4 tariffs would be 15 percent rather than the previously announced 10 percent—stage 4a has taken effect, while stage 4b is scheduled to go into effect on December 15, 2019.
In December 2019, the administration reached a “Phase one” trade deal with China and agreed to postpone indefinitely the stage 4b tariffs of 15 percent on approximately $160 billion worth of goods that were scheduled to take effect December 15 and in early 2020 reduce the stage 4a tariffs from 15 percent to 7.5 percent.

Note: Although the Trump administration notes this 15 percent tariff will apply to approximately $300 billion in goods, others have estimated the total value of imported goods taxed (under Section 301 List 4A and Section 301 List 4B) will be around $272 billion. For our estimates, we assume Section 301, List A consists of about $112 billion, while Section 301, List B, consists of about $160 billion.

Section 301 tariffs on China currently account for $70.9 billion of the nearly $80 billion in tariff revenues.

WTO Dispute, European Union

In October 2019, the United States won a nearly 15-year-long World Trade Organization (WTO) dispute against the European Union. The WTO ruling authorizes the United States to impose tariffs of up to 100 percent on $7.5 billion worth of EU goods. Beginning October 18, tariffs of 10 percent were to be applied to aircrafts and 25 percent on agricultural and other products (our estimate uses the average of the two rates).

Tariffs on the European Union account for about $1.31 billion of the nearly $80 billion in tariff revenues.

Section 201, Solar Panels and Washing Machines

In January 2018, the Trump administration announced it would begin imposing tariffs on washing machine and solar cell and module imports as the result of a Section 201 investigation.

We’ve estimated that the solar cell and module tariffs amount to a $0.78 billion tax increase based on 2018 import values and quantities of four 8-digit Harmonized Tariff Schedule subheadings, given on page 12 of this report. The United States imported 6.8 billion watts worth a value of $4.9 billion in 2018 under the four subheadings. The 25 percent tariff applies to all imports above a 2.5 gigawatt exemption.

We’ve estimated that the washing machine tariffs amount to a $0.59 billion tax increase based on 2018 import values and quantities of six 8-digit Harmonized Tariff Schedule subheadings, given on page 8 of this report. The United States imported $1.29 billion of
machines and $114 million worth of parts in 2018. A tariff of 18 percent applies to the first 1.2 million washing machines imported and a tariff of 45 percent applies to all subsequent washing machines as well as parts.

**Model Results**

According to the Tax Foundation model, the tariffs imposed so far by the Trump administration would reduce long-run GDP by 0.23 percent ($58.02 billion) and wages by 0.15 percent and eliminate 179,800 full-time equivalent jobs.

<table>
<thead>
<tr>
<th>Section 232 – Steel and Aluminum</th>
<th>Section 301 – China (25% on 34, 16, 200; 7.5% on 112)</th>
<th>WTO Dispute – European Union (10% and 25% on up to $7.5)</th>
<th>Solar Panels and Washing Machines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$79.96</td>
<td>$70.90</td>
<td>$1.36</td>
</tr>
<tr>
<td>Tariff Revenue</td>
<td>$6.39</td>
<td>$70.90</td>
<td>$1.36</td>
</tr>
<tr>
<td>Long-run GDP</td>
<td>-0.23%</td>
<td>-0.21%</td>
<td>0.00%</td>
</tr>
<tr>
<td>GDP ($2018)</td>
<td>($58.02)</td>
<td>($51.44)</td>
<td>($0.99)</td>
</tr>
<tr>
<td>Wages</td>
<td>-0.15%</td>
<td>-0.13%</td>
<td>0.00%</td>
</tr>
<tr>
<td>FTE Jobs</td>
<td>-14,400</td>
<td>-159,400</td>
<td>-3,000</td>
</tr>
<tr>
<td></td>
<td>179,800</td>
<td></td>
<td>-3,100</td>
</tr>
</tbody>
</table>

Note: Totals may not add due to rounding.

Source: Tax Foundation Taxes and Growth Model, March 2018

The 0.23 percent reduction in long-run GDP is about 13.5 percent of the total long-run impact of the Tax Cuts and Jobs Act, which we estimated to raise GDP by 1.7 percent in the long run.

**Tariffs Threatened by the United States**

We estimate that the administration’s threatened tariffs would amount to a tax increase of
approximately $81.7 billion.

**Section 232, Automobiles and Parts**

In May 2018, President Trump asked for tariffs of 25 percent on automobile imports, potentially including cars, trucks, and vehicle parts. In 2017, the United States imported nearly $292.5 billion worth of vehicles for consumption, while paying about $3.4 billion in duties on those imports. If we assume that import levels will remain the same and that the proposed tariff would apply to all goods in the Harmonized Tariff Schedule under the vehicle chapter (Chapter 87), in addition to the tariffs that are already levied, the new tariff would amount to a roughly $73.13 billion tax increase. It is likely that some vehicles or parts in Chapter 87 could be excluded from the tariff, while parts that may be listed in other chapters could be included, so the exact amount of the tax increase could be different. Automobile and part tariffs are still pending.

Altogether, tariffs on automobiles and parts imports account for $73.13 billion of the $81.7 billion in potential tariffs currently threatened by the U.S.

**Section 301, Chinese Products**

At this time, we do not include any tariff increases on Chinese products in the threatened tariffs category.

**WTO Dispute, European Union**

The United States has the authority to increase tariffs on the European Union at any time, up to a 100 percent tariff on $7.5 billion annually. On October 18, the United States began imposing tariffs on EU goods that we estimate total $1.31 billion. This leaves $6.19 billion worth of tariffs that could be raised on EU goods.

Tariffs threatened on the European Union account for about $6.19 billion of the $81.7 billion in threatened tariffs.

**Section 301, France’s Digital Services Tax**

On December 2, 2019, the United States Trade Representative (USTR) published the conclusion of a Section 301 investigation into France’s Digital Services Tax (DST). The USTR found that the DST discriminates against U.S. companies, and suggested potential duties up to 100 percent on a list of French products with approximate trade value of $2.4 billion. The USTR also stated it is exploring whether to open Section 301 investigations into DSTs of Austria, Italy, and Turkey.

**Model Results**
The Tax Foundation model estimates that if the Trump administration imposes these additional tariffs, GDP would fall by an additional 0.24 percent ($59.4 billion), resulting in 0.17 percent lower wages and 184,200 fewer full-time equivalent jobs.

<table>
<thead>
<tr>
<th>Tariff</th>
<th>Revenue (Billions of 2018 Dollars)</th>
<th>Section 301 – China – increase stages 1, 2, and 3 and impose stage 4a</th>
<th>Section 232 – Autos</th>
<th>WTO Dispute – European Union</th>
<th>Section 301, France’s Digital Services Tax</th>
<th>Total Threatened Tariffs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$73.13</td>
<td>$6.19</td>
<td>$2.40</td>
<td>$81.71</td>
<td></td>
</tr>
</tbody>
</table>

| Long-run GDP | - | -0.21% | -0.02% | -0.01% | -0.24% |
| GDP (Billions of 2018 Dollars) | - | -$53.16 | -$4.50 | -$1.82 | -$59.40 |
| Wages | - | -0.15% | -0.01% | 0.00% | -0.17% |
| FTE Jobs | - | -13,900 | -5,600 | -184,200 |

Note: Totals may not add due to rounding. Due to Phase 1 of a trade deal between the U.S. and China, we removed threatened tariffs on China from the analysis.

Source: Tax Foundation Taxes and Growth Model, March 2018

### Retaliatory Tariffs Imposed and Threatened

Several jurisdictions have proposed and imposed retaliatory tariffs against the United States as laid out in Tables 4 and 5.
Retaliation against Section 232 steel and aluminum tariffs target just over $9 billion worth of American products, for an estimated total tax of $2.11 billion. Note: Tariff revenues were calculated for the EU and China by averaging the tariff rates and multiplying by the affected amount of U.S. goods. Tariff revenues for Turkey, India, and Russia were based on news reports.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>U.S. Exports (billions, 2018)</th>
<th>Tariff Rate</th>
<th>Estimated Levy (billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td>$2.893</td>
<td>10-25%</td>
<td>$0.5</td>
</tr>
<tr>
<td>China</td>
<td>$2.522</td>
<td>15-25%</td>
<td>$1.0</td>
</tr>
<tr>
<td>Turkey</td>
<td>$1.711</td>
<td>4-70%</td>
<td>$0.2665</td>
</tr>
<tr>
<td>India</td>
<td>$1.427</td>
<td>10-50%</td>
<td>$0.241</td>
</tr>
<tr>
<td>Russia</td>
<td>$0.430</td>
<td>25-40%</td>
<td>$0.0876</td>
</tr>
</tbody>
</table>

Note: Mexico and Canada lifted their retaliatory tariffs in May 2019.


Table 4. Section 232 Steel and Aluminum Retaliation

China has responded to the United States’ Section 301 tariffs with several rounds of tariffs and proposed tariffs on more than $106 billion worth of U.S. goods, for an estimated tax of nearly $11.6 billion. Note that the proposed stage 4b tariffs are not included in the analysis of economic effects due to their cancellation under Phase 1 of the U.S.-China trade deal and that tariffs imposed on goods in September would be reduced from 10 percent and 5 percent to 5 percent and 2.5 percent, respectively, reducing tariffs on approximately $75 billion worth of goods. Note we reduced the average rate on Stage 3 and Stage 4a tariffs to account for the Phase 1 trade deal reductions.
### Table 5. Section 301 Retaliation

<table>
<thead>
<tr>
<th>Stage</th>
<th>U.S. Exports (billions, 2018)</th>
<th>Tariff Rate</th>
<th>Estimated Levy (billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>$12.896</td>
<td>25%</td>
<td>$3.224</td>
</tr>
<tr>
<td>Stage 2</td>
<td>$11.595</td>
<td>25%</td>
<td>$2.899</td>
</tr>
<tr>
<td>Stage 3</td>
<td>$59.698</td>
<td>2.5%/5%/5%-25%</td>
<td>$4.477</td>
</tr>
<tr>
<td>Stage 4a</td>
<td>$25.463</td>
<td>2.5-5%</td>
<td>$0.954</td>
</tr>
<tr>
<td>Stage 4b*</td>
<td>$41.790</td>
<td>5-10%</td>
<td>$3.13</td>
</tr>
</tbody>
</table>

*Stage 4b tariffs and auto tariffs have been removed from the model results due to Phase 1 of U.S.-China trade deal.


We estimate that retaliatory tariffs stemming from Section 232 and Section 301 actions total to approximately $13.7 billion. However, it is important to note that these tariffs are not paid to the United States government, but to the governments of the countries which impose the tariffs.

### Model Results

The Tax Foundation model estimates that U.S. GDP would fall another 0.04 percent ($11.05 billion) and cost an additional 34,200 full-time equivalent jobs if all retaliatory tariffs were imposed.

It is important to note, however, that unlike the tariffs that the United States could impose, which would raise some federal revenue, tariffs imposed by foreign jurisdictions would raise no revenue, but result in lower U.S. output.
Table 6: Impact of Retaliatory Tariffs

<table>
<thead>
<tr>
<th></th>
<th>Section 232 Retaliation</th>
<th>Section 301 Retaliation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tariff Revenue (Billions of 2018 Dollars)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Long-run GDP</td>
<td>-0.01%</td>
<td>-0.04%</td>
<td>-0.04%</td>
</tr>
<tr>
<td>GDP (Billions of 2018 Dollars)</td>
<td>-$1.51</td>
<td>-$9.54</td>
<td>-$11.05</td>
</tr>
<tr>
<td>Wages</td>
<td>0.00%</td>
<td>-0.02%</td>
<td>-0.03%</td>
</tr>
<tr>
<td>FTE Jobs</td>
<td>-4,700</td>
<td>-29,600</td>
<td>-34,200</td>
</tr>
</tbody>
</table>

Note: Totals may not add due to rounding.

Source: Tax Foundation Taxes and Growth Model, March 2018

Conclusion

If additional tariffs and in-kind retaliatory actions continue to be taken, the harm caused to U.S. businesses and consumers would increase. The Trump administration would do well to not follow a path of imposing tariffs that could dampen the U.S. economic outlook.

Timeline of Activity

**February 14, 2020**
U.S. reduces tariffs on $120 billion of Chinese goods by half to 7.5% and China reduces tariffs on approximately $75 billion of US goods in half to 2.5% and 5%.

**December 16, 2019**
U.S. postpones indefinitely the scheduled tariff of 15% on $160 billion worth of goods from China and announces plans to decrease the 15% tariff on $120 billion worth of goods from China to 7.5% (date unknown, will be included in the model when the decrease takes effect). China took corresponding measures and canceled their schedule tariff increase.
December 5, 2019
U.S. concludes Section 301 investigation into France's Digital Services Tax, threatens tariffs on $2.4 billion French products.

Our analysis now includes tariffs on solar panels and washing machines.

October 18, 2019
U.S. imposes 10% and 25% tariffs on $7.5 billion European Union goods under WTO ruling.

October 15, 2019
U.S. postpones scheduled tariff hike from 25% to 30% on $250 billion worth of goods from China.

October 3, 2019
U.S. announces 10% and 25% tariffs on $7.5 billion European Union goods under WTO ruling, with the authority to raise the tariffs to 100%.

September 12, 2019
U.S. delays tariff increase from 25% to 30% on $250 billion worth of Chinese goods from Oct. 1 until Oct. 15.

August 26, 2019
U.S. announces the 25% tariff on $250 billion of Chinese goods would increase to 30 percent, effective Oct. 1, after a comment period.

August 23, 2019
China announces additional tariffs on $75 billion of U.S. imports, from 5-10%, and will resume tariffs on U.S. cars and car parts suspended earlier in 2019. Tariffs to begin Sept. 1 and end Dec. 15.

U.S. announces 10% tariff on $300 billion of Chinese goods to increase to 15%, some beginning Sept. 1, others on Dec. 15.

August 13, 2019
U.S. announces 10% tariff on $300 billion of Chinese goods would be delayed from Sept. 1 until Dec. 15.

August 1, 2019
U.S. announces 10% tariff on $300 billion Chinese goods, to be levied on Sept. 1, lowered from the previously announced 25% on $325 billion.

July 20, 2019
U.S. confirms announced July 5 plans to impose tariffs on all Chinese imports, roughly $500 billion of goods, modeled as a 10% tariff.
July 5, 2019
U.S. again threatens additional tariffs on Chinese imports if China further retaliates, increasing threats from levies on $200 billion and another $200 billion to $200 billion and $300 billion.

June 10, 2019
U.S. “indefinitely suspended” previously announced tariffs against Mexican products, set to begin at a 5% rate in June and gradually rise to 25%.

May 31, 2019
U.S. threatens 5% tariff beginning June 10 on $346.5 billion of imports from Mexico until illegal immigration across the southern border stops. It would rise to 10% on July 1; 15% on Aug. 1; 20% on Sept. 1; and 25% on Oct. 1.

May 22, 2019
U.S. announces it will lift steel and aluminum tariffs on Canada and Mexico, and those nations will lift their retaliatory tariffs.

May 10, 2019
U.S. announces it will raise tariffs on $200 billion of imports from China from 10% to 25%, with threats to impose an additional 25% on $325 billion of goods.

August 29, 2018
Tax Foundation separated our automobile tariff estimate to show auto imports from Canada, and made slight estimate adjustments to correct for rounding.

August 16, 2018
U.S. doubles the tariffs on steel and aluminum imports from Turkey, which responds by doubling its tariffs on 22 U.S. products.

August 8, 2018
U.S. threatens a 10% tariff on $200 billion of Chinese goods if China retaliates for the previous 10% tariff, and that would extend to an additional $200 billion of goods. This would amount to a $40 billion tax increase.

August 1, 2018
U.S. considers increasing the proposed 10% tariff to 25% on $200 billion of Chinese imports. That would be a $30 billion tax increase.

July 20, 2018
U.S. reaffirms plans to impose tariffs on all Chinese imports (roughly $500 billion).

July 13, 2018
Russia will begin placing tariffs on U.S. goods, worth about $87.6 million. (Slight adjustments were made to our estimates to correct for rounding.)

**July 6, 2018**
U.S. announces readiness to target an additional $200 billion in Chinese imports, and an additional $300 billion after that—an increase of $100 billion from previous threats.

**June 28, 2018**
Turkey will begin placing tariffs on U.S. goods, worth about $266.5 million.