



Consumer Technology Association, producer of CES®

# How the Proposed Trump Tariffs Increase Prices for Consumer Technology Products

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October 2024



# Foreword

Since the imposition of the Section 301 tariffs on imports from China in 2018, the Consumer Technology Association (CTA)<sup>®</sup> frequently expressed concern about their negative impacts on the United States economy through our research and analysis and our submissions to both the Trump-Pence and Biden-Harris administrations.

Tariffs and trade have once again become a central topic in the 2024 U.S. general elections. Former president Donald Trump and his allies are proposing a wide array of new tariffs to impose on imports into the U.S. In response, Vice President Harris has called these tariffs a “national sales tax,” including at their debate in September. Days after that, President Biden increased the tariff rates on a wide range of goods related to his industry strategy, which the former President had already subjected to tariffs. The irony of this decision happening soon after the Vice President described the proposed Trump tariffs as a national sales tax is not lost on us.

Whether they are imposed on our adversaries or allies, all these tariffs are taxes that Americans pay, and we must call them as such. And while Harris may disagree with Trump about tariffs, her proposal on taxing unrealized capital gains as income will be just as harmful to the U.S. economy, businesses, workers, and consumers.

To aid the discourse about the former President’s proposed tariffs, CTA is releasing new economic research. Our report *How the Proposed Trump Tariffs Increase Prices for Consumer Technology Products* shows that the tariffs, if enacted, will only harm American consumers, households, workers, businesses, organizations, and governments at all levels. Inflation and poverty will spike. Markets will become more volatile, and assets will lose value.

Trump proposes high and broad tariffs on imports from other countries, including friends and allies of

the U.S. The main goal of imposing these tariffs—which are taxes that Americans will pay—is difficult to discern, but the campaign has stated that increased tariffs will:

- Move manufacturing back to the U.S.;
- Protect U.S. communities and workers from foreign competition;
- Collect greater tariff revenue to replace the U.S. income tax;
- Respond in kind to other countries who maintain higher tariff rates than in the U.S.;
- Retaliate against countries who restrict U.S. exports and investment; or
- Punish countries who move away from the U.S. dollar as the asset of denomination for international transactions.

The truth is the proposed tariffs will never achieve these goals and will lead to unintended consequences. If these tariffs are imposed, the reputation and credibility of the U.S. in the eyes of the world will deteriorate rapidly, as will the country’s credit rating—which was already downgraded in 2023. Many countries, including our friends and allies, will retaliate with their own trade restrictions against U.S. exports. Our friends and allies will also face the increasing predatory actions of our adversaries while the U.S. will become an economic island resistant to imports, immigration, and innovation. These tariffs will inspire our adversaries to create even more global havoc and harm in our wake.

This dystopian vision doesn’t have to happen. Instead of relying on tariffs to address all of life’s perceived problems, our country can and should adopt a pro-growth and forward-looking trade policy that addresses unfair trading practices with our adversaries, raises environmental and labor standards, resolves barriers to trade amicably with

our allies, and opens new markets to U.S. exports of goods and services and investments across the world. A “Fortress America” cut off from the rest of the world will make the U.S. less innovative, poorer, disconnected from the global economy, and unable to address increasing global risks and conflicts. We know that policymakers here in the United States and our trading partners are considering the stakes and impacts of these proposals. Two proposals are gaining the most attention, as it seems that a future U.S. president could enact them only through executive action and without a vote from the Congress. These proposals are:

- A 10% or 20% tariff on all imports from all countries; and
- A 60% tariff on all imports from China.

Through the new report commissioned by CTA and undertaken by the Trade Partnership Worldwide LLC (TPW), we are contributing to the increasing body of analysis of these proposals. Much of the analysis to date has been economy-wide. TPW’s analysis on our behalf examines the specific impacts of proposals to impose the 10% universal tariff and the 60% on all imports from China (which would be on top of the 10% and all the other existing tariffs on imports from China) on ten consumer technology products, including smartphones, laptops and tablets, connected devices, video game consoles, and computer accessories.

Across the board, the tariffs will cause significant price increases for U.S. consumers:

- Laptops and tablets by 46%;
- Video game consoles by 40%; and
- Smartphones by 26%.

The 60% flat tariff on all imports from China will largely drive production to other countries, not to the United States. Indeed, a [study commissioned](#)

[by CTA](#) last year shows that reshoring all tech manufacturing to the U.S. isn’t feasible. And U.S. consumers will still have to pay more to buy these products since U.S. retailers will have to pay the 10% tariff to import them. Collectively, U.S. consumer purchasing power for consumer technology products will drop by \$90 billion annually. Consumers will decrease their purchases of laptops and tablets by 54%, smartphones by 44%, and video game consoles by 57%.

At their core, these proposals are tools for the U.S. government to grab as much tax revenue as possible from the American people. We have seen this movie before and know the ending. The proposed tariffs will not create more employment or manufacturing in the U.S. In fact, the opposite may happen where our productivity decreases and jobs may be lost over time when workers and businesses have less affordable access to technology.

Hard-nosed and fact-based analysis is necessary for policymakers to consider the merits of these proposals. It’s not enough to say we disagree with them. We are proud to publish this research and encourage policymakers, analysts, and stakeholders to read our study. As the campaigns near their end, CTA welcomes the opportunity to engage in further dialogue with all sides of this debate.

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# Executive Summary

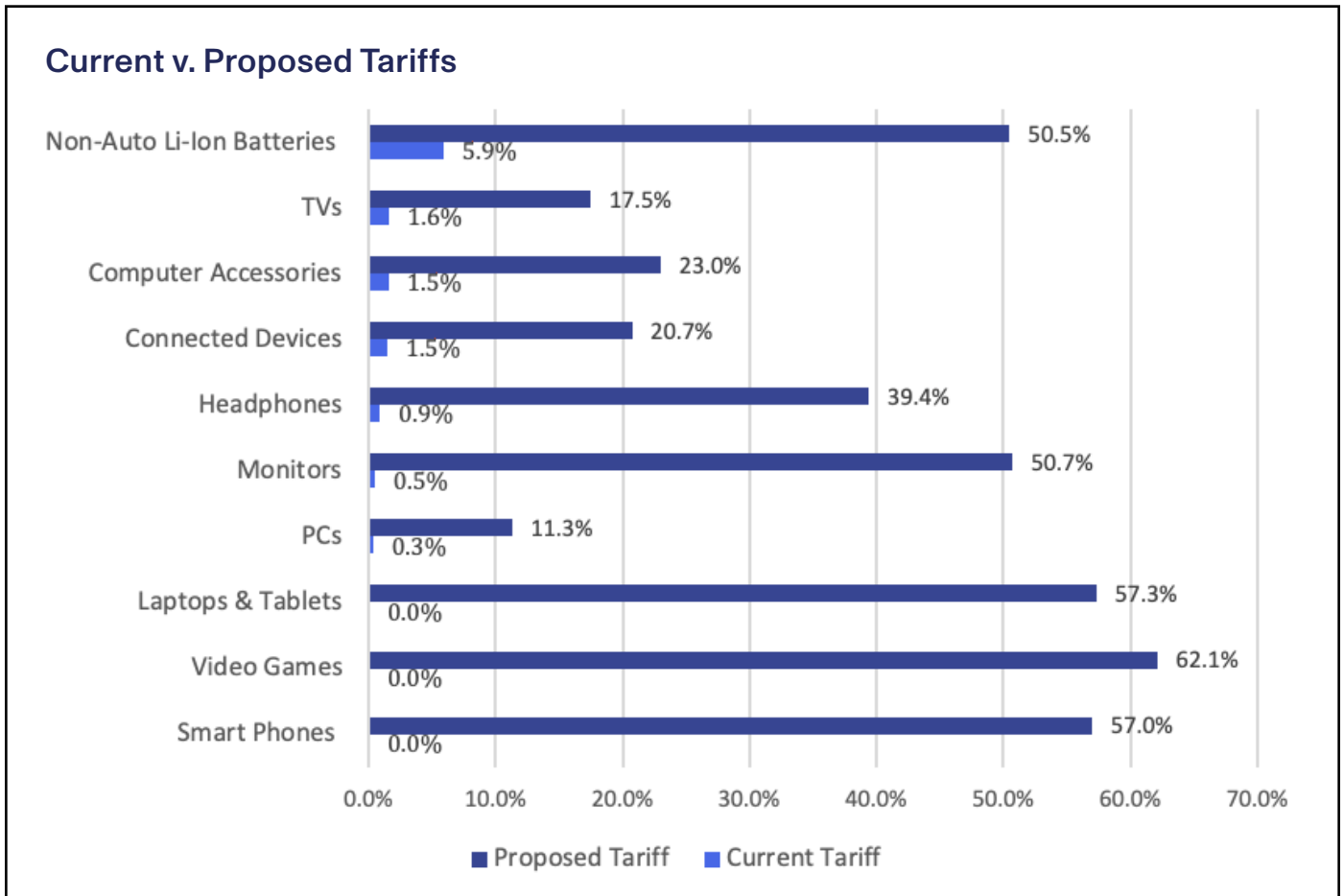
September 26, 2024

Former president Donald Trump has floated a wide range of proposals, were he to become president, to impose new tariffs on imports into the United States. Two specific proposals call for greater scrutiny: 1) a tariff “ring” of at least 10% around the U.S., and 2) a flat tariff of 60% on all imports from China on top of existing tariffs. *The proposals would raise the average U.S. tariff on imports from all countries, excluding China, from about 1% to 11.1%, and on imports from China from 10.6% to 80.6%, assuming current levels and patterns of trade.*

Such tariffs would have a significant impact on the costs of a wide range of consumer technology products sold in the United States. Research

by Trade Partnership Worldwide, LLC (TPW) aims to help policy makers understand the potential impacts on American families of Trump tariff proposals. The TPW study focused on 10 consumer technology products categories found in nearly every home across the United States. The increases in tariffs resulting from Trump’s proposal would be dramatic. For half of those examined, total average tariffs would exceed 50%, up in most cases from zero or near zero.

Even accounting for alternative sources of supply and potential new U.S. production, the proposed tariffs on **these ten products alone would reduce American consumers’ spending power by \$90 billion**. Price increases would be substantial if suppliers pass all the higher costs through to final consumers. Buyers of laptops, tablets and smartphones would feel the greatest impact.



## Estimated Impacts on Consumers of Proposed Tariffs: Summary

	Increase in Consumer Price	Value of Lost Consumer Spending Power Due to Higher Prices	Average Retail Cost Increase*
<b>Laptops and Tablets</b>	+45.0%	\$32.5 billion	+\$357, laptops; +\$201, tablets
<b>Smartphones</b>	+25.8%	\$25.6 billion	+\$213
<b>Connected Devices</b>	+10.2%	\$7.9 billion	+\$5 to +\$37
<b>Video Game Consoles</b>	+39.9%	\$6.5 billion	+\$246
<b>Computer Accessories</b>	+10.9%	\$5.2 billion	+\$25, printers
<b>Monitors</b>	+31.2%	\$5.0 billion	+\$109
<b>Desktop Computers</b>	+6.2%	\$3.0 billion	+74
<b>Televisions</b>	+9.0%	\$1.5 billion	+\$48
<b>Lithium-Ion Batteries</b>	+12.1%	\$1.5 billion	Up to +\$11
<b>Speakers &amp; Headphones</b>	+10.9%	\$1.1 billion	+\$29, speakers; +\$35, headphones

\* Assuming full pass-through of tariff costs to retail buyers.

# Introduction

Former president Donald Trump has floated proposals, were he to become president again, to impose a tariff “ring around the collar” on all U.S. imports, and to significantly increase U.S. duties on imports from China. Trump suggested in an August 2023 interview on Fox Business that, in a second term as president, he would impose a 10% tariff on imports from all countries.<sup>1</sup> More recently, in February, he suggested on Sunday Morning Futures on Fox News that he would impose tariffs of “more than” 60% on imports from China.<sup>2</sup> *The proposals would raise the average U.S. tariff on imports from all countries, excluding China, from about 1% to 11.1%, and on imports from China from 10.6% to 80.6%, assuming current levels and patterns of trade.* (Even more recently, Trump suggested the new tariffs of 20% on all countries, and more than 60% on China,<sup>3</sup> though TPW did not model impacts of these higher rates.)

Most trade observers typically would view such proposals as campaign rhetoric. However, considering Trump’s actions as president from 2017-2020,<sup>4</sup> policy analysts are taking them seriously. A growing number of research organizations has been releasing a succession of studies attempting to quantify the effects of these proposals on the U.S. economy and U.S. consumers. As Trump’s proposals are very general at this point,<sup>5</sup> each study examined their impacts from a variety of implementation scenarios and methodological approaches, with varying results.<sup>6</sup> All but one so far agree that the proposals would be costly for the U.S. economy and American households.<sup>7</sup>

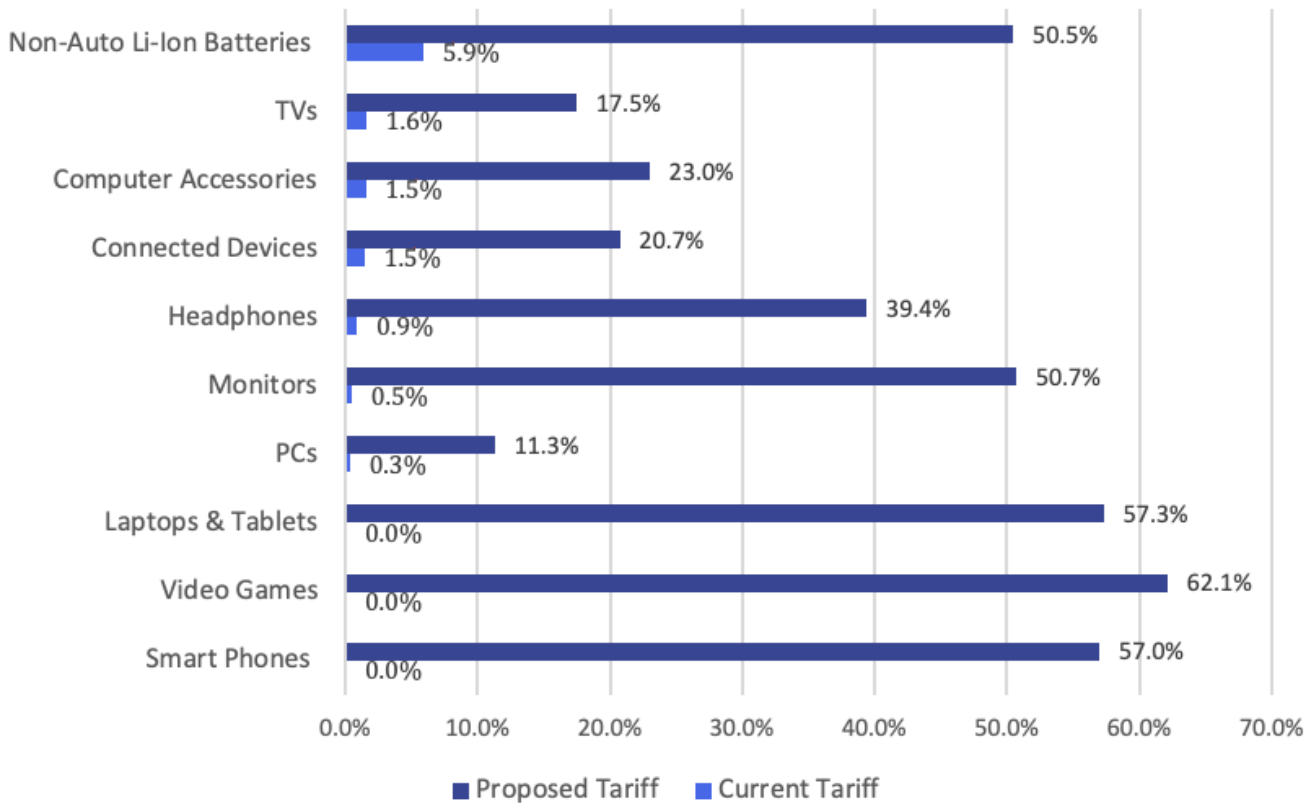
U.S. consumer technology firms know this firsthand due to the challenging experiences they faced in trying to absorb or pass on increased Section 301 tariffs levied on imports from China. They know that U.S. importers pay tariffs, that the proposed tariffs would raise the cost of goods imported from China and other economies, and that the tariffs would negatively impact the U.S. economy and

consumers. Specifically, the proposed tariffs would have a significant negative impact on the costs of a wide range of products U.S. consumer technology firms sell in the United States.

This research conducted by Trade Partnership Worldwide, LLC (TPW), aims to help policy makers understand the potential impacts on American families of the Trump tariff proposals. TPW focused on 10 consumer electronics products categories of particular importance to CTA members: televisions, monitors, laptops and tablets, smartphones, connected devices, video game console, desktop computers, headphones, computer accessories and non-automobile lithium batteries. Most of these products can be found in nearly every home across the U.S. The researchers assumed that: no countries or products would be excluded from the 10% tariffs, which would be applied on top of current U.S. tariffs; an additional tariff of 60% would be applied to all imports from China (in addition to current MFN tariffs, current Section 301 tariffs, and the additional 10% tariff); and trading partners do not retaliate.<sup>8</sup>

The increases in tariffs applied would in most cases be dramatic. For six of the ten products examined, current tariffs (weighted by trade levels) are zero or less than 1%.<sup>9</sup> Another three face current tariffs of less than 2%; only lithium-ion batteries face somewhat higher current tariffs of 5.9%. But under Trump’s proposed tariffs, assuming current trade levels and patterns, all would hit double digits and in five cases exceed 50%. The most dramatic increases are in products where China is the major supplier of these products and there are few sourcing alternatives. For example, in 2023, China accounted for 87% of U.S. video game console imports, 78% of U.S. smartphone imports, 79% of U.S. laptop and tablet imports, and two-thirds of U.S. imports of monitors.<sup>10</sup>

## Current v. Proposed Tariffs



The model TPW uses (described in detail in the Appendix) reflects the shifts in sourcing that would occur as buyers of the products, when faced with the higher tariffs, attempt to move away from Chinese suppliers and towards suppliers in other countries, including the U.S. But given that China is such a large source of current supply, moving that quantity of production to other countries would be problematic, especially in the short term.

The TPW results show that, even accounting for alternative sources of supply, the proposed tariffs would have a net negative impact on American consumers.<sup>11</sup> Price increases would be substantial if suppliers pass all the higher costs through to final consumers. This is the case even for products for which the new tariff rates do not represent a large increase over current rates.

## Estimated Impacts on Consumers of Proposed Tariffs: Summary

	Increase in Consumer Price	Value of Lost Consumer Spending Power Due to Higher Prices	Average Retail Cost Increase*
<b>Laptops and Tablets</b>	+45.0%	\$32.5 billion	+\$357, laptops; +\$201, tablets
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<b>Lithium-Ion Batteries</b>	+12.1%	\$1.5 billion	Up to +\$11
<b>Speakers &amp; Headphones</b>	+10.9%	\$1.1 billion	+\$29, speakers; +\$35, headphones

\* Assuming full pass-through of tariff costs to retail buyers.

### Laptops and Tablets

The proposed tariffs would prove to be particularly expensive for purchasers of laptops and tablets.<sup>12</sup> Current U.S. tariffs on these products are zero, and they are not subject to any Section 301 tariffs on China either. The proposed tariffs effectively would impose a 57.3% tax on laptop and tablet imports. Most of this is new rate because currently China accounts for 79% of total U.S. imports of these products, so the higher (70%) tariff on those imports weighs heavily on the overall average.

There is little U.S. production of these goods. Even though the volume of imports will decline in the face of higher costs, U.S. manufacturers are not positioned to be significant alternative sources of supply. TPW estimates imports from all sources will decline by over half, but U.S. output would increase by just 8%. **Consequently, U.S. laptop and tablet prices would jump by 45%,**

**or potentially by about \$357 on top of the average retail price of a laptop today** (estimated at \$793<sup>13</sup>), and \$201 added to the average retail price of a tablet today (estimated at \$447<sup>14</sup>). Such cost increases would drive U.S. consumers to reduce overall purchases by 54%.

Those American consumers that continue to buy new laptops and tablets see a reduction in their purchasing power: more money needed to buy these goods is less money available for groceries or rent, for example. **In short, the tariffs cost consumers \$33 billion in lost spending power.**

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$24 billion, with most of that burden carried by U.S. consumers.



## Summary of Impacts of Increased Laptop and Tablet Tariffs

Change in imports from China	-78.9%
Change in imports from all sources	-52.3%
Change in U.S. production	+8.3%
Change in U.S. consumer prices (all sources)	+45.0%
Change in consumption	-54.2%
Reduction in consumer spending power (billion)	-\$32.5
Net impact on U.S. economy (billion)	-\$23.7

## Smartphones

The impacts of the proposed tariffs on smartphones<sup>15</sup> are similar to the impacts on laptops and tablets, for the same reasons. Smartphone imports are currently duty free and not subject to Section 301 tariffs on China; the tariff proposals would impose a new average tax of 57% on those imports. That average is high because China currently accounts for 78% of total U.S. imports, and those imports would face a new 70% tariff.

There is no U.S. production of smartphones,<sup>16</sup> so tariffs would cause shift most sourcing of products currently purchased from producers in China to other countries. Of course, these other countries also now would face higher duties of 10%. Shifting that large a volume of supply from China to other countries will be difficult and take time. Imports from China drop by 94%; imports from all sources fall by 38%. U.S. producers cannot pick up the slack.

Prices of smartphones would rise significantly. **The tariffs force prices up by 26%, or by nearly \$213 more over the average retail price of a smartphone today** (estimated at \$826<sup>17</sup>). **As a result of this sticker-shock, U.S. consumers reduce overall purchases by 44%.**

**Consequently, American consumers lose \$26 billion in spending power.** Users in low-income households will especially feel this burden. These households have so far been able to substantially increase their purchases of smartphones, thanks to lower prices made possible by imports. According to Pew Research Center, by 2023, 79% of households earning less than \$30,000 had a smartphone.<sup>18</sup>

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$19 billion, with most of that burden carried by U.S. consumers.

## Summary of Impacts of Increased Smartphone Tariffs

Change in imports from China	-93.7%
Change in imports from all sources	-38.2%
Change in U.S. production	0
Change in U.S. consumer prices (all sources)	+25.8%
Change in consumption	-43.7%
Reduction in consumer spending power (billion)	-\$25.6
Net impact on U.S. economy (billion)	-\$18.7

## Connected Devices

The connected devices analyzed here include products spanning the ecosystem of the internet of things (IoT). This consumer tech product category<sup>19</sup> captures products that consumers need to access the web and enjoy its content: portable cellular access points, portable and smart

Bluetooth speakers, Bluetooth wireless headsets, fitness trackers, smartwatches and other Bluetooth enabled smart technologies such as whole-home controls. While most connected device imports are duty free, current tariffs average 1.5% due to Section 301 tariffs on imports from China. The Trump tariff proposal would increase that rate to 20.7%. Unlike laptops, tablets and smartphones, connected devices are sourced more widely, with China accounting for just 15% of total imports.

Nevertheless, imposing the proposed tariff of 70% on imports from China causes the cost of those imports to increase, resulting in a shift in sourcing out of China (-98%). U.S. producers gain only slightly (+2%).

**Prices for these products rise across the board – by 10% overall – and U.S. consumers reduce connected device purchases by 18%.** Some sample estimates of the potential impacts on retail prices are provided in the table. **Higher prices for what consumers do continue to purchase reduces household spending power by \$8 billion.**

### Potential Estimated Retail Cost Increases for Selected Connected Devices

	Estimated Retail Price <sup>20</sup>	Estimated Price Increase*
Smartwatches	\$360	+\$37
Wireless headphones (ex. earbuds)	\$100	+\$10
Wireless earbuds	\$113	+\$12
Fitness activity trackers	\$90	+\$9
Smart speakers	\$46	+\$5

\*Assuming full pass-through of tariff costs to retail buyers.

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$8 billion, with most of that burden carried by U.S. consumers.

### Summary of Impacts of Increased Connected Devices Tariffs

Change in imports from China	-97.8%
Change in imports from all sources	-20.2%
Change in U.S. production	+1.8%
Change in U.S. consumer prices (all sources)	+10.2%
Change in consumption	-18.1%
Reduction in consumer spending power (billion)	-\$7.9
Net impact on U.S. economy (billion)	-\$2.2

### Video Game Consoles

The imposition of the proposed Trump tariffs on U.S. imports of video game consoles would boost their costs significantly. Imports of video game consoles<sup>21</sup> are currently duty free, but tariffs would jump to an overall average of 62.1% if the proposed tariffs were imposed. The dramatic increase is owed to the fact that China is currently the source of 87% of U.S. imports, and those imports would face a new tariff of 70%.

The higher tariffs have limited positive impacts on other suppliers. According to industry analysts, there is very little U.S. production of video game consoles (U.S. production represents perhaps 1% of the market). Shifting the large quantities of Chinese production to other suppliers would be very difficult given the volumes involved. American producers' output would grow by 31%, but off a very small base. Thus, the result of the imposition of proposed tariffs would likely be supply chain disruptions affecting imports that exacerbate product shortages and force prices up particularly in the short run.

Because alternative sources are so limited, U.S. prices of video game consoles would rise. **According to the TPW, U.S. prices for video game consoles generally (from all sources combined) would jump by 40%, or up \$246 based in a retail price range of video game consoles today** (averaging \$617<sup>22</sup>). **American consumers would pay \$7 billion more for video game consoles. As a result, U.S. consumers reduce overall purchases by 57%.**

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$5 billion, with most of that burden carried by U.S. consumers.

### Summary of Impacts of Increased Video Game Console Tariffs

Change in imports from China	-84.2%
Change in imports from all sources	-54.9%
Change in U.S. production	+31.1%
Change in U.S. consumer prices (all sources)	+39.9%
Change in consumption	-56.8%
Reduction in consumer spending power (billion)	-\$6.5
Net impact on U.S. economy (billion)	-\$4.9

### Computer Accessories

This category of technology products includes computer printers/scanners/faxes; and keyboards, mice, track pads, styluses, USB hubs and docking stations, and other similar accessories.<sup>23</sup>

The imposition of the proposed tariffs would have significant negative impacts on consumers of computer accessories. The current tariff rate for these products averages 1.5%; the proposal would boost that average to 23.0%. China accounts

for just 19% of total U.S. imports; hence, the new tariffs would fall more heavily on imports from other countries. Imposition of the higher tariffs on computer accessories imported from China causes U.S. imports from China to decline by 98%, and imports overall would drop by 25%. Producers in the United States increase production by just 4%.

Product shortages would ensue that would ensure the costs are passed along the supply chain, raising prices for U.S. computer accessory buyers. **Overall, prices of these products (from all sources) increase by 11%. In response, U.S. consumers cut back on purchases of computer accessories by 23%.** For example, the average price of printers is \$234,<sup>24</sup> and the imposition of the proposed tariffs would raise printer prices by as much as \$25. **These higher costs cut consumer spending power by \$5.2 billion.** That loss in spending power continues as long as the higher tariffs are in effect.

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$2 billion, with most of that burden carried by U.S. consumers.

### Summary of Impacts of Increased Computer Accessories Tariffs

Change in imports from China	-97.9%
Change in imports from all sources	-25.3%
Change in U.S. production	+3.9%
Change in U.S. consumer prices (all sources)	+10.9%
Change in consumption	-22.8%
Reduction in consumer spending power (billion)	-\$5.2
Net impact on U.S. economy (billion)	-\$2.0



## Monitors

The proposed tariffs would increase the costs of monitors<sup>25</sup> sold in the United States substantially. Average U.S. tariffs would jump from 0.5% to 50.7%. China currently accounts for two-thirds of total U.S. Imports so the brunt of the tariff increase would fall on those imports. **As a result, monitors imported from China would drop by 80%; overall, imports would decline by 44%.** U.S. production would increase by 10%, not enough to forestall huge price increases for consumers.

The tariffs have a negative impact on U.S. monitor prices. **Overall, monitor prices increase by 31%.** One monitor product reviewer reports a range of current monitor prices that average \$349, which equates to a tariff-induced increase in retail prices of up to \$109 per monitor.<sup>26</sup> **These higher prices rob consumers of \$5 billion they could otherwise spend on other goods and services.**

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$3 billion, with most of that burden carried by U.S. consumers.

## Summary of Impacts of Increased Monitor Tariffs

Change in imports from China	-80.0%
Change in imports from all sources	-44.3%
Change in U.S. production	10.0%
Change in U.S. consumer prices (all sources)	+31.2%
Change in consumption	-42.7%
Reduction in consumer spending power (billion)	-\$5.0
Net impact on U.S. economy (billion)	-\$3.2

## Desktop Computers

The imposition of the proposed tariffs also would have negative impacts on desktop computer consumers. The current tariff rate for desktop computers<sup>27</sup> averages 0.3%; the proposal would boost that average to 11.3%. China accounts for just 2% of total U.S. imports; hence, the new tariff of 10% would fall most heavily on computers sourced from other foreign suppliers, primarily Mexico.

Imposition of the higher tariffs on desktop computers imported from China causes U.S. imports from China to nearly evaporate, declining by 99%, and imports overall to decline by 17%. Producers in the United States increase production, but by just over 1%.

The tariffs have a negative impact on U.S. desktop computer consumers in the form of higher prices. **Overall, prices of these computers (from all sources) increase by 6%. In response, U.S. consumers cut back on purchases of desktop computers by 14%.** A recent review of 11 desktop computer model prices shows an average \$1,193.<sup>28</sup> The imposition of the proposed tariffs would thus raise desktop prices on average by \$74 per computer, forcing consumers to pay \$3 billion more than they otherwise would for the desktop computers they continue to buy. That loss in spending power continues as long as the higher tariffs are in effect.

The net annual impact on the economy (the value of U.S. producer gains plus tariff revenues to the U.S. government, minus the value of consumer losses) is a gain of \$477 million. This is due to the anomaly that Mexican manufacturers do what they can to maintain market share and continue to export to the U.S. Mexico continues to export to the U.S. and unlike other products examined, the higher tariff revenue offsets the higher cost burden on consumers. It should be noted that the model used here estimates price impacts in isolation. The small expected “gains” reported here are primarily the result of a several billion dollar tax transfer

from consumers to the government. A broader model that includes the knock-off effects of \$3 billion in lower consumer spending (e.g., on food, services, other goods) likely would negate the estimated GDP increase reported here.

### Summary of Impacts of Increased Desktop Computer Tariffs

Change in imports from China	-98.5%
Change in imports from all sources	-17.0%
Change in U.S. production	+1.3%
Change in U.S. consumer prices (all sources)	+6.2%
Change in consumption	-14.0%
Reduction in consumer spending power (billion)	-\$3.0
Net impact on U.S. economy (million)	+\$477

### Televisions

The imposition of the proposed tariffs would have significant negative impacts on American TV purchasers. The current tariff rate for televisions<sup>29</sup> averages 1.6%; the proposal would boost that average to 17.5%. China accounts for a very small share of total U.S. imports; hence, the new tariff of 10% would fall most heavily on televisions sourced from other foreign suppliers.

Imposition of the higher tariffs on televisions imported from China causes U.S. imports from China of televisions to decline by 90%, and imports overall to decline by 16%. Producers in the U.S. increase production, but by less than 2%.

**The tariffs have a negative impact on U.S. television consumers in the form of higher prices. Overall, prices of TVs (from all sources) increase by 9%. In response, U.S. consumers cut back on purchases of TVs by 16%.** A review of several current TV options and prices shows

an average price of a television is \$528.<sup>30</sup> The imposition of the proposed tariffs would thus raise television prices by an average of \$48 per TV, forcing consumers to pay \$1.5 billion more than they otherwise would for the televisions they continue to buy. That loss in spending power continues as long as the higher tariffs are in effect.

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$171 million, with most of that burden carried by U.S. consumers.

### Summary of Impacts of Increased Television Tariffs

Change in imports from China	-89.7%
Change in imports from all sources	-15.7%
Change in U.S. production	+1.5%
Change in U.S. consumer prices (all sources)	+9.0%
Change in consumption	-16.3%
Reduction in consumer spending power (billion)	-\$1.5
Net impact on U.S. economy (million)	-\$171

### Lithium-Ion Batteries

This category covers batteries used in consumer technology products (i.e., not those used in motor vehicles).<sup>31</sup> The current tariff rates for these products averaged 5.9%; the proposal would boost that average to 50.5%. China accounts for more than half of total U.S. imports, so new tariffs would fall heavily on lithium-ion batteries sourced from China as well as other countries.

Imposition of the higher tariffs on batteries imported from China causes U.S. imports from

China to decline by 98%, and imports of these products overall to drop by 54%. Producers in the U.S. increase production by 10%.

The tariffs have a negative impact on U.S. battery consumers in the form of higher prices. **Overall, prices of these products (from all sources) increase by 12%. In response, U.S. consumers cut back on purchases of by 25%.** The average price of batteries for consumer electronics ranges from \$10-\$90, so the potential impact of the tariffs on buyers us up to \$11.<sup>32</sup> **The imposition of the proposed tariffs would raise battery prices by as much as \$29, forcing consumers to pay \$1.5 billion more than they otherwise would for the batteries they continue to buy.** That loss in spending power continues as long as the higher tariffs are in effect.

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$802 million, with most of that burden carried by U.S. consumers.

### Summary of Impacts of Increased Battery Tariffs

Change in imports from China	-97.7%
Change in imports from all sources	-54.4%
Change in U.S. production	+10.0%
Change in U.S. consumer prices (all sources)	+12.1%
Change in consumption	-24.8%
Reduction in consumer spending power (billion)	-\$1.5
Net impact on U.S. economy (million)	-\$802

## Speakers and Headphones

The imposition of the proposed tariffs would have significant negative impacts on consumers of speakers and headphones. The current tariff rate for these products<sup>33</sup> averages 0.9%; the proposal would boost that average to 39.4%. China accounts for half of total U.S. imports; hence, the new tariffs would fall equally on speakers and headphones sourced from China as well as other countries.

Imposition of the higher tariffs on speaker and headphones imported from China causes U.S. imports from China to decline by 98%, and imports of speakers and headphones overall would drop by 37%. Producers in the United States increase production by 11%.

**The tariffs have a negative impact on U.S. speaker and headphone consumers in the form of higher prices. Overall, prices of these products (from all sources) increase by 11%. In response, U.S. consumers cut back on purchases of speakers and headphones by 23%.** The average price of speakers is \$270,<sup>34</sup> and the average price of headphones is \$21.<sup>35</sup> The imposition of the proposed tariffs would raise speaker prices by as much as \$29, and headphones by \$2. While this price increase may see inconsequential, it is not when one considers how many of these headphones are purchased every year. Indeed, the TPW estimates show the higher prices force consumers to pay \$1.1 billion more than they otherwise would for the speakers and headphones they continue to buy. That loss in spending power continues as long as the higher tariffs are in effect.

Even accounting for producer gains and more tariff revenue for the U.S. government, the consumer loss is so large that the overall U.S. economy loses \$509 million, with most of that burden carried by U.S. consumers.



## Summary of Impacts of Increased Speakers and Headphone Tariffs

Change in imports from China	-97.5%
Change in imports from all sources	-36.8%
Change in U.S. production	+11.1%
Change in U.S. consumer prices (all sources)	+10.9%
Change in consumption	-22.7%
Reduction in consumer spending power (billion)	-\$1.1
Net impact on U.S. economy (million)	-\$509

## Conclusion

The proposed tariffs would have a significant and detrimental impact on the costs of a wide range of consumer technology products sold in the United States. The research conducted by Trade Partnership Worldwide, LLC (TPW) highlights the dramatic increases in tariffs, particularly on products where China is the major supplier. The proposed tariffs would not only raise the average U.S. tariff on imports from all countries but would also impose a substantial burden on American consumers, reducing their spending power by \$90 billion annually.

The analysis shows that even with alternative sources of supply and potential new U.S. production, the proposed tariffs would lead to substantial price increases for products such as laptops, tablets, smartphones, and video game consoles. These price hikes would significantly reduce overall purchases and negatively impact the U.S. economy, with the burden primarily carried by U.S. consumers. Ultimately, the proposed tariffs would result in a net negative impact on American consumers and the U.S. economy, underscoring the need for careful consideration of such trade policies.

# Appendix A

## Methodology

Trade Partnership Worldwide, LLC (TPW) employed a modeling strategy for industry-focused globally-linked partial equilibrium analysis of tariff policy. It enables the researchers to estimate the cross-country impacts of changes in trade policy (applying increased tariff rates on top of existing tariff rates) for detailed product categories.

Grouping products by Harmonized Tariff System (HTS) code into defined consumer technology product categories, TPW built a set of product-specific models based on the “global simulation model” framework (GSIM). Francois and Hall (2009) developed GSIM to allow detailed analysis of tariff scenarios across individual products and potentially all major trading countries and blocks. The World Bank and the United Nations adopted the GSIM framework, integrating it into the joint World Bank-UNCTAD trade data portal known as the “World Integrated Trade Solution,” or WITS (see <http://wits.worldbank.org/wits/>).<sup>36</sup> The U.S. International Trade Commission used a similar approach in its assessment of the economic effects of the Section 232 and 301 tariffs applied to imports from China (USITC 2023).

The basic framework employed here can be implemented with a spreadsheet-based interface. TPW stresses that, in implementation, this set of models is structurally consistent with the recent class of Eaton-Kortum based structural trade models (see Bekkers *et al*, 2018 (technical annex); Costinot and Rodriguez-Clare, 2014 for example).

The basic approach involves specifying global supply and demand for each set of goods produced by a particular country as the sum of individual (national) sources of supply and demand. This is done for goods produced in all regions in the model. TPW then reduces the solution set of the model to those global prices that clear global markets. Once TPW has a global set of equilibrium prices, it can obtain national results (changes in prices and quantities). Based on price and quantity changes, TPW in turn obtains estimates of changes in production, trade, consumer and producer surplus, and real national income that result from the imposition of tariffs on imports in total and from China.

Within this context, TPW works with a non-linear representation of import demand, combined with generic export-supply equations (see Francois and Hall 2009).

# Data Sources

Trade data and tariffs are from “World Integrated Trade Solution,” or WITS (see <http://wits.worldbank.org/wits/>) and the U.S. Census Bureau.

U.S. production data (domestic shipments) are from the Census Bureau’s [Annual Survey of Manufacturers and the Manufacturers’ Shipments, Inventories and Orders \(M3\)](#) survey. The latest data from ASM resource is 2021; the M3 runs through recent months in 2023. Shipments data for 2022 were taken from the M3 whenever possible for televisions the most recent shipments data are only available from the ASM and therefore are for 2021.

Trade elasticities are from the Global Trade Analysis Project (GTAP).

## **Country Disaggregation**

Canada (CAN)	Mexico (MEX)
China (CHN)	Malaysia (MYS)
European Union (EUN)	Philippines (PHL)
FTA partners (FTA)	Taiwan (TWN)
Indonesia (IND)	Thailand (THA)
India (IDN)	Rest of World (ROW)
Japan (JPN)	Vietnam (VNM)
Korea (KOR)	United States (USA)

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- 5 For example, Trump has not said if he would make any exceptions to the application of the 10% tariff (e.g., to countries which apply zero duties to U.S. exports, such as U.S. free trade agreement partners), or whether he would exempt raw materials and other inputs to U.S. production that simply cannot be sourced within the United States from either tariff proposal.
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- 8 The first two application assumptions may lead to an overestimate of the impacts of the tariffs if in fact Trump exempts free trade agreement partners or any country which imposes 0% duties on U.S. exports. The non-retaliation assumption results in an underestimate of the impacts of the tariffs, and perhaps a significant one, as declines in U.S. exports will reverberate throughout the U.S. economy and U.S. price levels (raising them).
- 9 It is important to remember that many of the products considered here are also subject to Section 301 tariffs when imported from China and the current weighted average tariff rates report reflect these high duties.

10 While China may be the official country of origin for the consumer technology product because it is the place where the item was last transformed (assembled) before being exported to the United States, most of these products include inputs made in other countries, including the United States. The iPhone example continues to be relevant. A recent assessment of the iPhone 13 found that many key inputs continue to be sourced from suppliers around the world, including the United States, while the imported phone must to be labeled “Made in China” because that is where it was assembled. Scott Lincicome and Alfredo Carrillo Obregon, “The Case for Free Trade Remains Inside Your Pocket,” Cato Institute, September 9, 2022, <https://www.cato.org/blog/case-free-trade-remains-inside-pocket>.

11 The definition of “consumer” includes all U.S. purchasers of the products over the supply chain: importers, wholesalers, retailers and American families. TPW reports here the composite estimated price increase for all of these consumers. The price increase faced by families may be all of the increase shown in the summary table if none of the other parties in the supply chain absorb any of the higher costs. Or it may be some smaller share of it if other parties in the supply chain choose to absorb some of the cost increase.

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