



Impact Report: Trump's Proposed Tariffs on Semiconductors

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What We Know Right Now

On Tuesday, February 18, President Trump announced he would impose tariffs “in the neighborhood of 25%” on several key product categories, including foreign cars, pharmaceuticals, and semiconductors. Trump also told reporters during the press conference that those rates would be subject to change and would likely “go very substantially higher over a course of a year.”

Based on what the president told reporters during the briefing, as of now the new tariffs appear slated to go into effect sometime in April. The targeted duties on auto, pharmaceutical, and semiconductor imports are not focused on one or even several nations. Rather, all products in those three categories being imported into the U.S. would trigger the 25% duty.

Overview of the Tariff Landscape Since Trump Took Office

In the six weeks since Trump took office, on January 20, his administration has announced, threatened, or enacted a string of tariffs on myriad countries and product categories.

February 1

Trump issued several executive orders imposing tariffs on China, Canada, and Mexico. According to the orders, most goods imported from Canada and Mexico would become subject to a 25% duty rate, to be implemented on February 4. In addition, a 10% tariff would be levied against all Chinese goods, over and above existing trade barriers imposed on the country. Tariffs for all three nations were outlined in a [White House memo](#) published on February 1.

February 3

Two days after the tariffs against Canada and Mexico were announced, Trump reached agreements with both countries that resulted in a postponement of the trade barriers for one month. President Claudia Sheinbaum of Mexico agreed to deploy an additional 10,000 troops on the U.S-Mexico border in order to assist in combating the flow of illegal drugs and migrants into the United States. Canadian Prime Minister Justin Trudeau announced that Canada and the U.S. had formed a “Canada-U.S. Joint Strike Force to combat organized crime, fentanyl, and money laundering.” In addition, the prime minister referenced a new intelligence directive he signed focused on addressing the two nations’ border issues.

February 4

Trump's 10% tariff on all Chinese goods goes into effect. In an executive order issued days earlier, President Trump cited "the sustained influx of synthetic opioids," which has had "profound consequences on our Nation, including by killing approximately two hundred Americans per day, putting a severe strain on our healthcare system, ravaging our communities, and destroying our families." The Chinese Communist Party, the EO explained, "has subsidized and otherwise incentivized PRC chemical companies to export fentanyl and related precursor chemicals that are used to produce synthetic opioids sold illicitly in the United States."



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Feb. 13: President Trump used a press conference to declare plans to levy 25% tariffs on all foreign automobiles, semiconductors, and pharmaceuticals.

February 10

The flurry of trade salvos continued in the second week of February as Trump issued two separate proclamations: one imposing 25% tariffs on all steel imports and a second levying 25% tariffs on all aluminum imports. The presidential actions set an implementation date of March 12, 2025, for both restrictions.

February 13

The White House issues a memorandum outlining the alleged unfair trade conditions between the U.S. and other countries and introduces the "Fair and Reciprocal Plan." Under this plan, the Trump administration would seek to restructure trade arrangements with trading partners all over the world by determining and implementing reciprocal tariffs that match duty rates other countries impose for U.S. goods.

February 18

President Trump uses a press conference to declare plans to levy 25% tariffs on all foreign automobiles, semiconductors, and pharmaceuticals.

February 26

During the first official Cabinet meeting of the current Trump administration, the president previews potential tariffs on the European Union. Trump told reporters that 25% tariffs on “cars and all other things” will be announced “very soon.” In additional comments, Trump provided some context for the potential trade restrictions, asserting that the EU takes advantage of the U.S. by exporting billions in goods to the country without buying nearly as much back. According to [data collected by the European Commission](#), in 2023 the EU had a trade surplus of nearly \$160 billion with the U.S.

March 4

Shortly after midnight Eastern Time on Tuesday, March 4, the Trump administration implemented a slate of new tariffs that drove the amount of goods subject to American import duties to levels not seen since the 20th century. The new trade barriers include a 25% tariff on most goods from Canada and Mexico—effectively “snapping back” the duties that were suspended for one month—and an additional 10% tariff on Chinese goods. China, Canada, and Mexico are the U.S.’s three largest trading partners; together, they account for around 45% of all American imports. As of Tuesday morning, Canada and China had both instituted retaliatory tariffs in response to Trump’s new measures.

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March 6

Two days after the trade restrictions on Canada and Mexico went into effect, President Trump signed executive actions putting a pause on the 25% tariffs for all products covered by the US-Mexico-Canada Agreement (USMCA). These delays came after separate negotiations were held on Thursday with Mexican President Claudia Sheinbaum and Canadian officials. The tariffs were delayed until April 2. The vast majority of goods traded between the three neighboring countries fall under the USMCA.

March 12

Trump's 25% steel and aluminum tariffs went into effect. Despite the dizzying maelstrom of tariffs threatened, imposed, and withdrawn since the inauguration of the Trump administration in January, these tariffs are the first to directly impact the European Union, a major U.S. trading partner with a total GDP of over \$18 trillion. Within hours of their implementation, the EU retaliated by imposing tariffs on \$28 billion worth of U.S. goods. In a memo announcing the tariffs in February, the White House explained that the tariffs would "protect America's critical steel and aluminum industries, which have been harmed by unfair trade practices and global excess capacity."



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The Potential Consequences of a 25% Semiconductor Tariff

The United States imports nearly \$140 billion worth of electronic components every year, according to Commerce Department data. Of that total, around \$25 billion—or roughly 18% of the total value—of those components are semiconductors. If a 25% tariff went into effect targeting semiconductor imports, the duty could cost importers an additional \$6.35 billion.

As many outlets have pointed out, these increased costs would almost certainly force all the manufacturers importing chips—including automakers, electronics manufacturers, home appliance companies, and medical technology firms—to increase the prices of their products for consumers and other businesses.

Technically speaking, companies could restructure their supply chains to buy chips from domestic semiconductor manufacturers. This would effectively work to stimulate America's semiconductor ecosystem and alter the global chip landscape—one of the chief political objectives of Trump's predecessor, Biden, and his CHIPS and Science Act.

The Potential Consequences of a 25% Semiconductor Tariff, Cont.

But the U.S. still lacks the expertise, facilities, and sophisticated ecosystem necessary for achieving full manufacturing independence. American fabs are currently responsible for around 10% of the total global manufacturing capacity for semiconductors (and an even smaller percentage of advanced chips). The vast majority of these leading-edge semiconductors—including TSMC’s 3-nanometer chips—are made in Taiwan.

While TSMC has just begun manufacturing 4 nm chips at its fabrication facility in Arizona over the past few months, that fab stands as the sole example of the highest-technology wafers being produced in the U.S. The various delays that have bogged down TSMC’s \$65 billion investment in a trio of fabs in the state, meanwhile, provide clear evidence of the difficulties of jump-starting advanced chipmaking in America. Because of this, most U.S. firms would almost certainly still need to partner with foreign manufacturers for part or all of the chipmaking process. Given the way tariffs work, even those semiconductors that were made in part in the U.S. could still trigger the 25% levies.

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Z2Data Analysis Methodology

To arrive at the data in this report, we began by isolating all the semiconductors in the Z2Data database that had country of origin (COO) data available. Then, we filtered the search for all the semiconductor components with a COO that was not the United States—parts that would, theoretically, be subject to the 25% tariffs. For comparison, we also looked at all the semiconductors that do have a U.S. COO.

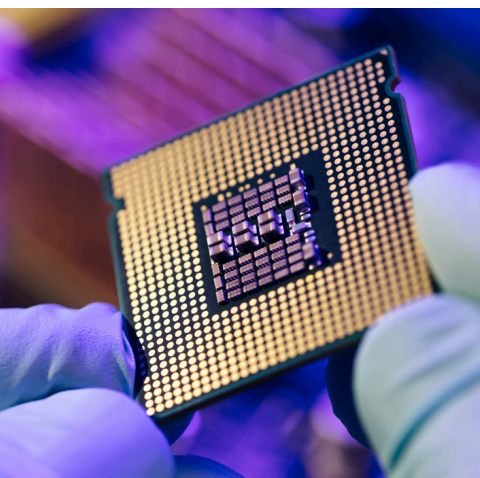
Next, we broke down all the parts with a COO apart from the U.S. by commodity type. Finally, we pulled out the five largest categories in order to provide a useful assessment of what semiconductor component types would be most impacted by the Trump administration’s proposed tariffs.

Total Number of Parts Impacted

A Z2Data analysis based on all the semiconductor parts in our database found that 2.8 million semiconductors could be affected by the 25% tariff. We also looked at the number of semiconductors that would be subject to the tariffs against China, Canada, and Mexico—which have been either implemented or proposed—to provide a wider context and underscore just how sweeping these across-the-board semiconductor duties would be.

Affected Parts: Overall Figures

- 2.8 million semiconductors have a COO other than the U.S.
- 115,000 semiconductors have a COO of the U.S.
- 770,000 semiconductors are subject to the tariffs against China
- 20,000 semiconductors are subject to the tariffs against Mexico
- 100 semiconductors are subject to the tariffs against Canada



A Z2Data analysis of its database found that 2.8 million semiconductor have a COO outside the U.S. and could be affected by the 25% tariff.

Most Impacted Commodity Types

Of all the semiconductor commodity types that would be affected by these tariffs, five groups stand to bear a disproportionate brunt of the costs. An analysis of nearly half a million oscillators in the Z2Data database with COO information found over 99% originated outside the U.S. In addition, hundreds of thousands of transient voltage suppressors (TVS), Zener diodes, rectifiers, and microcontrollers (MCUs) would be impacted by the proposed semiconductor tariff.

Considering the criticality of semiconductors to industries ranging from automotive and electronics to aerospace and defense, logistics, and healthcare, these trade restrictions would reverberate across vast swaths of the economy.

Most Impacted Commodity Types (Chart)

| Top 5 Semiconductor Commodity Types | Parts in Z2Data Database | Parts That Have COO Data | Parts with a Non-U.S. COO |
|--|--------------------------|--------------------------|---------------------------|
| Crystal Oscillators | 726,550 | 481,724 | 480,368 |
| Transient Voltage Suppressors (TVS) | 325,558 | 297,963 | 175,371 |
| Zener Diodes | 229,754 | 213,535 | 175,371 |
| Rectifiers | 196,405 | 173,053 | 159,627 |
| Microcontrollers (MCUs) | 189,989 | 149,667 | 148,170 |

Key Takeaways

There are three main insights to bear in mind when thinking about the potential ramifications of global semiconductor tariffs:

First, the Trump administration's first six weeks in office have demonstrated that the president is not afraid of using the threat of tariffs as a powerful negotiating tool, a form of leverage to extract an array of concessions from other nations. It can be very difficult to say, in other words, when or whether President Trump is actually planning to implement the trade restrictions for which he issues executive orders, memorandums, and proclamations.

Second, one of the chief end goals for these tariffs—if they were to be fully implemented—is to pressure preeminent global chipmakers like TSMC and Samsung to start manufacturing more of their semiconductors in the U.S. Over the long term, this strategy could build up America's semiconductor manufacturing capacity, helping it claw back some of the market share it's lost over the past several decades.

Key Takeaways, Cont.

Finally, it's important to remember that this kind of overarching strategic objective could take several years or longer to be fully realized. In the near and medium terms, the implementation of across-the-board semiconductor tariffs would increase costs for thousands of U.S. manufacturers. These businesses cannot seamlessly pivot to a domestic alternative to their foreign chip suppliers because in many cases, no such alternatives exist. As a result, the effects of absorbing these tariffs will reverberate to other businesses and consumers throughout the economy in significant ways.



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Know What Components Are Vulnerable to Tariffs with Z2Data

As businesses continue to navigate the onslaught of tariffs floated, threatened, and—in a fair number of cases—actually implemented by the new presidential administration, the risk and volatility around trade compliance are higher than they've been in years. This type of chronic uncertainty creates greater risk for manufacturers, and businesses that want to understand their vulnerabilities need maximum visibility into their supply chains.

At Z2Data, we help businesses see where their components are coming from with tools like part-to-site mapping, which allows companies to use bills of materials to connect parts to manufacturers and sites all over the world. In addition, Z2Data's suite of functionalities helps organizations pinpoint the country of origin (COO) for their parts and get clear, actionable insights into their country dependencies.

Concerned about potential impacts on your parts? Connect with Z2Data's experts now for a personalized risk assessment of your products and components.

[Get a Risk Assessment](#)