

**OFFICE *of the* UNITED STATES TRADE REPRESENTATIVE  
EXECUTIVE OFFICE OF THE PRESIDENT**

**FOUR-YEAR REVIEW OF ACTIONS  
TAKEN IN THE SECTION 301 INVESTIGATION:  
CHINA'S ACTS, POLICIES, AND PRACTICES RELATED TO  
TECHNOLOGY TRANSFER, INTELLECTUAL PROPERTY,  
AND INNOVATION**

*Executive Summary*



**May 14, 2024**

## EXECUTIVE SUMMARY

On May 5, 2022, the U.S. Trade Representative<sup>1</sup> commenced a statutory review of the July 6, 2018 and the August 23, 2018 actions, as modified, taken under section 301 of the Trade Act of 1974 as amended.<sup>2</sup> This report summarizes the Trade Representative's findings on the three statutory elements under the statutory review: (1) the effectiveness of the section 301 actions, which took the form of tariffs on U.S. imports of goods from China, in achieving the objectives of section 301, such as eliminating China's acts, policies, and practices related to technology transfer, intellectual property, and innovation;<sup>3</sup> (2) the effectiveness in achieving those objectives of other actions that could be taken; and (3) the effects of such actions on the U.S. economy, including U.S. consumers. This report presents the following findings with respect to the three statutory elements:

- The section 301 actions have been effective in encouraging China to take steps toward eliminating some of its technology transfer-related acts, policies, and practices and have reduced some of the exposure of U.S. persons and businesses to these technology transfer-related acts, policies, and practices.
- China has not eliminated many of its technology transfer-related acts, policies, and practices, which continue to impose a burden or restriction on U.S. commerce. Instead of pursuing fundamental reform, the Government of China has persisted and even become more aggressive, particularly through cyber intrusions and cybertheft, in its attempts to acquire and absorb foreign technology, which further burden or restrict U.S. commerce.
- Economic analyses generally find that the duties have had small negative effects on U.S. aggregate economic welfare, positive impacts on U.S. production in the ten sectors most directly affected by the duties, and minimal impacts on economy-wide prices and employment.
  - Negative effects on the United States are particularly associated with retaliatory tariffs that China has applied to U.S. exports.
  - Critically, these analyses examine the tariff actions as isolated policy measures without reference to the policy landscape that may be reinforcing or undermining the effects of the tariffs.
- Economic analyses including the principal U.S. Government analysis published by the U.S. International Trade Commission generally find that the section 301 tariffs have contributed to reducing U.S. imports of goods from China and increasing imports from alternate sources, including U.S. allies and partners, thereby potentially supporting U.S. supply chain diversification and resilience.

These findings are explained in more detail below.

---

<sup>1</sup> Referred to throughout as "Trade Representative."

<sup>2</sup> Referred to throughout as "section 301 actions."

<sup>3</sup> Referred to throughout as "technology transfer-related acts, policies, and practices."

## **Section 301 Actions Induced Changes in China’s Technology Transfer-Related Acts, Policies, and Practices**

As detailed in the *Findings of the Investigation Into China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation Under Section 301 of the Trade Act of 1974* released on March 22, 2018, the Trade Representative previously determined that China employed a series of technology transfer-related acts, policies, and practices that are unreasonable or discriminatory and burden or restrict U.S. commerce:

1. China used foreign ownership restrictions, such as joint venture requirements and foreign equity limitations, and various administrative review and licensing processes, to require or pressure technology transfer from U.S. companies.
2. China’s regime of technology regulations forced U.S. companies seeking to license technologies to Chinese entities to do so on non-market-based terms that favor Chinese recipients.
3. China directed and unfairly facilitated the systematic investment in, and acquisition of, U.S. companies and assets by Chinese companies to obtain cutting-edge technologies and intellectual property and generate the transfer of technology to Chinese companies.
4. China conducted and supported unauthorized intrusions into, and theft from, the computer networks of U.S. companies to access their intellectual property, including trade secrets, and confidential business information.

In this statutory review, the Trade Representative finds on the basis of available evidence that the section 301 tariffs have encouraged China to take steps toward eliminating some of these technology transfer-related acts, policies, and practices. Changes in some key areas include a number of changes made in accordance with the *Economic and Trade Agreement Between the Government of the United States of America and the Government of the People’s Republic of China* (“U.S.-China ETA”), signed in January 2020. Most prominently, Chapter 2 of the U.S.-China ETA, which addresses technology transfer, sets forth China’s commitment to end its longstanding practice of requiring or pressuring U.S. companies to transfer their technology to Chinese companies as a condition to obtain market access, secure administrative approvals, or receive advantages from the Chinese government. The section 301 tariffs appear to have induced China to begin issuing or amending certain laws and other measures to prohibit forced technology transfer through administrative means. The section 301 tariffs also appear to have encouraged China to eliminate joint venture requirements in certain sectors that could have been used to facilitate forced technology transfer.

The section 301 tariffs created leverage by imposing costs on China’s economy, including by decreasing China’s share of U.S. imports, which declined steadily from 21.6 percent in 2017 to 13.7 percent in 2023, and by disincentivizing foreign direct investment into China for the purpose of exporting to the United States. One former Chinese official estimated the impact to China’s economy could be as much as 0.5 percent of GDP, or \$308 billion over five years.

The section 301 tariffs have also reduced some of the exposure of U.S. persons and businesses to these technology transfer-related acts, policies, and practices by encouraging U.S. companies to diversify production away from China. In 2019, 38 percent of American Chamber of Commerce in China member survey respondents who reported moving capacity out of China cited U.S. tariffs as a reason.

### **China Persists in Technology Transfer-Related Acts, Policies, and Practices, Which Increasingly Burden or Restrict U.S. Commerce**

Many of China’s technology transfer-related acts, policies, and practices persist despite application of the section 301 tariffs to date. Instead of pursuing fundamental reform, the Chinese government took superficial measures aimed at addressing negative perceptions of its technology transfer-related acts, policies, and practices. At the same time, China has persisted and even become more aggressive, particularly through cyber intrusions and cybertheft, in its attempts to acquire and absorb foreign technology, which further burden or restrict U.S. commerce.

Since January 2018, the U.S. Department of Justice has indicted at least 31 individuals and corporate entities directed or supported by the Chinese government to obtain intellectual property from hundreds of U.S. and foreign companies. In 2022, Federal Bureau of Investigation Director Christopher Wray explained that the “Chinese Government sees cyber [intrusions] as the pathway to cheat and steal on a massive scale.” Cybersecurity firm CrowdStrike found that between mid-2020 and mid-2021, China accounted for 67 percent of all state-sponsored cyber intrusions, and much of it was motivated by intellectual property theft. These practices are costly to the U.S. economy, with some estimates placing the annual burden of China’s cyber theft at tens of billions of dollars per year. China has also continued to facilitate technology transfer through joint venture requirements, administrative reviews and licensing procedures, and outbound investment policies.

### **The Effects of the Actions on the U.S. Economy**

The following findings regarding effects on the U.S. economy of the tariff actions that the United States took in 2018 and 2019, of which the section 301 actions were by far the most impactful, are generally consistent throughout the literature:<sup>4</sup>

- **Aggregate Economic Welfare:** Because the economic context in which the section 301 tariffs were imposed and the effects that the tariffs have generated involve myriad interrelated economic factors, effects on the U.S. economy may be mixed depending on the object of analysis and may differ in the short versus long run. Studies estimate that

---

<sup>4</sup> The economics literature most often considers the section 301 actions in combination with U.S. duties imposed during 2018 and 2019 on imports of certain steel and aluminum products from various countries under section 232 of the Trade Expansion Act of 1962 as amended and on imports of large residential washers and solar cells and modules from all countries under section 201 of the Trade Act of 1974 as amended. Some analyses additionally estimate impacts of retaliatory tariffs applied by China and certain other countries.

the section 301 tariffs have had small negative effects on U.S. economic welfare. China's retaliatory tariffs on U.S. exports contributed to these effects.

- **Production and Prices:** The principal U.S. Government analysis regarding impacts of the section 301 tariffs, *Economic Impact of Section 232 and 301 Tariffs on U.S. Industries* published by the U.S. International Trade Commission ("USITC Report"), estimates an aggregate overall increase in the value of U.S. domestic production for directly affected industries (*i.e.*, those including products subject to section 301 tariffs) of an average of 0.4 percent each year due to the section 301 tariffs. This increase is driven in part by a 0.2 percent increase in the price of affected domestically produced products.

The USITC Report analyzes a subset of the ten most directly affected industries (*i.e.*, those with the highest value of imports subject to section 301 tariffs). These ten industries account for approximately three quarters of U.S. imports from China of all goods to which the section 301 tariffs were applied. The USITC Report estimates that, by 2021, the value of U.S. production rose for all ten industries, ranging from 1.2 percent (computer equipment) to 7.5 percent (furniture) due to section 301 tariffs. These production value increases were associated with estimated increases in U.S. domestic prices for all ten most directly affected industries, including increases of 0.6 percent for computer equipment and 3.7 percent for furniture.

- **Employment:** The economic literature found that U.S. tariff actions including the section 301 tariffs did not increase overall manufacturing employment or wages in the short run. Adverse overall employment impacts tend to be more strongly associated with retaliatory tariffs applied by China than the U.S. tariffs.

## Proposed Modifications and Recommendations

To maintain current pressure and leverage and to encourage China to further eliminate its technology transfer-related acts, policies, and practices, the Trade Representative finds that goods from China currently subject to section 301 tariffs should remain subject to those additional tariffs. Furthermore, in light of the Trade Representative's finding that China's technology transfer-related acts, policies, and practices increasingly burden or restrict U.S. commerce, and to further encourage China to eliminate those acts, policies, and practices, and counteract their burden or restriction, the Trade Representative is proposing to modify the actions by adding or increasing section 301 tariffs for certain goods from China in strategic sectors. Many of these sectors are targeted by China for dominance or are sectors in which the United States has recently made significant investments. These sectors include:

- Battery parts (non-lithium-ion batteries)
- Electric vehicles
- Facemasks
- Lithium-ion electrical vehicle batteries
- Lithium-ion non-electrical vehicle batteries
- Medical gloves

- Natural graphite
- Other critical minerals
- Permanent magnets
- Semiconductors
- Ship to shore cranes
- Solar cells (whether or not assembled into modules)
- Steel and aluminum products
- Syringes and needles

In addition to these proposed modifications, this report makes recommendations for:

(1) establishing an exclusion process targeting machinery used in domestic manufacturing, with proposals for 19 exclusions for certain solar manufacturing equipment; (2) allocating additional funds to the U.S. Customs and Border Protection for greater enforcement of section 301 tariffs; (3) greater collaboration and cooperation between private companies and government authorities to combat state-sponsored technology theft; and (4) continuing to assess approaches to enhance the supply chain impacts of the tariffs to further reduce the exposure of U.S. persons, companies, and technologies to China's technology transfer-related acts, policies, and practices and to strengthen the resilience of America's supply chains.