



Section 301 and China: Mature-Node Semiconductors

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Title III of the Trade Act of 1974 (Sections 301-310, 19 U.S.C. §§2411-2420, referred to as “Section 301”) is one of the principal statutory means by which the United States enforces U.S. rights under trade agreements and addresses “unfair” foreign barriers to U.S. exports. It grants the U.S. Trade Representative (USTR) a range of authorities to investigate foreign trade acts, policies, and practices and to impose trade sanctions on foreign countries found to have violated U.S. trade agreements or to have engaged in acts that are “unjustifiable,” “unreasonable,” or “discriminatory” and that burden or restrict U.S. commerce.

In late 2024, USTR initiated a Section 301 investigation regarding People’s Republic of China (PRC or China) “acts, policies, and practices related to targeting of the semiconductor industry for dominance.” The investigation focused on mature-node or “legacy” chips and their use in critical industries (e.g., defense, automotive, medical devices, aerospace, communications, and power). USTR also examined silicon carbide substrates and wafers used in chip production. According to USTR, the PRC government refused to hold consultations regarding the investigation.

Semiconductors (integrated circuits or chips) are tiny electronic devices (based primarily on silicon or germanium) composed of billions of components that can process, store, sense, and move data or signals—essentially serving as the brains, memory, sensors, communications, and power lines of electronic devices. Semiconductors are a strategic technology broadly enabling of and fundamental to nearly all modern industrial and national security activities. They are essential building blocks of other technologies (e.g., artificial intelligence, autonomous systems, 5G communications, and quantum computing). A **wafer** is a flat, thin slice of silicon material on which an integrated circuit is created. **Silicon carbide** is used in certain substrates and wafers; it is a compound known for its high thermal conductivity, mechanical strength, and wide bandgap (enabling devices to operate at higher voltages, frequencies, and temperatures).

In December 2025, USTR determined PRC policies and practices to be “actionable” under Section 301 but proposed an initial 0% tariff rate until June 2027 while seeking a trade deal with China. USTR assessed that PRC policies and practices were unreasonable due to (a) the PRC’s “extraordinary control” over the semiconductor industry and economic actors to achieve its targeted dominance and conveyance of nonmarket advantages to PRC industry; (b) nonmarket anticompetitive practices; and (c) efforts to create and exploit foreign dependencies in areas such as critical minerals and efforts to displace foreign firms. USTR found that PRC policies and practices harmed U.S. industry by undercutting investments and opportunities in the U.S. industry and by creating economic security risks from dependence in sectors critical to the U.S. economy.

Section 301 Process

Investigations: Section 301 generally requires that USTR conclude investigations within 12 months. USTR may determine, after carrying out an investigation, whether action under Section 301 would address its concerns.

Consultations: During an investigation and prior to making a determination on whether to take action, USTR must consult with the petitioner and seek advice from private-sector advisory representatives. It may also request the views of the U.S. International Trade Commission (ITC) concerning how a proposed retaliatory action could impact the U.S. economy.

Negotiations: Section 301 requires USTR to seek a negotiated settlement with the country concerned within 12 to 18 months, except for cases that involve a trade agreement or IP rights issue. For cases involving trade agreements, USTR is required to use such agreements’ dispute process.

Retaliation: If a settlement is not obtained, and USTR finds the alleged practices actionable under Section 301, USTR may determine whether to retaliate at a level it deems equivalent to the estimated U.S. economic losses incurred from the foreign barrier/practice. Section 301 authorizes USTR to

- impose duties or other import restrictions;
- withdraw or suspend trade agreement concessions;
- enter into a binding agreement with the foreign government to either eliminate the conduct in question or compensate the United States with satisfactory trade benefits; or
- restrict terms and conditions or deny licenses and permits that allow access to the U.S. market.

The executive branch’s invocation of Section 301 authorities does not require congressional approval. Provisions authorize the President to take any action “with respect to trade in any goods or services, or with respect to any other area of pertinent relations with the foreign country” to address the policy or practice under investigation.

This is the third case involving China since 2017. In 2018, USTR investigated [PRC technology transfer, intellectual property \(IP\), and innovation policies](#); it imposed tariffs and negotiated the 2020 *Phase One* trade deal. In 2025, USTR found [PRC shipbuilding/shipping practices](#) “actionable” and proposed port equipment tariffs and port fees for PRC ships; USTR also initiated an investigation into China’s implementation of the 2020 *Phase One* deal. In 2026, USTR initiated an investigation into excess manufacturing capacity/production in the PRC and other countries. In a separate case, USTR imposed a 12.5% tariff on the PRC for failing to prohibit imports made with forced labor.

PRC Industrial Policies

In 2014, the PRC government issued plans that appear to aim to establish a vertically integrated semiconductor industry in which China has a leading role in all segments of the supply chain by 2030. These plans call for domestic production to meet 80% of PRC demand for chips by 2030. [PRC efforts](#) are leveraging over

\$150 billion in announced state funding to advance stated ambitions to lead across the value chain. Such efforts include the targeting of U.S. and foreign capabilities. USTR has denounced PRC efforts to pressure or incentivize U.S. firms to transfer knowhow to build out China's industry. The U.S. government has restricted some advanced technologies while allowing most commercial activity with China. Access to U.S. and foreign talent, training, research, and open-source technology has allowed PRC firms to design advanced chips and work at the leading edge. Design and front-end production compose 90% of value in the industry, and is an area China is targeting for advancement.

PRC chip firms are state-backed and state-funded, including to import equipment and acquire foreign firms. PRC firms also benefit from PRC tax preferences, market barriers, and discriminatory antitrust, procurement, IP, and standards practices. Since 2020, the PRC has offered preferences to firms that transfer IP to entities in China that are legally separate from a corporate parent. Such quid pro quo links between IP transfer and incentives may violate the *Phase One* deal, in which China agreed not to require or pressure firms to transfer technology in relation to investments, or as a condition to receive advantages (Article 2.3). Some PRC firms have used patent litigation to challenge foreign firms' exclusive use of proprietary technologies, to press for better licensing terms, and to counter U.S. court rulings with copycat cases in PRC courts. There have been high-profile instances of PRC theft of U.S. semiconductor IP.

Mature-Node Chips and China's Role

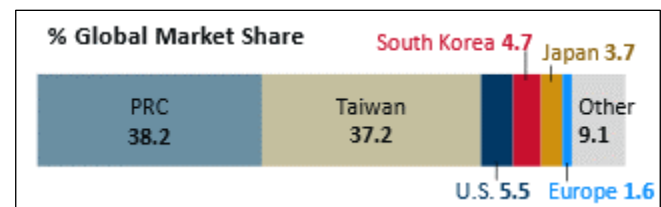
Mature-node chips—often considered as 22nm or 28nm and larger—are made on established production processes. The CHIPS and Science Act (P.L. 117-167) set a threshold that award recipients may not produce technology below the 28nm node in China for 10 years. Commerce Department regulations include as “legacy” or mature-node: silicon wafers (diameter ≤ 8 inches); compound wafers (diameter ≤ 6 inches); and chips that do not use 3D packaging. In contrast, PRC policies treat silicon carbide and 28nm node technology as advanced, and encourage foreign investment, acquisitions, and technology transfer in such areas.

Process node refers to a set of design rules and manufacturing techniques used to create a chip and transistor characteristics (e.g., feature size) in nanometers (nm). Generally, the smaller the node, the more advanced the technology. For some chip types, process node does not indicate performance. Technological advancements have enabled some larger chip features to perform as if they were smaller. For **wafers**, larger diameters tend to indicate advanced and efficient production capabilities.

Mature-node chips constituted 88% of global chip sales by volume and 40% of chip sales by value in 2023. Such chips support most commercial and defense needs, including advanced applications in communications (e.g., 5G, Bluetooth, wireless); power electronics (e.g., electric vehicles); display systems (e.g., phone/television screens); sensing; and the internet of things (e.g., smart devices). Silicon carbide chips support industrial control systems and defense applications (e.g., avionics, radar, and missile guidance).

While China still has key capability gaps, PRC firms are catching up with foreign firms in some areas. China plays a leading role in mature-node chips and could use its position to expand market share and advance capabilities. Several experts say there is up to an 80% technology overlap from one node to the next. The industry has enhanced mature-node chips' performance with new materials and advanced packaging that adds features and integrates small, modular chips. China can leverage its central role in manufacturing, critical minerals processing, and other inputs to advance in chip capabilities and capacity. Some experts say the PRC is pursuing an approach it has used in other sectors whereby it subsidizes national champions in a closed market, allowing those firms to produce at below-market rates, gain market share, and expand production and drive out competitors. About 60% of global chip production capacity is in mature nodes. According to the firm IC Insights, China's share of the 28nm-65nm market rose from 18% in 2020 to 31.5% in 2023. Global capacity of mature-node chips grew by 41.6% over this period, with over half of this growth in China. The firm TrendForce said China produced 34% of global mature-node chips in 2024. China could produce over 38% of such chips by 2030, if not sooner (**Figure 1**).

Figure 1. Projected 2030 Mature-Node Chip Capacity



Source: CRS, with data from International Data Corporation, 2024.

Issues for Congress

Some U.S. policymakers have warned that PRC policies, if successful, could undermine U.S. technology leadership, shift chip production and related capabilities to China, and support a range of PRC advancements, including military applications. Congress could consider whether to

- press USTR for the immediate imposition of tariffs;
- require tariffs on imports with embedded PRC chips (other U.S. tariff actions have exempted electronics);
- direct the ITC to assess the effects of (a) delayed tariffs on PRC chips on U.S. industry, and (b) tariffs and exceptions on global electronics imports on efforts to shift this production out of China;
- assess the effectiveness of Section 301 actions in addressing PRC industrial policies, and promote the use of other tools (e.g., Section 232, export controls, investment, procurement market access, and antitrust);
- address related issues (e.g., IP theft and talent poaching, U.S. operations of PRC-tied firms, U.S. partnerships in China, and PRC access to U.S. research and open-source technology); and
- examine the role of U.S. and allied and partner firms in building PRC semiconductor capacity; [H.R. 8170/S. 4281](#) would give allied nations 150 days to match U.S. restrictions on chipmaking equipment sales to China.

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