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BY ELECTRONIC FILING

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Senior Associate General Counsel
Ms. Megan Grimball
Associate General Counsel
Co-Chairs, Section 301 Committee
Office of the United States Trade Representative
600 17th St. NW
Washington, D.C. 20006

cc. Ms. Erin Biel, Assistant General Counsel

Re: Request for Public Comments: China's Acts, Policies, and Practices Related to Targeting of the Semiconductor Industry for Dominance

Dear Mr. Butler and Ms. Grimball:

The Semiconductor Industry Association (SIA) respectfully submits these comments to the Office of the United States Trade Representative (USTR) in response to USTR's Federal Register notice regarding *Initiation of Section 301 Investigation; Hearing; and Request for Public Comments: China's Acts, Policies, and Practices Related to Targeting of the Semiconductor Industry for Dominance*, 89 Fed. Reg. 106725 (Dec. 30, 2024) (the Request).

SIA appreciates the opportunity to provide comments in response to the Request. We share USTR's goal of maintaining the competitiveness of American industry and workers, critical U.S. supply chains, and U.S. economic security.

Today, China is a major player in the global semiconductor industry, both as the world's largest market for U.S. semiconductors and as a growing competitor. As the world's largest electronics manufacturing hub – producing around one-third of the world's electronics, including computers, cellphones, and other consumer electronics – China is the single-largest market for semiconductors globally, accounting for 29 percent of global chip sales in 2023. Semiconductors sold into China are then incorporated into electronics, vehicles, appliances, and various other downstream products across a range of downstream industries for sale domestically in China and abroad. From a production standpoint, China currently accounts for roughly 20 percent of front-end and nearly 40 percent of back-end semiconductor manufacturing capacity. China also occupies an important role in global semiconductor supply chains, particularly as an important supplier for upstream critical materials (such as gallium, germanium, graphite, tungsten, and more) the U.S. semiconductor industry and other sectors rely on.[1] For example, China accounted for approximately 98 percent of global primary low-purity production of gallium,[2] a key material used in compound semiconductors. While global production data for germanium – another silicon alternative used in compound semiconductors – is scarce, China is also the leading global producer and exporter of germanium,[3] accounting for an estimated 60 percent of global production.[4]

[1] Silverado Policy Accelerator, "Strategic Defense Critical Minerals," September 24, 2024. https://silverado.org/reports-and-publications/strategic-defense-critical-minerals/
[2] U.S. Geological Survey, "Mineral Commodity Summary 2024: Gallium," January 2024; https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-gallium.pdf
[3] U.S. Geological Survey, "Mineral Commodity Summary 2024: Germanium," January 2024; https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-germanium.pdf
[4] Reuters, "China's major germanium and gallium producers," July 7, 2023. https://www.reuters.com/markets/commodities/chinas-major-germanium-gallium-producers-2023-07-07/

Government planners in China have taken a progressively more active role in supporting advanced technology sectors, including semiconductors, considered critical to China's ambitions for future global technology leadership, as outlined in initiatives such as Made in China 2025 (MIC2025), successive Five-Year Plans (FYPs), and other government industrial policies. In semiconductors, as in other advanced technologies, China has pursued a wide range of policies and practices that seek to frustrate access for foreign products and companies to its domestic market, while offering an array of subsidies, discriminatory standards, preferential government procurement policies, local content requirements, and other measures intended to boost local producers and design-in domestically produced semiconductor chips into downstream products for sale in China's domestic market as well as for products exported to the rest of the world. We note China has deployed a similar playbook in other sectors – such as steel, solar, electric vehicles, batteries, and display panels – which has led to geographic overconcentration of production and related supply chain dependencies, excess capacity, price undercutting, and dumping.

SIA will, in this submission, outline many of China's acts, policies, and practices related to the semiconductor industry which are of concern to SIA and its member companies. Given USTR's Section 301 investigation will initially focus on so-called "legacy" or "mature-node" chips, this submission will first describe the global market for these chips. We conclude by urging USTR to approach each step of this investigation carefully and through a deliberative process, in close consultation with SIA and our member companies. Given the global nature of the semiconductor market and of our upstream and downstream supply chains, we also urge USTR and other involved agencies to coordinate closely with allied and partner governments – in particular other leading semiconductor-producing economies – to inform a comprehensive approach and to avoid potential actions that could inadvertently harm our industry.

I. INTRODUCTION AND BACKGROUND

SIA has been the voice of the U.S. semiconductor industry for nearly half a century. Our member companies, representing more than 99 percent of the U.S. semiconductor industry by revenue as well as major non-U.S. chip firms, are engaged in the full range of research, design, manufacture, and back-end assembly, test, and packaging of semiconductors. SIA's members design and produce all major advanced and mature-node semiconductor types, including logic, memory, analog, graphics processing units, microprocessors, and optoelectronics. The semiconductor was invented in America more than 65 years ago, marking an indelible point of pride in our history. Today, the U.S. remains the global leader in semiconductor technology and innovation, which drives America's economic strength, national security, and global competitiveness in a range of downstream industries. More information about SIA and the semiconductor industry is available at www.semiconductors.org.

Semiconductors are the bedrock of the modern economy and are essential to the functioning of everyday consumer electronics, communications, and computing devices in the automotive, industrial, financial, medical, retail, defense, and many other sectors of the economy. They are also critical components for future technologies, such as artificial intelligence (AI), quantum computing, autonomous vehicles, and 5G/6G telecommunications.

U.S. semiconductor leadership rests on two key pillars. First, the semiconductor industry in the United States – which includes many companies headquartered in allied and partner countries – has one of the highest ratios of research and development expenditures to sales at roughly 20 percent.[5] Such investments

[5] Moris and Rhodes, National Science Foundation – National Center for Scientific and Engineering Statistics, "U.S. Business R&D in Semiconductor-Related Industries," November 20, 2024. https://ncses.nsf.gov/pubs/nsf25304#:~:text=The%20U.S.%20semiconductor%20manufacturing%20and,a%20percentage%20of%20net%20sales

are vital for supporting continued semiconductor innovation. Second, maintaining a healthy global revenue stream is essential to maintaining U.S. semiconductor leadership, and is a core driver of innovation and growth for the U.S. economy. Roughly 75 percent of U.S. semiconductor industry revenue comes from overseas sales. To justify long-term, capital-intensive investments in U.S. semiconductor production, chipmakers need confidence their products will have access to global markets.

In comments submitted to USTR in April 2024 in response to a previous request for information,[6] SIA pointed out that China has taken an aggressive approach to bolstering its domestic industry and pursuing a greater share of the global exports through trade agreements:

> China has active free trade agreements with 26 countries and territories and is negotiating an additional eight agreements. China is part of the Regional Comprehensive Economic Partnership (RCEP), which provides its companies with preferential access to 15 foreign markets across ASEAN, South Korea, Australia, New Zealand, and Japan – economies that represent around 30% of global GDP. To build on these gains and further benefit its domestic industry, including semiconductor companies, China has applied to join the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP), in a bid to further expand its economic influence and role in regional supply chains, and gain an edge over the U.S. by securing preferential market access for its exports into key emerging economies in Asia.[7]

In July 2022, with bipartisan support, Congress passed the historic CHIPS and Science Act of 2022 (CHIPS Act) to strengthen domestic semiconductor manufacturing, design and research; fortify the economy and national security; and reinforce America's chip supply chains. The semiconductor industry in the United States is spread across 40 states, is directly responsible for 345,000 highly skilled and high-paying American jobs, and supports nearly 1.7 million additional U.S. jobs.[8] Of note, roughly two thirds of U.S. headquartered front-end manufacturing facilities are located in the United States. Since the CHIPS Act was introduced, semiconductor companies have announced 90 new semiconductor ecosystem projects in the United States – including many projects to manufacture "mature-node" semiconductors – totaling nearly $450 billion in private investments across 28 states.[9] These projects will create 58,000 manufacturing jobs and 100,000 construction jobs, in addition to supporting hundreds of thousands of additional jobs throughout the U.S. economy.

II. Global "Mature-node" Semiconductor Market

Overview

For purposes of this submission, "mature-node" or "legacy" semiconductors refer to chips fabricated using process technologies for chips with larger feature sizes typically 28nm and higher transistor architectures (as high as 10 microns—10,000 nanometers),[10] and equivalent performance for memory chips.

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[6] SIA, "SIA Comments on USTR Request for Comments on Promoting Supply Chain Resilience," April 2024. https://www.semiconductors.org/wp-content/uploads/2024/04/SIA-Comments-on-USTR-Request-for-Comments-on-Promoting-Supply-Chain-Resilience.pdf

[7] *Id*.

[8] SIA, "2024 SIA Databook," December 28, 2024. https://www.semiconductors.org/data-resources/market-data/sia-databook/

[9] SIA, "The CHIPS Act Has Already Sparked $450 Billion in Private Investments for U.S. Semiconductor Production," August 28, 2024. https://www.semiconductors.org/the-chips-act-has-already-sparked-200-billion-in-private-investments-for-u-s-semiconductor-production/

[10] The largest node size in production was 10 microns. SEMI, "World Fab Forecast—Q4-2024 V2," December 20, 2024.

Mature-node semiconductors are typically used in specialized systems for specific tasks such as analog-to-digital signal conversion, power management, and communication. The items listed below are illustrative examples of semiconductors often produced on mature-node process technologies:

- **Logic**: microcontroller units,[11] digital signal processors, LCD and OLED displayer driver integrated circuits, discrete cellular broadband, touch and displayer driver integrated circuits;
- **Memory:** emerging memory, certain DRAM and NAND products for mature-node applications;
- **Analog**: data converters, data switches, and data multiplexers, voltage regulators and references, wired connectivity components, wireless connectivity components, radio-frequency front-end and transceivers, and power management ICs;
- **Discretes**: diodes, transistors, rectifiers, and thyristors;
- **Optoelectronics**: CCD Image sensors, CMOS image sensors, couplers, LEDs, photosensors, and laser diodes; and
- **Sensors and Actuators**: environmental sensors, fingerprint sensors, inertial sensors, MEMS microphones, and magnetic field sensors.

It is worth noting that all types of semiconductors can be made on both advanced (e.g., less than 28nm) and mature (e.g., 28nm and higher) process nodes. Logic and memory are more often produced on advanced process nodes, whereas other types of chips – such as analog, discrete semiconductors, optoelectronics, and sensors – are more often produced on longstanding mature-node-process technologies. It is also worth noting, however, that mature-node chips are not outdated or unsophisticated technologies. Chipmakers are constantly innovating mature-node semiconductor technologies, including through the use of new materials (e.g., silicon carbide or gallium nitride), creation of new devices, and the discovery of novel applications. There has been considerable research and development in mixed signal semiconductor technologies,[12] for example, to enhance signal integrity, minimize noise interference, and reduce power consumption across various end-markets, including automotive, industrial, and communications.

Most mature-node chips have technical specifications, cost advantages, and often better performance characteristics for specific applications with larger feature sizes.[13] Microcontrollers, for example, are used in a range of subsystems within automobile subsystems, and vary in complexity, node size (typically between 22 to 90 nanometers), and price. Certain analog chips may use other node sizes depending on the needed performance. For example, multiple companies produce analog radio frequency chips with features sized between 45 to 130 nanometers for technical and performance reasons. Other companies produce highly efficient, silicon carbide or gallium nitride-based semiconductors for use in data centers or radar systems.

Most semiconductors shipped and sold are mature-node chips, accounting for 40 percent of total global semiconductor shipments by revenue, but roughly 88 percent of sales by volume in 2023.[14] These chips are critical to a diverse array of downstream industries and end markets, including automotive, industrial automation, telecommunications, consumer electronics, national security and military applications, as well as for the technologies of the future such as AI and 5G/6G communications. In a 2023 report, CSIS encapsulated the importance of mature-node semiconductors in the global economy as ubiquitous inputs in the production of automobiles, aircraft, home appliances, communication systems, consumer goods, factory

[11] Certain 32-bit microcontrollers may use feature sizes that are smaller than 28 nanometers.

[12] Mixed-signal semiconductors contain both analog and digital circuitry on a single chip, typically produced at mature nodes.

[13] A chip's technical specifications are heavily dependent on its application, with factors like processing power, memory, and energy efficiency being prioritized differently.

[14] WSTS, "Bluebook monthly reports," accessed January 16, 2025.

automation systems, military systems, and medical devices.[15] The criticality of these chips for the automotive sector was drawn into sharp relief during the COVID-19 pandemic, when semiconductor shortages led to production stoppages and backlogs in a range of car and truck manufacturing plants across the United States.[16] The total addressable market size for mature-node semiconductors in the United States was $72 billion in 2023.[17] However, this figure understates the importance of these chips to the U.S. economy, as mature-node semiconductors facilitate a staggering $10.8 trillion of economic activity across a range of downstream industry verticals, which equates to 26 percent of U.S. gross economic output.[18] Also, notably, mature-node semiconductors comprise the majority of existing semiconductor production capacity, currently comprising 60 percent of total global capacity operations.[19] Figure 1 shows the share by value of different types of mature-node semiconductors by the end-use market.

[15] CSIS, "The Strategic Importance of Mature-node Chips," March 3, 2023. https://www.csis.org/analysis/strategic-importance-legacy-chips

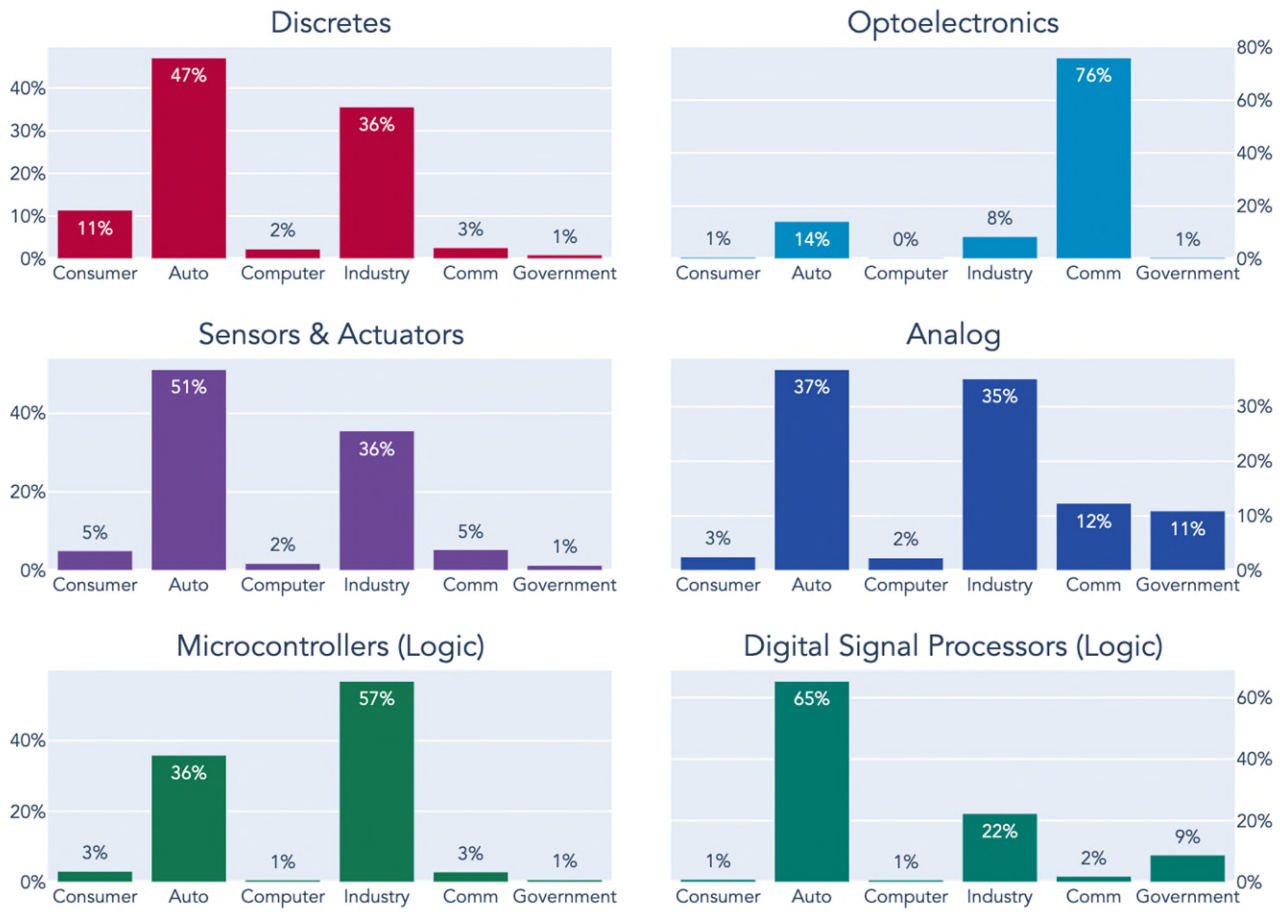
[16] U.S. International Trade Commission, The Roadblocks of the COVID-19 Pandemic in the U.S. Automotive Industry", June 2022. https://www.usitc.gov/publications/332/working_papers/the_roadblocks_of_the_covid-19_pandemic_in_the_automotive_industry_final.pdf

[17] SIA analysis.

[18] SIA analysis.

[19] SIA analysis on SEMI, "World Fab Forecast," December 20, 2024.

Figure 1: *Share of Mature-node semiconductor sales (by value) by end-use sectors in the United States*[20]



Source: World Semiconductor Trade Statistics (WSTS), "End-Use Survey 2023," accessed on January 24, 2025.

[20] Codes S3: total discrete, F99: optoelectronics, H99: sensors, J99: analog; P2: microcontroller units; and P4: Digital Signal Processors. WSTS, "2023 End-use Survey," accessed on January 16, 2025.

Global Capacity Trends

Over the past decade, the geographic distribution of global installed capacity growth in mature-node semiconductors has grown increasingly concentrated in China.[21] From 2015 to 2023, approximate global capacity of mature-node chips increased from 6 million to 8.5 million wafer starters per month (WSPM), or by 41.6 percent.[22] However, more than half of this growth was concentrated in China, where mature-node semiconductor production capacity tripled from 1.2 million WSPM to 3.0 million WSPM from 2015 to 2023.

As shown in Figure 2, comparatively, China's share in global capacity of mature-node semiconductor production has grown significantly from 2015 to 2023, as other regions' share of mature-node capacity have slipped. Japan's share of global mature-node semiconductor production capacity fell from 19 percent to 15 percent, and Europe's share dropped from 15 percent to 14 percent over that timeframe.[23] In 2023, the U.S. was home to 12 percent of mature-node chip production, down from 14 percent in 2015. Of this capacity, integrated device manufacturers[24] accounted for roughly 86 percent of U.S. installed capacity to manufacture mature-node chips, while pure-play foundries[25] accounted for around 14 percent. Because fabless companies[26] rely on foundry capacity to manufacture the chips they design, the relatively limited share of mature-node capacity by pure-play foundries creates supply challenges for fabless companies, which often are unable to rely on U.S. installed capacity and must rely on international suppliers.

Over the same time period, China's share of global mature-node semiconductor capacity more than doubled from 19 percent in 2015 to 33 percent in 2023. This translates into 12.1 percent compound annual growth in mature-node fabrication capacity in China in the near decade since 2015. By comparison, global mature-node semiconductors demand grew only 2.9 percent annually from 2015-2023.[27] Over that same period, mature-node capacity in the U.S. and the rest of world grew at an annual rate of around 1.3 percent and 1.8 percent, respectively, slightly lower than overall global demand. By contrast, China's mature-node capacity grew more than 4 times faster than global demand.[28] Notably, the price of the fabricated wafers from Chinese foundries is often lower than that of foundries in the rest of the world. A recent report from the U.S. Commerce Department estimated that the median price of mature-node semiconductor wafers from China-based foundries was 10 percent lower than from foundries in the rest of the world.[29]

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[21] Please note that from this point onwards we will refer to "installed capacity" as capacity.

[22] Units are reported in 300mm (12-inch) wafer equivalents. SIA analysis using data from SEMI, "World Fab Forecast," December 20, 2024.

[23] SIA analysis on SEMI, "World Fab Forecast," December 20, 2024.

[24] An integrated device manufacturer (IDM) is a vertically integrated semiconductor company that designs, manufactures, and sells their own branded chips. https://semiengineering.com/knowledge_centers/manufacturing/integrated-device-manufacturer-idm/

[25] A "pure-play foundry" is a factory that manufactures semiconductor chips on wafers. The term is usually used to denote a facility that is available on a contract basis to companies that do not have wafer fab capability of their own, or that wish to supplement their own capabilities.

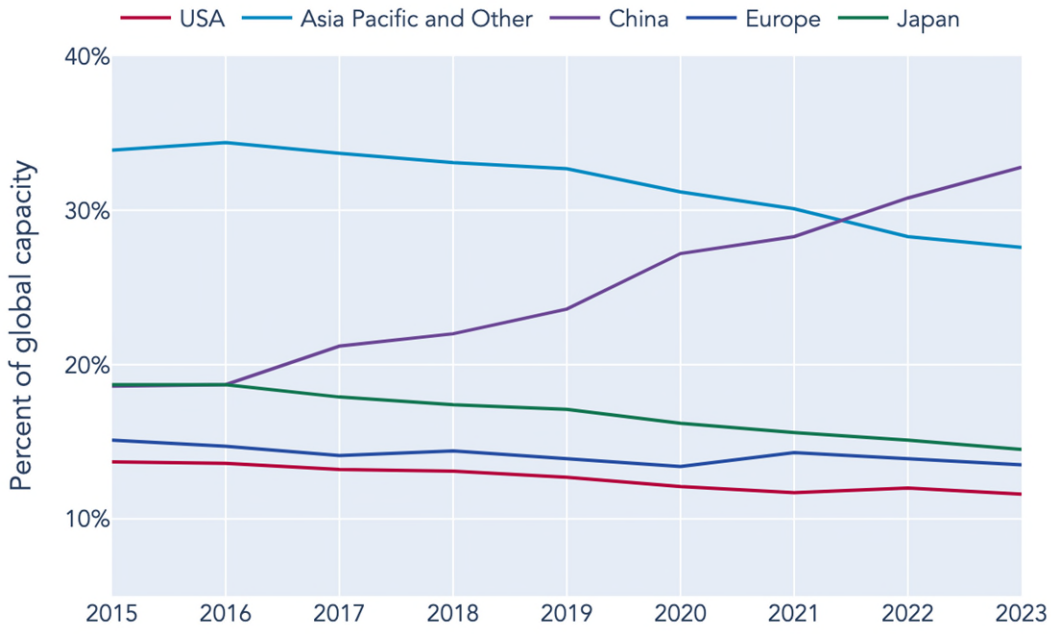
[26] Fabless companies design and market semiconductors, but outsource wafer fabrication to a third-party manufacturer, or foundry.

[27] SIA analysis.

[28] SIA analysis on SEMI, "World Fab Forecast," December 20, 2024.

[29] U.S Department of Commerce, Bureau of Industry and Security, "Public Report on the Use of Mature-node Semiconductors," December 6, 2024. https://www.bis.gov/media/documents/public-report-use-mature-node-semiconductors-december-2024; and SIA analysis on third party industry data. Omdia, "Pure Play Foundry Report—Q2 2024," October 2024.

***Figure 2**: Share of Mature-node chip fabrication capacity by region, 2015-2023.*



Source: SIA analysis; SEMI, "World Fab Forecast—Q4 2024," December 20, 2024.

Should these supply, demand, and pricing trends remain on their current trajectory, the above-noted discrepancies suggest that the growing geographic concentration of mature-node semiconductor manufacturing capacity in China, and China's continued capacity growth could lead to heightened supply chain risks and dependencies, as well as global oversupply in mature-node semiconductors.

China-Specific Data Trends

As is noted in greater detail in Section III below, China has actively pursued a strategy of investment in mature-node semiconductor manufacturing capacity. China had historically served as a leading location for the stage of semiconductor fabrication known as assembly, testing, and packaging (ATP). However, China has recently taken an aggressive approach in supporting its domestic industry in building out its semiconductor design and front-end fabrication stages (which constitute roughly 90 percent of the value add in semiconductor fabrication).[30] Over the next three to five years, Chinese domestic semiconductor manufacturers are expected to account for almost half of all new global mature-node capacity to manufacture mature-node semiconductors.[31]

Notably, the capital expenditure to revenue ratio of China's mature-node manufacturing facilities greatly exceeds the historical average for U.S.-based facilities. The capital expenditure to revenue ratio shows how much of a company's cashflow is being reinvested into the business. A high ratio indicates that a company

[30] BCG and SIA, "Emerging Resilience in the Semiconductor Supply Chain," May 2024, p. 10. https://www.semiconductors.org/wp-content/uploads/2024/05/Report_Emerging-Resilience-in-the-Semiconductor-Supply-Chain.pdf

[31] U.S Department of Commerce, Bureau of Industry and Security, "Public Report on the Use of Mature-node Semiconductors," December 6, 2024. https://www.bis.gov/media/documents/public-report-use-mature-node-semiconductors-december-2024

is pursuing a growth strategy—either through facility build-outs or an acquisition. Four Chinese semiconductor manufacturers accounted for roughly 88 percent of China's total industry capital expenditures in 2023.[32] One of those four companies publicly reported its annual revenue, which revealed the company's capital expenditure to revenue ratio was 119 percent.[33] Aggregated by region, the cumulative capex to revenue ratio of pure play foundries in China was 112 percent, which outpaces the rest of world average of 33 percent.[34]

III. Comments on China's Acts, Policies, and Practices Targeting Semiconductor Dominance

In this section, we outline China's acts, policies, and practices targeting the semiconductor industry that raise concerns for SIA and its members. China has implemented a number of acts, policies, and practices in the implementation of its broader strategy to achieve "self-sufficiency" across the entire semiconductor supply chain. In addition to the information presented below, we also direct attention to SIA's comments to USTR in response to its request for public comments regarding China's compliance with its obligations as a Member of the World Trade Organization (WTO).[35]

Directives, and Party Control within State and Private Enterprises

Beijing has long used state-driven industrial policy to support the development of its indigenous semiconductor industry. Dating back to the 1950s and 1960s, China has targeted the Chinese semiconductor industry in successive FYPs. But while semiconductors have been a strategic priority for Chinese state planners for decades, China's upleveled its focus and prioritization on semiconductors in 2014, with the creation of the China's National Integrated Circuits (IC) Fund to subsidize China's domestic semiconductor industry (more detail below). As noted in USTR's 2018 Section 301 Report,[36] Chinese industrial policy with respect to the chips sector seeks to create a "closed-loop semiconductor manufacturing ecosystem with self-sufficiency at every stage of the manufacturing process."

The following documents outline key aspects of China's current semiconductor policy and related goals:

- The **MIC2025**[37] and **14th FYP**[38] emphasize achieving "science and technology self-reliance" and fostering "secure and controllable supply chains." These initiatives articulate the government's ambitions and strategic roadmaps to reduce dependence on foreign technology and create an indigenous semiconductor ecosystem.

[32] SIA analysis on third party industry data. Omdia, "Pure Play Foundry Report—Q2 2024," October 2024. https://omdia.tech.informa.com/advance-your-business/semiconductors/pure-play-foundry-market-tracker
[33] *Id*.
[34] This figure omits TSMC from the rest of world calculation due to the firm's outsized investments in leading-edge chips and advanced packaging. Omdia, "Pure Play Foundry Report—Q2 2024," October 2024.
[35] Semiconductor Industry Association, "Written Comments of the Semiconductor Industry Association On USTR'S Request for Public Comments on 2024 China WTO Compliance Report," September 10, 2024. https://www.semiconductors.org/wp-content/uploads/2024/09/SIA-Comments-to-USTR-Regarding-the-2024-China-WTO-Compliance-Report.pdf
[36] Office of the U.S. Trade Representative, "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," March 22, 2018. https://ustr.gov/sites/default/files/Section%20301%20FINAL.PDF
[37] Central People's Government of the Republic of China, "国务院关于印发《中国制造 2025》的通知_机械制造与重工业_中国政府网," May 19, 2015. https://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm
[38] CSET, "Outline of the People's Republic of China 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2035," translated on May 12, 2021. https://cset.georgetown.edu/wp-content/uploads/t0284_14th_Five_Year_Plan_EN.pdf

- The **Roadmap of Major Technical Domains for MIC2025** outlines detailed technical and market milestones for MIC2025 implementation, specifying that China-made chips should meet 49 percent of domestic demand by 2020 and 75 percent of domestic demand by 2030. It further sets a global goal for Chinese-made semiconductors to address 34.2 percent of the global demand by 2030. It further specified that China's wafer production capacity should reach 1.5 million 12nm wafers per month by 2030.[39]

- The **Implementing Opinions on Promoting the Innovation and Development of Future Industries,** released by China's industrial regulator (MIIT) in January 2024, can be considered a successor to Made in China 2025. The *Opinions* identified a pool of six cutting-edge industries and ten technologies, including advanced semiconductors and supercomputers, slated to receive state support.[40]

- The 2020 **Several Policies to Promote the High-Quality Development of the Integrated Circuit Industry and the Software Industry in the New Era** document set a target for China to achieve 70 percent self-sufficiency in semiconductors by 2025.[41]

- The **National Integrated Circuit Industry Development Promotion Outline (2014)** and other government directives outline the country's goal of becoming a global leader in semiconductor technology by 2030, with specific targets relative to market share and industry revenue.[42] Specifically, the *Outline* targets a 20 percent annual growth rate for IC industry sales revenue by 2020, and aims to expand production capacity in mature-node chips by "accelerating the expansion of 45/40nm chip production capacity, stepping up the construction of 32/28nm chip production lines, and [promoting] the construction of 22/20nm and 16/14nm chip production lines."

China has also imposed various trade controls, export bans, and cybersecurity regulations that further signal preference to its domestic industry, target foreign companies within China, and impact semiconductor market conditions within China and globally. These policies and measures include:

- **Unreliable Entity List (UEL):** China introduced the UEL in May 2019 that allows the Chinese government to impose sanctions and other punitive measures on foreign entities that restrict or sever business ties with Chinese firms. The UEL allows the Chinese government to penalize foreign companies that take actions deemed harmful to Chinese interests, such as suspending business with Chinese entities for non-commercial reasons. The criteria for being added to the UEL are broad, and firms may be subject to the UEL for vague violations that include "discriminatory actions" and "violations of market principles." Foreign companies placed on the UEL could face a range of punitive actions, including trade restrictions, investment freezes, and restrictions on personnel travel. To date, 28 companies have been placed on the UEL. Up until February 4, 2025, only U.S. defense firms had been placed on the UEL. Following repeated messaging from Beijing that it planned to leverage the UEL to penalize non-defense-connected

[39] CSET, "Roadmap of Major Technical Domains for Made in China 2025《中国制造 2025》重点领域技术路线图," translated on September 9, 2020. https://cset.georgetown.edu/wp-content/uploads/t0181_Made_in_China_roadmap_EN.pdf

[40] Ministry of Industry and Information Technology of the People's Republic of China, "工业和信息化部等七部门关于推动未来产业创新发展的实施意见," January 29, 2024. https://www.miit.gov.cn/zwgk/zcwj/wjfb/yj/art/2024/art_ad15b0f08a714fd8888c0e31468b8c54.html

[41] Guancha Network, State Council: China's chip self-sufficiency rate is expected to react five years, up from just 30%last year, August 8, 2020, https://www.guancha.cn/industry-science/2020_08_20_562233.shtml

[42] Cyberspace Administration of China, "国家集成电路产业发展推进纲要," June 26, 2024. https://www.cac.gov.cn/2014-06/26/c_1111325916.htm

foreign firms that comply with anti-China sanctions, China placed PVH Corp. (a clothing company) and Illumina Inc. (a biotechnology company) on the UEL. Beijing initially launched its UEL investigation into PVH based on the company's alleged attempts to remove Xinjiang cotton from its supply chains in compliance with the Uyghur Forced Labor Protection Act (UFLPA).[43]

- **Expanded Export Control Framework and Export Bans:** In December 2024, the Ministry of Commerce (MOFCOM) imposed a ban on the export of gallium, germanium, and antimony, critical minerals used in semiconductor manufacturing to the United States. While initially framed as a national security measure, subsequent public statements by a MOFCOM spokesperson said the controls may have been imposed as a retaliatory measure: "In recent years, the United States has generalized the concept of national security, politicized and weaponized economic, trade and technological issues, abused export control measures, unreasonably restricted the export of relevant products to China, and included a number of Chinese companies in the sanctions list for suppression and containment… The Chinese government … resolutely opposes any wrong practice of generalizing the concept of national security."[44]

- **Discriminatory Regulatory Processes**: China has previously used regulatory processes – such as cybersecurity reviews and M&A approvals – to target foreign companies and foreign governments. For example, China has launched Cybersecurity Review investigations as a punitive measure against foreign firms. These investigations, characterized by a lack of transparency, have led to the suspension of targeted companies' from supplying critical infrastructure components in China.[45] China has also used its antitrust review process to delay or block mergers and acquisitions (M&A) involving foreign chip companies.[46] In some instances, Chinese market regulators have delayed rulings on certain deals until after unrelated diplomatic meetings between Chinese and foreign leaders have proceeded smoothly.[47] In other instances, Chinese market regulators announced anti-trust investigations into previously approved deals involving foreign companies.[48]

- **Industry Messaging**: Following the announcement of a recent U.S. export control action,[49] a number of Chinese government-affiliated industry groups[50] issued coordinated statements referring to U.S. chips as "unsafe" and "unreliable" and called for Chinese businesses to exercise caution when procuring chips from U.S. companies.

Subsidies - Persistent State Financial Support of Industry

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[43] Ministry of Commerce of the People's Republic of China, "商务部安全与管制局负责人就对美国 PVH 集团启动不可靠实体清单调查应询答记者问," September 24, 2024. https://www.mofcom.gov.cn/syxwfb/art/2024/art_50ee75830c8943f8a1b49d5259a41efe.html

[44] Ministry of Commerce of the People's Republic of China, "商务部新闻发言人就加强相关两用物项对美出口管制应询答记者问," December 3, 2024. https://www.mofcom.gov.cn/xwfb/xwfyrth/art/2024/art_1fb6c837ed174fc69db96a97471eed0b.html

[45] Cyberspace Administration of China, May 21, 2023. https://www.cac.gov.cn/2023-05/21/c_1686348043518073.htm

[46] Reuters, July 26, 2018. https://www.reuters.com/article/technology/qualcomm-ends-44-B-nxp-bid-after-failing-to-win-china-approval-idUSKBN1KF18X/

[47] CRN, November 16, 2023. https://www.crn.com/news/cloud/broadcom-vmware-deal-hinges-on-whether-chinese-president-xi-is-happy-with-apec-summit-analysts

[38] The New York Times, December 9, 2024. https://www.nytimes.com/2024/12/09/technology/china-nvidia-investigation-antitrust-ai.html

[49] Department of Commerce, "Commerce Strengthens Export Controls to Restrict China's Capability to Produce Advanced Semiconductors for Military Applications", December 2, 2024. https://www.bis.gov/press-release/commerce-strengthens-export-controls-restrict-chinas-capability-produce-advanced

[50] CSIA, CSIA Association By-Law, October 24, 2023, https://web.csia.net.cn/csiazc

China has invested significant government financial support to its domestic chip industry in the form of direct subsidies, government-backed funds, and other forms of state intervention. This state-directed financial backing is central to China's semiconductor industrial policy.

Central to China's semiconductor industrial policy is the National Integrated Circuits (IC) Industry Development Investment Fund, commonly known as the National IC Fund. Established in 2014 with an initial $19.3 billion in state-backed financing, this fund was renewed in 2019 with a second round of financing exceeding $28.4 billion. Most recently, in May 2024, China launched the third phase of the National IC Fund, setting aside $47.7 billion to boost the semiconductor sector.[51] Each phase of the National IC Fund has targeted different segments of the semiconductor supply chain, as follows:

Phase 1 (2014-2019): The Phase I fund made a total of 58 direct investments in semiconductor companies and funded 33 financial firms (including financial leasing companies, local state funds, and private funds).[52] Based on estimates from Qichacha's dataset, roughly 55 percent of the Phase I fund's investments were spent on chip manufacturing, 89 percent of which was invested in mature-node chip production.

Phase 2 (2019-2024): Phase 2 also primarily supported front-end manufacturing of mature-node semiconductors, along with the development of semiconductor materials such as photoresists and substrates. This phase also began to concentrate efforts on strengthening the domestic production of mature technology chips, such as those used in consumer electronics and lower-performance applications. The Phase 2 fund made a total of 63 direct investments in semiconductor companies.[53]

Phase 3 (2024-): Phase 3 prioritizes critical sectors like advanced semiconductor manufacturing technologies, materials, and tools, with additional support for AI chips and high-bandwidth memory (HBM). While the Phase 3 fund has not yet made any direct investments into chip companies, it has raised $9.9 billion and $12.9 billion for two subsidiary funds, respectively.[54]

The National IC funds are scheduled to make all investments within five years after their establishment,[55] which means both Phase 1 and Phase 2 funds should have been fully deployed, bringing cumulative investments from the National IC Fund to $47.7 billion. Combined with other national, provincial, and local government-backed funds, China's semiconductor funding programs are significant in size globally. At the local level, estimates indicate that from 2015-2018 there were 17 local government semiconductor funds established with funds collectively totaling approximately $69.4billion.[56] However, as these estimates are based on incomplete data, the actual amount could be higher. In total, based on SIA estimates, including government grants, equity investments, and low-interest loans, China's direct state support for its semiconductor industry is estimated to exceed $100 billion.

China's funding mechanisms are heavily state-backed, with a focus on below-market equity infusions. The OECD research indicated equity subsidies are largely concentrated in China, "which provided 86 percent of all below-market equity, linked to the construction of new production facilities, as well as 98 percent of

[51] 21 Caijing, 3440 亿大基金三期来了 未来投向何方？ June 1, 2024. https://m.21jingji.com/article/20240601/2b22680b5ec153267a88e263dbf4e2c1.html
[52] QCC, National IC Fund, https://www.qcc.com/firm/c422654c2cc68b420f326abf6e9cd8da.html
[53] QCC, National IC Fund, https://www.qcc.com/firm/768e35c520c9aae9ed3958843a895414.html
[54] QCC, National IC Fund, https://www.qcc.com/firm/515572e630dcf030405eb75a40b6489c.html; Security Times Network, January 3, 2025. https://www.stcn.com/article/detail/1477857.html
[55] Security Times Network, July 2, 2024. https://www.stcn.com/article/detail/1246114.html
[56] LeadLeo, 中国集成电路产业分析, 2019. https://pdf.dfcfw.com/pdf/H3_AP202008041396305062_1.pdf

all below-market debt," over the period 2014-2018. As pointed out by the OECD, such equity infusions are particularly concerning because they result in state ownership stakes in the companies receiving these funds, creating companies that are, to varying degrees, state-owned enterprises (SOEs).[57] As OECD research has shown, companies receiving such equity investments are often not subject to the same market and investor pressures that private companies face.[58] As a result, these companies are generally insulated from market forces – as indicated by Chinese company capital expenditure to revenue ratios detailed in Section II above – and are able to operate under terms that may distort competition.

China has also supported its domestic semiconductor industry through indirect subsidies, such as contributions of land, utilities, equipment, and STAR and other consumer subsidy programs for buying new and trading in old electronics.

- **Land, Utilities, and Equipment Subsidies**: Local governments often provide financial assistance in the form of land grants, subsidized utilities, and preferential rates on equipment leasing for semiconductor firms. For example, Sino IC Leasing, funded by the National IC Fund and other state investors, played an important role in financing Chinese chipmakers' purchase of chip tools and easing cash flow issues. The company helped one Chinese foundry finance $1.8 billion worth of equipment and lent $1.4 billion to another Chinese semiconductor company under the guise of a financial leasing contractor when the company was facing cash flow problems.[59]

- **Creation of the STAR Board**: To signal its support for high-tech industries, including semiconductors, China launched the STAR Board, a Nasdaq-style market designed to help Chinese semiconductor companies raise capital. As of June 2024, 102 semiconductor companies are listed on the STAR Board with a collective market cap of $200 billion – which accounts for about 31.7 percent of the total STAR Board market cap.[60]

- **Consumption Subsidies**: China's consumption subsidy program may indirectly also benefit mature-node chipmakers in China, though the primary goal of this policy is to boost consumer consumption in a weak economy. The program issued $20.5 billion government subsidies for the purchase of home appliances last year.[61] The program is set to expand this year with inclusion of consumer electronics.[62] Both product categories are powered by a variety of mature-node chips, and end-market demand rise is beneficial for the mature-node chipmakers.

Mergers and Acquisition

The Chinese government has long relied on SOEs and state-controlled firms as vehicles to access critical technologies and intellectual property (IP) from foreign firms.

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[57] OECD, "Measuring Distortions in International Markets: The Semiconductor Value Chain," December 12, 2019. https://www.oecd.org/en/publications/measuring-distortions-in-international-markets-the-semiconductor-value-chain_5b037f27-en.html

[58] OECD, "Measuring Distortions in International Markets: The Semiconductor Value Chain," December 12, 2019. https://www.oecd.org/en/publications/measuring-distortions-in-international-markets-the-semiconductor-value-chain_5b037f27-en.html

[59] Caixin, "芯片大基金风暴," August 5, 2022. https://weekly.caixin.com/2022-08-05/101922572.html?p0#page2

[60] Yicai, "截至 2024 年 6 月，已有 102 家半导体行业相关企业在科创板上市 ," July 14, 2024, https://www.yicai.com/news/102190604.html

[61] Chinese Govt, "3000 亿元资金加力支持，大规模设备更新和消费品以旧换新再迎"政策包," July 24, 2024. https://www.gov.cn/zhengce/202407/content_6964478.htm

[62] NDRC, 关于 2025 年加力扩围实施大规模设备更新和消费品以旧换新政策的通知, January 8, 2025, https://www.ndrc.gov.cn/xwdt/tzgg/202501/t20250108_1395565.html

Following the introduction of the **Outline for the Promotion of National Integrated Circuit Industry Development** in 2014, which framed a strategy to "promote the merger and restructuring of domestic packaging and testing enterprises,"[63] the industry observed a substantial increase in Chinese acquisitions of foreign semiconductor companies to gain access to technologies and IP. One example was the $780 million buyout of a Singaporean outsourced assembly test (OSAT) company by a Chinese firm in 2015.[64] At the time of acquisition, the Singaporean company was twice the size of the Chinese OSAT company. The National IC Fund – the largest investor in the Chinese OSAT company – funded roughly $300 million, or nearly 40 percent, of the transaction. As the result of the transaction, the Chinese OSAT company instantly became the world's third-largest OSAT company. Additionally, the Chinese OSAT company acquired advanced packaging technology, including the fan-out packaging technique called eWLB, which is now used to package high-end smartphone chips.[65] Another example is the 2021 acquisition of a UK semiconductor manufacturing company by a Chinese-controlled semiconductor company. The UK government later forced the Chinese-controlled company to unwind the transaction on national security grounds.[66]

While China had previously used M&A with U.S. companies as a tool to acquire foreign technology, recent developments within the Committee on Foreign Investment in the United States (CFIUS) have effectively prohibited such attempts from China. However, other countries may not have similar restrictions on inbound Chinese investment in strategic sectors. For example, Europe's healthcare, consumer products, entertainment, and information and communication technology (ICT) sectors attracted EUR 3 billion in annual Chinese FDI on average during 2021 – 2023.[67]

Market Access Restrictions

China's domestic policies have increasingly favored domestic suppliers through targeted market access restrictions, import substitution, and other discriminatory procurement practices. Examples are as follows:

- **Push to Replace Foreign Technologies**: Chinese media reports in late 2022 revealed the State-Owned Assets Supervision and Administration Commission (SASAC) issued a policy directive, known as Document 79, encouraging SOEs to replace U.S. IT infrastructure with domestic technologies by 2027, an effort referred to as "Delete A," for Delete America.[68] Document 79 was not made public at the time. However, according to media reporting, this directive was indeed circulated privately in China, and primarily targeted U.S.-made software and hardware. Relatedly, according to media reports[69] in April 2024, MIIT instructed state-owned telecom companies to

[63] CAC, June 26, 2014, "工信部正式公布《国家集成电路产业发展推进纲要》" https://www.cac.gov.cn/2014-06/26/c_1111325916.htm
[64] SOHU, 长电科技完成收购星科金朋，谁是最后赢家? May 11, 2016. HTTPS://WWW.SOHU.COM/A/74743866_116588
[65]Future Semiconductors, October 14, 2022, "先进封装技术之争 | 三霸统领五强跟随，中国队蓝海逐浪," https://mp.weixin.qq.com/s/L31LplmepqqOZpg8KVaDMw
[66] Reuters, "UK orders sale of microchip factory by China's Nexperia, citing national security," November 16, 2022. https://www.reuters.com/technology/uk-orders-chinas-nexperia-sell-least-86-microchip-factory-2022-11-16/
[67] MERICS, Dwindling investments become more concentrated - Chinese FDI in Europe: 2023 Update, June 6, 2024.
[68] Sina News, "The Replacement of State-Owned Enterprises Information and Innovation is Accelerating, and the OA System Must Be Localized by 2027" (translated), December 12, 2022. https://news.sina.cn/sx/2022-12-12/detail-imxwkvwu8987597.d.html; Qizhi Technology, December 14, 2023. https://www.tonguebusy.com/a/tuiguang/kuaishoutuiguang/14-6535-12.html
[69] Wall Street Journal, April 12, 2024. https://www.wsj.com/tech/china-telecom-intel-amd-chips-99ae99a9

phase out foreign semiconductors from their networks by 2027. According to media reporting,[70] in 2021 the MIIT-linked Information Technology Application Innovation Working Committee was reportedly tasked with drawing up a list of local suppliers to replace foreign technologies in sensitive sectors from cloud to semiconductors. The report noted that companies with more than 25 percent foreign stakes will be excluded from the committee and may face market access restrictions.

- **Discriminatory Procurement Policies**: On December 5, 2024, the Ministry of Finance (MOF) released draft standards aimed at boosting the competitiveness of domestic industrial products – ranging from computers to automobiles – over foreign-made competitors in government procurement.[71] Under the new policy, Made-in-China industrial products will be evaluated as though their price is 20 percent lower during government procurement and bidding processes.

    - Earlier, in August, 2024, MOF and MIIT introduced draft standards for procuring IT systems, including desktops, laptops and servers.[72] These standards, finalized in December, require providers of operating systems and central processing units (CPU) to undergo a security and reliability assessment by a government-sponsored third party, such as the China Information Technology Security Evaluation Center (CITSEC). CITSEC has since published lists of operating systems (OS) and CPU suppliers that passed the security test. These lists do not include any foreign companies.[73] CITSEC's security assessment guidelines require that the core design, development, and production of the products are conducted in the mainland, a requirement that is difficult for foreign companies to meet.[74]

- **Preferential Treatment for Domestic Chips in the Automotive Sector:** The China Automotive Chip Industry Innovation Strategic Alliance (CACIISA), established by MOST and MIIT in

[70] Bloomberg News, "Secretive Chinese Committee Draws Up List to Replace U.S. Tech", November 16, 2021. https://www.bloomberg.com/news/articles/2021-11-16/secretive-chinese-committee-draws-up-list-to-replace-u-s-tech?sref=npQiEL5j

[71] Ministry of Finance of the People's Republic of China, December 5, 2024. https://www.ccgp.gov.cn/zcfg/mof/202412/t20241205_23798042.htm

[72] Ministry of Finance of the People's Republic of China, August 3, 2023. https://gks.mof.gov.cn/gongzuodongtai/202308/t20230803_3900119.htm; Ministry of Finance of the People's Republic of China, August 3, 2023. https://gks.mof.gov.cn/gongzuodongtai/202308/t20230803_3900107.htm; Ministry of Finance of the People's Republic of China, August 3, 2023. https://gks.mof.gov.cn/gongzuodongtai/202308/t20230803_3900121.htm; Ministry of Finance of the People's Republic of China, August 2, 2023. https://gks.mof.gov.cn/gongzuodongtai/202308/t20230802_3899924.htm; Ministry of Finance of the People's Republic of China, August 4, 2023. https://gks.mof.gov.cn/gongzuodongtai/202308/t20230803_3900115.htm; Ministry of Finance of the People's Republic of China, August 4, 2023. https://gks.mof.gov.cn/gongzuodongtai/202308/t20230803_3900097.htm; Ministry of Finance of the People's Republic of China, August 4, 2023. https://gks.mof.gov.cn/gongzuodongtai/202308/t20230803_3900085.htm

[73] China Information Security Technology Center, "Announcement of Safe and Reliable Evaluation Results" (translated), December 26, 2023. http://www.itsec.gov.cn/aqkkcp/cpgg/202312/t20231226_162074.html; China Information Security Technology Center, "Announcement of Safe and Reliable Evaluation Results" (translated), May 20, 2024. http://www.itsec.gov.cn/aqkkcp/cpgg/202405/t20240520_172866.html; China Information Security Technology Center, "Announcement of Safe and Reliable Evaluation Results" (translated), September 30, 2024. http://www.itsec.gov.cn/aqkkcp/cpgg/202409/t20240930_194299.html

[74] China Information Security Technology Center, "Safety and Reliability Evaluation Work Guide" (translated), November 26, 2024. http://www.itsec.gov.cn/aqkkcp/ywjs/202307/t20230727_141347.html

September 2020,[75] recently created a whitelist of approved Chinese semiconductor suppliers. This "whitelist", which is not publicly available, reportedly includes 1800 products from 200 automotive chip suppliers, and serves as a sourcing guide for auto OEMs in China.

  - On January 7, 2024, MIIT announced plans to develop more than 30 key auto chip standards by 2025 and more than 70 related standards by 2030 covering areas such as reliability, electromagnetic compatibility and operational and information security. According to guidelines issued by MIIT and circulated to industry groups, these standards seek to ensure safety and reliability by providing for performance tests of semiconductors used in finished vehicles and core systems. According to China's Global Times, the purpose of these standards is "to guide and promote the development and application of China's automotive chip technology, cultivate an independent innovation environment, enhance overall technological capabilities and competitiveness, and create a safe, open, and sustainable ecosystem."[76]

- **Lack of Foreign Participation in Standard-Setting**: In a 2020 report, the US-China Business Council stated that although access to Chinese standard setting organizations has improved for foreign companies in recent years, several technical committees (TCs) and specific working groups within TCs remained off-limits to foreign companies in practice. "For example, in TC260 there are two working groups that do not allow foreign companies to participate…. While there are no explicit policies that bar foreign participation, companies reported that their applications to participate remain in perpetual limbo. Many companies also reported that even if they were able to participate in later stages of drafting or submitting comments on draft standards, it was difficult to participate in the early stages of drafting, which is often only open to invited experts, and agenda setting, which is tightly government-controlled."[77]

Intellectual Property Theft and Talent Poaching

China also uses forced technology transfers, theft of IP and trade secrets, and lax enforcement of IP laws to develop its domestic semiconductor capabilities.

- **Theft and Unauthorized Use of IP:** In some instances, U.S. chip companies seeking to sue Chinese partners or suppliers for IP theft have been targeted with investigations by market regulators and pressured to withdraw their lawsuits. In other cases, foreign firms have been required to submit products for regulatory review prior to market entry, only to find that proprietary information presented to regulators ended up in the hands of competitors.[78]

[75] Huanqiu, 中国汽车芯片产业创新战略联盟成立, September 22, 2020. https://smart.huanqiu.com/article/3zztQwSA2WZ

[76] Global Times, China steps up efforts to set standards for auto chips amid fierce competition, January 9, 2024. https://www.globaltimes.cn/page/202401/1305028.shtml

[77] The U.S.-China Business Council, "Standards Setting in China: Challenges and Best Practices," February 2020. https://www.uschina.org/wp-content/uploads/2020/02/standards_setting_in_china_challenges_and_best_practices.pdf

[78] Wall Street Journal, "How China Systematically Pries Technology From U.S. Companies," September 26, 2018. https://www.wsj.com/articles/how-china-systematically-pries-technology-from-u-s-companies-1537972066

- **Talent Poaching and Recruitment:** In September 2024, an investigation by a Taiwanese prosecutor's office task force found that multiple Chinese firms had hidden their Chinese ownership and illegally recruited Taiwanese engineers to work on chip equipment on behalf of Chinese SOEs. In November 2024, media reporting revealed that headhunters from a Chinese company offered chip engineers from a German chip component producer up to three times their existing salaries, triggering an investigation by German intelligence.[79]

V. Comments on Whether China's Acts, Policies, and Practices Burden or Restrict U.S. Commerce

China's various acts, policies, and practices related to the semiconductor sector are beginning to disrupt the semiconductor supply chain for the United States. For example, China's recent export controls banning critical minerals – including gallium and germanium– from being sold to U.S. companies could have significant impacts for the U.S. semiconductor value chain. China's recent regulatory preferences also highlight a significant impediment for both U.S. and other market-based competitors to participating in China's automotive market.

We are concerned that if China's investment in mature-node capacity continues to exceed global demand, it will risk crowding out investment in mature-node chips in other regions or forcing market-based competitors out of the market altogether. Such a scenario could have significant downstream effects, resulting in supply chain dependencies not only for the semiconductor industry in the United States but across the myriad downstream industries that integrate mature-node semiconductor technologies into finished products.

VI. Comments on U.S. Government Responses

In January 2025, SIA published "Winning the CHIPS Race,"[80] a blueprint which sets forth the U.S. semiconductor industry's policy priorities to advance U.S. semiconductor leadership. We invite USTR to review this document, which outlines a series of policy recommendations that the U.S. government could implement to promote U.S. semiconductor industry innovation and competitiveness while also protecting economic and national security. On trade, we recommend that the U.S. government pursue smart, reciprocal trade and supply chain deals that create demand for Made-in-America chips and downstream products, encourage investments by international semiconductor firms here in America, and incentivize the creation of trusted supply chains. We also recommend USTR leverage a comprehensive and varied toolbox to stand up for U.S. companies and restore reciprocity. It also remains important for the U.S. government to work with supply chain partners and likeminded governments to build global supply chain capabilities that complement and support semiconductor industry operations in the United States, including diverse and secure sourcing alternatives both for upstream semiconductor materials, like critical minerals and specialized chemicals, and for downstream markets, like automotive, industrial, and electronics. Finally, we urge USTR to advance trade facilitation and other policies that help chip companies operate more efficiently in global markets.

Separately, as highlighted above, many fabless companies are concerned about the lack of investment in mature-node foundry capacity outside of China, such that demand for such capacity will continue to outstrip

[79] Wall Street Journal, "China Is Bombarding Tech Talent With Job Offers. The West Is Freaking Out." November 27, 2024. https://www.wsj.com/world/china-tech-poaching-job-offer-pay-raise-f8ceac5b
[80] Semiconductor Industry Association, "Winning the Chips Race", January 2025. https://www.semiconductors.org/winning-the-chip-race/

supply. This concern underscores the necessity of incentivizing investment in U.S.-based foundries and ensuring diverse global sourcing options to maintain competitive market dynamics. Without adequate incentives to expand domestic capacity, U.S. fabless companies in the mature-node segment will be less competitive in the global market.

VII. Conclusion

SIA and its members greatly appreciate the opportunity to comment on the current Section 301 Investigation on China's acts, policies, and practices for dominance in the semiconductor industry. China's non-market practices pose long-term risks to the health of the U.S. and global semiconductor industry. That said, while we defer to USTR as to whether these acts, policies, and practices violate Section 301(b), we caution there is no simple solution to address such practices. It is therefore critically important for USTR to consult closely with SIA and its member companies at each stage of this investigation to understand and consider the first-, second-, third-order (and beyond) effects of potential actions on the global semiconductor market and on our upstream and downstream supply chains, and to inform a comprehensive approach that avoids inadvertent harm to the semiconductor industry in the United States and in partner nations.

Global challenges are best addressed through coordinated, multi-country solutions. To that end, we note that Group of Seven (G7) Leaders established a working group[81] to promote resilient and reliable semiconductor supply chains and later identified non-market policies and practices in the semiconductor sector as "an urgent and pressing matter to be addressed."[82] We strongly urge USTR and other U.S. agencies to continue collaboration with G7 countries and other trusted partners and allies towards coordinated, multi-country solutions to the challenges outlined in this submission – solutions that maximize impact and minimize potential free-riding and backfilling.

SIA and our member companies stand ready to work with USTR to reinforce America's economic strength, national security, innovation base, and technology leadership. Continued engagement with SIA, U.S. stakeholders, other semiconductor-producing economies, and allied partners will be critical in ensuring an appropriate and beneficial response and avoiding unintended consequences. SIA is happy to answer any additional questions or respond to any additional requests for information. Please contact Mary Thornton (mthornton@semiconductors.org) or Jennifer Meng (ymeng@semiconductors.org) with any follow-up requests.

Respectfully submitted,

Mary Thornton
Vice President – Global Policy

[81] G7, "Apulia G7 Leaders' Communiqué," June 15, 2024. https://www.g7italy.it/wp-content/uploads/Apulia-G7-Leaders-Communique.pdf

[82] G7 Second Ministers' Meeting on Industry and Technological Innovation, "Chair's Summary,"October 10, 2024. https://www.g7italy.it/wp-content/uploads/Chairs-summary.pdf