WINSTON & STRAWN LLP

BLOG

Spotlight on Japan: Legal Trends in the Semiconductor Industry in the Japanese and U.S. Markets

JULY 8, 2025

SPOTLIGHT ON JAPAN

This blog is part of our Spotlight on Japan series, featuring blogs written by our current Japanese legal trainees—bengoshi who have completed U.S. LLM programs and are now training with Winston & Strawn LLP as part of their professional development. These blogs offer unique insights into cross-border legal practice through the lens of rising Japanese legal talent. They reflect not only the trainees' curiosity and capabilities but also Winston's deep commitment to nurturing global legal exchange.

Semiconductors are critical components that form the foundation of virtually all modern technologies and industries, including computers, smartphones, consumer electronics, automobiles, and medical devices. Their global importance continues to grow. In recent years in particular, the emergence of geopolitical risks and vulnerabilities in global supply chains has brought semiconductors into the spotlight not only as economic linchpins but also as strategic assets in national and economic security policies. This blog provides an overview of recent legal developments in the semiconductor markets of Japan and the United States.

JAPAN

Japan's semiconductor industry reached its peak in the 1980s. However, its international standing has steadily declined since the 1990s, due in part to the U.S.-Japan trade frictions and delays in adapting to changes in the global semiconductor market. In recent years, however, the accelerating pace of technological innovation—driven by digitalization, artificial intelligence (AI), and fifth-generation (5G) mobile communications systems—alongside a heightened global focus on economic security—has further underscored the strategic importance of semiconductors worldwide. In response, Japan is now undertaking efforts to revitalize its semiconductor industry through robust government support and collaboration with domestic and international companies.

(A) Government Strategies, Policies, and Legal Developments

To enhance Japan's competitiveness in the semiconductor and digital sectors, the Ministry of Economy, Trade and Industry (METI) formulated the "*Semiconductor and Digital Industry Strategy*" in June 2021, which was subsequently revised in June 2023.[1] The strategy sets forth a bold objective: to increase the total domestic sales of

semiconductor-related companies from approximately JPY 5 trillion in 2020 to over JPY 15 trillion by 2030, while ensuring a stable supply of semiconductors in Japan. To achieve this goal, the strategy outlines a three-step approach:

Step 1: Enhancement of Basic Production Capacity for IoT,

Step 2: Realization of Next-Gen Semiconductor Technology through U.S.-JP Collaboration, and

Step 3: R&D for Future Technology.

To support investment decisions aimed at strengthening the domestic foundation for advanced semiconductor manufacturing, the Japanese government amended two key legislative instruments: the Act on Promotion of Development, Supply and Introduction of Specified Advanced Information and Communications Technology Systems (Act No. 37 of 2020, commonly referred to as the "5G Promotion Act"), and the Act Partially Amending the Industrial Competitiveness Enhancement Act and Other Related Laws to Promote the Creation of New Businesses and Industrial Investment (Act No. 145 of 2002, commonly referred to as the "NEDO Act"). These amendments were enacted in December 2021 and came into force on March 1, 2022. As a result of these legislative changes, the Japanese government is now able to provide substantial financial support for the establishment of high-performance semiconductor production facilities within Japan's borders.[2]

In December 2022, the Japanese government designated semiconductors as "*Specified Critical Materials*" under the Economic Security Promotion Act (Act No. 43 of 2022). This designation aims to enhance the domestic production capacity of various semiconductors by developing and strengthening the supply infrastructure for conventional semiconductors, semiconductor manufacturing equipment, semiconductor materials and components, and semiconductor raw materials, thereby ensuring a stable supply chain. Under this framework, businesses seeking to secure a stable supply of semiconductors are encouraged to develop a "*Supply Security Plan*" and submit it to METI for approval. Upon approval, these businesses become eligible for government support, which may include subsidies, low-interest loans, and other financial incentives.[3] The support focuses on initiatives that bolster the production infrastructure for semiconductors and related components within Japan, contributing to the nation's economic security and technological autonomy.

On November 22, 2024, the Japanese government approved the "*Comprehensive Economic Measures for Ensuring National Security and Sustainable Growth*." This initiative focuses on supporting technological development and capital investment plans in the fields of AI and semiconductors over the seven-year period leading up to fiscal year 2030. The measures aim to stimulate over JPY 50 trillion in combined public and private investment over the next decade. A central component of these measures is the establishment of the "*AI and Semiconductor Industry Enhancement Framework*," which seeks to provide over JPY 10 trillion in public support through a combination of subsidies, commissioned projects, financial assistance, and legislative measures. This framework aims to enhance predictability for private enterprises by securing necessary funding across multiple fiscal years. The objectives include the development of domestic production bases for advanced and next-generation semiconductors, support for research and development activities, and the implementation of necessary legislative measures to facilitate the mass production of next-generation semiconductors. The government plans to submit relevant bills to the National Diet as part of this initiative.

(B) Next-Generation Semiconductor Projects

Japan's *"Semiconductor and Digital Industry Strategy"* outlines two key initiatives aimed at establishing a short turnaround time (TAT) mass production system for next-generation semiconductors (beyond 2-nanometer (nm)):

Establishing open research and development hubs focused on advanced design, equipment, and materials technologies, and

Developing mass production facilities in preparation for future large-scale manufacturing.

In alignment with this strategy, the Leading-Edge Semiconductor Technology Center (LSTC)was established on December 21, 2022, as a research and development and human resource development hub to realize mass

production technologies for next-generation semiconductors. The LSTC serves as an open R&D platform, fostering collaboration with international institutions such as the U.S. National Semiconductor Technology Center (NSTC). The LSTC is actively engaged in developing technologies for semiconductors at the 2nm node and beyond, with a focus on achieving short TATs and advancing research projects to facilitate mass production.

Furthermore, Rapidus Corporation was founded on August 10, 2022, with investments from major Japanese corporations. The company aims to commence mass production of next-generation semiconductors by 2027. To support this endeavor, the Japanese government has committed up to JPY 920 billion in R&D funding.

UNITED STATES

The United States semiconductor industry is also undergoing a strategic restructuring in response to geopolitical risks and vulnerabilities in the global supply chain. Recognizing the critical importance of semiconductors to national security and economic competitiveness, the U.S. has positioned semiconductor policy at the core of its national strategy. Current government initiatives focus on strengthening domestic manufacturing capacity, enhancing supply chain resilience, safeguarding national security, and preserving global leadership in technological innovation.

(A) Strengthening Domestic Manufacturing Capacity and Scientific and Technological Research

Recognizing the importance of supply chain security, in 2022 the U.S. Congress passed the CHIPS and Science Act of 2022 (the Act), which was enacted on August 9, 2022, to revitalize the domestic semiconductor industry and strengthen scientific and technological research. The Act allocated a total of $52.7 billion in federal funding to support semiconductor manufacturing, research, and workforce development in the U.S. Specifically, the Act included approximately $39 billion over five years to support capital investment in facilities for semiconductors and related materials and equipment, and approximately $11 billion over five years to fund R&D initiatives. In addition, it provided a 25% investment tax credit for capital expenditures related to semiconductor manufacturing and equipment.[4]

According to the U.S. Department of Commerce's press release, as of August 2024, two years after the CHIPS and Science Act was signed into law, it has catalyzed over $30 billion in private investments across more than 20 semiconductor projects in 15 states. These initiatives are expected to create over 115,000 jobs in manufacturing and construction. The U.S. is now on track to produce 30% of the world's advanced chips by 2032. The Act is also reinforcing national security and economic resilience by reshoring critical semiconductor production.

(B) National Security and Supply Chain Resilience

In its efforts to revitalize the semiconductor industry, the U.S. government places significant emphasis on national security and supply chain resilience. Recognizing the strategic nature of semiconductors, U.S. policies are designed not only to bolster domestic capabilities but also to mitigate risks associated with foreign dependencies and geopolitical adversaries.

i. **Guardrail Provisions**
The CHIPS and Science Act includes a set of "guardrail provisions" aimed at preventing federal subsidies from benefiting countries deemed hostile to U.S. national security interests.[5] Under these provisions, recipients of CHIPS Act funding are prohibited from significantly expanding semiconductor manufacturing capacity in "foreign countries of concern"—specifically China, Russia, Iran, and North Korea—for a period of ten years from the date of the award. Furthermore, recipients are—in most cases—barred from engaging in joint research or technology licensing activities with entities from these countries if such collaborations involve technologies or products with national security implications.

ii. **Export Controls**
The U.S. Department of Commerce, through its Bureau of Industry and Security (BIS), has implemented stringent export controls targeting the transfer of advanced semiconductor technologies to China. These restrictions include limitations on the export of AI chips, extreme ultraviolet (EUV) and deep ultraviolet (DUV) lithography equipment, and electronic design automation (EDA) software used in the design of advanced semiconductors.

While the Trump administration announced its plan in May to rescind and not enforce the Artificial Intelligence Diffusion Rule (the Rule) that would have imposed worldwide U.S. export controls on leading-edge semiconductors, new leadership at BIS, in conjunction with the White House, has nonetheless signaled a resolve to continue aggressive enforcement of export controls vis-à-vis China and will likely replace the Rule with a more permissive structure for allies and partners to receive advanced chips.

iii. **Investment Screening**
The United States has strengthened its investment screening mechanisms to protect semiconductor-related assets. The Committee on Foreign Investment in the United States (CFIUS) has the authority to review—and, if necessary, block—foreign investments in U.S. semiconductor companies. This authority is originally based on the Foreign Investment Risk Review Modernization Act of 2018 and was further reinforced by the "*America First Investment Policy*" announced by the White House on February 21, 2025.

In addition, U.S. investments by U.S. companies in China's semiconductor sector are subject to stringent scrutiny. Specifically, Executive Order 14105, signed by President Biden on August 9, 2023, prohibits or requires notification of certain transactions by U.S. persons with entities in "countries of concern," including China, that are involved in semiconductors, quantum information technologies, and AI.[6] Executive Order 14105 is still in effect as of June 2025, but it is currently under formal review by the Trump administration.[7] The regulation aims to prevent U.S. capital from contributing to the development of advanced technologies that could enhance China's military capabilities. These measures are part of a comprehensive strategy to protect U.S. national security by closely regulating both inbound and outbound investments in critical sectors like semiconductors.

(C) Preserving Global Leadership in Technological Innovation

Investments in R&D are essential to sustaining the United States' technological leadership in the semiconductor sector. To maintain a competitive edge and drive future innovation, the U.S. government is placing strategic emphasis on emerging technologies such as AI, quantum computing, and advanced semiconductor packaging.

As a core initiative under the CHIPS and Science Act of 2022, the NSTC was officially launched on February 9, 2024. The NSTC is dedicated to advancing the U.S. semiconductor industry through focused R&D as well as workforce training initiatives.[8] The NSTC is managed by the National Center for the Advancement of Semiconductor Technology (Natcast), a nonprofit organization operating under the oversight of the Department of Commerce as part of the CHIPS Program.[9]

On October 24, 2024, Natcast released the NSTC's first Strategic Plan. This plan outlines a comprehensive framework for establishing the NSTC as a long-term institutional foundation and defines three core objectives: (i) strengthen and expand U.S. leadership in semiconductor technology, (ii) reduce the time and cost required for prototyping, and (iii) build and sustain a robust, sustainable domestic semiconductor workforce ecosystem.[10]

JAPAN-U.S. COOPERATION FRAMEWORK

Strengthening the semiconductor supply chain and advancing R&D necessitates robust international collaboration. Japan and the United States have been enhancing their cooperation in the semiconductor sector at both governmental and corporate levels.

(A) Intergovernmental Cooperation

On May 4, 2022, Japan's Minister of Economy, Trade and Industry, Koichi Hagiuda, and U.S. Secretary of Commerce, Gina Raimondo, held the first ministerial meeting of the Japan-U.S. Commercial and Industrial Partnership (JUCIP), and confirmed their intention to cooperate on bilateral semiconductor supply chains based on "*the Basic Principles on Semiconductor Cooperation*."

Following the Basic Principles on Semiconductor Cooperation, at the Japan-U.S. summit held on May 23, 2022, the two countries announced the establishment of a task force for the joint development of next-generation

semiconductors as part of their economic security cooperation to protect critical technologies and strengthen supply chains.

Furthermore, at the second ministerial meeting of the Japan-U.S. Economic Policy Consultative Committee (EPCC) held on November 14, 2023, both countries reaffirmed their commitment to advancing the development of next-generation semiconductor designs for emerging industrial applications, building on discussions from the joint task force. As part of this effort, collaboration on R&D roadmaps between Japan's LSTC and the U.S.'s NSTC is expected to accelerate. In addition, the two countries plan to strengthen talent development by fostering partnerships between academic institutions and national research organizations. A joint project is scheduled to launch next year, alongside efforts to expand and build upon existing initiatives.

(B) Collaboration Among Private Enterprises

On December 12, 2022, a strategic partnership between Rapidus Corporation and IBM was announced, aiming to jointly develop 2 nm node semiconductor technology. This collaboration aims to advance cutting-edge semiconductor technologies and establish a robust ecosystem for their development and manufacturing in Japan.

Under this partnership, Rapidus is leveraging IBM's breakthrough 2nm node technology, initially developed at IBM's Albany NanoTech Complex in New York. The goal is to implement this technology at Rapidus's fabrication facilities in Japan. To facilitate this, approximately 100 engineers from Rapidus have been dispatched to work alongside IBM researchers at the Albany NanoTech Complex, participating in joint development activities and gaining hands-on experience with the technology.[11]

This collaboration not only focuses on technology transfer but also emphasizes workforce development and the creation of a sustainable semiconductor ecosystem. By integrating IBM's advanced research capabilities with Rapidus's manufacturing ambitions, the partnership seeks to position Japan at the forefront of next-generation semiconductor production.

Naoki Nihommatsu, who authored this post, is from Tokyo-based law firm Momo-o, Matsuo & Namba (MMN). Founded in 1989, MMN combines the depth of a full-service firm with the agility of a boutique, serving both domestic and international clients with strategic, business-aligned counsel. The firm is renowned for its high-caliber legal services across practice areas including corporate law, complex litigation and arbitration, M&A, antitrust, and intellectual property.

Naoki's practice includes corporate transactions, cross-border M&A, regulatory compliance, crisis management, and data privacy. He has represented both Japanese and international clients in high-stakes transactions and disputes. After completing his LLM in Corporate Law from NYU School of Law in 2024, Naoki joined Winston & Strawn LLP as a foreign legal advisor.

---

[1] Ministry of Economy, Trade and Industry (June, 2023), *Semiconductors and digital industry strategy* (Revised ed.) (in Japanese), https://www.meti.go.jp/policy/mono_info_service/joho/conference/semiconductors_and_digital.pdf. For an English-language summary, *see* Ministry of Economy, Trade and Industry, (July, 2024), *Outline of semiconductor revitalization strategy in Japan*, https://www.meti.go.jp/english/policy/0704_001.pdf.

[2] To support initiatives under the 5G Promotion Act and the NEDO Act, the Japanese government allocated supplementary budgets of JPY 617 billion in FY2021, JPY 450 billion in FY2022, and JPY 632 billion in FY2023. As of July 30, 2024, six plans for the development of specified semiconductor production facilities had been certified under the 5G Promotion Act, with subsidies of up to approximately JPY 1,664 billion granted to the approved projects. *See* https://www.meti.go.jp/policy/mono_info_service/joho/laws/semiconductor/semiconductor_plan.html (in Japanese).

[3] As of May 16, 2025, a total of 24 supply assurance plans for semiconductors had been certified by the Japanese government, with subsidies totaling up to approximately JPY 428.77 billion. *See* https://www.meti.go.jp/policy/economy/economic_security/semicon/index.html (in Japanese).

[4] For details on financial support under the CHIPS and Science Act of 2022, *see CHIPS for America Fact Sheet: Federal Programs Supporting the U.S. Semiconductor Supply Chain and Workforce* (March 18, 2024), https://www.nist.gov/document/chips-america-fact-sheet-federal-incentives.

[5] U.S. Congress (2022). *CHIPS and Science Act of 2022*, H.R. 4346, 117th Cong. § 103 (2022).

[6] U.S. Department of the Treasury (October 28, 2024). *Additional information on final regulations implementing outbound investment Executive Order (E.O. 14105)* [Press release], https://home.treasury.gov/news/press-releases/jy2690.

[7] According to the *America First Investment Policy* (Presidential memorandum) issued on February 21, 2025, Executive Order 14105 is being evaluated to determine whether it includes sufficient controls to address national security threats, particularly those posed by China. This review is being conducted pursuant to the Presidential Memorandum of January 20, 2025, *America First Trade Policy* (https://www.whitehouse.gov/presidential-actions/2025/01/america-first-trade-policy/).

[8] National Institute of Standards and Technology (February 9, 2024). *Biden-Harris Administration launches next phase for over $5 billion in CHIPS R&D investments, including the National Semiconductor Technology Center (NSTC)* [Press release], https://www.nist.gov/news-events/news/2024/02/biden-harris-administration-launches-next-phase-over-5-billion-chips-rd.

[9] National Institute of Standards and Technology (May 24, 2024). *National Semiconductor Technology Center (NSTC) roadmap* [PDF file], https://www.nist.gov/system/files/documents/2024/05/24/NSTC%20Roadmap_FINAL.pdf.

[10] Natcast (February, 2025). *NSTC Strategic Plan FY2025–2027* [PDF file], https://natcast-1e229.kxcdn.com/assets/uploads/2025/02/Natcast-NSTC-Strategic-Plan-FY25-27-Feb-2025_webf.pdf.

[11] Government of Japan (March, 2024). *Japan's pursuit of a game-changing technology and ecosystem for semiconductors*. KIZUNA, https://www.japan.go.jp/kizuna/2024/03/technology_for_semiconductors.html.

10+ Min Read

Authors

Krishnan Padmanabhan

Elizabeth Leavy

Tony Busch

Naoki Nihommatsu, Momo-o, Matsuo & Namba

Related Topics

Spotlight on Japan | Semiconductors | National Security | Government Contracts

Related Capabilities

Antitrust/Competition | International Trade | Technology Antitrust | Artificial Intelligence (AI) | Technology, Media & Telecommunications | Government Contracts & Grants

Related Professionals

Krishnan Padmanabhan

Elizabeth Leavy

Tony Busch

This entry has been created for information and planning purposes. It is not intended to be, nor should it be substituted for, legal advice, which turns on specific facts.