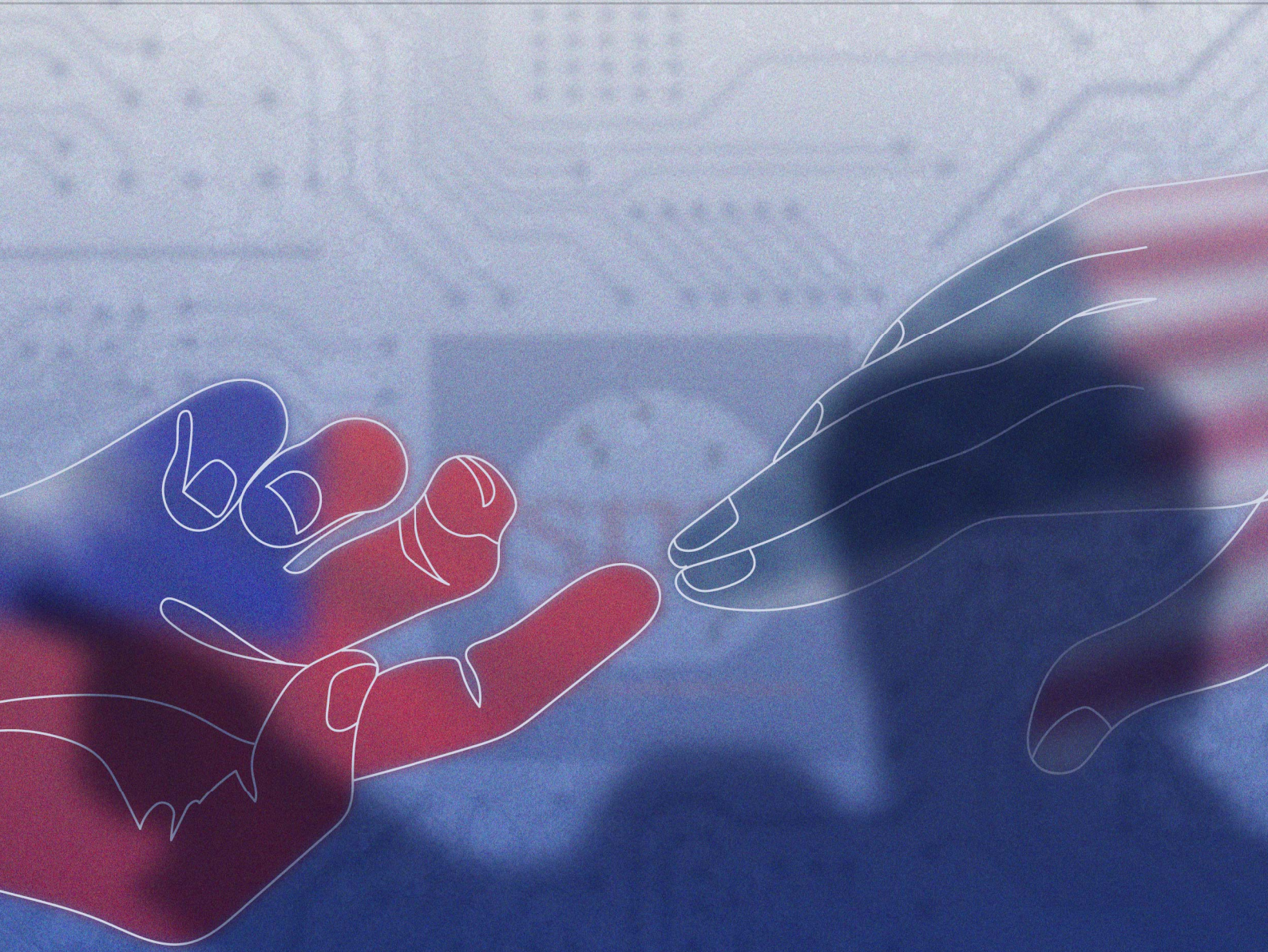

# WALKING A TIGHTROPE

## Navigating Taiwan-U.S. Semiconductor Security Under Trump 2.0

January 2025

# Walking a Tightrope:
# Navigating Taiwan-U.S. Semiconductor Security Under Trump 2.0

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## Research Institute for Democracy, Society, and Emerging Technology (DSET)

Our vision: Emerging technologies are reshaping the world, bringing profound changes to the political, economic, and social landscapes. Mitigating negative impacts and guiding the use of technology to enhance societal well-being have become unavoidable contemporary issues.

## Economic Security Program

The Economic Security Program delves into Taiwan's economic security framework and the emerging challenges posed by the new era of technological geopolitics. As a global leader in semiconductor manufacturing, Taiwan plays a pivotal role in the global technology supply chain. However, this strategic position also exposes Taiwan to significant risks, particularly from China's economic coercion and technological ambitions. The ongoing geopolitical tensions highlight the urgent need for Taiwan to strengthen its economic security mechanisms to safeguard national interests and maintain industrial competitiveness.

This research program will analyze Taiwan's key challenges in the evolving geopolitical landscape, focusing on supply chain resilience, trade security, and strategic partnerships with democratic allies. Through policy reports and expert commentary, it aims to provide valuable insights from Taiwan to the international community, fostering a meaningful platform for multilateral policy discussions.

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*Introduction*

# Walking a Tightrope: Taiwan in the Era of "Trump 2.0"

*Author: Jeremy Chih-Cheng Chang*

On January 20, 2025, Donald Trump was inaugurated as President of the United States, marking his return to the White House. This event ushers in a new phase of U.S. leadership, characterized by unpredictability and carrying significant implications for the global political and economic landscape.

During the "Trump 1.0" era, the global landscape that had endured for over three decades underwent profound changes, leading to the rise of techno-geopolitics. President Trump initiated a wide-ranging confrontation with China, spanning a trade war and a contest for technological leadership. The COVID-19 pandemic further deepened global challenges, sparking a semiconductor shortage and a supply chain crisis. Russia's invasion of Ukraine in 2022 prompted sweeping Western sanctions, while the launch of generative AI tools marked a pivotal breakthrough, ushering in the AI era.

## Taiwan at the Center of Techno-Geopolitics: Opportunities and Challenges

These rapid and transformative events have propelled Taiwan into the global spotlight in the era of techno-geopolitics. At the center of this attention is TSMC, the pioneer of the semiconductor foundry business model and a global leader in advanced semiconductor research and production, which serves as a cornerstone of AI development.

TSMC represents more than a company—it embodies the culmination of over half a century of Taiwan's thriving and well-integrated tech manufacturing ecosystem. This success is fueled by a dedicated and highly skilled engineering workforce whose expertise drives continuous innovation. Supported by a robust supply chain spanning upstream to downstream industries, Taiwan's semiconductor ecosystem thrives on global collaboration, leveraging advanced equipment, materials, and knowledge from international partners. These factors position Taiwan as an indispensable player on the global stage.

However, in the era of techno-geopolitics, the foundation of global economic interdependence has begun to erode. Democratic nations, led by the United States, are now engaged in fierce competition with China over advanced technologies and supply chains. This shift has initiated a global reimagining and restructuring of the geopolitical order. Amid this, Taiwan, an island nation under constant military threat

from China, has achieved extraordinary success in technological innovation. Yet, Taiwan and its tech ecosystem walk a perilous tightrope, where maintaining momentum is essential to avoid falling behind. In this high-stakes environment, hesitation is not an option.

Over the past four years, the Biden administration has continued the U.S.-China strategic competition initiated during the Trump 1.0 era. The administration's "Small Yard, High Fence" strategy in semiconductor export controls has targeted cutting-edge technologies like AI and supercomputing. Toward the end of Biden's term, these restrictions were further tightened to counter China's rapid advancements in AI. Despite these challenges, Taiwan's semiconductor supply chain, led by TSMC, has shown resilience. The booming AI market and strong U.S. demand have mitigated the impact of these controls, with some Taiwanese firms benefiting from the decoupling of supply chains with China.

Meanwhile, the U.S. CHIPS and Science Act, with its substantial subsidies, prompted TSMC to establish an advanced fab in Arizona. This move introduced uncertainty to the Taiwan-centered semiconductor model that had thrived for three decades. Moreover, strategies like "derisking" and the "Taiwan plus one" approach have further tested the efficiency and cohesion of Taiwan's semiconductor ecosystem.

## Trump 2.0: Uncertainty and Unpredictability

Regarding export control policies, we believe that compared to the Biden administration's consensus-driven with allies, the Trump administration is likely to favor simpler, faster-paced unilateral measures such as tariffs or entity lists to curb China's technological rise. U.S.-China competition may also be influenced by powerful figures like Elon Musk, whose sway over President Trump could shape critical decisions.

On the other hand, the continuity of CHIPS Act subsidies from the U.S. government to TSMC, as well as the scale and pace of TSMC's investment growth in the United States, would face greater uncertainties. Amid this uncertainty, Taiwan must focus on securing bipartisan support within both the White House and Congress to safeguard its interests.

Regardless of whether it's under Biden or Trump, the U.S. federal government has a core policy goal that clashes with Taiwan's national interests: reducing reliance on Taiwan as the sole hub for advanced semiconductor manufacturing. While this started as a national security objective, it has increasingly shifted toward reviving U.S. domestic manufacturing and creating jobs. Taiwan's strategists must work harder to persuade their U.S. counterparts that while strengthening economic interdependence through semiconductor friend-shoring offers a manageable path to win-win outcomes, preserving Taiwan's efficient and innovative tech ecosystem is crucial for maintaining an edge in the U.S.-China tech rivalry.

On the other hand, under Xi Jinping, China's policies are creating tougher challenges for Taiwan. What used to be a complementary trade and supply chain relationship is quickly turning into competition. China has doubled down on its state-led industrial policies, mobilizing public and private capital, subsidizing industries, and leveraging its massive domestic market to achieve supply chain self-sufficiency. From emerging technologies to mature foundational ones,

China is striving to dominate global markets and has become an even bigger threat to Western economies.

Over the past two decades, China has successfully overtaken democratic countries in several industries, including Taiwan's dominance in displays and solar panels. The U.S.-China rivalry initiated during the Trump 1.0 era, coupled with the pandemic's spike in semiconductor demand, gave Taiwan's chip industry a rare historical advantage. This momentum allowed Taiwan to ride the AI boom and achieve greater success.

However, as U.S. export controls block China's access to advanced chips, China is pivoting to its strength: subsidizing and dominating the foundational chip supply chain outside U.S. restrictions. Although Taiwan still holds the lead in global market share, this advantage is fading fast. By 2027, China could surpass Taiwan as the leader in foundational chips. Without effective strategies from the U.S. and its allies, Taiwan risks losing its semiconductor edge, while China could gain more chokeholds over critical supply chains, giving it a powerful upper hand in the global tech race.

## Leveraging the "Silicon Shield": Sustaining Taiwan's Survival and Prosperity

Taiwan, situated at the forefront of both geopolitical and technological competition, sees its semiconductor industry playing a vital role in safeguarding its core national interests—survival and prosperity.

In recent years, a series of geopolitical developments have highlighted the critical importance of Taiwan's semiconductor industry, sparking widespread discussions about the so-called "Silicon Shield." These debates have gained traction both domestically, as Taiwan becomes more aware of its increased international visibility and bargaining power, and internationally, particularly among allied nations. Some view the "Silicon Shield" as a strategic asset that deters China's coercive actions by compelling allies to share the risks associated with protecting Taiwan. Others, however, offer more critical assessments of this strategy.

Regardless of differing opinions, Taiwan's value in technological geopolitics is poised to grow, as advancements in semiconductor R&D, manufacturing, and innovation are becoming increasingly central to artificial intelligence and other emerging technologies.

If Taiwan's position as a global semiconductor manufacturing hub remains firmly irreplaceable by any other country or region in the short term, policy and business strategists in Taiwan must carefully consider how to fully leverage all the resources available to this island nation—including the so-called "Silicon Shield"—to sustain the prosperity of Taiwan's industries and ensure the security and continued survival of Taiwan as a de facto independent state in an increasingly uncertain future.

DSET, founded in 2023, is a Taiwan-based public policy think tank dedicated to safeguarding the sustainability and vitality of democracy. Over the past 15 months, DSET has established itself as a key "Track 1.5" platform in the field of techno-geopolitics, facilitating frequent exchanges of information and ideas, as well as collaborative research and policy reports, with counterparts in the United States, Europe, Japan, and South Korea—countries that share the values of freedom and democracy.

This report serves a dual purpose. First, it forecasts the potential impacts of U.S. policies under a "Trump 2.0" administration over the next four years on Taiwan's semiconductor industry and economic security. Second, it aims to guide Taiwan's government and businesses in crafting effective strategies to address these challenges and opportunities.

This report outlines key recommendations and strategies to address challenges within Taiwan's existing institutional framework:

### 1. Reforming Government Decision-Making and Economic Security Frameworks

How can Taiwan reform its bureaucratic system to tackle the complex challenges of technological geopolitics? Achieving this requires comprehensive reforms to government decision-making processes and regulatory frameworks for economic security. By enhancing institutional adaptability and resilience, Taiwan can better respond to the multifaceted demands of the global tech landscape.

### 2. Maximizing National Interests Through Semiconductor Cooperation

How can Taiwan leverage its semiconductor industry to secure the greatest national benefits? This question lies at the heart of Taiwan's relations with democratic partners like the United States, Japan, and Europe. While these nations seek to reduce their dependence on Taiwan's semiconductor manufacturing and promote domestic production, Taiwan must navigate these conflicting policy goals carefully. The challenge is to collaborate effectively with allies while safeguarding Taiwan's national interests and achieving mutually beneficial outcomes.

### 3. Addressing Economic Security Challenges in the Context of Cross-Strait Relations

How can Taiwan strengthen its economic security in the face of complex relations with China? This requires overcoming internal political divisions and conflicting economic interests to modernize Taiwan's vulnerable economic security regulations. Moreover, Taiwan must collaborate with the United States and other like-minded countries to protect its critical technologies and industries from state-backed Chinese competitors. A central focus of this report is the reform of Taiwan's economic security regulatory framework, offering actionable strategies to enhance Taiwan's competitiveness and ensure its security against both domestic and external pressures.

Since President Trump's reelection, the DSET Economic Security Research Program has conducted a series of interviews, both in person and online, with 12 key individuals—six from the United States and six from Taiwan—who have played pivotal roles in shaping semiconductor strategy in Washington, D.C., and Taipei.

On the U.S. side, interviewees included university and think tank scholars as well as former federal officials from previous administrations. On the Taiwan side, six anonymous current and former officials involved in national and economic security policymaking shared their perspectives. The insights from these individuals, who have been directly engaged at the forefront of semiconductor and national security strategies, provide invaluable material for this report. With the consent of the U.S. interviewees, full transcripts of their interviews are included as an appendix to this report. The interviewees are:

- **Prof. Chris Miller:** Author of Chip War and Professor at Tufts University.

- **Mr. Kevin Wolf:** Former Assistant Secretary of Commerce for Export Administration during the Obama administration, current partner at Akin Gump, and Senior Visiting Fellow at the Center for Security and Emerging Technology (CSET).

- **Mr. Matt Turpin:** Former National Security Council's Director for China during the Trump 1.0 administration, where he led U.S. strategies on technological competition with China.

- **Mr. Jimmy Goodrich:** Former Vice President of Global Policy at the Semiconductor Industry Association and current Senior Advisor at the RAND Corporation, specializing in technology and national security issues.

- **Prof. Mi-Yong Kim:** Former senior export control officer at the U.S. Bureau of Industry and Security (BIS) with 30 years of service, including one post in Taiwan managing U.S.-Taiwan security cooperation at the American Institute in Taiwan (AIT).

- **Dr. Kharis Templeman:** Co-author of Silicon Triangle and a leading expert at the Hoover Institution, Stanford University—Silicon Valley's premier think tank on technology and geopolitical policy.

These interviews offer critical perspectives from individuals deeply involved in semiconductor and national security policymaking, greatly enriching the analysis presented in this report.

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*Analysis*

# Aligning Semiconductor Export Controls: Taiwan's Strategy under Trump 2.0

*Author: Chiang Min-yen and Chih-Hua Tseng*

Export controls are a cornerstone of U.S. strategy in the technological Cold War with China, with Taiwan's semiconductor industry playing a pivotal role. This framework will shape Taiwan-U.S. semiconductor security cooperation in the Trump 2.0 era. Since the Trump 1.0 administration, the U.S. has relied on unilateral measures, explicitly targeting China as a geopolitical rival. Sanctions against Huawei led TSMC to halt chip exports to the company. The foundation of Taiwan-U.S. semiconductor security rests on two critical factors: Taiwan's reliance on U.S. technology within global value chains and the ability of non-Chinese markets to offset order losses from export controls.

The Biden administration has reinforced this hardline stance, reflecting bipartisan agreement on China as the primary target of U.S. export controls. While a second Trump administration may tweak procedural tools, the core national security and foreign policy objectives are unlikely to change.

## U.S. Export Control Policy: A Strategic Evolution

The reform of U.S. export control policy may seem drastic under the last two presidencies. Yet, institutional changes take much longer to overhaul. Since the end of the Cold War, the U.S. and its allies have adopted multilateralism, including the Wassenaar Arrangement, to regulate arms and dual-use technologies. The goal: prevent nuclear weapons and WMD proliferation. But the Export Administration Act of 1979, the foundation of the Export Administration Regulation (EAR), expired in 2001. Since then, the U.S. export control regime has relied on Executive Orders and the International Emergency Economic Powers Act (IEEPA). Each administration has maintained this system to address national security concerns without permanent EAR authority. However, gradual institutional changes expanded its scope.

The Clinton Administration reformed the EAR via Executive Orders. It improved licensing processes and imposed sanctions on nations opposed to non-proliferation and peace. During the War on Terror, the Bush Administration expanded export controls, targeting countries linked to terrorism. The Obama Administration introduced new reforms in 2013. It reviewed controlled items and identified critical but less sensitive emerging technologies. Responsibilities were consolidated under the State Department. Licensing processes became simpler and more transparent. The Obama era also marked aggressive use of the

entity list for unilateral export controls. This shift stemmed from gaps between foreign investment risk reviews and export control policies.

The Committee on Foreign Investment in the United States (CFIUS) often over-regulated investments, creating unnecessary burdens. Meanwhile, export controls could only regulate listed technologies, leaving loopholes for identical technologies to be transferred easily. The consensus: export controls needed to broaden their scope to match technological advancements.

These efforts paved the way for the Export Control Reform Act of 2018 (ECRA). The ECRA expanded export controls and codified prior reforms, especially the focus on emerging technologies.[5] It addressed end-use and end-user concerns, particularly for China. It also strengthened the Bureau of Industry and Security (BIS) by granting more authority to investigate EAR violations.

Section 1758 of the ECRA was pivotal. It required regular identification of emerging technologies and consideration of comparable foreign technologies. It also mandated assessments of domestic technological impacts and emphasized multilateral controls, including engagement with regimes like the Wassenaar Arrangement. The Trump Administration intensified these efforts. It targeted China through unilateral controls. In 2019, an Executive Order placed Huawei and its affiliates on the BIS entity list. In 2020, the Department of Commerce expanded foreign direct product rules to restrict Huawei's access to American technology, software, and equipment.

The Biden Administration continued these reforms. It prioritized identifying emerging technologies and pursued country-specific initiatives. In September 2022, National Security Advisor Jake Sullivan underscored the U.S. goal of maintaining a technological lead over China. By October 2022, export controls expanded to restrict China's access to advanced semiconductors, production equipment, and supercomputing technologies. Biden also enhanced multilateral efforts, facilitating newly emerged multilateral controls against Russia and securing a 2023 deal with Japan and the Netherlands to control advanced semiconductor equipment exports. Before leaving office, Biden introduced several additional AI chip export controls. These included restrictions on HBM, expanded licensing requirements for Taiwanese and South Korean chipmakers and packaging/testing suppliers exporting chips below the 14- or 16-nanometer level with high transistor counts, and the proposal of a three-tier global framework for AI chip exports.

This policy trajectory reveals key insights. First, despite varying strategies, administrations share a consistent focus on emerging technologies and concerns about China. Differences lie in unilateral versus multilateral controls and transactional versus principle-based approaches. Second, expanded foreign direct product rules make unilateral controls more effective by identifying American technology chokepoints. Lastly, efforts since the Obama era laid the groundwork for defining security and industrial advantage. These steps highlight the urgency for other nations to broaden their scope and secure critical technologies for economic security.

## U.S. and Taiwan: Interwoven Industrial Ties and Security Challenges

U.S. export control policies may have initially been designed with domestic considerations, but their implementation and impact are undeniably global. The U.S.-led export control regime faces two significant challenges: curbing China's technological advancements and addressing disruptions to global supply chains caused by China's state-led model. Achieving these objectives requires support from tech democracies. However, national security rationales differ. Not all nations view China as their primary threat or align with U.S. tech diplomacy. This raises questions about aligning policies while protecting domestic industries and maintaining fair global competition.

The goals of U.S. export control policy have expanded beyond traditional objectives. Taiwan, while not a formal member of the Wassenaar Arrangement, voluntarily aligns its domestic laws with its principles. However, Taiwan's export control framework has not kept pace with the U.S.-China tech rivalry, which has fundamentally altered the post-Cold War framework. Taiwan incorporates Wassenaar Arrangement's strategic trade controls into its Foreign Trade Act, including amendments in 2019 to increase penalties for violations of trade controls. However, these controls do not specifically target China. In 2022, Taiwan introduced another important legal reform: the National Core Critical Technology List. While this list resembles the U.S. technology-based export control lists, Taiwan has primarily used it to increase penalties for economic espionage rather than for export control enforcement.

Taiwan's semiconductor industry, tightly integrated into the global value chain for over half a century, historically developed under the security framework set by the U.S., which also shaped Taiwan's foundry industry. Today, Taiwan remains a key part of the U.S. semiconductor security strategy. Focused on chip manufacturing, Taiwan relies heavily on the U.S. market—specifically, U.S. brands and IC design companies—as well as U.S. technology to produce advanced semiconductors. This economic interdependence gives U.S. export controls significant leverage. Initially, the emergence of the Chinese market did not disrupt this balance. However, China's state-led model has upended the dynamic by channeling vast resources into building a self-sufficient semiconductor supply chain and enticing tech democracies into its ecosystem with lucrative commercial opportunities. This strategy forces companies to choose between adhering to U.S. regulations and maintaining access to China's market.

A similar dilemma applies to the U.S. case of state-industry relations. Critics argue that U.S. export controls often favor American firms over foreign competitors, raising concerns about fairness and sustainability. For instance, Qualcomm and Intel had received license approvals to sell equipment and components to Huawei, fueling allegations of double standards in U.S. enforcement.[1]

## Taiwan's Divergent Approach to Semiconductor Security Strategy

China's sovereignty claim over Taiwan makes economic interdependence with China a direct threat to Taiwan's political survival, necessitating stricter controls on technology flow. For national security reasons, Taiwan has proactively developed an approach to managing technology

1. Alper, Alexandra, Fanny Potkin, and David Shepardson, "US Revokes Intel, Qualcomm's Export Licenses to Sell to China's Huawei, Sources Say," Reuters, May 8, 2024. [Online]. Available: https://www.reuters.com/technology/us-revoked-some-export-licenses-chinas-huawei-2024-05-07/.

interactions with China. However, this framework differs significantly from the U.S. model, largely due to differences in the roles Taiwan and the U.S. occupy within global value chains.

Taiwan's semiconductor industry has historically focused on meeting international market demands and geopolitical rules rather than actively reshape them. Leveraging industrial strengths to shape foreign policy or using technological capabilities as diplomatic bargaining chips has often been viewed as inconsistent with Taiwan's long-standing industrial ecosystem. These factors have led to a regulatory model that ties national security goals to industrial competitiveness. Rather than outright banning Chinese orders, Taiwan advises firms to manage long-term risks when participating in China's tech ecosystem. This pragmatic approach seeks to balance delaying China's technological progress—particularly preventing China from replicating Taiwan's entire semiconductor industry ecosystem to enhance its domestic chip production capabilities—with maintaining the global competitiveness of Taiwanese firms. As a result, nearly all restrictions on Taiwanese firms selling technology to China have so far stemmed from U.S. unilateral measures rather than direct actions by the Taiwanese government.

Laws like the Act Governing Relations between the People of the Taiwan Area and the Mainland Area reflect Taiwan's strategy, imposing strict reviews of Chinese investments and monitoring domestic semiconductor firms' plans in China. Taiwan ensures its industrial ecosystem remains globally competitive by requiring greater R&D investments within Taiwan while minimizing technology leakage risks through pre-approval processes and mandating that Taiwanese firms retain control over their subsidiaries in China.

Taiwan's regulatory approach has not fully adapted to the changing geopolitical landscape. Recent legal reforms have largely continued existing policy objectives. In 2020, Taiwan introduced stricter criteria for assessing Chinese control over entities operating outside of China, making it more difficult for Chinese companies under other jurisdictions to invest in Taiwan. By 2022, Taiwan strengthened its pre-investment review process, blocking further transfers of critical semiconductor technologies by Taiwanese subsidiaries in China. However, these changes did not address Taiwan's export control system. Public discussions on export controls have similarly failed to produce significant reforms, exemplified by the hesitation to designate Huawei and its affiliates as controlled end-users under export regulations.

## Misaligned Approaches in U.S.-Taiwan Tech Controls

Since 2022, the Biden administration's export controls have targeted China's domestic chip production capacity, including restrictions on semiconductor manufacturing equipment. This aligns with Taiwan's longstanding goals of limiting China's chip production capabilities. Yet, Taiwan relies on investment reviews to achieve these goals, while the U.S. only implemented an outbound investment screening system in 2024. Taiwan's export control framework emphasizes non-proliferation, while U.S. policy encompasses broader objectives, including human rights, supply chain security, and protecting democratic systems. These differences in approach and stated objectives limit discussions on their alignment.

The Biden administration's collaboration with Japan and the Netherlands in 2022 marked the first multilateral framework focused on semiconductor technology to counter China's

advancements. Despite America's dominance in the global value chain, non-U.S. technologies often fall outside its jurisdiction, requiring allied cooperation to expand control over semiconductor equipment and materials. Taiwan, constrained by its diplomatic status, faces challenges in participating in many international multilateral frameworks. Consequently, it primarily engages through bilateral communication with the U.S., lacking opportunities to coordinate with other tech democracies or influence U.S. policy direction as the international export control framework evolves.

As U.S. export controls grow more complex and China implements countermeasures, supply chain dynamics have become increasingly unpredictable. Taiwanese companies now face heightened geopolitical risks. Initially, U.S. sanctions on Huawei in 2019 forced Taiwanese firms to weigh commercial risks against compliance. By 2024, TSMC faced challenges discerning whether Chinese clients were linked to Huawei, as China deliberately concealed such connections. Reports surfaced that the U.S. Department of Commerce had asked TSMC to halt chip exports of 7nm or below to Chinese clients using them for AI applications, further complicating export control compliance.[2]

China's countermeasures, such as subsidizing foundational chips (also known as legacy chips), create market distortions that threaten Taiwanese firms. Taiwanese companies like TSMC, UMC, and PSMC are critical suppliers of foundational chips that underpin global supply chains. If China floods the market with subsidized, low-cost foundational chips, it could undermine Taiwan's industry and jeopardize the reliable supply of chips critical for military, aerospace, and space technologies in democratic nations.

Although the Biden administration has initiated a Section 301 investigation, its "small yard, high fence" strategy remains focused on restricting advanced semiconductors, manufacturing equipment, AI, and supercomputers. Discussions within U.S. policy circles remain unresolved. Chris Miller has expressed skepticism about the effectiveness of imposing export controls on foundational chips, arguing that China may already possess the capability to produce semiconductor manufacturing equipment for these chips.[3] Former Trump-era Commerce Department official Nazak Nikakhtar, however, advocates for expanding export controls, emphasizing that the U.S. must act early to counter China's ambitions and protect allies like Taiwan and South Korea from potential harm.[4]

The stance of tech democracies on regulating foundational chips is particularly critical to Taiwan's semiconductor industry and economic security, even before the U.S. directly faces such threats. During the Trump 2.0 era, Taiwan must not only clearly assert its position to allies but also build the capacity and space necessary to collaborate with other tech supply chain partners in crafting export control measures that align with Taiwan's national interests while safeguarding global supply chain security.

2. Trendforce, "TSMC Reportedly to Halt 7nm and Below Chip Shipments to China's AI Firms Next Week," Trendforce, November 8, 2024. [Online]. Available: https://www.trendforce.com/news/2024/11/08/news-tsmc-reportedly-to-halt-7nm-and-below-chip-shipments-to-chinas-ai-firms-next-week.
3. Chang, Chih-Cheng, Chiang Min-yen, Ming-yen Ho, Dah-Wei Yih, and Wei-ting Chen, "Chris Miller Discusses AI Era Chip Geopolitics and the Future of Taiwan's Semiconductor Industry," Upmedia, April 25, 2024. [Online]. Available: https://www.upmedia.mg/news_info.php?Type=2&SerialNo=200194.
4. Cohen, Ian, "US Is Late to Export Controls for Legacy Chips, Former BIS Official Says," Export Compliance Daily, November 13, 2023. [Online]. Available: https://exportcompliancedaily.com/news/2023/11/13/us-is-late-to-export-controls-for-legacy-chips-former-bis-official-says-2311090015.

## Looking Ahead: Rethinking Taiwan's Export Control Strategy

As the Trump 2.0 administration takes shape, the U.S. will likely adjust its export controls dynamically. China is expected to counter with its own measures, creating unpredictable market trends. The exact direction of Trump 2.0's export controls remains uncertain. However, more unilateral measures are anticipated to restrict tech democracies' commercial ties with China. Stronger countermeasures against China's technological advancements are also likely. These changes may evolve rapidly, leaving less time for coordination with allies.

Taiwan currently lacks the capacity to adjust its export control policies dynamically, making it difficult to keep pace with the U.S. and engage effectively in bilateral discussions. To better align U.S. export control policies with its interests, Taiwan must establish a robust domestic export control framework. This includes setting clear policy objectives, improving transparency in entity list updates, and overhauling technology-based and end-use control lists. Taiwan should target areas in China's semiconductor strategy that pose the greatest threats to its industries. With these tools, Taiwan would gain greater flexibility in bilateral coordination with the U.S.

Taiwan must also understand its existing tech control framework and ensure allies recognize regulatory differences. Coordinating strategies to achieve shared goals through different approaches is essential. Taiwan's polarized political environment complicates export control reform, as opposition parties may resist collaboration with tech democracies. If legislative reforms stall, the government must rely on existing laws. For example, Taiwan's requirement for prior government approval of all Chinese business activities in Taiwan has helped intercept China's efforts to poach Taiwanese AI chip talent.[5] This highlights the potential of leveraging existing legal frameworks to address challenges posed by emerging technologies.

China continues to invest heavily in replacing Taiwan's semiconductor ecosystem. Taiwanese firms remain part of Huawei's shadow network of suppliers, supporting China's semiconductor supply chain in areas like cleanroom engineering, waste management, and chemical supplies. These technologies, which do not involve U.S.-origin components, fall outside both U.S. and Taiwanese regulatory scopes. Some Taiwanese suppliers are localizing in China, reducing Taiwan's regulatory leverage.[6]

Similar models could see broader application, impacting larger segments of the supply chain. Persistent gray areas risk undermining Taiwan-U.S. semiconductor security cooperation. China's market incentives attract foreign suppliers and weaken adherence to U.S. regulations. U.S.-led export controls could ultimately fail to regulate a China-led global value chain. To prevent this, Taiwan must work with the U.S. during the Trump 2.0 era to address these challenges by integrating more emerging technologies and key local innovations into domestic export control frameworks.

5. Chiang, Min-yen, The Remote Poaching Model: How China's Bitmain Acquired Taiwan's Edge AI Chip Technology and Its Implications for Economic Security, Research Institute for Democracy, Society, and Emerging Technology, 2024. [Online]. Available: https://dset.tw/en/research/00039/.
6. Wang, Tsai-Yi, and Min-yen Chiang, Uncovering Huawei's Shadow Network: Shenzhen Major Industry Investment Group and Taiwanese Suppliers in China's Semiconductor Strategy, Research Institute for Democracy, Society, and Emerging Technology, 2024. [Online]. Available: https://dset.tw/en/research/uncovering-huaweis-shadow-network/.

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*Analysis*

# Trump 2.0, Taiwan, and Transnational Investment Security

*Author: Dah-Wei Yih*

## Introduction

Donald Trump and the Republican Party's victory in the 2024 U.S. elections has invigorated investors, innovators, bankers, venture capitalists, and crypto enthusiasts from Wall Street to Silicon Valley. U.S. stocks have soared since early November, with the benchmark S&P 500 index breaking through 6,000 for the first time and tech giants including Tesla, Apple, Meta, and Nvidia each hitting historic highs shortly after Trump's re-election was confirmed. The dollar has surged by about 1.65% against a host of different currencies, posting its biggest gain in eight years. The cryptocurrency market has also seen remarkable growth, with Tether reaching record levels and Bitcoin climbing to $100,000 in the weeks following the former president's success in retaking the White House. This robust market performance reflects widespread expectations that Trump's second term will advance an "America First" agenda,[1] prioritizing free-market orthodoxy and U.S. economic growth over issues such as climate change, labor protections, and even national security.

These developments, however, could present a critical test for emerging transnational mechanisms designed to bolster economic resilience and investment security. In particular, if Trump distances the United States from these collaborative efforts, global initiatives to safeguard critical technologies could be significantly weakened, leaving key sectors exposed to exploitation by adversaries and eroding trust among allies. For Taiwan, such a shift would likely increase its exposure to geopolitical threats from China. This would also heighten the urgency for Taiwan to strengthen its own regulatory framework and deepen bilateral cooperation with like-minded allies.

In 2023, the Group of Seven (G7) countries issued a joint statement recognizing the role of outbound direct investment (ODI) controls in protecting "sensitive technologies from being used in ways that threaten international peace and security."[2] Similarly, the European Commission proposed new outbound measures as part of

1. Jeremy W. Peters & Ruth Igielnik, Support for Trump's Policies Exceeds Support for Trump, The New York Times, January 18, 2025. [Online]. Available: https://www.nytimes.com/2025/01/18/us/politics/trump-policies-immigration-tariffs-economy.html.
2. Ministry of Foreign Affairs of Japan, G7 Leaders' Statement on Economic Resilience and Economic Security, G7 Hiroshima Summit, May 20, 2023. Available: https://www.mofa.go.jp/files/100506815.pdf.
3. European Commission, JOINT COMMUNICATION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL AND THE COUNCIL ON "EUROPEAN ECONOMIC SECURITY STRATEGY," 20, June, 2023. Available: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52023JC0020.

its economic security strategy to address risks associated with cross-border investment flows.[3] Shortly afterward, the United States and the United Kingdom pledged to align their investment screening policies to prevent the leakage of critical and emerging technologies that are reshaping the national security landscape, including artificial intelligence (AI), quantum information technology (QIT), and semiconductors.[4] To this end, the two nations committed to addressing risks from outbound investments and ensuring that their capital and expertise would not aid the military or intelligence capabilities of countries of concern. The following year, the U.S.-EU Trade and Technology Council (TTC) reaffirmed a shared interest in mitigating risks from outbound investments in a targeted range of critical technologies. Together, these initiatives represent the first coordinated efforts among democracies to develop robust international norms for managing outbound investments that could harm national security.

During Trump's first term as U.S. President, his administration proactively employed investment screening tools to address perceived national security threats, particularly those posed by China. Citing concerns about surveillance and espionage linked to Chinese technology products and services, the administration frequently used divestment orders, including notable cases involving TikTok[6] and WeChat[7], and mandated ownership transfers for Chinese investments in U.S. tech firms. Trump also sought to restrict U.S. persons from trading stocks, debts, and publicly traded securities associated with enterprises tied to the Chinese Communist Party (CCP). [8]

However, during the 2024 campaign, Mr. Trump appeared to signal opposition to such measures, suggesting a potential rollback of these policies.[9] This shift could undermine the transnational mechanisms that have emerged to safeguard international investment security, leaving global efforts vulnerable without strong U.S. leadership. For Taiwan, such a change could complicate its efforts to secure steady support from Washington as Beijing intensifies its pressure. The anticipated policy reversal could also compromise efforts by allies to block authoritarian regimes from acquiring critical capabilities and threaten peace and stability in the Indo-Pacific. This chapter explores both challenges and opportunities for Taiwan by analyzing investment screening laws and policies in the United States and the island democracy, while also examining the power dynamics underlying U.S. politics and their broader implications for the burgeoning transnational efforts to preserve investment security.

4. Prime Minister's Office, The Atlantic Declaration: A framework for a twenty-first century US-UK Economic Partnership, 21 June, 2023. Available: https://www.gov.uk/government/publications/the-atlantic-declaration/the-atlantic-declaration#contents; Prime Minister's Office, Addressing the national security risks posed by certain types of outbound investment, 21 June, 2023. Available: https://www.gov.uk/government/publications/the-atlantic-declaration/addressing-the-national-security-risks-posed-by-certain-types-of-outbound-investment.

5. European Commission, EU-US Trade and Technology Council (2021-2024), 3 May, 2024. Available: https://digital-strategy.ec.europa.eu/en/factpages/eu-us-trade-and-technology-council-2021-2024.
6. Exec. Order No. 13942 of August 6, 2020, "Addressing the Threat Posed by Tiktok, and Taking Additional Steps to Address the National Emergency With Respect to the Information and Communications Technology and Services Supply Chain." Available: https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-addressing-threat-posed-tiktok/.
7. Exec. Order No. 13943 of August 6, 2020, "Addressing the Threat Posed by Wechat." Available: https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-addressing-threat-posed-wechat/.
8. Exec. Order No. 13959 of November 12, 2020, "Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies." Available: https://www.govinfo.gov/content/pkg/FR-2020-11-17/pdf/2020-25459.pdf.
9. Sapna Maheshwari, "Trump Raises TikTok's Hopes for a Rescue in the United States," The New York Times, November 12, 2024. [Online]. Available: https://www.nytimes.com/2024/11/12/technology/trump-tiktok-ban.html.

## U.S. Policies and Practices

### 1. Balancing Economic Openness with National Security: The Role of CFIUS

The United States has long supported an open investment environment to promote economic growth.[10] Nevertheless, it has also maintained a robust mechanism for safeguarding national security in the context of foreign direct investments (FDI) in U.S. companies. Established nearly half a century ago by President Gerald Ford, the Committee on Foreign Investment in the United States (CFIUS) serves as a national security panel tasked with reviewing a narrow category of foreign investments. Specifically, CFIUS focuses on mergers and acquisitions that could result in foreign control of U.S. businesses and potentially pose national security risks. Chaired by the Secretary of the Treasury, the committee operates as a federal interagency panel, including representatives from key cabinet departments such as Defense, State, Commerce, Energy, and Homeland Security.[11]

CFIUS was initially formed to address security concerns related to the influx of petrodollar investments.[12] Over the past five decades, its jurisdiction and authority have expanded significantly, often in response to high-profile transactions that raised national security alarms. For example, the 2007 passage of the Foreign Investment and National Security Act[13] (FINSA) was spurred by heightened security concerns following the September 11 terrorist attacks and the controversial 2006 proposal by Dubai Ports World to acquire commercial operations at six U.S. ports. More recent reforms to the CFIUS review process have been influenced by growing apprehension over China's strategic ascent and its state-driven advancements in critical technologies. While these technologies bolster civilian industries, they also present risks of military exploitation or use in espionage activities.

### 2. Strengthening Investment Security: From FIRRMA Reforms to Global Coordination

To address these challenges, Congress, in collaboration with the first Trump administration, enacted the Foreign Investment Risk Review Modernization Act[14] (FIRRMA) and the Export Control Reform Act[15] (ECRA) in 2018. In early 2020, the Department of the Treasury implemented regulations focusing on investments in critical technologies, critical infrastructure, sensitive personal data, real estate, and certain non-controlling stakes.[16] These measures marked one of the most comprehensive overhauls of U.S. investment screening mechanisms and reflected a broader strategy to correspond to a changing geostrategic and technological environment.

10. "Regulation of U.S. Outbound Investment to China," (Congressional Research Service, December 2024). Available: https://crsreports.congress.gov/product/pdf/IF/IF12629.
11. "Committee on Foreign Investment in the United States (CFIUS)," (Congressional Research Service, December 2024). Available: https://crsreports.congress.gov/product/pdf/IF/IF10177.
12. "The Committee on Foreign Investment in the United States (CFIUS)," (Congressional Research Service, February 2020). Available: https://crsreports.congress.gov/product/pdf/RL/RL33388.
13. 50 U.S.C. App. 2061.
14. Federal Register, vol. 83 no. 197, October 11, 2018, p. 51322.
15. 50 U.S.C. §§4801-4852.
16. Farhad Jalinous & Karalyn Mildorf, "CFIUS Finalizes New FIRRMA Regulations," White & Case LLP, January 22, 2020. Available: https://www.whitecase.com/insight-alert/cfius-finalizes-new-firrma-regulations.

Under the Biden Administration, U.S. investment screening policies continue to expand in scope, jurisdiction, authority, and frequency. CFIUS has tightened restrictions on real estate and broadened its jurisdiction over certain types of covered transactions to address an increasingly complex national security landscape.[17] Efforts to improve interagency coordination have led to closer integration between CFIUS and Commerce-administered export control mechanisms. The United States has also begun implementing restrictions on outbound investments to prevent American capital and capabilities from supporting the military modernization efforts of adversarial nations.[18] While these measures remain largely unilateral, the adoption of CFIUS-like mechanisms and proliferation of parallel actions on outbound investment are growing among U.S. allies.[19] These developments highlight Biden's emphasis on multilateral cooperation to strengthen a coordinated international effort on investment security.

In practice, CFIUS has increased its focus on compliance and enforcement of its authorities over the last few years. In 2023 alone, the penalties imposed doubled the total number the Committee had previously issued in its nearly 50-year history.[20] This shift includes dedicating more resources and staff to the Committee, enhancing processes to proactively identify and address potential violations, and taking enforcement action when necessary.[21] These efforts reflect broader U.S. initiatives to safeguard national security amid evolving geopolitical and technological threats.

## Implications Underlying Trump's Second Term

While Trump, who famously dubbed himself the "Tariff Man," has pledged to impose 100% import duties on all goods from China and 50% on imports from Mexico and other nations,[22] he has offered little detail on how his second-term administration would approach investment screening policies. This lack of clarity makes his plans for U.S. investment security difficult to predict.

Nevertheless, the President-elect's policy record and public rhetoric may provide insights into the direction of his second-term agenda. More specifically, three major trends are likely to define the second Trump administration's investment screening policies:

### 1. Expansive Use of Economic Tools for National Security

Drawing on his first term, many commentators speculate that Trump might extend Biden's

17. Exec. Order No. 14083 of September 15, 2022, "Ensuring Robust Consideration of Evolving National Security Risks by the Committee on Foreign Investment in the United States." Available: https://www.govinfo.gov/content/pkg/CFR-2023-title3-vol1/pdf/CFR-2023-title3-vol1-eo14083.pdf.
18. Exec. Order No. 14105 of August 9, 2023, "Addressing United States Investments in Certain National Security Technologies and Products in Countries of Concern." Available: https://www.govinfo.gov/content/pkg/FR-2023-08-11/pdf/2023-17449.pdf. Department of the Treasury Office of Investment Security, Provisions Pertaining to U.S. Investments in Certain National Security Technologies and Products in Countries of Concern, 31 C.F.R. Part 850. Available: https://www.govinfo.gov/content/pkg/FR-2024-11-15/pdf/2024-25422.pdf.
19. Michael E. Leiter Brian J. Egan John Adebiyi Pascal Bine Andrew L. Foster Matthias Horbach Akira Kumaki Brooks E. Allen & Jason Hewitt, "CFIUS Goes Global: New FDI Review Processes Proliferate, Old Ones Expand," January 19, 2022. Available: https://www.skadden.com/insights/publications/2022/01/2022-insights/regulation-enforcement-and-investigations/cfius-goes-global.
20. Committee on Foreign Investment in the United States, Annual Report to Congress, CY 2023. Available: https://home.treasury.gov/system/files/206/2023CFIUSAnnualReport.pdf.
21. Christian C. Davis, Laura Black, Katherine Penberthy Padgett, John W. Babcock & Eveline Liu, "CFIUS Continues to Expand Its Authority and Increase Enforcement Activity," Akin Gump Strauss Hauer & Feld LLP, October 23, 2024. Available: https://www.akingump.com/en/insights/alerts/cfius-continues-to-expand-its-authority-and-increase-enforcement-activity.
22. Costas Pitas, "Trump vows new Canada, Mexico, China tariffs that threaten global trade," Reuters, November 21, 2024. [Online]. Available: https://www.reuters.com/world/us/trump-promises-25-tariff-products-mexico-canada-2024-11-25/.

broader use of national security rationales to justify the deployment of sanctions, export controls, investment screening, and other economic tools. This assumption stems largely from Trump's initiation of the U.S.-China trade war, his promotion of the idea that "economic security is national security,"[23] and his frequent reliance on national security arguments to defend trade- and investment-related actions.

However, whereas Biden's administration generally applied restrictive tools with balance and proportionality—targeting the most sensitive technologies through narrowly tailored measures—Trump's approach is expected to diverge significantly. Regulatory measures may be imposed more aggressively, with many potentially driven by political motivations. Careful means-end analysis could give way to more arbitrary and reflexive actions. The "small yard, high fence" strategy could transform into a "football field with an extraordinarily high fence."[24]

This approach risks being turned against U.S. investors, causing friction within the business community and leading to backlash in investment reviews over the medium to long term. Such a broad proposition of national security could also undermine credibility and blur the distinction between routine business transactions and those posing genuine national security risks. The lack of credibility could further make compliance and enforcement more challenging. Enforcement becomes particularly difficult when policies are politicized and lack a clear, credible national security justification. The significant hurdles faced by both the Biden Administration and Trump's first term in enforcing a ban on TikTok highlight these challenges, as public opposition complicated the implementation of such measures.

For Taiwan, a more arbitrary and reactionary U.S. approach could complicate collaborative efforts. When national security policies are politicized and lack credibility, it becomes harder for Taipei to secure domestic support for closer cooperation with the United States. This dynamic threatens to strain a critical partnership amid escalating regional challenges.

### 2. A Lack of Multilateral Coordination

Arbitrary actions also risk alienating allies and undermining an emerging transnational effort to build unified initiatives. While targeted measures with a clear national security nexus can draw international consensus and encourage allied countries to adopt similar mechanisms, unpredictable and expansive invocations of national security rationales may erode trust and credibility both domestically and internationally.

In contrast to the Biden Administration's emphasis on multilateralism, Trump is expected to favor unilateral strategies. During his first term, he dismantled the Office of the Coordinator for Sanctions Policy,[25] and his second term could bring uncertainty to initiatives such as the U.S.-EU Trade and Technology Council and the G7+ export control coordination platform.

Recent cabinet appointments by the President-elect reflect this shift in approach. With figures

23. The White House, National Security Strategy of the United States of America 17 (2017). Available: https://trumpwhitehouse.archives.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf.
24. Geoffrey Gertz, "Goodbye to Small Yard, High Fence," The New York Times, December 3, 2024. [Online]. Available: https://www.nytimes.com/2024/12/31/opinion/china-semiconductor-biden-xi.html?smid=li-share.
25. Brandon Carter, "Tillerson eliminates key State Department sanctions office: report," The Hill, October 26, 2017. [Online]. Available: https://thehill.com/policy/international/357445-tillerson-eliminates-key-state-department-sanctions-office-report/.

such as Marco Rubio, Mike Waltz, Elise Stefanik, and Jacob Helberg poised to assume key foreign policy roles, the incoming Trump administration seems prepared to elevate some of Washington's most hardline China critics to positions of influence. These appointments indicate a more assertive U.S. presence on the global stage and a likely shift toward a more hawkish and confrontational stance toward Beijing. In this context, the administration's investment security policy—particularly the outbound investment security program targeting China, initiated under Biden—could take on a more arbitrary and aggressive tone under Trump's leadership.

Such a shift risks undermining the transnational mechanisms developed to preserve international investment security, leaving an emerging allied effort vulnerable without strong U.S. leadership. Under Biden, the adoption of CFIUS-like mechanisms and the proliferation of comparable regimes for outbound investment have gained traction among U.S. allies. The United States engaged in extensive consultations with its European allies when imposing economic regulations, including sanctions, export controls, and investment screening. A lack of robust transatlantic coordination could prove detrimental to Taiwan, as these mechanisms primarily target China, the central challenge in this equation. Should the United States become increasingly isolated on the global stage, China may find greater opportunities to expand its influence.

### 3. A Nuanced and Transactional Approach

More importantly, the President-elect's willingness to negotiate on issues ranging from American's data privacy to national security could set the tone for his second term. By appointing Wall Street veterans Howard Lutnick and Scott Bessent to spearhead his economic agenda, Trump has demonstrated a clear intent to prioritize U.S. financial and commercial interests. Reinvigorating the private sector and boosting industrial competitiveness are likely to be his primary objectives. However, his highly transactional approach suggests that his team may pursue economic revitalization at any cost—even if it compromises U.S. national security.

For instance, during his first term, Trump took inconsistent positions on several matters, such as revoking sanctions on a major Chinese telecom company in exchange for progress on a trade deal and blocking efforts by administration hawks to restrict exports of GE jet engines after corporate appeals warned of potential harm to business and the trade deficit.[26] The TikTok case further illustrates his transactional tendencies. Initially, Trump used extensive investment screening powers to pressure ByteDance, TikTok's China-based parent company, to divest and restructure its U.S. operations, citing concerns over data privacy and national security.[27]

26. Kevin Wolf on Semiconductor Export Control Trends Under Trump 2.0 —An Interview With DSET, CommonWealth Magazine, January 8, 2025. Available: https://english.cw.com.tw/article/article.action?id=3908.
27. President Trump ordered ByteDance Ltd. to divest all interests and rights in any property "used to enable or support ByteDance's operation of the TikTok application in the United States," along with "any data obtained or derived from" U. S. TikTok users. 85 Fed. Reg. 51297. The facts are also detailed in TikTok Inc. v. Garland, 604 U.S. ___ (2025).
28. Lisa Friedman & Sapna Maheshwari, "How Donald Trump Went From Backing a TikTok Ban to Backing Off," The New York Times, December 28, 2024. [Online]. Available: https://www.nytimes.com/2024/12/28/us/politics/trump-tik-tok-ban.html.

Yet, during the 2024 election cycle, he appeared to retreat from these measures, later crediting TikTok with significantly contributing to his electoral victory.[28] More recently, he even indicated a willingness to keep the platform "around for a little while" and submitted a request for a "political resolution" to the Supreme Court,[29] reflecting a stark shift in his stance toward the social media giant he once deemed a serious national security threat. These examples underscore Trump's more nuanced and transactional policy approach to national security, which often prioritizes immediate economic or political gains over consistent adherence to long-term security principles.

This approach becomes particularly concerning when paired with the personal ties and business dealings of Donald Trump and his billionaire allies with U.S. adversaries. These relationships have raised significant concerns about potential conflicts of interest. Questions have emerged regarding Commerce Secretary nominee Howard Lutnick, whose financial connections to the CCP have fueled speculation about whether he could be unduly influenced by Beijing in decisions involving tariffs and export controls on China.[30]

## Power Dynamics in U.S. Politics

Even more troubling here is the influence of Elon Musk, Trump's largest political donor. Musk, the world's richest man, contributed at least $277 million to the 2024 campaign cycle in support of Trump and the Republican caucus,[31] cementing his role as one of the President-elect's closest advisers. Musk's significant influence has been evident in his recent actions, including jeopardizing House Speaker Mike Johnson's position by opposing a bipartisan spending bill[32] and clashing with Trump's MAGA base over legal immigration policies.[33] These instances underscore his role as one of the most powerful voices shaping Trump's agenda.

The tech entrepreneur's increasing involvement in American politics has coincided with the deepening of his investments in China and personal ties with CCP leadership over the years.[34] Tesla, Musk's car company, has invested billions of dollars in China, particularly in large-scale battery manufacturing and other critical sectors of the Chinese economy. The company is also awaiting Beijing's approval for its autonomous driving technology,[35] further intertwining its future with Chinese regulatory decisions. Moreover, Tesla's reliance on rare earth elements (REEs), essential to its electric vehicle (EV) supply chain,[36] suggests Musk may continue expanding operations in

29. Brief amicus curiae of President Donald J. Trump in support of neither party in TikTok Inc. v. Garland, Supreme Court of the United States, December 27, 2024. Available: https://www.supremecourt.gov/DocketPDF/24/24-656/336151/20241227163400981_2024-12-27%20-%20TikTok%20v.%20Garland%20-%20Amicus%20Brief%20of%20President%20Donald%20J.%20Trump.pdf.
30. Alexandra Alper, "Lutnick's China ties draw fire after Trump taps him to lead US in trade war," Reuters, November 21, 2024. [Online]. Available: https://www.reuters.com/world/us/lutnicks-china-ties-draw-fire-after-trump-taps-him-lead-us-trade-tariffs-2024-11-21/.
31. Trisha Thadani & Clara Ence Morse, "Elon Musk is now America's largest political donor," The Washington Post, December 6, 2024. [Online]. Available: https://www.washingtonpost.com/technology/2024/12/06/elon-musk-trump-campaign-spending-fec/.
32. Faiz Siddiqui, Jacob Bogage, Jeff Stein & Tony Romm, "A government shutdown looked unlikely. Then Elon Musk took to X," The Washington Post, December 18, 2024. [Online]. Available: https://www.washingtonpost.com/business/2024/12/18/elon-musk-government-shutdown-bill/.
33. Johnathan Edwards, "MAGA is fighting a 'civil war' over H-1B visas. Here's what they are," The Washington Post, December 30, 2024. [Online]. Available: https://www.washingtonpost.com/business/2024/12/30/h1b-visas-musk-maga/.
34. John Hyatt, "What Musk's Tweets Reveal About His Relationship with China," Forbes, January 18, 2025. [Online]. Available: https://www.forbes.com/sites/johnhyatt/2025/01/18/what-musks-tweets-reveal-about-his-relationship-with-china/.
35. Keith Bradsher, "What Elon Musk Needs From China," The New York Times, December 3, 2024. [Online]. Available: https://www.nytimes.com/2024/11/22/business/elon-musk-tesla-china.html?searchResultPosition=3.
36. Ariel Cohen, "Elon Musk's Hail Mary In China," Forbes, May 1, 2024. [Online]. Available: https://www.forbes.com/sites/arielcohen/2024/05/01/elon-musks-hail-mary-in-china/.

China, which is a key source of these REEs. This deepening dependency amplifies concerns about the extent of Chinese leverage over Musk and, by extension, Trump's second-term administration.

Taken together, the unelected multibillionaire's rapid accumulation of political power has sparked alarm. Critics warn that Musk's commercial ties to China and Tesla's substantial investments in the country could enable the Chinese government to have considerable sway over Trump's second term. Some even argue that Musk's growing power within Trump's team risks fostering a form of oligarchy, with policies potentially skewed to benefit Musk and his businesses at the expense of the broader security interests of the United States and its allies.

Taking these dynamics into account, although Trump has vowed to be tough on China, the end result could be far less significant. This is not only because such policies might be used as bargaining chips in negotiations but also because they could be undermined by the significant influence of his billionaire buddies. This is particularly evident in the sensitive area of outbound investment screening, where regulations frequently clash with the interests of powerful capital players. In the EU, efforts are already underway to weaken investment screening rules designed to limit Chinese access to cutting-edge technologies,[37] and similar moves could emerge—or may already be unfolding—in the United States.

A recent example of this dynamic is Elon Musk's effort to derail a bipartisan, bicameral funding agreement that included a critical provision for screening and regulating U.S. investments in China. Musk leveraged his outsized influence to push the federal government toward a potential shutdown just before Christmas. Although Congress eventually passed a stopgap funding bill, what House Democrats have derisively labeled the "Musk-Johnson Proposal"[38] ultimately excluded the key provision aimed at regulating U.S. investments in China's critical sectors to protect American capital and capabilities.[39] This episode underscores the underlying politics and power dynamics among Trump's billionaire allies and close advisors, revealing the significant influence they wield in shaping his administration's investment security policies, often at the expense of broader national security considerations.

## Prospect for Taiwan-US Collaboration

Despite the challenges and uncertainties, there are meaningful opportunities for Taiwan to effectively collaborate with the United States during Trump's second term. For Taiwan, first and foremost, the priority should be for the Lai Administration to refine and modernize its long-standing yet somewhat outdated investment review mechanisms, regardless of what the second Trump administration does.

With nearly four decades of experience in implementing inbound and outbound investment screening policies, Taiwan has established itself as a seasoned player in this field. These regulations originated in the 1980s, a period when Taipei became increasingly concerned

37. Camille Gijs, "EU capitals try to gut investment screening rules aimed at keeping China out," Politico, November 26, 2024. [Online]. Available: https://www.politico.eu/article/eu-capitals-fdi-screening-rules-china/.
38. Robert Costa, "How Trump and Elon Musk derailed bipartisan plans for a funding bill, bringing on risk of shutdown," CBS News, December 19, 2024. [Online]. Available: https://www.cbsnews.com/news/trump-elon-musk-bipartisan-funding-bill-government-shutdown/. See also, Billy House, Steven T. Dennis & Ari Natter, "Musk Backs Johnson Plan to Avert Shutdown as House Vote Begins," Bloomberg, December 20, 2024. [Online]. Available: https://finance.yahoo.com/news/house-may-vote-temporary-fix-142146044.html.
39. DeLauro in Letter to Congressional Leadership: Musk Chaos in Government Funding Process Protects His Chinese Investments, Congress of the United States, December 20, 2024. Available: https://delauro.house.gov/sites/evo-subsites/delauro.house.gov/files/evo-media-document/2024.12.20%20Letter%20from%20RM%20DeLauro%20to%20Congressional%20Leadership.pdf.

about the potential mass relocation of Taiwanese enterprises to China, which was emerging as a "world factory" at the time. Factors such as China's low labor costs, lenient environmental standards, and expansive consumer market sparked fears of a rapid drain on Taiwan's capital and the "hollowing out" of its economy.[40] This regulatory framework, designed to preserve Taiwan's overall competitiveness, has largely persisted in its core objectives ever since.

As a result, Taiwan's regulatory regime differentiates investments based on their destination, with industrial competitiveness serving as the key evaluation criterion. Under the Statute for Industrial Innovation,[41] for example, outbound investments are governed by relatively relaxed regulatory measures, adhering to principles of an open and liberal investment environment. However, investments directed toward China, Hong Kong, and Macau are subject to stricter controls under specific laws, such as the Act Governing Relations Between the People of the Taiwan Area and the Mainland Area and the Laws and Regulations Regarding Hong Kong & Macao Affairs.[42] Within this framework, Taipei has concentrated significant regulatory resources on overseeing key industries like Liquid-Crystal Display (LCD) panels and semiconductors,[43] both of which represent Taiwan's global competitive edge.

However, many of these frameworks were designed for a different era, addressing threats and technologies that have since evolved. As a result, when this regulatory approach—focused predominantly on maintaining industrial competitiveness—is assessed within the broader context of investment security mechanisms that have emerged among democracies in recent years, it appears increasingly outdated and misaligned with current global priorities, if not fundamentally at odds with today's trends.

As noted earlier, today's transnational investment security mechanisms have emerged in response to an evolving national security landscape. Events such as the COVID-19 pandemic, Russia's invasion of Ukraine, and China's more assertive global posture have alarmed democracies worldwide, transforming countries like Japan, Australia, and members of the European Union into more strategic actors. Consequently, democracies are now adopting more proactive measures, including outbound investment regulations, to protect their strategic interests. In this context, the primary objective of outbound investment review has shifted toward preventing critical technologies from being exploited to advance the military modernization efforts of foreign adversaries.

Specifically, the technologies subject to these restrictions include transformative fields such as artificial intelligence and quantum computing, which are fundamentally reshaping the national security landscape. Moreover, investment restrictions imposed by entities like the United Kingdom and the European Union are primarily focused on military applications, with advanced semiconductors serving as a key example. While

40. Chien-Huei Wu, Taiwan's Economic Security in the Shadow of Chips Nationalism, J. OF WORLD TRADE (April 2025), Available at SSRN: https://ssrn.com/abstract=4913668.
41. Article 22 of Statute for Industrial Innovation [產業創新條例].
42. Article 35 of Act Governing Relations Between the People of the Taiwan Area and the Mainland Area [臺灣地區與大陸地區人民關係條例]; Article 30 of Laws and Regulations Regarding Hong Kong & Macao Affairs [香港澳門關係條例].
43. Ministry of Economic Affairs, Key Points for the Review of Critical Technologies and Supervision of Investment in Wafer Foundries, Integrated Circuit Design, Integrated Circuit Packaging, Integrated Circuit Testing, and LCD Panel Factories in Mainland China [在大陸地區投資晶圓鑄造廠積體電路設計積體電路封裝積體電路測試與液晶顯示器面板廠關鍵技術審查及監督作業要點], August 12, 2002. Available: https://law.moea.gov.tw/LawContent.aspx?id=FL021027.
44. Julian E. Barnes & Ana Swanson, "Commerce Dept. Is on the Front Lines of China Policy," The New York Times, December 8, 2024. [Online]. Available: https://www.nytimes.com/2024/12/08/us/politics/commerce-dept-is-on-the-front-lines-of-china-policy.html?smid=nytcore-ios-share&referringSource=articleShare. See also, Marc Vartabedian, "Departing Export-Control Watchdog Predicts Continued Enforcement in Second Trump Term," The Wall Street Journal, December 9, 2024. [Online]. Available: https://www.wsj.com/articles/departing-export-control-watchdog-predicts-continued-enforcement-in-second-trump-term-7bfb4292.

the second Trump administration would likely broaden the use of economic tools to address national security challenges, the underlying regulatory rationale is unlikely to undergo significant change.[44]

With this in mind, if Taiwan's Lai Administration aims to demonstrate its willingness to cooperate with the second Trump administration and contribute to an allied effort to safeguard investment security, one of Taipei's first steps should be to modernize its regulatory framework. This would involve redefining objectives, updating regulatory tools, and leveraging existing statutory authorities. Where necessary, new legislation or amendments to existing laws should be introduced to ensure adaptability to the shifting geostrategic and technological landscape.

For instance, Taiwan's current regulatory system leans heavily on ex post measures, such as fines and penalties,[45] while lacking more proactive ex ante tools like divestment orders or transaction blocks. Moreover, the penalties currently in place are insufficient to serve as effective deterrents. Recent legislative proposals, for example, set the maximum penalty at just over USD 30,000.[46] This raises an important question: how much deterrent effect can a USD 30,000 fine have on a well-resourced technology company, particularly when cutting-edge capabilities are at stake?

Taipei's efforts should also prioritize enhancing its enforcement capacity. In particular, regulatory resources should be concentrated on advanced semiconductors—an area where Taiwanese firms like TSMC and others account for nearly 90% of global manufacturing.[47] Over the years, CFIUS has made significant strides in these areas. This progress provides a valuable model for initial collaboration between Taipei and Washington.

Ultimately, both Taipei and Washington must recognize their shared concerns as close allies with a long-standing defense partnership and as global leaders in critical and emerging technologies: investments in China's critical sectors risk channeling essential capital and expertise that could bolster the People's Liberation Army's (PLA) capabilities. Such developments would not only undermine the collective efforts of allied nations to restrict Beijing's access to advanced technologies but also pose a direct threat to Taiwan's national security. Both governments, therefore, should ensure that their regulatory frameworks are robust enough to serve their common interests. The Taiwanese government should also prioritize direct engagement with the Trump administration, including demonstrating its commitment to implementing comparable regulatory regimes and enhancing information-sharing mechanisms on threats. This effort should involve key stakeholders in both policy and intelligence communities.

All in all, while Trump's transactional tendencies may create obstacles in the future, Taipei has numerous opportunities to lay the groundwork for Taiwan-U.S. collaboration. Crucially, both nations must recognize that this effort transcends mere transactional interests. Taiwan's participation is vital to a U.S.-led initiative to prevent cutting-edge technologies from falling into Beijing's hands and to ensure that these technologies are developed by the United States and its allies. Strengthening cooperation on investment security will be critical to ensuring a unified and effective response to shared challenges.

45. See e.g., Article 86 of Act Governing Relations Between the People of the Taiwan Area and the Mainland Area, Article 50 of Laws and Regulations Regarding Hong Kong & Macao Affairs.
46. Executive Yuan, Draft Amendments to Statute for Industrial Innovation, December 19, 2024. Available: https://www.ey.gov.tw/File/32184A4820DA0827?A=C.
47. The Economist, "Taiwan's dominance of the chip industry makes it more important," March 6, 2023. Available: https://www.economist.com/special-report/2023/03/06/taiwans-dominance-of-the-chip-industry-makes-it-more-important.

4

*Analysis*

# Carrots and Sticks? Taiwanese Supply Chains Under Trump 2.0

*Author: Mervyn Ming-Yen Ho*

The decisive Republican victory in the Presidency and both houses in November 2024 handed President-elect Trump unfettered power to implement his economic agenda. His desire to impose punitive economic tariffs on the rest of the world and extend corporate tax cuts is well-known, yet the future outlook of the policy legacies of the Biden era, such as the CHIPS Act and the Inflation Reduction Act, remains uncertain.

Taiwanese firms have two chief concerns toward the 2nd Trump administration. The immediate short-term issue regards the scale and sustainability of the American commitment to support Taiwanese manufacturing in the United States. Namely, whether the CHIPS Act and associated federal and state-level incentives could be delivered promptly per previous agreements with the Biden Administration. Furthermore, should future opportunities for additional subsidies arise, Taiwanese firms investing in the United States need assurance that they have a level playing field vis-a-vis American competitors in securing those subsidies. Taiwanese firms should emphasize the critical importance of Taiwanese technology and manufacturing expertise in fostering robust growth and competitiveness of the supply chain that would involve not just the US, but inevitably other allied countries. Excessive preferential treatment to US manufacturers hurt downstream US customers, who seek efficient and low-cost solutions to satisfy the ever-increasing demand for high-performance computing. More importantly, subsidizing only American but not Taiwanese firms risks misallocating critical resources required for the US to manage technology competition with China.

The second issue surrounds tariffs and other non-market barriers that may target Taiwanese semiconductor and electronics supply chains. Could tariffs substitute for subsidies in coercing Taiwanese investments to the US, as Trump had notoriously suggested? Historical precedents in the US-Japanese trade war suggest that this strategy might be a sensible low-cost approach, particularly for sectors in which Taiwanese firms have actual US competitors. Thus Taiwanese firms should consider investing in the US preemptively to prepare for tariffs and expand business opportunities. To secure subsidies and negotiate more favorable and predictable policies, Taiwanese firms should build up lobbying departments and increase their presence in DC as TSMC and other foreign semiconductor firms had. For smaller firms incapable of expending such

resources, the government should step in and create organizations that represent the common interests of Taiwanese firms on the supply chain.

## The Carrots: the CHIPS Act and the Taiwanese supply chain in America

Taiwanese supply chains have already been on the move before the resolution of the 2024 elections. With TSMC's 4nm fab in Arizona going into production this December, associated packaging & testing and downstream assembly supply chains are also ramping up capacity in the US and Mexico. To make TSMC Arizona's advanced node chips truly US-made, TSMC's much-demanded CoWoS advanced packaging capacity is expected to follow, pulling in investments from several Taiwanese packaging equipment manufacturers.[1] On the semiconductor materials side, Taiwanese wafer firm Global Wafers doubled down on investment, building the US's first 300mm silicon wafer plant in Texas and 300mm Silicon-on-Insulator wafers in Missouri. Further down the electronics supply chain, we have the server assemblies of Foxconn, Quanta, Wistron, and Inventec, who already own capacity on US and Mexican soil. Though the largest facilities of these firms are in Mexico and Southeast Asia, they are ready to ramp up US capacity should the new administration implement new tariffs or incentives.[2] Foxconn in particular has by far the largest US capacity in AI server and data center assembly in Wisconsin and Texas, and is actively increasing electric vehicle production in Ohio.[3] Given Foxconn's past investment history in Wisconsin under Trump which had been the subject of much Democrat scrutiny, Foxconn should be eager to make amends by adding valuable manufacturing jobs in Wisconsin.

Therefore, the 2nd Trump administration will inherit a burgeoning electronics supply chain that could reliably manufacture AI servers and traditional electronics from top to bottom on US soil, in which Taiwanese firms play an integral role. Much of this is of course credited to Biden's CHIPS Act, though Trump could claim as the one who secured TSMC investment in Arizona and introduced Foxconn to Wisconsin.[4] Trump's return to the White House introduced uncertainty as to the future of the Act, which has accelerated negotiations to finalize announced deals. As CHIPS Act distributions are made contingent on specific prespecified milestones being reached, the Republicans may seek to modify existing terms and introduce uncertainties.[5] Previous CHIPS Act NOFO provisions include requirements on childcare facilities, communication with local unions, and environmental impact assessments reflecting socioeconomic priorities espoused by Democrats.[6] These accordingly are under revision by Republicans, which may be welcomed by the cost-conscious Taiwanese industry as long as

1. Commercial Times, "Taiwan+1 Strategy Accelerates as TSMC Supply Chain Expands in the U.S.," Commercial Times, November 12, 2024. [Online]. Available: https://www.ctee.com.tw/news/20241112700044-439901.
   Anton Shilov, "Amkor and TSMC Team Up for Advanced Packaging in the U.S.: CoWoS and InFO to Make AI and HPC CPUs," Tom's Hardware, November 9, 2024. [Online]. Available: https://www.tomshardware.com/tech-industry/amkor-and-tsmc-team-up-for-advanced-packaging-in-the-u-s-cowos-and-info-to-make-ai-and-hpc-cpus.
2. DIGITIMES, "Foxconn Treading Carefully as Trump Set to Return to White House," DIGITIMES, November 11, 2024. [Online]. Available: https://www.digitimes.com/news/a20241111PD236/foxconn-donald-trump-wisconsin-production.html.
   United Daily News, "Foxconn Considers New Production Strategy for Wisconsin," United Daily News, November 11, 2024. [Online]. Available: https://udn.com/news/story/7240/8350865.
3. Reuters, "Foxconn Sees Robust AI Server Demand, Delays EV Target," Reuters, November 13, 2024. [Online]. Available: https://www.reuters.com/technology/major-apple-supplier-foxconn-expected-report-strong-q3-results-ai-boom-2024-11-13/.
4. Ana Swanson and Raymond Zhong, "T.S.M.C. Is Set to Build a U.S. Chip Facility, a Win for Trump," The New York Times, May 14, 2020. [Online]. Available: https://www.nytimes.com/2020/05/14/technology/trump-tsmc-us-chip-facility.html.
5. Chosun Ilbo, "With Trump's Return, Samsung and SK Hynix Race to Lock in U.S. Subsidies," Chosun Ilbo, November 13, 2024. [Online]. Available: https://www.chosun.com/english/industry-en/2024/11/13/SFBLADP2AJFNFFAHVEYESVTJ7M/.
6. Bloomberg News, "Trump's Win Sets Off Race to Complete CHIPS Act Subsidy Deals," Bloomberg, November 8, 2024. [Online]. Available: https://www.bloomberg.com/news/articles/2024-11-08/trump-s-win-sets-off-race-to-complete-chips-act-subsidy-deals.
7. Lisa Wang, "TSMC Nanjing Gets Permanent US Approval," Taipei Times, May 25, 2024. [Online]. Available: https://www.taipeitimes.com/News/biz/archives/2024/05/25/2003818347.

such revisions do not interfere with the timing of the distributions. Prospective tightening of the "guardrails" provisions prohibiting awarded firms from expanding non-legacy semiconductor capacity in China is unlikely to impact TSMC, as TSMC Nanjing produces legacy semiconductors exempted by the guardrails and had obtained a permanent license to import equipment.[7] However, Taiwanese firms will have to honor or even double down on commitments to sustain local employment. The current practice of bringing Taiwanese domestic engineers and fab construction supply chains to America may not be welcomed by an administration adamantly against immigration and has a history of restricting H1B employment visas. Taiwanese firms therefore need to focus on recruiting local talent for future workforce needs, which requires them to make themselves known to the American public and improve compensation to poach the best American talent. Training American workers to conform to Taiwanese manufacturing standards while simultaneously adapting to the expectations of local recruits have proved to be a challenge.[8] Trump had remarked on more favorable immigration policies toward foreign college graduates, an agenda that Trump allies in Silicon Valley like Elon Musk will heavily support.[9] Taiwanese firms should join forces to advocate for relaxed immigration on this front, as bilingual, American-educated foreigners willing to accept demanding work will be an indispensable part of Taiwanese advanced manufacturing in the US.

A bigger future concern is whether Taiwanese manufacturing could compete with domestic American firms for future subsidies. A second round of the CHIPS Act of equivalent or larger scale is necessary should the US be serious about semiconductor manufacturing. With China expected to dominate mature node semiconductors and the current demand for advanced node semiconductors outstripping supply, the US has a pressing need to double down on expanding domestic capacity. This is especially urgent given the US-China race in artificial intelligence and the perceived geopolitical risks and energy shortage Taiwan faces. On the other hand, with Intel and Samsung struggling with yields, heavy capex, and dwindling market share across all market segments, TSMC is the only game in town for bleeding-edge logic chips.[10] TSMC Arizona's past experiences with construction delays and local workforce inadequacies suggest that current CHIPS incentives are insufficient to ensure that the US will command a respectable share of advanced node manufacturing capacity in the foreseeable future. Thus more subsidies are expected should TSMC build more plants in addition to the three planned Phoenix fabs, which are rumored to be located in Texas. Leading Taiwanese firms in other segments of the supply chain, such as GlobalWafers, ASE/SPIL, and Foxconn, will also seek incentives for future expansions.

However, the US government's desire to support domestic firms could divert resources. While negotiations to finalize the CHIPS Act are still underway, a rescue package is under discussion in Washington to support the struggling Intel, with

8. Viola Zhou, "TSMC's Debacle in the American Desert," Rest of World, April 23, 2024. [Online]. Available: https://restofworld.org/2024/tsmc-arizona-expansion/ https://udn.com/news/story/7240/8335389.
9. AP News, "Trump Proposes Automatic Green Cards for Foreign College Graduates," AP News, June 2024. [Online]. Available: https://apnews.com/article/trump-green-cards-immigration-colleges-1366591ba263018305ee6eb924803d7f.
10. Ramish Zafar, "Intel & Samsung Are Reportedly Inking a Foundry Alliance, Sharing Production Facilities Along With Process Tech," Wccftech, November 9, 2024. [Online]. Available: https://wccftech.com/intel-samsung-are-reportedly-inking-a-foundry-alliance-sharing-production-facilities-along-with-process-tech/.
11. Reed Albergotti and Liz Hoffman, "Concerns Grow in Washington over Intel," Semafor, November 1, 2024. [Online]. Available: https://www.semafor.com/article/11/01/2024/concerns-grow-in-washington-over-intel.

a merger with IC design competitors or a spinoff of the unprofitable manufacturing business being speculated options on the table.[11] Text exchanges between ex-Intel CEO Pat Gelsinger and Vice President-elect Vance after the election indicate that Gelsinger is actively pushing for Intel to be the favored champion of the new administration, via Intel's heavy investment in Ohio.[12] Gelsinger had also previously been critical of the CHIPS Act subsidizing foreign firms like TSMC, insisting that American taxpayer money should go to American firms only.[13] This echoes Trump's recent comments on how tariffs could replace subsidies to induce foreign direct investment. Other Taiwanese firms building factories in the US also face domestic US competitors, who may join Intel to lobby for preferential treatment.

Yet, the reality is that Intel's attempt to leapfrog TSMC with its astronomical investment in high-NA EUVs and the 18A process will exacerbate short-term unprofitability. Low yields are expected early on and cannot be rapidly improved without additional customer orders, much like Samsung's failed experiment with the GAA process at 3nm.[14] The chances of Intel remaining competitive in semiconductor manufacturing are increasingly murkier, especially now that the product-focused board forced the pro-foundry ex-CEO Gelsinger to retire. Saving Intel and other lagging American firms with taxpayer money is not in the interest of fabless US firms like Nvidia and Apple, who desperately need more TSMC's leading-edge capacity. Intel's capacity, currently accessed by some cloud service providers (CSP), is at best a backup option in case of a Taiwan strait crisis. Fabless and CSP are the crown jewels of the American tech industry, which the US government should prioritize to win the intense technology competition with China. Taiwanese firms therefore should highlight their investments' positive impact on the US economy and technological competitiveness, emphasizing their indispensable role and how subsidizing Taiwanese firms generates spillover benefits to downstream US fabless and CSP firms. The success of Japanese automobile investments in the United States suggests that a win-win situation could be forged if the US government allows foreign manufacturers to employ Americans and serve American customers with high-quality products. A stronger Taiwanese lobby in Washington should strive to direct the Trump Administration's attention from narrow corporate interests back to the broader interests of its constituents' as well as the national strategic interest.

Republican and Trump's openness to tax cuts relative to government distributions provides another avenue for Taiwanese firms to secure competitiveness in the United States. Firms should advocate for more favorable tax treatments contingent on achieving specific construction, production, or local employment milestones. Such policies need not prefer American or foreign companies, but apply equally to all firms capable of investing substantially in the United States. Uniform tax credits as opposed to discretionary subsidy giving should be embraced by the US government, which needs to be mindful of maintaining proper market efficiency when providing incentives.

12. Mike Rogoway, "Intel CEO Optimistic About CHIPS Act's Future After Trading Texts with J.D. Vance," The Oregonian, November 13, 2024. [Online]. Available: https://www.oregonlive.com/silicon-forest/2024/11/intel-ceo-optimistic-about-chips-acts-future-after-trading-texts-with-jd-vance.html.
13. Nitin Dahad, "Intel CEO Warns About CHIPS Funds and Export Controls," EE Times, October 26, 2023. [Online]. Available: https://www.eetimes.com/intel-ceo-warns-about-chips-funds-export-controls/.
14. Ramish Zafar, "Samsung's 3nm GAA Unstable Yields Driving Customers Away, Resulting in Millions Lost," Wccftech, October 30, 2024. [Online]. Available: https://wccftech.com/samsung-3nm-gaa-unstable-yields-driving-customers-away-resulting-in-millions-lost/.

## The Stick: How Tariffs Could Shape Taiwanese Investments

The Trump Administration, bent on government efficiency and unilateral American interests, may still be reluctant to subsidize foreign firms. Instead, Trump had touted using subsidies against Taiwanese exports, which would make production in the United States relatively more attractive. History suggests this approach is a plausible alternative. US-Japan trade tensions in the 1980s propelled Japanese car manufacturers like Toyota to invest in automobile plants in the US, triggered by US automobile import quotas for Japanese cars.[15] The 1980s US-Japan trade war had strong parallels with that of the current US-Taiwan trade relationship. Increasing Japanese competitiveness in automobiles and semiconductors provoked American producers to lobby intensively for the Reagan Administration to implement trade restrictions against their Japanese competitors.[16] Japanese security reliance on the US compelled the Japanese government to accede to American demands and imposed "voluntary export restraints". Simultaneously, the US government requested Japanese automakers to invest in the US to avoid the import quota restrictions and absorb the newly unemployed American auto manufacturing workforce. Leading Japanese automakers including Toyota, Honda, Nissan, Subaru, Mazda, and Mitsubishi began a flurry of investments in the United States, opening plants in the Midwest that are estimated to have created 35,000 direct jobs and 337,600 additional jobs indirectly.[17] No significant federal subsidies were employed in the process, and Japanese automobile manufacturers remain key employers of the American automobile workforce. American automakers on the other hand remained uncompetitive, with Chrysler and GM requiring a bailout surpassing the size of the CHIPS Act in the midst of the Great Recession.[18] Should Intel and other American IT manufacturers initiate a similar lobby for government support and trade protection, the Taiwanese supply chain which primarily exports to America will be at risk and may have to consider allocating some capacity to the US.

TSMC's dominant position in FinFET logic processes and advanced packaging makes tariffs easier to handle in periods of high demand like now. TSMC's ability to reach close to 60% gross margin as a foundry and its ability to hike prices without decreasing demand suggest a sizable chunk of the tariffs could be passed on to US customers such as Nvidia, Apple, Broadcom, and AMD. US customers are willing to pay a premium for TSMC wafers for higher yield and reliability as well as a well-developed foundry service model which IDMs like Samsung and Intel could not achieve. The Trump Administration should consider this factor before implementing extortionary tariffs on Taiwanese chip exports or final products that have TSMC chips. However, TSMC's pricing power does not apply to the whole supply chain. Tariffs on imported AI servers may benefit US-based OEMs like Dell and HP which are competitive in the market, which has prompted

15. Wells King and Dan Vaughn Jr., "The Import Quota That Remade the Auto Industry," American Compass, September 2022. [Online]. Available: https://americancompass.org/wp-content/uploads/2022/10/AC-Case-Study_Auto-VER_Final-1.pdf.
Steven Berry, James Levinsohn, and Ariel Pakes, "Voluntary Export Restraints on Automobiles: Evaluating a Trade Policy," The American Economic Review, vol. 89, no. 3, June 1999, pp. 400-430.
16. Douglas A. Irwin, "The U.S.-Japan Semiconductor Trade Conflict," in The Political Economy of Trade Protection, University of Chicago Press, 1996, pp. 49-70.
17. Kazunobu Hayakawa, "FDI and the Local Labor Market: Japanese Automobile Plant Openings in the 1980s," Institute of Developing Economies, [Online]. Available: https://hatakayama.github.io/paper_web/Japanese_FDI_US.pdf.
18. Knowledge at Wharton, "The Auto Bailout Ten Years Later: Was It the Right Call?" Knowledge@Wharton, December 18, 2018. [Online]. Available: https://knowledge.wharton.upenn.edu/podcast/knowledge-at-wharton-podcast/auto-bailout-ten-years-later-right-call/.

Taiwanese OEMs to accelerate investment in the United States.

There are increasing demands for TSMC to bring more advanced process node manufacturing to the US, with many commentators noting that Taiwan's "N+2" policy restricting outbound direct investment of bleeding edge semiconductor nodes is a potential roadblock to the US's goal for supply chain security. This provides the Trump administration additional reasons to exert pressure and demand more investments in more advanced processes as well as advanced packaging technologies, using tariffs and other nonmarket policy tools on Taiwan-manufactured or packaged products as threats. TSMC and Taiwanese authorities should demonstrate how keeping R&D and the most advanced and expensive processes in Taiwan is in the interest of the United States, should it wish the US and its allies to continue extending their lead in semiconductor manufacturing processes over China. They should remind US authorities of the difficulty, the lengthy time, and the handsome costs of building fabs in the US, and that many advanced products used for mainstream AI servers may not need the most advanced node which is usually reserved for Apple's smartphones. The Trump administration should prioritize smoothening the learning curve of TSMC's Arizona fabs, focusing on integrating Taiwanese manufacturing experiences with local conditions to achieve comparable or better yields to Taiwan while minimizing costs.

The Taiwanese government and firms need to thread the waters carefully, and avoid attracting the scrutiny of USTR or the Department of Commerce through inappropriate comments or provocative actions. Reminiscent of Toshiba's violation of export control rules by supplying submarine parts to the Soviet Union in the 80s, TSMC recently was also involved in a possible breach of entity list controls in manufacturing some parts of Huawei's Ascend 910b. These incidents should be avoided to not justify additional regulatory actions and punishments, which could be costly even to firms with pricing power like TSMC.

Taiwanese government entities could also take action to alleviate prospective risks. With Taiwan's structural trade surplus with the United States, the Taiwanese central bank should restrain currency management practices to not be labeled by the US Treasury as a currency manipulator, which may warrant punitive tariffs or denying Taiwanese firms US procurement.[19] The Taiwanese government could also make trade concessions in sectors such as agriculture and livestock husbandry, offering to buy American agricultural products, energy, and military goods in exchange for the Trump administration giving preferential treatment to Taiwanese electronics.[20] The Trump Administration's apparent intent to let Taiwan take up more regional defensive responsibilities coincide with Taiwan's longstanding desire to purchase advanced US military equipment. Taiwan's nascent defense industry in shipbuilding, drones, and other intelligent weapons will also benefit from technology cooperation with the United States military or companies. This creates a win-win situation that preserves the US-Taiwan IT supply chain's competitiveness while

19. Rebecca M. Nelson, "Exchange Rates and Currency Manipulation," Congressional Research Service, June 11, 2024. [Online]. Available: https://crsreports.congress.gov/product/pdf/IF/IF10049.
20. Commercial Times, "央行談川普新政效應 台灣列匯率操縱國觀察名單 恐成常態" ["Central Bank Discusses Effects of Trump's New Policies; Taiwan's Inclusion on Currency Manipulation Watchlist May Become Routine"], Commercial Times, November 14, 2024. [Online]. Available: https://www.ctee.com.tw/news/20241114700045-439901.

appeasing Trump's desire to appear protectionist of American economic interests.

Smaller Taiwanese firms in America unfamiliar with American regulatory processes and socioeconomic environment face an even more difficult challenge when investing in America. They lack the resources of TSMC to field local agents to properly represent their interests, which is a huge disadvantage at a time when all firms are racing for government incentives and market opportunities. To properly represent Taiwanese commercial interests, the Taiwanese government should help forge a trade association that represents the interests of all members of the Taiwanese electronics supply chain in the US. This association could provide resources and advice on business and legal issues, resolve disputes between Taiwanese firms, agree on priorities and policy agendas, and jointly advocate for policies in Washington and local governments. Such an administration pools all resources of the diverse Taiwanese supply chain together, resulting in a joint lobby that can push the incoming administration to not be captured by protectionist American forces.

## Conclusion: Taiwan's Historical Opportunity

The fledgling American IT manufacturing base is an inadvertent joint legacy by two successive administrations. The first Trump administration's aggressive tariffs and sanctions against China initiated the relocation of electronics supply chains away from China to Southeast Asia and Mexico. The Trump trade war did not transform the US into the most appealing manufacturing location, but Foxconn's initial investment in Wisconsin and TSMC's decision to choose Arizona signaled the wind of change. The Biden administration in turn fully embraced industrial policy with the Inflation Reduction Act and the CHIPS Act, and have proved to be impartial between American and foreign firms in distributing the hefty CHIPS incentives. Trump's trade policies and Biden's industrial policy have reshaped supply chains and built the future foundation for American manufacturing, the direction of which will be now decided by the 2nd Trump administration.

The choice right now in front of the Trump administration is whether Taiwanese and other allied supply chains could have a fair share of the pie. An isolationist American manufacturing sheltered by tariffs and trade barriers will introduce bad incentives for US corporations to focus on rent-seeking in Capitol Hill rather than healthy competition and innovation. In contrast, China has been encouraging emerging tech firms to compete with each other in an "involuted" fashion before selecting the best national champion to support.[21] In the long run, an unhealthy obsession with supporting unprofitable American manufacturers without regard to market incentives will be fatal to the US and its allies. Despite its America First bias, the Trump administration should strive to maintain a level playing field between companies of America and allied countries, rewarding whichever firm that could contribute the most to US manufacturing employment and technological competitiveness

21. DIGITIMES, "China's Chip Industry Faces Intense Internal Competition as SMIC Strives to Keep Pace," DIGITIMES, July 11, 2024. [Online]. Available: https://www.digitimes.com/news/a20240711VL200/china-chips-involution-competition-smic.html.

regardless of its origin. This approach also aligns with the interests of the American consumer and downstream firms interested in procuring the highest quality computer at the cheapest cost, which is the sensible way for the US to outcompete China in the AI race.

For Taiwan, this is a historic opportunity. A stronger Taiwanese manufacturing presence on American soil strengthens the American stake in cross-strait affairs and makes Taiwanese economic power heard and felt in American public opinion. A stronger Taiwanese lobby in Washington DC, backed up by Taiwanese investments, may paradoxically make the US more willing to defend Taiwan. US advanced manufacturing could not succeed without the R&D and talent from Taiwan. The more integrated the economies of Taiwan and the United States, the stronger the so-called "Silicon Shield" will be. Countering the "beggar thy neighbor" mindset of the Trump administration will be the Taiwanese government's utmost foreign policy priority. It should promote actions emphasizing the common interests shared by the US and Taiwan, and form a coalition with American constituents that benefit from a prosperous Taiwanese economy. Curating allies in Silicon Valley, represented by influential figures invested in AI development like Elon Musk, as well as China hawks in the Republican Party is a sensible first step to sway the Trump administration from its protectionist instincts.

5

*Analysis*

# Policy Recommendations

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## Modernizing Economic Security Regulatory Framework

As the U.S.-China chip war intensifies, Taiwan must elevate its economic security decision-making from economic or trade agencies to a higher strategic level. This requires enhancing information integration, streamlining coordination, and creating unified decision-making mechanisms to maintain greater policy flexibility in addressing supply chain shifts. Key policy areas needing attention include export controls, inbound/outbound investment reviews, and the modernization of the national core critical technology regulatory framework.

In addition to regulatory reforms, Taiwan should strengthen support systems to improve monitoring of critical technology intelligence and supply chain dynamics. Proposed measures include fostering public-private partnerships with think tanks and industry stakeholders and enhancing communication between national security, foreign policy, and technology policy agencies.

## From Licensing to Regulation: Strengthening Taiwan's Domestic Export Controls

Taiwan's current export licensing system differs significantly from U.S. export controls in both objectives and effectiveness. The following outlines potential reform pathways to strengthen Taiwan's framework:

**1. Establish Clear Export Control Principles**

Taiwan should redefine its export control principles, and categorize its control objectives into three key areas:

- **Multilateral Compliance:** Aligning with international agreements like the Wassenaar Arrangement.
- **Allied Coordination:** Harmonizing with export control policies of key allies, such as the U.S. and Japan.
- **National Interests:** Safeguarding Taiwan's national and economic security.

**2. Enhance Transparency in Entity List Updates**

Taiwan's current entity list for strategic high-tech commodities combines international sanctions

(e.g., UN, Wassenaar) into a single document with minimal explanation of additions or removals. This creates policy ambiguity and uncertainty for businesses. Reforms should include:

- Separating lists by control objectives and geopolitical context.
- Clearly explaining the legal basis and policy rationale for updates.
- Improving transparency by making information accessible on government websites, including detailed records of changes and timestamps to help businesses manage risks.

**3. Modernize Export Control Lists**

With the rapid development of emerging technologies, export control lists risk becoming outdated, increasing costs or rendering controls ineffective. Taiwan should adopt a more dynamic approach by:

- Monitoring supply chain dynamics.
- Aligning with export policies of other tech democracies.
- Adjusting controlled items flexibly to stay relevant.

**4. Leverage Existing Legal Frameworks**

Export controls are critical for managing risks related to key technologies and supply chains. In the face of geopolitical shifts and technological advancements, regulatory flexibility is essential. Taiwan's existing legal framework provides a foundation for developing a robust export control system:

- Cross-Strait Relations *Act*: This law governs commercial and trade activities between Taiwanese entities and Chinese entities, enabling the government to set approval or prohibition requirements.
- Using this statutory authority, Taiwan can create a China-specific export control system through administrative orders, allowing for adaptive policies in response to the U.S.-China tech war.

By integrating these reforms, Taiwan can enhance its regulatory agility, strengthen supply chain security, and align more effectively with international export control standards.

## Modernizing the Investment Review Mechanism: Addressing Emerging Technology Challenges

Taiwan has established an investment review framework with a solid foundation and implementation experience. The next step is to refine these regulations to address the challenges posed by future tech geopolitics:

**1. Modernize the Definition of Controlled Technologies**

Current regulations on semiconductor and display panel investments in China focus on Moore's Law-era developments, which no longer fully capture advancements in semiconductor manufacturing. Emerging technologies, such as advanced packaging, fall outside this outdated framework. Taiwan must update its criteria for defining key technologies to reflect rapid innovation. These updates should align with discussions on export control technology lists.

**2. Address Operational Problems**

While Taiwan lacks a comprehensive export control system, the investment review

framework can partially address gaps, such as restricting Chinese access to Taiwan's advanced semiconductor technologies. For instance, Chinese military-linked entities had reportedly procured TSMC's chips through Taiwan-based IC design firms operating in China. By using the investment review process to restrict these firms' activities in China, Taiwan can reduce the risk of advanced technology being leveraged by the Chinese military. Additionally, Taiwan can reevaluate its Prohibited Investment Products List to further control the flow of critical technologies to China, strengthening its defensive posture against technology transfer risks.

## Strengthening Current Critical Technology Controls

Since the onset of the U.S.-China tech war, Taiwan's primary economic security strategy has been the establishment of the National Core Critical Technologies (NCCT) framework in 2022. Key policy reform areas stemming from this initiative include:

### 1. Strengthening "Deemed Export" Controls and "Security Clearance" Mechanisms

Taiwan currently restricts researchers working on NCCT from traveling to China if their projects are majority-funded by the government. However, technology transfers can also occur outside China or even within Taiwan. To address this, Taiwan should draw on practices from tech democracies like the U.S. and Japan to improve its management of critical technology personnel:

- **Deemed Export Controls:** In the U.S., revealing sensitive technological information to foreign nationals, even domestically, is considered an export and falls under export controls. Taiwan should incorporate "deemed export" regulations into its local control framework to mitigate unauthorized transfers.

- **Security Clearances:** Beyond travel restrictions, Taiwan should implement a preemptive mechanism by establishing security clearances for individuals handling critical technologies. This would involve background checks and tiered access controls to prevent hostile foreign actors, particularly from China, from accessing sensitive technologies or research. Priority should be given to military, national security-sensitive fields, and research institutions tied to NCCT.

### 2. Refining the NCCT List

The NCCT list in Taiwan lacks specificity compared to those in the U.S. and Japan. It fails to detail the uses and specifications of materials and equipment. This ambiguity could create challenges if integrated into a future export control system, as some products or services may be applicable to both unrestricted mature processes and restricted advanced processes, leading to disputes.

To integrate the NCCT framework effectively into export controls and investment review systems, the list must be refined with clear, detailed definitions. This will enhance clarity and ensure effective regulatory enforcement.

6

*Interview*

# Semiconductor Industry Policy Dynamics Under Trump 2.0— An Interview with Chris Miller

*Authored by Chen-An Wei and Fanny Chao*
*Interviewed by Chen-An Wei, Ming-Yen Ho, Chiang Min-yen*
*Interview date: 11 Nov 2024*

## Introduction

**Chris Miller,** author of Chip War, was invited by DSET for an in-depth discussion on the escalating U.S.-China technology competition and the potential return of the Trump administration. The dialogue examined the outlook for semiconductor policies under a Trump 2.0 administration, focusing on tariffs, export controls, the CHIPS Act, and the investment pressures and human resource challenges facing TSMC. Additionally, the discussion explored the threats posed by China's mature-node chips, loopholes in U.S. AI export controls, and how Taiwan can leverage supply chain shifts to seize strategic opportunities while deepening its cooperation with the United States.

## Trump's Cabinet Picks and Semiconductor Policies

**DSET:** Trump's nominees for National Security Advisor, Waltz, and Secretary of Commerce, Lutnick, have yet to express clear opinions on semiconductor policies. How do you foresee the future of export controls, tariffs, industrial policies, and the CHIPS Act?

**Chris:** While cabinet picks may bring minor changes, the bipartisan consensus that began under Trump 1.0—"subsidizing domestic manufacturing" and "preventing technology transfers to China"—will remain largely unchanged.

Existing export control measures will continue, but the new administration will focus more on tariffs. They believe tariffs can effectively reduce dependence on China and encourage domestic manufacturing in the United States. A clear difference between the Biden and Trump administrations is that Biden focuses on specific areas of dependence, such as electric vehicles, while Trump 1.0 viewed any Chinese-manufactured imports as potential risks. I believe this approach will persist in the future.

The new administration sees industrial policy as problematic, as companies often lobby for subsidies, forcing the government to allocate funds. Trump's government favors imposing tariffs directly on China, creating strong financial incentives for companies to invest outside of China. Republicans have always been conservative about cash subsidies under the CHIPS Act and generally favor tax credits. The current tax credit policies are set to expire at the end of 2026, and Congress is expected to pass legislation to extend or make these credits permanent. This remains

a form of industrial policy, albeit in a different format.

## Tariffs and the CHIPS Act

**DSET:** Regarding controls on mature-node chips, you previously mentioned several approaches. Should the US impose tariffs solely on Chinese chips or on electronic products containing these chips? Alternatively, should the US completely ban Chinese chips from critical sectors? So far, there hasn't been much progress in this area. Some have also debated implementing export controls on mature-node chips. What are your thoughts?

**Chris:** I believe component-based tariffs are achievable. During Trump 1.0, tariffs did not fundamentally change the supply chain; companies simply shifted the final assembly to Vietnam. Component-based tariffs are more targeted and can have a greater impact on supply chain decisions.

On banning Chinese chips from critical sectors, I also believe we will see progress soon. The Information and Communications Technology and Services (ICTS) rules allow the US government to ban any suspicious electronic products from entering critical industries. This rule has already been confirmed and is in the regulatory process. I believe the Biden administration may finalize this regulation before the end of its term.

I think it is highly unlikely that comprehensive export controls will be implemented, at most small-scale incremental controls. This is primarily because the industry believes comprehensive controls would cause significant financial harm. Moreover, as targeted technologies become less advanced, the industry structure becomes more complex, and the government's ability to enforce controls diminishes.

## Huawei Incident and Export Control Loopholes

**DSET:** What are your thoughts on the recent incident involving TSMC's advanced chips flowing into Huawei? Do you have any recommendations for improvement?

**Chris:** This incident reflects a significant compliance failure on TSMC's part. TSMC needs to invest more in compliance management to detect such issues and prevent similar cases. Given that the supply chain for advanced chips is relatively straightforward, there should be more robust mechanisms to track chip flows. Insufficient compliance investment is a common industry-wide problem. I believe governments should impose higher fines to create stronger incentives for companies to establish effective compliance mechanisms and fundamentally prevent such issues.

**DSET:** The Financial Times recently reported that Chinese or China-linked organizations are remotely accessing US AI servers, which is viewed as a loophole in the current "small yard, high fence" AI export control framework. What is your view on this?

**Chris:** Many believe such remote access should be banned. However, there is an argument against a comprehensive ban: having Chinese companies pay US cloud providers, rather than Chinese providers, may not be a bad outcome. I believe this could be why this so-called "loophole" remains intentionally unaddressed. This may become a core issue for the next administration.

Beyond a comprehensive ban, there is also discussion about establishing appropriate regulations to minimize any adverse effects of this potential loophole. For instance, the US Department of Commerce is currently discussing a rule that would ensure a maximum computing threshold for Chinese access to US cloud computing services, preventing them from conducting significant AI system training.

## Human Resources and Immigration

**DSET:** Friction between TSMC and the US partly stems from human resources issues. TSMC tends to favor hiring Taiwanese graduates from US universities. However, as TSMC requires more talent, they have also started recruiting top American graduates. Do you foresee future friction in this regard? Will Trump impose stricter requirements to force companies to hire more Americans?

**Chris:** Trump has expressed support for increasing H-1B visas during his campaign, and Republicans have also frequently supported this idea. However, the reality is that such reforms require congressional approval, and it is extremely difficult to pass immigration reform in Congress. I expect Congress will not take major actions on immigration, so there will likely be no significant changes to H-1B visa or other high-skilled immigration pathways. Trump will undoubtedly make public statements about creating jobs for Americans. Chip companies will hope for greater flexibility in importing talent, but Congress is unlikely to improve the system. While this status quo is imperfect for the industry, it remains tolerable.

## Recommendations for Taiwan's Government

**DSET:** What recommendations would you make for Taiwan's government to prepare for Trump 2.0, particularly regarding new tariffs, pressure from the US government, or demands for increased TSMC investment?

**Chris:** No country welcomes the threat of tariffs, but as the electronics supply chain shifts, US and Taiwan goals have significant overlap. A relevant data point is the change in global server exports over the past three years. Three years ago, China led in server exports, followed by Mexico, while Taiwan lagged far behind. Today, Taiwan has rapidly risen to near the top, thanks to Nvidia and TSMC. Additionally, we've seen significant moves by Apple in India and Google assembling phones there, which also impacts Taiwan. While these impacts vary across companies, there is much room for cooperation between the US and Taiwan. If the US imposes more tariffs on China, it will further accelerate supply chain shifts.

Taiwan should build consensus with like-minded countries facing similar challenges from China. In this process, challenges and opportunities coexist. While the media may focus 90% on the challenges, there are notable opportunities worth pursuing. I am particularly interested in these opportunities because, like it or not, tariffs will be implemented. We must find ways to derive strategic value from the resulting supply chain shifts, rather than allowing companies to randomly change assembly locations. The US and Taiwan should seriously discuss what the supply chain will look like in five years, what goals we hope to achieve, and how to realize them.

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*Interview*

# Semiconductor Export Control Trends Under Trump 2.0 — An Interview with Kevin Wolf

*Authored by Chris Chih-Hua Tseng and Chiang Min-yen*
*Interviewed by Fanny Chao, Chiang Min-yen, Ming-Yen Ho, Chris Chih-Hua Tseng, Dah-Wei Yih*
*Interview date: 4 Dec 2024*

## Introduction

Kevin Wolf is a Non-Resident Senior Fellow at Georgetown's Center for Security and Emerging Technology, and he is also currently a partner in the international trade group of Akin Gump Strauss Hauer & Feld, providing advice regarding export control compliance. Kevin has been working in the area of export control issues since 1993 and served as the Assistant Secretary of Commerce for Export Administration from 2010-2017, where he was responsible for administering U.S. dual-use export control regulations. He was one of the primary drafters and implementers of the Obama Administration's Export Control Reform effort, which significantly modified U.S. defense trade controls involving allied countries. He was also one of the primary Commerce Department representatives to the Committee on Foreign Investment in the United States (CFIUS).

DSET was privileged to speak with Kevin Wolf and gain valuable insights from his extensive experience. The 150-minute interview covered a broad range of topics. Here, we highlight his key assessments of the Trump Administration's potential impact on export control policies.

## A Long-Term Strategic Perspective on U.S. Export Control Policy

**DSET:** Could you walk us through the 16-year policy trajectory across three US presidencies? Are there any key differences in the export-control policy approaches taken by Democratic versus Republican administrations?

**Kevin:** US Presidents from Clinton, and earlier, to Biden have all implemented export controls to achieve national security objectives, but the idea of what is in the national security interests of the United States has evolved.

During the Cold War, there was a broader strategic objective in the use of controls to contain the Soviet Union and the East Bloc. When the Soviet Union fell, there was a significant policy debate in the early 90s about what the role of export controls should be, and the US and its allies ultimately agreed on a relatively straightforward non-proliferation focus.

This meant that, based upon the four multilateral regimes–one for missiles, one for nuclear, one for chemical/biological, and one for conventional military–the types of items (commodities, software, and technology) that were either

bespoke for producing, developing, or using weapons of mass destruction or conventional weapons should be controlled. In addition, the dual-use and commercial items that had some significant, identifiable relevance to the development, production, or use of WMDs or conventional weapons should be regulated. (The WMD and conventional weapons themselves, of course, were also controlled by the regimes.) This non-proliferation focus is reflected in the structure of the American administration's export control system. At the State Department, the Bureau of International Security and Nonproliferation is the lead export control agency. At Defense, it is the Defense Technology Security Administration. At Energy, it's the National Nuclear Security Administration. The fifth original member of the US Government's export control policy making structure was the Arms Control and Disarmament Agency, but it was disbanded in 1999. The role of Commerce's Bureau of Industry and Security (BIS) (formerly called the Bureau of Export Administration) was and remains to shepherd this interagency export control system. That is, BIS's role was and remains basically to consolidate the views of these non-proliferation objectives into the Export Administration Regulations (EAR), to enforce the regulations. and to cooperate with various departments to work with the regimes to keep the lists of controlled items current.

The system that I inherited in 2010 has not changed much between Democrats and Republicans. Starting in 2016 and little earlier, but was not publicly discussed much until 2017 and 2018, were the changes in Chinese state policy and its fusion of military-civilian use of technology to acquire commercial technologies and modernize the Chinese military. The old (or "classical")way of export control policy thinking focused on the nature of the item but not on state policies of specific countries or many human rights issues, particularly with respect to mass surveillance activities. This public discussion in 2017 and 2018 resulted in the Export Control Reform Act, with bipartisan support, requiring the Commerce Department to think more broadly about the role of export control to identify and control emerging and foundational technologies directly in response to Chinese-specific efforts to use such technologies that did not have a clear, direct relationship to the development, production, or use of a weapon, but were nonetheless important, given the nature of the technology, to China's broader efforts to advance its industrial base necessary to modernize its military.

Trump 1.0 did not have a coherent vision of how to define contemporary national security issues and the specific emerging technologies that warranted new controls. There were many questions asked about what "emerging" and "foundational" technologies should be controlled in addition to those traditionally controlled within the scope of the four regimes. Many different Trump officials had many different opinions on the topic, but there was no one administration-wide answer to the question. It also took inconsistent positions on several matters, such as the revocation by tweet of sanctions against ZTE and the granting of licenses allowing for exports to Huawei. (Traditionally, exports to listed entities were simply prohibited.) The Trump Administration, however, did significantly expand the extraterritorial reach of the EAR against Huawei in August 2020, which was a parallel company-specific concern regarding Huawei given its relationship with the Chinese government and ability to engage in acts contrary to national security interests The Trump Administration also gets credit using the

Entity List tool more directly and aggressively to list companies in China engaged in human rights violations, particularly with respect to mass surveillance and the Uyghur concentration camps.

The Biden administration stayed quiet during its first year on what its export control policies would be. That changed in 2022 with two major events. The first event was the allied response to the Russian invasion of Ukraine. There are now 38 countries that have come together to use export controls outside the classical multilateral regime system to achieve strategic objectives far beyond classical non-proliferation objectives to slow the parts of Russia's industrial base that are needed to support its continued war against Ukraine. The second major event was a speech National Security Advisor Jake Sullivan gave in September 2022 where he defined our national security interest as including the need to maintain as large of a lead as possible against China in five primary "force-multiplying" emerging technologies, which are essentially those related to (i) advanced-node semiconductors, including memory, (ii) AI-related applications, (iii) the semiconductor production equipment needed to make such items, (iv) supercomputers, and, separately, (v) biotech. (He also mentioned green energy technology, but that has not been a focus of export control policy thinking.) This was the first coherent articulation by a senior government official regarding what a new vision of export controls should be to address China-specific national security concerns that were broader than the classical non-proliferation objectives that are the mandates of the four multilateral export control regimes.

The Commerce Department implemented in October 2022 significant new amendments to the EAR that implemented NSA Sullivan's vision. Although the rules are extremely complicated, they are simple in their policy objectives, which are to cut off all the inputs, from the US and abroad, of the inputs needed for Chinese companies to have the indigenous capability to develop and produce in China (i) advanced node integrated circuits; (ii) semiconductor production equipment; (iii) the compute necessary for AI-related applications, particularly large language models, and (v) supercomputers. In other words, the US Government determined with these rules that China's capability to produce these four technologies is a per se national security threat. After reviewing how those initial controls worked, the Commerce Department has updated the rules each year, including recently on December 2nd, with even more complex amendments, but always with the same four policy objectives. Whether one agrees with it or not, at least, in my view, the Biden administration articulated a coherent, administration-wide policy vision for how export controls should be used beyond the classical non-proliferation objectives.

This is the policy vision that the Biden team will leave to the Trump team, which will no doubt expand upon it. The general view is that tariffs will be used to give the Trump team leverage to motivate more domestic manufacturing. With respect to what an export control policy vision will be, I do not really know. **President Trump, individually, has never really mentioned export controls and the policy objectives for export controls.** It was not an element of the campaign. The ultimate vision might be more hawkish because Senator Rubio and Mike Waltz will likely become the Secretary of State and National Security Advisor. They have each made statements in the past regarding export control policy and China-specific national security issues. I am unaware of any positions or statements on

either issue, however, by Howard Lutnick, the current Department of Commerce pick.

**Moreover, it is possible that the Trump team will be more hostile toward allies, based on positions regarding the allies taken during the first Trump administration.** To prepare the slide deck that I sent you, I read all testimonies and speeches from people who might go into a Trump administration. One idea about retaliation against allies was in a Republican-led appropriation bill from a few months ago that said any allied country company that (legally) exports items to China, where a US company could not, should be added to the Unverified List, which is a lighter version of the Entity List I have also heard Republicans in conferences say that the Biden administration was too nice to allies regarding imposing controls against China. **Trump, as an individual, can be antagonistic to long-standing arrangements and allies, such as NATO and Taiwan. Also, Trump is widely reported to take a "transactional" approach toward policy. This means that he will negotiate on two or more unrelated topics, whereas the Biden team and the traditional diplomats will look for common values, interests, and principles.**

Eventually, any export control decision-making will be a function of consensus among the four departments, as led by the White House and the National Security Council. So, we really will not know what the Trump administration's export control policy vision will be until after the administration begins and we learn who the people will be confirmed for the various Assistant and Under Secretary positions in the export control and related agencies. In particular, I have no idea what a Trump administration's view regarding export controls should be to address non-China specific development of AI-related capabilities outside the United States. The Biden administration is reportedly working on a rule to impose worldwide controls (minus a few close allies) over the inputs for advanced AI capabilities. I am assuming some portion of that vision will be published before January 20th. If so, it will be interesting to see how much of it survives during the Trump administration.

## International Multilateral Control Cooperation and Taiwan's Participation

**DSET:** What's your assessment of the new export control measures announced on Dec 2, 2024 and the multilateral control regime?

**Kevin:** I don't like how some people see that as blocking "loopholes." Sometimes, people refer to policy objectives they would like but that the government deliberately didn't take as a "loophole." But, yes, sometimes the government misses things in its controls. So, I see it more as the government's fine-tuning its controls based on having studied how the previous year's controls worked and after learning more about the technology ecosystem. Remember, the export control agencies were built and staffed to address non-proliferation objectives. Although there are very smart people in government, there are few who understand deeply the technology and the supply chains behind the development and production of advanced node semiconductors, AI applications, semiconductor production equipment, and supercomputers, which now include quantum computers.

Since we last spoke, Commerce published on December 2nd an additional update. This rule, like the others, is extraordinarily and unusually

complicated. Even for export control experts, they are hard to understand and ensure compliance. The complexity is a function of several things. First, clearly, the rules reflect informal understandings about what would be acceptable to close allies Japan and the Netherlands. Second, the technologies involved are unusually complicated relative to many of the other types of items the EAR regulates. Third, the Biden administration has tried not to create rules that result in a broad "decoupling" with the Chinese economy. Fourth, for the rules to be more effective, they are extraterritorial in novel ways. That is, the regulations impose controls over foreign-made items outside the United States that do not contain any US-origin content or US person involvement if the items are either produced directly for US technology or produced with equipment that was produced from US technology. These are novel and complex jurisdictional hooks over foreign-made items produced in countries that do not control the same items in their systems and that are not clearly directly related to the production of weapons.

But, again, **although the new rules are complicated, they all have a very simple objective, though the Biden team has not explicitly described it this way, which is to cut off all the inputs, directly or indirectly, US or foreign, for the indigenous development and production in China of (i) advanced node semiconductors, (ii) the compute side of AI-related applications; (iii) semiconductor production equipment, and (iv) supercomputers.** The first objective focuses on the production of logic, NAND, and DRAM in China or by Chinese companies. (Although I think this may expand to include controls on the export of logic for data centers before January 20th.) The AI-related objectives first focused on GPUs (almost all produced in Taiwan) needed to run large language models. The December 2nd rule added controls on High-Bandwidth Memory (HBM), which are needed to work with the GPUs. The HBM controls are a chokepoint technology because there are only three companies that produce HBM, and none of them are in China. (Two are in South Korea and one is in the United States.)

**The biggest change in the December 2nd rules is that they added about 140 Chinese companies to the Entity List, which includes companies that make semiconductor manufacturing equipment (e.g., Naura,) and EDA companies (Empyrean) that make the software used to design ICs.** This completes the four-part policy objective I mentioned with respect to the policy for adding entities to the Entity List. In previous rules, Commerce added to the list the companies involved in advanced node integrated circuits, GPU and AI-related development, and supercomputer development. This rule adds to the list the companies in China that produce semiconductor production equipment.

Some critics saw the new rules as not very effective since their goal was not to cut off all inputs for making any semiconductors in China. **The Biden team, on the other hand, is careful to do two things that the Trump team might not be as careful about.** (But, again, we really do not know what the Trump administration's export control policy will be.)

**First, the Biden Administration has not wanted to affect the production of legacy node semiconductors so as not to create COVID era-like supply chain shocks to the global system.** Thus, apparently for this reason, it did not list SMOC, SMTC, and other fabs that produce only legacy node chips. **Second, the Biden**

**Administration wants to be respectful of the allies.** There were no extraterritorial controls imposed against exports of these tools from allied countries' companies or most of the A:5 countries[1] (other than Korea and India). BIS excluded, for example, exports to China from Japan, Germany, and the Netherlands from many of the controls, but they didn't exclude Korea or India.
This suggests to me that Japan and the Netherlands will be imposing their own controls at some point, but not Korea. That, I speculate, is why Japan and the Netherlands got special treatment. In terms of effectiveness, it will depend on how far the Japanese and the Dutch are willing to go. If they do not impose similar controls, the new rules will not be very effective over the long term.

Eventually, the core theme that I have been arguing is that multilateral controls are more effective. This doesn't mean that unilateral controls are illegal or should never be used. I'm only saying that a basic rule of all technology development is that, over time, multilateral (or plurilateral) controls are always more effective. How much time that is depends upon the technology at issue. Some types of items can immediately be produced by companies in allied countries or China that are subject to controls. Others will take many years or decades to create substitutes for what is no longer able to be controlled. The issue is not simple.

Historically, China has not responded much directly in retaliation. This time, their response was to cut off the supply of critical minerals. However, there are two more important things. First, **such threats of retaliation will have a bigger impact on countries like Taiwan, Japan, and Korea, who are all much more exposed to retaliation than the United States.** There might be forces within these countries that may be reluctant to align with the US for fear of critical mineral dependence unless the US can arrange for better supply chain security. Second, no matter the leadership style, the US Government's objective is for US and allied companies to decrease their dependency on China – as a market and as a source of raw material or other inputs.

The Biden team has been pretty aggressive with US companies to achieve this broader national security objective – i.e., that such dependencies on China will not only eventually harm themselves but also the US industrial base. For example, in the new rules, there are temporary general licenses, extended by one year for production, development, packaging, repair, and other activities using Chinese companies to make components for semiconductor manufacturing equipment for end uses outside of China. The Biden team aims to give US companies one more year to wean from dependency on China. When the Trump team starts, this will further justify them to find alternative suppliers. But, if China keeps imposing its own controls in retaliation to US controls, it will do more to accelerate decoupling than the Commerce Department and US export controls ever will.

**DSET:** In your testimony on Capitol Hill, you emphasized the importance of establishing the multilateral export control regime. Also, in a previous interview, you mentioned that Taiwan might be better off relying on the US extraterritorial controls. However, there seem to be Taiwanese companies helping Huawei in

1. About "A:5 countries": The Bureau of Industry and Security (BIS) classifies countries into groups based on diplomatic ties and security considerations. Group A:5 includes 37 nations that are members of the multilateral export control regimes and in good standing. These countries receive favorable treatment under the Export Administration Regulations (EAR), benefiting from streamlined licensing requirements and simplified export controls to ensure secure and lawful international trade. A:5 is one of the lists of countries in Group A.

building its chipmaking capabilities. How should the US achieve the multilateral export control goal effectively? How should Taiwan strengthen its export control regulations?

**Kevin: I have been an advocate for a regime of a smaller group of allies to address both (i) traditional proliferation-related issues that cannot be addressed by the legacy regimes because of Russia's membership in the regimes and (ii) the non-traditional common security and human rights issues that are not within the mandates of the legacy four regimes.** In particular, the four legacy regimes are country-agnostic and are not designed to address non-traditional national security concerns, particularly those specific to China and Russia. Also, to address non-traditional national security issues in emerging technologies, the focus of a new regime cannot be only those types of items that have a direct relationship to weapons. In addition, a new regime needs to focus on common human rights issues, particularly with respect to mass surveillance.

**We need a new regime of a smaller group of allies that are producers of those technologies – and that are also willing to impose end-use and end-user controls, as item-based controls will not be effective. That is, there are three types of export controls – those based on an item's technical parameters ("item-based" controls), those based on how unlisted items could be used ("end-use" controls), and those based on specific entities, regardless of the item and its end use ("end-user" controls). All three need to work together for an effective system. Now, however, the legal authority of the allies to impose end-use and end-user controls is limited to situations involving the development or production of weapons of mass destruction. In my view, all allies should have significantly broader legal authorities to impose controls on (i) items that are not identified in the multilateral regime lists; (ii) end uses, even if not related to WMD; and (iii) end users that are supporting activities contrary to broader common security interests, particularly in China and Russia.**

**One reason I think the allies have resisted changing their laws to give themselves such authorities is that they don't want to create the perception of ganging up on China.** They want to stick to the Wassenaar arrangement and maintain the same image from the past of regulating technology of concern. We can do the informally named "Wassenaar-Minus-One" approach because of Russia, but they do not want to take actions that are specific to China. In proposing my new plurilateral regime ideas, I undervalued the anxieties of the allies on this issue. This is why they have preferred the the cover of the Wassenaar process, even if it is far less effective

This leads to the second reason, which is the disagreement within the agencies on whether the approach is. Some in the US and allied country governments believe that my ideas would never work because the allies were not going to accept the idea of a formal new regime. My approach would have been to find a way to address the allies' concerns. There is also the issue of manpower. The export control and related agencies – in the US and in the allied countries – are already thinly staffed, and they have to deal with regular things plus the time-consuming Russia-specific controls. The fourth related issue is that other than me and a few think tank commentators, there was not really any coherent vision of the idea of a new regime being articulated.

What has evolved in the last few years is four ad hoc plurilateral regimes, which is somewhat chaotic. First, there is the informally named "Wassenaar Minus One," group which is the core group of Wassenaar members that have agreed to unilaterally impose controls over what would have normally been agreed to at Wassenaar in previous years Second, there is the AUKUS arrangement, which is more straightforward. Third, there is a group of 38 countries, including Taiwan, imposing controls against Russia. Lastly, there are the Japanese, Dutch, and US control over semiconductor production equipment that are not controlled by the regimes We are going to be limping along these four ad hoc regimes for slightly different objectives unless, though unlikely, some allies can get behind the Trump Administration to create a new regime founded on a common, coherent vision of common, contemporary national security issues to the allies.

**The issue with Taiwan is that there are always some countries' laws that would not permit them to participate in an organization where Taiwan is a member.** This goes back to the earlier reason for China's retaliation and the fear of provoking China. To answer your question, in my personal view, Taiwan must absolutely be included because this is where advanced node semiconductors are produced. TSMC, MediaTek, and all the core technology companies and experts in Taiwan should have a seat at this very important table given that so many of the emerging technology items at issue in the discussion are produced in Taiwan.

There are ways to reflect Taiwan's interests without violating the allies' limitations involving Taiwan. One would be sort of the IPEF model, such as having different meetings with multiple countries and bilateral meetings with Taiwan. This could work to address both concerns of Taiwan's inputs and being respectful of the legal and diplomatic impediments of Japan, Korea, and the other allies with similar limitations.

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*Interview*

# Semiconductor Security Under Trump 2.0 — An Interview with Jimmy Goodrich

*Authored by Cosette Wu and Chen-An Wei*
*Interviewed by Cosette Wu, Chiang Min-yen, Chen-An Wei, Tsai-Yi Wang*
*Interview date: 5 Dec 2024*

## Introduction

Jimmy Goodrich is a senior advisor for technology analysis at the RAND Corporation, senior associate at the Center for Strategic and International Studies, and nonresident fellow at the University of California Institute on Global Conflict and Cooperation. With nearly two decades of experience in the technology sector, Goodrich has established himself as a leading expert on the intersection of technology, geopolitics, and national security. As the former Vice President for Global Policy at the Semiconductor Industry Association, he led global policy and supply chain initiatives as well as efforts to successfully secure $52 billion in funding for the CHIPS and Science Act. Prior to his role at the SIA, Goodrich also directed China policy at the Information Technology Industry Council and worked in China's technology sector for seven years. Ahead of Trump's inauguration, DSET had the opportunity to speak with Goodrich, whose extensive experience and insights continue to shape critical conversations on Taiwan-US economic security cooperation.

## U.S. Tech Policy Toward China:

**DSET:** How do you think the Biden and Trump administrations will differ in their approaches to China tech policy? What do Trump's cabinet picks suggest about trade and export control policies?

**Jimmy Goodrich:** There is bipartisan consensus amongst D.C. policymakers that China is one of the most important strategic challenges facing the U.S. and its allies.

While we don't know what the final cabinet will look like, the nominees include known China hawks like Marco Rubio and Mike Waltz. Even those with finance backgrounds have expressed strong stances on China, particularly on tariffs, in op-eds and podcasts.

President Trump's cabinet picks reflect his preference for hearing from different personalities with different views. He likes having different ideas put forward and debated to see who can win based on the merits of their argument.

With six to eight years to think about how to respond, China is more prepared than in Trump 1.0. They have doubled down on dual circulation and a fortress economy. They have developed

a big toolkit of regulations, including counter-sanctions, sanctions-blocking rules, restrictions on rare earth and materials, and their own Unreliable Entity List. They've already sanctioned Micron and threatened an investigation into Intel. We're all focused on Trump, but don't forget China has a say in everything too.

## The Future Prospects of the CHIPS Act

**DSET:** Do you expect Trump, with a Republican Congress, to push for a second CHIPS Act?

**Jimmy Goodrich:** There is strong bipartisan support for enhancing U.S. domestic semiconductor production. There is also strong support for participation by foreign-invested enterprises. Let's not forget, the Trump administration invited TSMC to build a fab in Arizona. Congress and the administration said this should not only be about American companies. And frankly, the U.S. has no choice but to work with Taiwan, given its leading role in cutting-edge chipmaking.

But on both sides of the aisle, politicians and experts want to see more investment in the U.S. TSMC's investments here are fantastic, but they want more advanced technology to be produced at a larger scale in Arizona. TSMC has already committed to several expansions, but can more be done, and how?

When the tax credit for the CHIPS and Science Act expires in a few years, I'm hoping that Republicans will support its renewal. They generally support tax policy incentives. But we need to see how current projects pan out to know whether there will be a CHIPS 2.0.

**DSET:** How do you think Trump's "America First" agenda will play into whether a second CHIPS Act or other policies favor American companies?

**Jimmy Goodrich:** My understanding of "America First" does not mean the U.S. doesn't work with allies. For instance, the Trump administration worked with the Netherlands to coordinate export controls on extreme ultraviolet lithography.

The difference between the Biden and Trump administrations is that the Biden administration has allies first and America as equal, whereas the Trump administration always has America at the core of their interests. When interests align, they're willing to work together. When interests don't align, they're willing to use U.S. leverage more forcefully than the Biden administration.

## Trump's Tariff Policies

**DSET:** Do you think tariffs could be implemented against Taiwan to attract not only TSMC but also Taiwanese firms in advanced packaging, materials, and server assembly supply chains to the U.S.?

**Jimmy Goodrich:** There is no doubt that we'll see increased usage of tariffs. That said, there is more bipartisan consensus around the usage of tariffs than you'd expect. The Biden administration did not fundamentally roll back the tariffs on China. They also imposed or increased tariffs on strategic items such as electric vehicles and semiconductors from the PRC.

The semiconductor industry is really complex. Design, front-end, back-end, and integration often occur in different countries. A simple tariff on Taiwan to force more production in the U.S. wouldn't necessarily work. There may not be as many chips flowing into the U.S. from Taiwan as

you'd think. For instance, many of them might be assembled in Malaysia then integrated into a product in Mexico that is ultimately imported to the U.S. in an AI server.

## Challenges in Export Controls

**DSET:** What do you see as the primary gaps in U.S. unilateral export controls?

**Jimmy Goodrich:** Successive administrations have issued hundreds of pages of regulation on both unilateral and multilateral controls to expand the scope of technology subject to control, but it is still narrow compared to the overall scope of U.S.-China trade in semiconductors.

A big deficit lies in oversight and implementation. Huawei managed to gain access to TSMC, and Chinese AI companies have either smuggled in tens, if not hundreds, of thousands of GPUs or used large data centers outside of China. Furthermore, public reports from Bloomberg and SemiAnalysis show Huawei has built up a large network of production facilities. A recent SemiAnalysis piece showed how somebody can connect two fabs as a way to possibly avoid export controls.

China is agile in responding to US export control restrictions. It should be assumed that any country will have a counter-strategy to any U.S. action, but the U.S. response has been pretty slow or inadequate. The Biden administration said this third round of controls has addressed the circumvention, but the jury's still out on whether or not it will. It's a big question. Does the U.S. government have enough resources to do what SemiAnalysis called the "whack-a-mole game"?

There are increasing calls from Republicans to strengthen implementation and oversight of the regulations. The House Foreign Affairs Committee and the Select Committee on China have issued statements about this over the last few months. This will be a space to watch.

**DSET:** When evaluating whether the scope of export controls should include legacy chips, what considerations should factor into the discussion?

**Jimmy Goodrich:** Export controls, China's domestic market, and China's pre-existing stated objective to build a self-sufficient fortress economy based on dual circulation have all led China to rapidly expand the pace of its capacity addition in front-end semiconductor manufacturing, primarily for 200-300mm legacy logic or foundational semiconductors. These go into electric vehicles, solar panels, IoT devices, etc. Even an advanced server will have foundational semiconductors fabricated on larger feature sizes that do things like regulate the power and temperature of the server.

China is building the largest number of foundational semiconductor fabs, with over 40 planned or under construction. In steel, aluminum, shipbuilding, LED displays, electric vehicles, and batteries, we've seen big Chinese boosts in capacity not necessarily aligned with market demand that create pressure on incumbents outside of China, who don't have access to the same state capital or subsidies and just cannot compete. This is what market analysts and some in Washington are concerned about.

It is already impacting Chinese companies. An article in Caixin this year said even SMIC is facing pressure from Chinese startup foundries that are undercutting them on pricing. The question is if or

when will it impact companies outside China. Right now, we're seeing more domestic capacity being filled by domestic companies. But at some point, will they export? That has been the story of every other industry.

Furthermore, this could lead to dependence. If China does dump products in overseas markets, then Ford Motor or Toyota could become dependent on the Chinese market for these foundational chips. There are arguments for and against whether it is happening. But it has happened in many other sectors, so the concern is warranted.

The solutions to this challenge are complicated. The first difficulty is that China's self-sufficiency in mature node chips is much stronger than it is in the advanced chips. They have an increasingly competitive semiconductor equipment industry and a materials industry that can provide most of the technology needed down to 90nm. That still means China has foreign dependencies for 65-28nm mature nodes, but China is making progress. The second difficulty is that there is a larger set of countries that can make equipment and materials that feed into the foundational chip market, making allied coordination more complex.

**DSET:** In practice, U.S. extraterritorial controls prevent major Taiwanese semiconductor firms from conducting business with Huawei, reducing the incentive for the Taiwanese government to strengthen its domestic export controls. What are your insights regarding this gap between the U.S. and Taiwan in strategic approaches to technology export controls?

**Jimmy Goodrich:** The U.S. has the most aggressive export control regime with regards to the PRC. If Taiwan is falling short in any area, many other countries are too. That said, what Taiwan does matters significantly to the security of the global semiconductor ecosystem.

Taiwan has a stronger focus than the U.S. in some ways but weaker focus in others. Taiwan is very focused on preserving the security of its own industrial base–perhaps more so than the U.S. On the flipside, Taiwan is less concerned than the U.S. about the export of its technology to the PRC in ways that could be misused.

Many years ago, Taiwan established explicit rules about what Taiwanese companies could and could not do in China. The preeminent goal was preserving Taiwan's global leadership. They did not want TSMC, UMC, or Powerchip to offshore critical capability while building factories in China. The N minus two then N minus one rules required companies to build at least one fab in Taiwan for every fab built in China. Fabs in China had to be a certain number of technology generations behind those in Taiwan, and any investment in China had to be approved.

In addition, Taiwan has a very robust regime preventing the theft of intellectual property and talent by China. Taiwan strengthened its economic security and trade secrets protection laws, and its Ministry of Justice has aggressively pursued violations. Taiwan is one of the only countries to completely prohibit investment by Chinese chip design firms. They have also made headhunting on behalf of Chinese companies illegal. These are all things the U.S. can learn from Taiwan.

Surprisingly however, Taiwan's government currently has a laissez-faire approach toward high technology dual-use trade with China. Unlike the U.S., Taiwan has not created an entity list, maintained an end user list, or established

a military end use rule requiring Taiwanese companies to determine whether the items they sell could end up in the Chinese military. The perspective in Taiwan has been to "睜一隻眼閉一隻眼 (turn a blind eye)."

The recent example of Bitmain and TSMC is just the tip of the iceberg. Several years ago, it was reported that Taiwanese companies were producing for a PLA-owned company. The Washington Post also investigated the export of machine tools from Taiwanese companies to China and Russia. Taiwan lacks strong enforcement or even in some cases regulation of dual use technologies that could be used for military systems in China. While Taiwan observes the Wassenar Arrangement, many now perceive that as insufficient on its own without stronger end-use and technology-based controls outside the scope of these arrangements.

Ironically, Taiwan has the most to lose from that weakness. Taiwan is directly staring down the military threat from China more so than than any other country. Many policy analysts in D.C. are perplexed that the Taiwanese government and society haven't paid attention to this.

*Interview*

# U.S.-China Semiconductor Competition Under Trump 2.0 — An Interview with Matthew Turpin

*Authored by Fanny Chao*
*Interviewed by Fanny Chao and Chiang Min-yen*
*Interview date: 22 Oct 2024*

## Introduction

Matthew Turpin, who served in the National Security Council under Trump and shaped the U.S.-China semiconductor competition strategy, is now a visiting scholar at Stanford's Hoover Institution, a senior advisor at Palantir, and the co-author of the book Silicon Triangle: The United States, Taiwan, China, and Global Semiconductor Security. Turpin remains a key figure in the U.S.-China semiconductor rivalry. DSET interviewed Turpin to assess various aspects of U.S. semiconductor policy. The interview, conducted on October 22, took place shortly before the U.S. presidential election. With the Republican Party assuming full control of government, Turpin's insights on U.S. competition strategies and policy tools are thought-provoking for Taiwanese readers.

## Evaluating Tech Controls on China

**DSET:** In the face of U.S.'s export controls, China's technology continues to advance. Huawei seems to have already produced 5-nanometer chips, and reports indicate that Xiaomi has successfully trial-produced 3-nanometer chips. Moreover, according to a recent on-site report by CommonWealth Magazine on Chinese AI companies, they believe that the actual impact of U.S. export controls is limited. On one hand, China can develop its own chip alternatives; on the other hand, the chip smuggling market allows these companies to still acquire relevant products. How do you assess the progress of China's technology? Do you think China still has the capability to compete with the United States in advanced technology fields?

**Turpin:** My sense is that at the scale they need the number of advanced chips, smuggling is actually quite difficult. To get them at the number that you need, you could get hundreds or thousands, but it is much more difficult to get tens of thousands or hundreds of thousands. So, could we go down to a night market or whatever in Shenzhen, and find H-100 chips? Sure, I'm sure we could. Can we find 10,000 or 100,000 of them? No. But that's the scale needed. So, they're absolutely right, there are some available, and smuggling does work, but that is not a long term industrial level solution.

I think in many ways, what we're seeing is a desperate effort by Beijing and some of its corporate allies to portray export controls as ineffective and something that the U.S. government shouldn't even bother with. They don't work, so the U.S. just shouldn't even do it. There's an old saying in the U.S. Air Force that the

flak is heaviest when over the target. So when the Chinese government complains the most about bringing up export controls over and over again, on the one hand saying that this is terrible and it must be relieved, and on the other hand saying it's not effective, you shouldn't even bother doing this, because we're getting around it and releasing a three nanometer chip. You should be a little suspicious of the time and energy they put into releasing all of that. Doing all that might be because you're actually making a difference, right? Because if they were actually being quite effective, they might not want to talk about it. So one of the reasons for talking about it is to feed a narrative that export controls don't work.

**DSET:** The U.S. has a tool box to address legacy chips. In Silicon Triangle, you mentioned anti-dumping and countervailing measures (AV/CVD). During Trump's term, Section 301 investigations were common, and former Congressman Mike Gallagher called for tariffs on products with China's legacy chips. Could you assess the applicability and impact of these tools?

**Turpin:** The process of an AV/CVD needs a company that's been harmed to bring a case. So let's imagine that China starts dumping DRAM chips to the United States, that means an American company would have to come to the U.S. government and accuse China for dumping in the U.S. market. Right now, that's like Micron. Yet, Micron is unlikely to do so because they fear retaliation in the Chinese market.

Section 301 investigation is also an option, it enables a broader set of actions. It's completely up to the executive branch of how it uses it. The President would have wide authority to be able to do things. To impose Section 301, you have to do an investigation that is opened up in public comment for 6 months. So, let's say the administration starts on January 21, a few months before they even could start the investigation, the process takes at the fastest six to eight months. You could take an existing Section 301. There's a chance that we don't know all the investigations are ongoing now, so there may be some that will finish up and would be available to a new administration. (Note: According to media reports, the Biden administration plans to launch an investigation into China's legacy chips under Section 301 of the Trade Act before leaving office.)

For other options, you could change export control regulations relatively quickly, and impose those changes so you should block the export to certain components or software or spare parts. Also, if you find a connection with forced labor that could fall under the Uyghur Forced Labor Prevention Act, the customs department can block it at the border. There's a variety of options. All those things you'd have to investigate more thoroughly. Some of them are much quicker than others. Some of the burden of proof is relatively low.

My fear is, if you get to a point in time where it's a little bit too late, and then you need to think about it, okay, so what do you do afterward? It could be that there are still things that can be done. With tools like the executive order of the Office of Information and Communications Technology and Services (OICTS), you could prohibit the import of change-manufactured legacy chips. Which would force a company like Apple or any other ones that wanted to sell a job to the United States not to put those chips in and only rely on chips that are either from Japan, the U.S., Taiwan or Korea. You could do that. It might not be easy to do, but you could do it, which would then keep that market open.

## Taiwan's Semiconductor Security

**DSET:** How do you assess the concept of "silicon shield", and its impact on the next administration's semiconductor cooperation policy with Taiwan? For instance, as supply chain security gains attention, might TSMC face more U.S. demands to expand facilities or to deepen ties with American suppliers?

**Turpin:** I think we should be very clear that Beijing doesn't wish to take Taiwan because of semiconductors. Semiconductors are not the reason why either Beijing covets Taiwan or is deterred from taking Taiwan. The Chinese Communist Party desires to take Taiwan because it is a threat to the legitimacy of the party. It demonstrates that the Taiwanese people can have a prosperous democracy without a Leninist Vanguard party leading them. The party is terrified of mainland Chinese learning that, in fact, you actually don't need a Leninist Vanguard Party that has a monopoly hold on power, you could actually have a multi-party democracy, and you could be prosperous. That's the reason why the party wants Taiwan. We should be very clear, semiconductors are not the reason. So the idea that there's a silicon shield that guards Taiwan is a myth. So, what do I think of the U.S. Taiwan relationship is likely going to continue to be the relationship we've seen over the past few decades. The U.S. has its own interests for why it wants to have a strong relationship with Taiwan, which is independent of the competition with China. We have our own interests in doing so, and that'll continue.

For TSMC's part, I would say: if you're TSMC, and you're looking at the total available market for the kinds of chips you produce. And you do some back-of-the-envelope planning on, like, the number of fabs you need. It's really hard to understand how you would put that number in Taiwan, right? Given that your existing ones are all going to still run and you're going to upgrade them, they're going to continue to churn out advanced chips. The number of chips that the market will buy is going to exceed what you can produce in Taiwan. And so I would suspect to see TSMC say: once I have a footprint in Japan, Arizona and Europe that is functioning and able to grow, I'm going to grow that. Because, in fact, it's in my interest to be able to expand, to be able to service the market that's under demand. And if I don't do that, I'm going to get a competitor that will grow to be able to fulfill that need, and then I'm going to be under pressure, right? So I think from a commercial perspective of TSMC, it makes perfect sense to do this.

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*Interview*

# From Past Practice to Future Outlook: U.S. Export Controls and Taiwan - An Interview with Mi-Yong Kim

*Authored by Cosette Wu*
*Interviewed by Cosette Wu, Chiang Min-yen, Chris Chih-Hua Tseng, Dah-Wei Yih*
*Interview date: 3 Jan 2025*

## Introduction:

A former senior official at the Bureau of Industry and Security (BIS), Mi-Yong Kim chaired the Operating and End-User Review Committees and led BIS's participation in the Committee on Foreign Investment in the United States. In these roles, Kim collaborated closely with U.S. national security agencies, including the Departments of Defense, Energy, Homeland Security, Justice, State, and Treasury, as well as the National Security Council and the intelligence community. She also served as a senior attorney with the Chief Counsel for Industry and Security and as an export control adviser to the American Institute in Taiwan. DSET was grateful to interview Kim, whose extensive expertise on the decision-making processes behind the Export Administration Regulations, International Traffic in Arms Regulations, and the Committee on Foreign Investment in the United States brings critical insights to this report.

## Past Practice and Experience with BIS

**DSET:** Could you briefly walk us through the 16-year export control policy trajectory across the Obama, Trump, and Biden administrations and assess the level of continuity across Democratic and Republican administrations?

**Mi-Yong Kim:** People in this field like to think that export controls are not partisan, which is somewhat true. The Democratic Biden administration's actions appear to be very hardline anti-China policies. The Biden administration went full force, but those policies began toward the middle or end of the Trump administration. So, I don't think there is a lot of difference between Democratic and Republican administrations in how export controls are implemented.

The Obama administration spent eight years working on the Export Control Reform Initiative (ECRI). There was not much foreign policy implementation or effort on the actual regulatory part outside of the ECRI. The ECRI's goal was to move less sensitive military items, military parts and components, and certain firearms from the State Department list to the Commerce Department list. There were other organization-related goals that were not accomplished.

Commerce hired over 20 licensing officers to handle the items that were moved from the State Department to the Commerce Department. It may sound easy, but the movement of items from

the International Traffic in Arms Regulations (ITAR) administered by the State Department to the Export Administration Regulations (EAR) administered by the Commerce Department continued into the first Trump administration, meaning it took close to 10 years.

The idea of moving items from the ITAR military list to the EAR dual-use list came about during the Bush administration. I don't know if a lot of people know this. The actual work began under Obama, but the idea of doing so had been brewing since the Bush administration. It took a long time to achieve the political buy-in necessary to start moving items.

The policy objective for ECRI may have made it easier to move items from the ITAR to the EAR, but the primary driver was industry. The ITAR is very strict. There are exemptions to license requirements, but the ITAR tends to be very black and white, whereas the EAR has many nuances. It is end-use specific and user-specific. There are multiple exceptions to the license requirement, and there is a lot more communication with industry as the government is drafting the regulations. There is a sense that the Commerce Department is friendlier and more responsive to industry.

Under Trump, there was some movement to more forcefully regulate items going to China. But, while there was a lot of talk and some incremental regulatory changes, there was not a huge movement. During the Trump administration, there was not much coordination among the agencies, and certainly not among the people, to implement policy. This partially resulted from the Trump White House's undisciplined approach to implementation. Things could change from one day to the next, and there was not much coherence. Therefore, there was not much effort to try to make sense of what policies meant and what the overall objective was. Civil servants like me had to just sit back, watch, and wait until coherent instructions came down to them. Sometimes the instructions made sense, and sometimes they didn't. The bottom line is that there was not a lot of meaningful regulatory change.

Meanwhile, under Biden, there is much more of a whole-government approach: Commerce, State, Energy, Defense, Justice, and Treasury all working in concert to implement policies coming out of the White House. There has been a huge effort to implement US policy toward Russia. The Biden administration has taken a very disciplined approach to implementing policy by changing regulations. There were wholesale revisions or updates of the regulations, particularly in the semiconductor sector. These were not piecemeal changes here and there. Regulations would come out and be hundreds of pages long. Moreover, it happened repeatedly throughout the four years.

Is there continuity across administrations? Maybe. I'm not so sure, because a lot of it reflects international events. I don't see a lot of difference in the partisan sense, but there is a difference between the individuals that sit in the White House.

**DSET:** Based on your experience in the Bureau of Industry and Security, can you shed light on the process of instituting unilateral export control measures? Does the U.S. government communicate with allied governments or manufacturers?

**Mi-Yong Kim:** The US government's goal is always to take action multilaterally, not unilaterally–

especially in the semiconductor sector. Rules were published unilaterally when the US was not able to convince other countries to get on board in the way the US wanted. Oftentimes, they will lobby and work with relevant governments for months before finally deciding that they cannot wait any longer.

They also speak with companies. Draft regulations might be circulated to a technical advisory committee (TAC) made up of companies to see the impact of the regulations as well as whether they have any meaning to the industry. If you come up with policies and regulations, but they don't impact in the way the government intended, then you have wasted time for a lot of people.

If companies sense certain kinds of regulations are coming down the pike, they might also contact BIS to talk about the regulations' potential impact. BIS does not make commitments, but such industry input can influence the government's discussion of the regulations.

Commerce puts pen to paper, but other agencies have a say in how regulations are written. Before regulations are published, there is a lot of back-and-forth and negotiation between Commerce and other agencies, particularly the Defense Departments, on the verbiage of the regulations. Specific wording has to be negotiated and agreed upon by all relevant agencies in addition to a review by the White House Office of Management and Budget (OMB). There is a long, multi-tiered process in regulations drafting.

During the drafting process, there could be ongoing conversations with appropriate foreign governments. Things like semiconductors would generally be discussed under the Wassenaar Arrangement, but the Wassenaar is not working very well right now. Some unilateral issues are coming to the forefront only because of countries' inability to make changes through the Wassenaar.

**DSET:** Have you observed differences in the modes and levels of communication with allies regarding unilateral export control policies between different administrations? Do you think it might change under the new Trump administration?

**Mi-Yong Kim:** Differences in communication with allies were quite stark. There was some but not much forming of alliances during Trump. During Biden, export control officials spent a lot of effort on talking to countries to form partnerships and alliances.

For national security controls like semiconductors, multilateral discussions would take place during regime meetings as well as other bilateral and multilateral engagements. Wassenaar is the most dynamic of the regimes because of the area it covers. Right now, regular meetings of the Wassenaar are still being held by the secretariat. There are always efforts and continual dialogue with relevant countries within the regime setting, but not a whole lot gets done, and not many decisions get made. The biggest reason why the Wassenaar is not working properly is Russia's war in Ukraine. Russia has been recalcitrant in the Wassenaar since the very beginning, but the past few years have been really bad.

Changes could depend on how the war is resolved and whether countries can come to the table and have discussions in good faith. It is possible that there is so much distrust that it may not work even after the war ends. Political appointees in the Biden administration are jetting from one country to another, all dealing with how to bring partners

and allies into the regulatory structure the US has created for exports to China. The same goes for efforts related to Russia sanctions. Sometimes it's successful, and sometimes it's not.

The October 2023 and subsequent semiconductor rules were very ECCN-specific and very country-specific. That really needs to stop, because people are not going to understand the rules. I completely understand what the administration is trying to do, but it has come to a point where too much information and too much complexity is overburdening the bureaucracy, never mind the impact on the industry and challenges to compliance.

The licensing process has slowed down substantially in recent years because there are too many substantial and substantive regulations that even the government people do not fully understand. This approach of bifurcating country by country, ECCN by ECCN, to try to be fair based on the level of cooperation by foreign governments is making the licensing process too complicated and burdensome.

**DSET:** During your time at BIS, what did you see as the primary obstacles to forming a multilateral framework for export controls? How might the incoming Trump administration affect these difficulties?

**Mi-Yong Kim:** Multilateral frameworks existed and still exist. They're just not working as well as it used to! When I was there, Wassenaar was not perfect, but it was working. This was before Russia invaded Ukraine. Russia doesn't have a meaningful electronics industry, so they didn't exert a lot of effort in making changes to the electronics part of the control list. Now though, it appears they object to making any changes to the control list because they need China's support for their ongoing war. And China cares very much about what is on the control list, even though China is not a member of Wassenaar.

Right now, the challenge resides within the Wassenaar, where all national security items are decided upon. The policies, guidelines, and most importantly, the control lists are set by the Wassenaar. Until recently, the Commerce Department's only unilateral controls were what we called the foreign policy controls: for example, the crime control items, the anti-terrorism controlled items, and the very low-level technology items going to embargo destinations. Only in the recent past has the US published this many unilateral controls, particularly in a sensitive and important sector like semiconductors. I hope this phase will end so that the Wassenaar members can start making multilateral decisions about what should be added and deleted from the Wassenaar List.

I don't think the Trump administration will think much about whether the Wassenaar is working. This multilateral forum is not a priority for the administration. It's going to do what it's going to do. Similarly, the Europeans have NATO to worry about. Export controls are important for people like us, but in the grand scheme of international relations, it's pretty small. The issue of whether multilateral regimes are working or not will not be on Trump's radar.

**DSET:** We recently interviewed Kevin Wolf, who spoke about how different departments have varying opinions about how the US should move forward with multilateral regimes. What are your observations about these conflicting views?

**Mi-Yong Kim:** Substantive discussions are generally done by the Commerce Department and the Defense Department. However, US participation in these regimes is headed by the State Department. Without buy-in from the State Department, it won't happen.

Kevin Wolf has an idea for a different structure called Wassenaar Minus One. Some people think it's time to do that. Others don't want to throw the whole structure away because so much has been established and a lot of good work has been done by the Wassenaar. They want to find a way to get the organization back on track. However, those discussions will not even start until the war is over.

Personally, I am a big multilateralist. I think that going through the existing arrangement is ideal. Until Wassenaar is fully back on its feet, the US can continue making changes to the EAR on a unilateral or plurilateral basis. They just should not be as complicated as how Biden did it.

## Thoughts on Taiwan and Its Future Outlook

**DSET:** Having worked with Taiwanese officials on export control systems development and served as an export control advisor to AIT, can you tell us about your policy recommendations for Taiwan and how your conversations with Taiwanese officials have gone?

**Mi-Yong Kim:** I think Taiwan's Ministry of Economic Affairs listens to industry a little too much. It's almost like they do what industry tells them to do, rather than the other way around. US industry has a voice in the regulatory process too, but the US government is going to do what it's going to do.

Even Commerce Secretary Raimondo said, "If it cuts into your profit a little, that's the way it is." She's not afraid to say it. I don't think other Secretaries of Commerce actually came out and said it, but that really is the mindset. The message is "we don't want to kill your company, but our national security is more important, and you need to find other markets."

My sense is that the Taiwanese government's mindset is a little different. I have been harping about technology control with the Taiwanese government forever, and they still haven't changed it. There is some policy related to China, but export control rules apply to the whole world– not just one country. A country should always have technology controls and enforcement as part of an export control system. There is not a lot of enforcement in Taiwan. That issue has been an ongoing conversation for 12 or 15 years.

**DSET:** What export control issues do you anticipate the Trump 2.0 administration may push the Taiwanese government to address?

**Mi-Yong Kim:** The US already has an Export Control Officer (ECO) in place. BIS was seeking a budget to place an ECO in Taiwan for several years, and they succeeded under the Biden administration.

The political-level people in the Trump administration may have bigger issues than export controls to worry about with Taiwan. Export controls may be a small sliver, and the little sliver that they might pay attention to is enforcement. The ECO comes from the enforcement part of BIS.

I don't think Trump people will care about the actual regulations of Taiwan, their fairness, and how they should be implemented for all countries

as long as Taiwan's rules are strict against China. In other words, as long as Taiwan is not selling to China, Washington will be happy. But that mindset probably won't be fair to Taiwan. I encourage Taiwan's government to, when necessary and appropriate, push back on requests coming from the US when meeting such requests may not be in Taiwan's interest.

**DSET:** US extraterritorial controls may reduce the Taiwanese government's incentive to strengthen its domestic export controls. For instance, Taiwanese semiconductor firms already cannot conduct business with Huawei as they comply with U.S. regulations. How do you view this gap between Taiwan and the US? Does it differ from your observations in other countries?

**Mi-Yong Kim:** In extraterritorial controls, it doesn't matter whether you are a Taiwanese, Korean, or European company. You have to comply if the transaction falls under US jurisdiction.

With respect to the idea that Taiwan complies with US regulations anyway, Taiwanese companies only need to comply with US regulations if their transactions fall under US jurisdiction. For example, if TSMC is using machines coming from the US to make chips, then they are subject to the foreign direct product rule because the equipment came from the US. But if a Taiwan company is making virtual reality goggles with components and technology coming from somewhere other than the US, they're not subject to US jurisdiction. Only a fraction of Taiwan's businesses are actually regulated by the US. This is the same as in any other country.

Taiwan should come up with its own rules. The Taiwan government might say, "we comply with US rules anyway," but that is not the point. Taiwan should come up with its own rules and say, "this is what is good for our national security." Taiwanese companies, like companies all over the world, should comply with US rules if US rules apply to them.

When I was serving at AIT, Taiwan was using the US Entity List in Taiwan's licensing decisions. I'm not sure if Taiwan still does that. If something wholly made in Taiwan is being exported to somebody on the Entity List, would the Taiwanese government allow the export? I don't know. That's why it is important for Taiwan to evaluate how it regulates its companies and come up with its own rules.

I think the US would rather Taiwan just adopt the US system and deny all exports to people on the Entity List. But other countries don't do that. It's important for each country to come up with its own rules regulating its own industry.

**DSET:** Taiwan still cannot participate in international multilateral organizations in an official capacity. Do you think this limitation could hinder Taiwan's ability to contribute to the development of multilateral export control regimes?

**Mi-Yong Kim:** Taiwan didn't get where Taiwan is without being really smart about how it operates. I'm not sure that Taiwan's inability to participate in international regimes is actually related to Taiwan having a strong export control system.
Even when the Wassenaar was operating properly, there were few countries that substantively participated in meetings. Member countries would go to one or two meetings but not propose items to add, delete, or modify the control list or draft policy guidance. There are 42 countries in the

Wassenaar, but the bulk of the work is done by only a handful of member countries.

The fact that Taiwan is not a member of Wassenaar does not mean it will not benefit from decisions coming out of the Wassenaar. Some small member countries don't have the manpower to attend all meetings, so they may only attend one plenary at the end of the year that adopts recommendations by various working groups. In that way, Taiwan does not have to have membership to adopt Wassenaar decisions. I think Taiwan should be in the room, but that's besides the point. Not being a member shouldn't hinder how Taiwan develops its system.

I think the real reason that Taiwan's export control system is not as robust as it could be is because of a lack of interest in export controls. There is still the perception that export controls are anti-business. That mindset is very hard to overcome. Korea has the same problem in how export control is perceived, but the Korean Security Agency of Trade and Industry (KOSTI), an export control organization under the Ministry of Trade, Industry and Energy (MOTIE), added a significant number of personnel last year despite the perception. Whether or not Taiwan is part of a multilateral organization should not be a deciding factor of the effort made toward creating a world-class export control system.

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*Interview*

# Future of U.S.-Taiwan Cooperation Under Trump 2.0 — An Interview with Kharis Templeman

*Authored and interviewed by Fanny Chao*

## Introduction

Dr. Kharis Templeman, a renowned expert on U.S.-Taiwan relations, brings extensive experience and scholarship to this critical topic. As the co-author of Silicon Triangle: The United States, China, Taiwan, and Global Semiconductor Security, his work offers valuable insights into the intersection of technology, geopolitics, and the complex dynamics between the United States, Taiwan, and China. In this interview, he explores the evolving U.S.-Taiwan relationship, highlighting the strategic and technological challenges that shape it and examining its broader implications for global affairs.

## Taiwan and the New Trump Cabinet

**DSET:** On the topic of the new cabinet, there seems to be a trend of new figures recommended by Elon Musk, which introduces uncertainty for Taiwanese observers. How do you view Musk's potential influence during Trump's second term, particularly in shaping its technological competition policy with China?

**Kharis Templeman:** I don't know, but I'll give you my theory of the case here. Musk is a fairly recent addition to the Trump world. He has a huge ego and personality. So is Trump. If there's one consistent strand of Trump's life, it's that he wants to be the center of attention. If he's around other big egos, at some point, he can't stand it. For one, Musk isn't really at the core of the Trump administration. He hasn't been named to a key position. This efficiency and government commission he's supposedly involved in—it's completely made up, right? I think it is potentially a very clever way for Trump to sideline him. He gets to talk about all these great, awesome things he can do to streamline the government, but he doesn't have a department or personnel to execute that. I'd be skeptical if Musk's influence persists through all four years of the Trump administration. He is influential now, but it's rare for anyone to last four years, especially someone as polarizing as Elon Musk.

## The Future of the CHIPS Act

**DSET:** As an expert on Taiwanese economics and geopolitics, how do you assess the current state of U.S.-Taiwan cooperation in semiconductors? Given the significance of this collaboration, how might a new Trump administration reshape the discussions, particularly regarding policies like the CHIPS Act?

**Kharis Templeman:** So I think the US-Taiwan conversation about the semiconductor industry has really supercharged the bilateral relationship. It's been a useful entry point into much deeper, working-level collaboration between the two governments and between industries based in the United States and Taiwan. The emergence of Taiwan as an increasingly and almost existentially important source of high technology has been, I think, beneficial to both the United States and Taiwan. That's been true regardless of the administration in office here in the United States. So I think that will continue. The bigger question is how the incoming Trump administration might reshape discussions over the semiconductor industry. There's a fair amount of uncertainty about the tone, the tenor of conversations, and the priority that the Trump administration will place on the same things the Biden administration did. The CHIPS Act, for instance, was a core part of the Biden administration's industrial policy, and TSMC, as well as its commercial partners, were a big part of what the CHIPS Act aimed to influence. It's pretty clear to me there won't be a CHIPS Act 2.0 in the new Congress and administration. I think that's pretty much off the table. But I don't think the CHIPS Act will be repealed. If Congress does pass legislation in this space, it will just amend or weaken elements of the CHIPS Act. They won't repeal it entirely.

**DSET:** May you elaborate on why you think there won't be a CHIPS Act 2.0?

**Kharis Templeman:** I don't think there's a decisive coalition within the Republican Party in Congress to move forward with something like that. I think they want to cut taxes and see the CHIPS Act as a Democratic administration policy—an approach they don't want to take to stimulate the American economy. Trump himself has been a little bit off the map in how he talks about these issues, but ultimately, it's not up to Trump to decide; it's up to Republicans in Congress. And I don't think there's a decisive coalition that would support renewing the CHIPS Act. Also, it's a large amount of money—$52 billion—and that's a big ask of the Congress. I don't think the incoming Congress will have much appetite for spending that kind of money on something that might only pay dividends five or ten years down the road for the United States.

**DSET:** On the future of the CHIPS Act, Speaker Johnson said Congress Republicans were considering repealing the CHIPS Act, a stance Trump himself has also mentioned. The context of these discussions appears fragmented. Could you explain how this situation has developed, the dynamics within Congress and the Republican caucus, and how a newly Republican-controlled Congress might influence this scenario?

**Kharis Templeman:** The first thing I'd observe is that although Republicans will have a majority in both houses, it's a very narrow majority in the House. In the Senate, Democrats still have the filibuster. So, to pass significant new legislation through both houses, you'll almost certainly need some Democratic votes, unless it's a budget bill.

For that reason alone, if Democrats are unified in opposing a repeal of the CHIPS Act, it will be very difficult for Republicans to do that. That's the negative case for why they wouldn't repeal it.

The positive case is that the CHIPS Act was designed in a way that fits with both Biden's and Trump's economic approaches. This is one of the areas where their approaches overlap in practice even though they frame it differently. The idea that industrial policy is a valid tool—reshoring manufacturing, ensuring that the best things

are made in the United States, securing supply chains, and disentangling them from the PRC—is something both parties largely agree on.

Traditional Wall Street or Main Street Republican business lobbies and some China-friendly Democrats are uncomfortable with this approach, but both Trump and Biden have brushed them off to focus on industrial policy and reshoring.

Also, state-level governments play a key role here. Governors across the US compete for foreign direct investment, new industries, and job creation. That's an underappreciated part of the political dynamic outside the US. If TSMC builds a plant in Texas, you can bet that Governor Abbott will trumpet it, talking about how great Texas is compared to, California probably, for landing TSMC. It's smart of TSMC to take advantage of that political dynamic, because Republicans at the state level do have lots of influence over their Congressional caucuses, Senate members, and even potentially Trump himself.

**DSET:** When it comes to state-level government, it is reported that TSMC has been engaging with the governor of Texas about increasing capacity there. How do you assess this dynamic?

**Kharis Templeman:** In the political economy of the chips industry in the United States, a lot of the investment has gone into swing states or red states. Governors of US states care a lot about economic development and investment. They love to champion new investments. I think it's a smart strategy for a Taiwan-based company like TSMC to really play up the fact that they can bring a lot of economic benefits to the state level, to state governors and state economies. So, that, in turn, may have an indirect effect on how members of Congress view this and ultimately how the Trump administration views this.

## Broader Issues and Opportunities in Taiwan-U.S. Cooperation

**DSET:** Looking beyond semiconductors, how do you assess the US and Taiwan engage in fields of trade, military, and energy under the incoming administration?

On trade, efforts to finalize a US-Taiwan FTA during Trump's first term were blocked over issues like pork imports. With Trump signaling plans to repeal initiatives like the Indo-Pacific Economic Framework (IPEF) and the US-Taiwan Chao Initiative, do you think his administration would prioritize formal trade talks with Taiwan or focus on pressuring Taiwan to unilaterally open its market?

For the military, Taiwan's recent record arms request emphasizes traditional platforms over asymmetrical tools like drones. Could a Trump administration push Taiwan toward larger, conventional systems rather than cost-effective, asymmetrical options?

On energy, discussions about small modular reactors (SMRs) and nuclear revival are gaining attention. Do you see a Trump administration increasing pressure on Taiwan to embrace nuclear energy?

**Kharis Templeman:** The short answer is yes to all three. I think you hit on the key issues in the bilateral relationship for the next administration.

On trade, I do think the next Trump administration will have a keen interest in some form of trade negotiation with Taiwan. It won't look like the

Biden administration's priorities. But we saw in his first term, Trump loved to trumpet the fact that he tore up NAFTA and replaced it with something better, even if it didn't look that different. It gave him a win to celebrate. I think a similar dynamic will be at play here.
On defense cooperation, I don't expect significant shifts in the Trump administration's approach. There's broad consensus on Capitol Hill among Democrats and Republicans that the US should be doing more with Taiwan in this space. The US should be providing more to Taiwan and helping with training. If there's any difference, it will likely be in a public tone. The Biden administration has been more traditional and hasn't publicly pressured Taiwan as much. The Trump administration may have people to do that. But overall, the direction of defense cooperation will continue.

Specifically, on arms sales, there are two countervailing forces. One is that Trump himself would love to see the US sell more arms to Taiwan, regardless of the type. But there's also broad consensus within the State Department, Department of Defense, and on Capitol Hill that Taiwan has a limited budget, Taiwan needs to spend wisely and focus on things that give the best value for money. For example, F-35s don't do that. It's not helpful for Taiwan to come with a wish list that includes those. I think it is the second group who is going to drive  the conversation more in practice.

On energy, you're absolutely right. This is a huge potential issue for this incoming administration. Their worldview is that the US should be the petro-state supplying the free world. They believe the Biden administration's restrictions on exploiting our oil, natural gas, and coal resources, so we haven't been that. I expect a big push to increase our LNG exports to Europe to replace Russian gas and maybe to Taiwan as well. There may be pressure on Taiwan to buy more US LNG.

Related to that, I see this administration as potentially the most pro-nuclear administration in decades. This coincides with interest from major US companies like Microsoft and Google in using nuclear power to secure a reliable and long-term zero-carbon energy. There's already pressure on Taiwan to consider reversing its nuclear phaseout. There's potentially a lot of US interests in selling SMRs or the latest generation of nuclear technology to Taiwan. If Taiwan reciprocates, it could strengthen the bilateral relationship. Frankly, I think it's a good move for Taiwan to secure reliable energy in case of interruptions in LNG or oil imports.

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