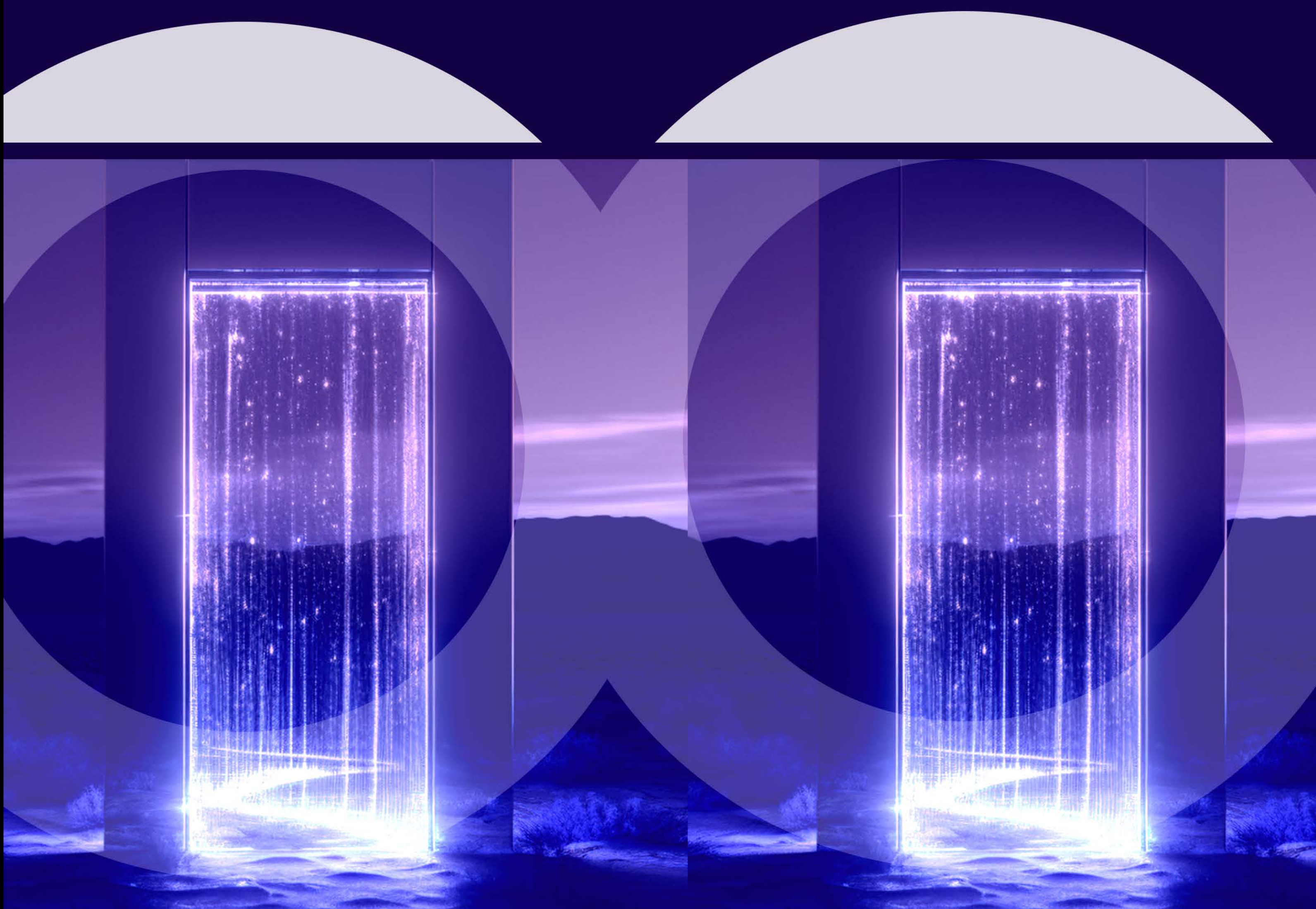
US-China Tech 2025 Preview

CAPSTONE

Trump's Tech Wall: Intensifying "Tough on China" Policy Approach to Pose Global Risks



THE BOTTOM LINE

Capstone believes that a second Trump administration will intensify the US's "tough on China" technology policy approach and expand the scope of controlled technologies. These tensions pose underappreciated risks for domestic and foreign semiconductor manufacturers, Japanese automakers, e-commerce platforms, and large-scale M&A deals.

Outlook at a Glance

- MORE AGGRESSIVE, EXPANSIVE SEMICONDUCTOR EXPORT CONTROLS TO DRAW IN US ALLIES, CREATING REVENUE RISK FOR MANUFACTURERS EXPORTING TO CHINA
- MARKET CONCERNS FOR CHIPS ACT REPEAL OVERSTATED; PUSH FOR DEREGULATORY REFORMS AND TIGHTER NATIONAL SECURITY CONTROLS TO BENEFIT DOMESTIC CHIPS RECIPIENTS
- RULEMAKING TO LIMIT DE MINIMIS EXEMPTIONS FOR LOW-VALUE IMPORTS LIKELY TO PASS IN NEW CONGRESS, POTENTIALLY INCREASING E-COMMERCE TARIFFS
- CHINESE TRADE RETALIATION POSES RISKS TO LARGE M&A DEALS, JAPANESE AUTOMAKERS, WESTERN TECH FIRMS WITH CHINA EXPOSURE

More Aggressive, Expansive Semiconductor Export Controls to Draw in US Allies, Creating Revenue Risk for Manufacturers Exporting to China

Winners	NAURA Technology Group Co. Ltd. (002371 on the Shenzhen exchange), Tencent Holdings Ltd. (0700 on the Hong Kong exchange), Chinese equipment-makers
Losers	Changxin Memory Technologies (CXMT), Nvidia Corp. (NVDA), ASML Holding NV (ASML), Tokyo Electron Ltd. (8035 on the Tokyo exchange), Semiconductor Manufacturing International Corp. (0981 on the Hong Kong stock exchange), Chinese fab operators

TRUMP'S MAXIMALIST EXPORT CONTROLS TO REPLACE BIDEN-ERA "SMALL YARD, HIGH FENCES" STANCE

Capstone believes that the aggressive trajectory of China-related export controls will continue in 2025. We expect that the Trump administration will implement even stricter and more expansive controls, which will in turn drive a harder line with allies on enforcement. These developments will create additional revenue risk for both US and global leading-edge manufacturers exporting to China, implicating firms (e.g., equipment makers) in other areas of the supply chain. Conversely, we expect some Chinese manufacturers to benefit from the subsequent chip supply gap and from continued stimulus from the Chinese government to achieve self-sufficiency. Still, some firms that have benefitted from lax application of US export controls in the past, such as SMIC, may be negatively impacted.

Under the Biden administration, the Commerce Department tailored an export control regime that addresses national security risks posed by Chinese military modernization. We expect the BIS under the Trump administration to retain its focus on leading-edge semiconductors, particularly integrated circuits used in artificial intelligence (AI) applications, while scaling back other activities, such as those related to commercial applications through notification program. We expect the Trump administration will also broaden existing export controls to include other strategic emerging technologies, building on the Biden administration's initial work in areas, like quantum computing.

The Trump administration will pursue more aggressive plurilateral export controls, particularly around semiconductor manufacturing equipment (SME). While the Biden administration has been patient with allies like the Dutch and Japanese, providing exemptions like "Implemented Export Controls", Trump is likely to invoke Foreign Direct Product Rule (FDPR) more liberally to restrict the sale of Dutch and Japanese lithography tools with US content. We anticipate both countries may be willing to accept stricter export controls in exchange for US concessions in other areas, such as tariff relief. More broadly, we expect bilateral negotiations with semiconductor allies to involve significant "trading" across policy areas.

Along with increased use of the FDPR, Trump will likely lower the de minimis threshold, which establishes the percentage of US-origin content that subjects foreign-made products to US export controls. The Commerce Department under Trump could lower the threshold to 0% for a broader set of technologies, following the Biden administration's recent move in this direction.

One area where we expect limited change is on mature-node (i.e., >28 nm) semiconductors. Despite growing national security concerns related to China's dominance in legacy chips, we believe Trump will be sensitive to the impact of broadening controls on domestic industry. We believe he will instead target legacy chips through his semiconductor tariff proposals, though these measures will be largely symbolic until the administration can formalize trade enforcement actions (i.e., Section 232 tariffs).

From a personnel perspective, a few factors may influence the Trump administration's posture on China-related export controls. Trump's nominee for Commerce Secretary, Howard Lutnick, has repeatedly expressed a more moderate view on tariffs than the president-elect, a perspective that may extend into other areas of US-China competition. Tech entrepreneur Elon Musk is also

expected to be a moderating influence on Trump's China policies, given his business interests heavily depend on advanced semiconductors.

We also anticipate the legislative branch's extended involvement in defining export control policy under Trump. The US-China Economic and Security Review Commission's recent annual report to Congress recommended expanding congressional review of licensing decisions and establishing an interagency task force, led by the national security adviser, to advise BIS.

MORE RIGOROUS, ENTITY-BASED ENFORCEMENT

Capstone believes the Commerce Department under Trump will heavily rely on the Entity List, which subjects foreign entities to export licensing requirements, to limit Chinese access to US technology. In his first term, Trump listed almost 100 Chinese entities for aiding Chinese military modernization. This number has steadily increased under the Biden administration, a trend that will likely continue in Trump's second term.

In general, we expect heightened scrutiny of Chinese entities across the supply chain, especially those with connections to Huawei, and with more skepticism around excluding facilities deemed to operate outside of advanced nodes. Top among potential additions to the Entity List include state-sponsored manufacturers, such as Changxin Memory Technologies (CXMT) and Advanced Micro-Fabrication Equipment Inc. China (AMEC). These firms were excluded from Biden's latest update including Swaysure, Pengxinxu, and equipment makers like Naura Technology Group. However, we also expect significant room for personal diplomacy to influence enforcement. Notably, Trump temporarily rolled back certain restrictions affecting Huawei after conducting private talks with Chinese President Xi Jinping at the G20 Summit in 2019.

Trump's cabinet appointments, such as Sen. Marco Rubio (R-FL) to the US State Department, signal an incoming harsher licensing regime with the expansion of the Entity List. Rubio has repeatedly criticized BIS for promulgating weak export controls and sent a letter to Secretary Raimondo in September 2024 proposing that the Bureau adopt a blanket "presumption of denial" posture for export license applications involving critical technology to designated Chinese entities.

We, therefore, expect BIS to grant significantly fewer licenses following its interagency process for national security-controlled items, in line with recent proposals from both the House Foreign Affairs Committee (HFAC) and the Select Committee on the Chinese Communist Party. A 2023 HFAC investigation revealed that BIS approved 99% of license applications for Huawei and SMIC, implicating $23 billion of goods, at the beginning of 2022. The Depriving Enemy Nations of Integral Authorizations and Licenses (DENIAL) Act, which broadly increases Congressional oversight of Commerce licensing decisions, offers a legislative avenue to enact this change. We also expect a near-categorical denial of license applications to ship to Huawei, which has already begun under the Biden administration during license renewals.

Finally, we expect BIS to adopt a more aggressive enforcement posture. Export control violations have recently been heavily scrutinized by lawmakers, with several bipartisan groups calling for expanded enforcement resources. Regardless, we believe BIS will make greater use of "is informed" letters, an enforcement mechanism that allows the Bureau to notify US companies of new licensing obligations without going through a rulemaking process. In November 2024, BIS used this process to notify TSMC of restrictions on its <7 nm AI semiconductor exports to China after its chips were reportedly in a Huawei AI processor. We also expect that sustained BIS collaboration with the Department of Justice (DOJ) through the joint DOJ-Commerce Disruptive Technology Strike Force will heighten enforcement risk for companies.

Market Concerns for CHIPS Act Repeal Overstated; Push for Deregulatory Reforms and Tighter National Security Controls to Benefit Domestic CHIPS Recipients

Winners	Intel Corp. (INTC), Micron Technology Inc. (MU), Texas Instruments Inc. (TXN), GlobalFoundries Inc. (GFS)
Losers	Taiwan Semiconductor Manufacturing Company Ltd. (TSM), Samsung Electronics Co Ltd (005930 on the Korea Exchange), SK Hynix Inc. (000660 on the Korea Exchange), GlobalWafers Co Ltd (6488 on the Taiwan Stock Exchange)

Capstone believes market concerns around the durability of the CHIPS and Science Act of 2022 under a Trump administration are overstated. Despite House Speaker Mike Johnson's comments about a potential repeal of the legislation, which he later walked back, we believe there are strong, bipartisan dynamics that support the CHIPS program. We are skeptical of a legislative repeal under a Republican-controlled Congress, given the concentration of incentives in red states.

The Trump administration has little power over CHIPS funding once it is obligated, given that the final awards are contractually binding. We expect the Biden-led Commerce Department to finalize awards with all leading-edge manufacturers before the new administration takes charge. However, there is some risk that the Trump administration may not honor these final awards, particularly for firms with preliminary memorandum of terms (PMTs) announced later in the year.

Capstone expects Congress to push through some deregulatory reforms to the CHIPS and Science Act as part of the budget reconciliation process next year. Legislation such as the CHIPS Improvement Act aims to strip diversity, equity, and inclusion (DEI) and environmental requirements from R&D awards, which we believe could be expanded for all CHIPS incentives. These measures will benefit firms such as Micron Technology (MU) that have experienced project delays due to compliance challenges (e.g. obtaining permits). Congress may also pursue the CHIP Equip Act, a bipartisan proposal that restricts the use of advanced semiconductor manufacturing equipment (SME) from foreign countries of concern in US facilities funded under the CHIPS Act. Additionally, the Commerce Department is likely to expand the national security guardrails finalized by the Biden administration in September 2023, which restrict CHIPS recipients from "material [capacity] expansions" in a foreign country of concern. Commerce may narrow exemptions for legacy chip facilities that predominantly serve the domestic market, dialing up pressure on foreign

companies with significant manufacturing presence in China, such as Taiwan Semiconductor Manufacturing Company (TSM) and Samsung.

We view it as unlikely that Tax Cuts and Jobs Act (TCJA) negotiations in 2025 will directly implicate the CHIPS Act. Despite calls from conservative interest groups to roll back Biden-era tax credits, we believe the 48(D) advanced manufacturing investment tax credit is well-insulated, particularly since it is codified in statute. The broad set of domestic manufacturers that benefit from the tax credit is a powerful constituency and includes hundreds of firms that didn't receive an incentive (i.e., grant funding or loans).

Other Congressional dynamics, such as a renewed focus on reshoring and trade protectionism, could set the stage for a CHIPS 2.0 effort in the coming years. Capstone expects the program's job creation impact will begin to accrue next year as key fab sites become operational, creating a potent coalition of economic interests that support a CHIPS 2.0 package.

Rulemaking to Limit De Minimis Exemptions for Low-Value Imports Likely to Pass in New Congress, Potentially Increasing E-Commerce Tariffs

Winners	US-based sellers and marketplace platforms, Target Corp. (TGT), and other traditional retailers
Losers	Amazon.com Inc. (AMZN), PDD Holdings Inc.'s (PDD) Temu, Shein, Walmart Inc. (WMT)

Capstone believes reforms to Section 321 of the Trade Act, known as the "de minimis" provision, next year, could limit exemptions for low-value textiles and apparel goods from US tariffs. The provision allows importers to use informal entry for packages worth less than $800. Congress is likely to attempt passing legislation introduced earlier this session during the current lame-duck period before the end of the year, while the Biden administration is on track to roll out its notice of proposed rulemaking (NPRM) before the transition. However, lawmakers may be more successful next year after Republicans have a unified government, given that House Democrats such as Rep. Earl Blumenauer (D-OR) remain opposed to reforms that do not apply to China-related imports.

Under Trump's first term, the Treasury Department was developing a rule that would have also limited the scope of the de minimis exemption, suggesting that his new administration will likely pursue a similar measure. In particular, consensus has now formed around removing the ability for importers to use de minimis entry for goods covered under US trade enforcement actions like Section 301 tariffs.

Capstone estimates that a narrowing of the de minimis exemption would expose Chinese-owned e-commerce platforms such as Shein and Temu, that have several listings with goods originating from mainland China, as well as sellers on those marketplaces, to $2.6 billion collectively in additional tariff liabilities.

Chinese Trade Retaliation Poses Risks to Large M&A Deals, Japanese Automakers, Western Tech Firms with China Exposure

Winners	Tesla Inc. (TSLA)
Losers	Apple Inc. (AAPL), Microsoft Corp. (MSFT), Toyota Motor Corp. (TM), Honda Motor Co. Ltd. (HMC), and other large or acquisitive Western firms with significant China exposure

The CCP has historically reciprocated to aggressive US trade and export control policies, and we expect this to persist in Trump's second term. However, we believe the breadth of retaliatory tools that Beijing has at its disposal is underappreciated, particularly given the number of Western tech companies with material exposure to the Chinese market.

SAMR TO EXERCISE CONTROL OVER GLOBAL TECH MERGERS, FLEXING "CALL-IN" POWER

During Trump's first term, China's domestic competition regulator, the State Administration of Market Regulation (SAMR), derailed several technology mergers involving US firms – most notably, Qualcomm's $44 billion acquisition of NXP Semiconductor. SAMR has intervened strategically in mergers, delaying its review (effectively running out the clock) rather than blocking them outright. The "stop-the-clock" mechanism introduced in the August 2022 amendments to China's Anti-Monopoly law allows SAMR to formally suspend its statutory 180-day review period, introducing the potential for further delays.

Although SAMR claims that updated filing guidelines issued at the beginning of 2024 will reduce the volume of merger notifications by 30%, its revenue-based notification thresholds still capture significant transactions across the technology sector. We expect SAMR to increasingly exercise its discretionary "call-in" power to review transactions that fall under these thresholds, as it did in the Synopsys/Ansys merger. We believe large deals in sensitive industries face the greatest risk, as the regulator will likely use antitrust concerns to pursue geopolitical goals.

STRICTER CRITICAL MINERAL EXPORT CONTROLS AS CHINA SEEKS LEVERAGE OVER US ALLIES

We expect China to leverage its control of critical mineral supply chains through retaliatory export controls. China has already implemented export bans on gallium, germanium, and antimony, key to manufacturing semiconductors, batteries, and other microelectronics. We expect China to target more critical minerals, such as tungsten and magnesium, and adopt stricter licensing policies for materials not yet banned.

China may also restrict critical mineral access to combat multilateral enforcement of semiconductor export controls. Earlier this year, China threatened severe economic retaliation against Japan if it implemented restrictions on advanced SME technology in concert with the US. This mirrors China's temporary suspension of rare earth mineral exports following a 2010 dispute in the East China Sea, which nearly disrupted Japan's electronics industry. Although Japan has made progress in diversification since then, key sectors, such as the auto industry, are still dependent on Chinese raw materials. This could create significant headwinds for Japanese manufacturers such as Toyota Motor Corporation (TM) and Honda Motor Corporation, Ltd (HMC).

HEIGHTENED RESTRICTIONS ON FOREIGN TECH THREATEN US FIRM MARKET SHARE

We believe the CCP will restrict access to US consumer electronics, primarily smartphones, within China's border to reduce foreign technology dependence. In late 2023, Chinese state-owned firms and central government agencies issued staff formal directives to stop carrying iPhones and foreign devices to work, expanding a ban that had been only applied to the most sensitive agencies for several years. The move was understood to be retaliation against a November 2022 rule issued by the US Federal Communications Commission (FCC) banning the sale and import of telecommunications equipment from Huawei, ZTE, and other Chinese firms. We would expect CCP restrictions to accelerate under Trump's second term, with further US actions against Huawei expected and the specter of a TikTok ban, threatening technology companies such as Apple and Microsoft that are reliant on Chinese end markets. Despite government restrictions on foreign smartphones, Apple currently has a 15% share of the Chinese smartphone market.

Notably, there is an area of opportunity for Tesla, given Musk's personal relationships with CCP officials, such as Chinese Premier Li Qiang. We believe Chinese leaders will be incentivized to leverage their support for Tesla to negotiate concessions from the Trump administration. These dynamics may influence China's regulatory approval for Tesla's full self-driving (FSD) technology, which is still outstanding in the country.

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