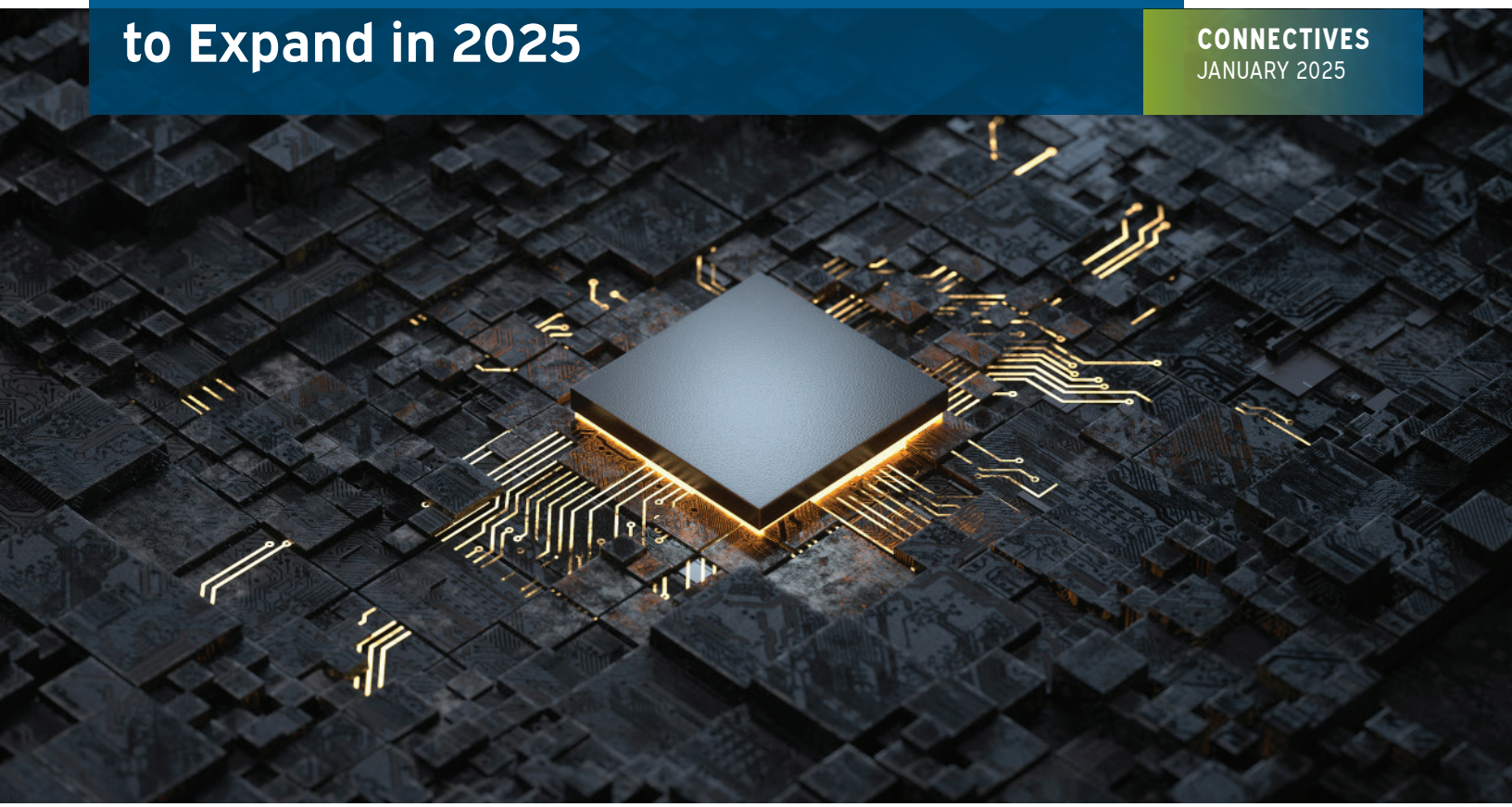
MEKETA

US-China CHIP Wars Set to Expand in 2025

CONNECTIVES
JANUARY 2025



The US-China chips wars look set to intensify in 2025. In the last days of the Biden administration, Washington tightened controls on advanced semi-conductor chip exports to China,[1] announced a new probe into China's anti-competitive policies undermining US competitiveness in the production of legacy semiconductors,[2] and the Pentagon linked two major publicly traded Chinese companies – Tencent and CATL – to the Chinese People's Liberation Army.[3] China responded with its own export controls on rare earth minerals needed for the production of semiconductors as well as launching an anti-monopoly investigation of Nvidia.[4]

Until recently, the US has focused on curtailing the export of the most advanced semiconductors and the machinery required to make these chips.[5] While there has been some compliance from companies that produce the machinery required to make these advanced chips, China continues to be a major source of revenue for these companies (see Figure 1). And the repercussions of the US-China chip wars seem to have had limited impact on investors or even on tech company earnings. Sanctions have "not prevented Chinese chip makers from making huge investments to scale up production of legacy semiconductors. Some analysts estimate that China is on track to double its chip manufacturing capacity by the end of the decade, boosted by subsidies from Beijing."[6]

[1] Source: Wall Street Journal, L. Lin et al., "US Prepares New AI Chip Restrictions to Close China's Back Door Access," December 13, 2024.

[2] Source: Office of the United States Trade Representative, "USTR Initiates Section 301 Investigation on China's Acts, Policies, and Practices Related to Targeting of the Semiconductor Industry Dominance," December 23, 2024.

[3] Ibid.

[4] Source: Financial Times, T. Bradshaw et al., "US Launches Probe into Chinese Semiconductor Industry," December 23, 2024.

[5] Ibid.

[6] Ibid.

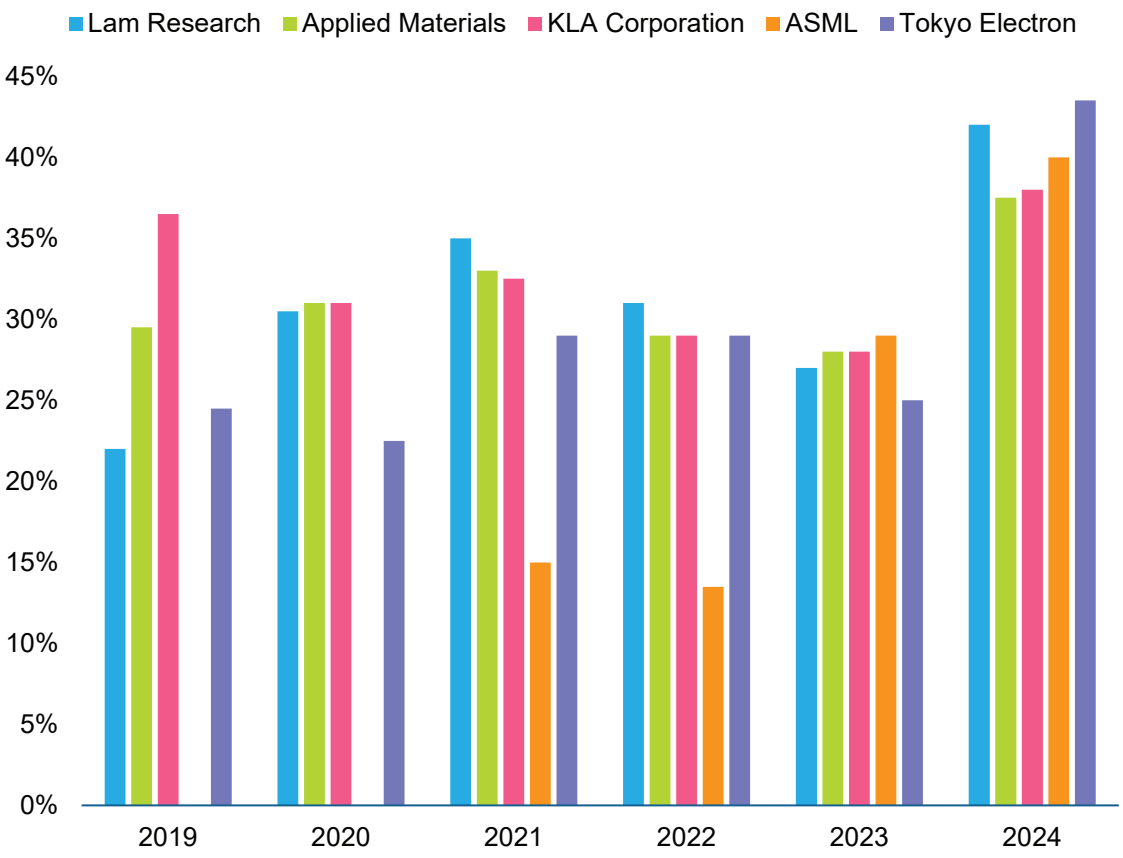


FIGURE 1
Chip Equipment Makers' China Revenue Share (%)

Source: Bloomberg as of December 2024. ASML data for 2024 is an estimate. Original chart published by Financial Times, R. Armstrong, "Where the US-China Chip War Meets AI Hype," December 16, 2024.

Note: Lam Research, Applied Materials, KLA Corporation, ASML, and Tokyo Electron are all makers of semiconductors.

According to US Trade Representative Katherine Tai, "Evidence indicates that China seeks to dominate domestic and global markets in the semiconductor industry and undertakes extensive anticompetitive and non-market means, including setting and pursuing market share targets."[7] There appears to be widespread appetite for further targeted tariffs to protect US technology companies. US trade representatives are currently looking into component tariffs so that assembled products that contain Chinese legacy semiconductors will be subject to import taxes in the US.[8] And the US Commerce Department appears to be laying the groundwork for future investigation into China's possible anti-competitive policies.[9]

US politicians are considering whether to develop their own industrial policy goals related to AI and chip-making, similar to the policy approach favored by China. President Trump announced a $500 billion dollar AI infrastructure program within his first few days in office.[10] As Chinese President Xi's "Made in China 2025" industrial policy reaches its 10-year anniversary, China has made significant strides to not only dominate advanced manufacturing, green tech, electric vehicle, and semiconductor industries in China and around the world.[11] In 2020, President Xi's dual-circulation policies reinforced state-industrial policy focused on self-sufficiency and building 'fortress China'. Since 2018, US trade policy has become increasingly focused on national security and supply-chain resiliency. Trump's new Secretary of State, Marco Rubio, recently published a report on "The World China Made: 'Made in China 2025 Nine Year's Later,"[12] in which he raised the alarm of China's anti-competitive practices.

[7] Source: Office of the United States Trade Representative, "USTR Initiates Section 301 Investigation on China's Acts, Policies, and Practices Related to Targeting of the Semiconductor Industry Dominance," December 23, 2024.

[8] Source: Financial Times, C. Miller, "How the Chip War Could Turn Under Trump," December 5, 2024.

[9] Source: Office of the United States Trade Representative, "USTR Initiates Section 301 Investigation on China's Acts, Policies, and Practices Related to Targeting of the Semiconductor Industry Dominance," December 23, 2024.

[10] Source: Financial Times, "Stargate Artificial Intelligence Project to Exclusively Serve Open AI," January 23, 2025.

[11] Source: Nikkei Asia, "For Xi Jingping 'Made in China 2025,' Has Been Work Every Penny." December 2024.

[12] Source: Senator Marco Rubio, "The World China Made: 'Made in China 2025' Nine Years On," September 2024.

In addition to concerns that China has been able to circumvent the US advanced CHIP embargoes, there have been AI startups in China that appear to be able to rival some US-based AI companies.[13] For example, the public launch of the Chinese AI app DeepSeek has surprised markets in 2025.[14] After being released to iPhone users on January 10, 2025, DeepSeek quickly rose to the top of AI iPhone apps.[15]

While DeepSeek's performance rivals the likes of ChatGPT in early testing, what may be more surprising is the cost at which they accomplished this feat. The two-year old AI start-up claims that it was developed for just $6 million dollars and trained on just 10,000 H100 Nvidia's GPUs.[16] By comparison, Meta's Llama 3 was trained on 16,000 H100 GPUs while Elon Musk's XAI was reportedly trained on 100,000 H100 GPUs.[17]

The US-China chip wars appear poised to intensify and expand in the coming years. The AI arms race is evolving rapidly and does not seem likely to slow down.

[13] Source: The Economist, "China's AI Firms Are Cleverly Innovating Around Chip Bans," September 19, 2024.

[14] Source: The Economist, "China's AI Firms Are Cleverly Innovating Around Chip Bans," September 19, 2024. And Financial Times, "Advances by China's DeepSeek sow Doubts About AI Spending," January 27, 2025.

[15] Source: Wall Street Journal, "What We Know Ab out DeepSeek," January 27th, 2025.

[16] Source: Wall Street Journal, "What We Know Ab out DeepSeek," January 27th, 2025. And Financial Times, "Advances by China's DeepSeek sow Doubts About AI Spending," January 27, 2025.

[17] Source: Wall Street Journal, "What We Know Ab out DeepSeek," January 27th, 2025.

To learn more about one of the primary drivers behind the chip wars, Generative AI , navigate AI investment risks and opportunities in venture capital , or go back to where it all began by reading part one of our Understanding China series, visit the **Thought Leadership** section of our **website** or click the links here to learn more.

Generative AI
https://meketa.com/leadership/generative-artificial-intelligence/

Navigating AI Investment Risks and Opportunities in Venture Capital
https://meketa.com/leadership/navigating-ai-investment-risks-and-opportunities-in-venture-capital/

Understanding China: An Economic and Investment Perspective - part I
https://meketa.com/leadership/understanding-china-an-economic-and-investment-perspective-part-i/

Disclaimers

THIS REPORT (THE "REPORT") HAS BEEN PREPARED FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT, AND IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. THE INFORMATION CONTAINED HEREIN, INCLUDING ANY OPINIONS OR RECOMMENDATIONS, REPRESENTS OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND IS SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK, AND THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

THE INFORMATION USED TO PREPARE THIS REPORT MAY HAVE BEEN OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. SOME OF THIS REPORT MAY HAVE BEEN PRODUCED WITH THE ASSISTANCE OF ARTIFICIAL INTELLIGENCE ("AI") TECHNOLOGY. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY, ADEQUACY, VALIDITY, RELIABILITY, AVAILABILITY, OR COMPLETENESS OF ANY INFORMATION CONTAINED HEREIN, WHETHER OBTAINED EXTERNALLY OR PRODUCED BY THE AI.

THE RECIPIENT SHOULD BE AWARE THAT THIS REPORT MAY INCLUDE AI-GENERATED CONTENT THAT MAY NOT HAVE CONSIDERED ALL RISK FACTORS. THE RECIPIENT IS ADVISED TO CONSULT WITH THEIR MEKETA ADVISOR OR ANOTHER PROFESSIONAL ADVISOR BEFORE MAKING ANY FINANCIAL DECISIONS OR TAKING ANY ACTION BASED ON THE CONTENT OF THIS REPORT. WE BELIEVE THE INFORMATION TO BE FACTUAL AND UP TO DATE BUT DO NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THE CONTENT PRODUCED. UNDER NO CIRCUMSTANCES SHALL WE BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES OR ANY DAMAGES WHATSOEVER, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE, OR OTHER TORT, ARISING OUT OF OR IN CONNECTION WITH THE USE OF THIS CONTENT. IT IS IMPORTANT FOR THE RECIPIENT TO CRITICALLY EVALUATE THE INFORMATION PROVIDED.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD-LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM," "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE," OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS REPORT ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS REPORT.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.