



US-China Business Council Comment on “Foreign-Produced Direct Product Rule Additions, and Refinements to Controls for Advanced Computing and Semiconductor Manufacturing Items” and “Implementation of Additional Due Diligence Measures for Advanced Computing Integrated Circuits; Amendments and Clarifications; and Extension of Comment Period”

(RIN 0694-AJ74, RIN 0694-AJ98)

The US-China Business Council (USCBC) welcomes the opportunity to submit comments to the Bureau of Industry and Security (BIS) on the Foreign-Produced Direct Product Rule Additions, and Refinements to Controls for Advanced Computing and Semiconductor Manufacturing Items interim final rule (SME IFR) and the Implementation of Additional Due Diligence Measures for Advanced Computing Integrated Circuits; Amendments and Clarifications; and Extension of Comment Period interim final rule (ACIC IFR). USCBC comprises around 270 US companies that do business in China. Many of our members depend on their market share in China to enhance and undergird their global competitiveness, in ways that make America stronger, such as providing revenue sources that fuel more advanced activities and employment in the homeland. Unfortunately, our members report that export controls have caused the opposite to occur—broad, complex controls have reduced revenue, led to layoffs in the United States, and forced companies to curtail R&D activities needed to maintain cutting-edge advantages.

USCBC data underscores the importance of China for maintaining American global competitiveness. According to our annual member survey, 91 percent of respondents say China is important for their global competitiveness, among which one-quarter say their firm would not be globally competitive without China. Our ongoing goal is to partner with the US government on multiple fronts to craft policies that enhance the competitiveness of US industry and, by extension, strengthen US national security.

USCBC understands and appreciates the crucial role export controls play in preventing the proliferation of technologies that have national security implications and dual-use applications. However, when it comes to controls on semiconductors and semiconductor manufacturing equipment (SME), USCBC is concerned that the October 7, 2022, rules and their subsequent iterations, including the December 5, 2024, and January 16, 2025, rules, have adversely impacted US companies by empowering their Chinese competitors. Export controls have incentivized innovation and collaboration between domestic Chinese industry and the government in China, fueling industrial policies that provide a panoply of benefits to Chinese companies.

The SME IFR's preamble states that export controls are needed to stymie China's development of an "independent and controllable" semiconductor sector. China has pursued semiconductor self-sufficiency since the 1960s, and the independent and controllable initiative, also known as "Xinchuang," is the latest iteration of this longstanding policy objective. USCBC shares the US government's concerns with this policy. We have called for Chinese regulators to publicly annul certain documents associated with Xinchuang, namely Document 79. However, export controls have, contrary to their intention, accelerated China's tech indigenization campaign by lowering a barrier that Chinese companies historically have faced in the semiconductor market: their American competitors.

Beyond artificially inducing demand for Chinese semiconductors and semiconductor manufacturing equipment, export controls have resulted in lost visibility for American manufacturers. Broad controls risk blinding American industry, and companies are concerned that their long-term positions will be eroded, not just in China but globally as their competitors grow.

USCBC data indicates that these trends are already occurring. Our survey lists the top 10 challenges that US companies face when doing business in China; competition with Chinese companies ranked third, export controls ranked fourth, and industrial policy ranked ninth. A record number of respondents, 58 percent, indicated that their concerns about Chinese industrial policies are based on existing, as opposed to potential, impacts, and 43 percent said that national policies promoting domestic innovation were the most prevalent sign of protectionism. When asked about the impact of China's industrial policies, 79 percent of respondents cited increased competition, and an additional 55 percent said that their customers in China have actively shifted away from American companies.

Our data on the impact of export controls confirms these dynamics. When asked about the main impacts of export controls, 48 percent of respondents stated that export controls caused them to lose sales to Chinese competitors, and 30 percent lost sales to international competitors, indicating high degrees of supply chain indigenization and a lack of international harmonization. 19 percent reported delays to product planning and development. Other sources, such as the Federal Reserve Bank of New York, said that US export controls on semiconductors resulted in a \$130 billion hit to the market cap of affected US suppliers and did not result in new supply chain partnerships.

USCBC appreciates BIS's efforts to provide objective bright lines for companies and has engaged in prior rulemaking processes. However, we believe that at this juncture, rather than responding to tech advancements in China by tightening export controls, BIS should holistically reexamine its system to provide the flexibility and speed American companies require to compete—and win—in China's burgeoning semiconductor market. We question the sensibility of tightening controls in a market that is actively growing and gravitating away from American products.

Years of successive rules, often with minimal adjustment periods for companies, have also increased compliance obligations and placed US companies on the back foot. In our survey, when asked about the main compliance challenges of export controls, 75 percent cited difficulties conducting due diligence, 48 percent cited difficulties communicating regulatory and compliance changes to their Chinese business partners, and 41 percent cited delayed or unclear administrative processes. Compliance questions have again increased in the December 5 and January 16 IFR, and we believe that consumer-grade technologies have mistakenly been captured. To rectify some of industry's outstanding concerns, improve US companies' ability to comply with the Export Administration Regulations (EAR), and maintain a narrow focus on military technologies, USCBC makes the following recommendations:

BIS should reintroduce a sliding scale to its catch-all controls to account for advances in semiconductor technology and conduct foreign availability assessments

The rules are notable in that they maintain and expand “catch-all” controls on SME, requiring export licenses for a broad range of logic, NAND, and DRAM equipment irrespective of whether end users have an established relationship with China's military industrial complex. The 2022 rules argued that “catch-all” controls were needed given opacity within China's defense procurement system. However, as indigenization rates increase in China, so too does the range of advanced node process steps that are serviced by domestic companies. The result is lost opportunities for US companies and unmet policy goals of obstructing China's technological progress.

USCBC suggests that BIS devise a mechanism to assess foreign availability that can be used to properly adjust its catch-all controls. Such a mechanism should include clear criteria for US applicants based on a direct comparison of technologies. To the extent that BIS's export controls remain unharmonized with allies and partners, foreign availability assessments should also account for products from countries such as Japan, Germany, South Korea, and the Netherlands.

BIS should harmonize its controls with allies and partners

Beyond traditional restrictions on exports, re-exports, and in-country transfers, BIS's rules since 2022 have restricted servicing activities that US persons perform in China. To date, no allied country has instituted equivalent controls on servicing activities, which has led to steep losses for US firms and gains for competing international ones. BIS should nullify its rules on servicing and only consider restrictions on servicing to the extent that such measures are synchronous with allies and partners. Restrictions on servicing should also consider foreign availability and should not apply to technologies for which there are domestic substitutes in China.

BIS should consider revising its zero de minimis foreign direct product rules

The SME IFR amends section 734.9 of the EAR by adding two new foreign direct product (FDP) rules, the SME FDP and FN5 FDP. For both FDPs, foreign-produced items are subject to the EAR if they contain a single US-made integrated circuit (IC) or an IC that is the product of a US tool. These provisions are challenging from a compliance perspective and directly disadvantage US SME component suppliers. Given the ubiquity of ICs, it is unrealistic for SME companies to determine the provenance of every single IC. The rule will also force a global migration away from US SME component suppliers, leading to enormous losses for American firms. To offset those losses, US SME component suppliers will be forced to raise prices for their only remaining customers—US SME firms—thus rendering the US SME industry even less competitive on the global stage and at home. To create a feasible compliance system and minimize adverse commercial impacts, BIS should amend these FDPs by stating that they only apply to products with more than 10 percent US-origin ICs.

BIS should add “specially designed” to the text of ECCN 3D992.b

The preamble of the IFR helpfully amends ECCNs 3D992, 3D993, 3D994, 3E992, 3E993, and 3E992 by adjusting the corresponding .a paragraphs, 3D992.a, 3D993.a, and 3E993.a, to add “specially designed” for consistency with other 990 series software controls. However, the text of ECCN 3D992.b within the Commerce Control List (CCL) does not reflect the preamble text because it does not explicitly state that it too is limited to “specially designed” software. As a result, the text of ECCN 3D992.b is overly broad and can be interpreted to include software already controlled under other entries such as ECCN 3D001 and 3D991. Without the inclusion of “specially designed,” 3D992.b is ambiguous and could control non-electronic design automation software, such as computer-aided design software and general-purpose solvers for consumer electronics.

We therefore recommend that BIS publish the following revised text for ECCN 3D992.b:

*b. 'Electronic Computer-Aided Design' ('ECAD') “software” “**specially designed**” for the integration of multiple dies into a 'multi-chip' integrated circuit, and having all of the following:*

b.1. Floor planning; and

b.2. Co-design or co-simulation of die and package.

Technical Note: For the purposes of 3D992.b, 'multi-chip' includes multi-die and multi-chiplet.

Doing so will ensure that the CCL is consistent with the intent of the control as described in the preamble and that “specially designed” is included in the text of ECCN 3D992.b. In the meantime, BIS should consider issuing an FAQ advising that the scope of 3D992.b should be interpreted in accordance with the preamble of the IFR.

Definition of DRAM in the Jan 16 IFR covers consumer-level DRAM and should be changed

The definition of dynamic random-access memory (DRAM) advanced-node ICs within the January 16 IFR (RIN 0694-AJ98) was altered in the IFR. If left unchanged, USCBC understands it will inadvertently capture legacy DRAM ICs. This will unnecessarily restrict market access to these ICs for US businesses and increase costs for American consumers. USCBC recommends altering the definition of advanced-node DRAM in ways outlined below so that legacy DRAM is exempt while controls on high-bandwidth memory (HBM) used in AI acceleration hardware are still preserved.

The January IFR revises the definition “advanced-node” ICs from the 18 nanometer (nm) half-pitch criterion in the October 7, 2022, IFR to criteria equivalent to 20.8 nm when using BIS’s previously established calculation methodology. 20.8 nm half-pitch is a legacy node that has been mass produced for several years by all major DRAM IC manufacturers. Today, the most advanced DRAM products are 14 nm half-pitch, which can also be easily obtained in mass markets in the United States and China. As written, the IFR does not reflect BIS’s stated intention of deploying a “scalpel approach” that “restricts China’s military modernization efforts through the narrowest possible restrictions without unduly interfering with commercial trade.” In fact, the updated DRAM definition does not conform to the December 5 FDP IFR, which stated that “the intent of this change in the definition of advanced-node DRAM ICs is not to change the current impact of the end-user controls, but to prevent future workarounds, especially the production of HBM for advanced computing ICs.” Contrary to this objective, the updated definition directly impacts legacy DRAM ICs that are widely available today. If left unchanged, the current definition of DRAM ICs will harm DRAM manufacturers worldwide and will trickle down to US companies that supply material and equipment to DRAM manufacturers as well as US companies that incorporate legacy DRAM ICs into their products for American electronics consumers.

The current definition of advanced-node DRAM ICs is as follows:

(3) Dynamic random-access memory (DRAM) integrated circuits having:

(i) A memory cell area of less than 0.0026 μm^2 ;

(ii) A memory density greater than 0.20 gigabits per square millimeter; or

(iii) More than 3000 through-silicon vias per die.

BIS should consider removing the first two criteria from the above definition of DRAM. The criteria of DRAM ICs requiring a BIS license under the activity restrictions on US persons in 744.6 and the end user controls in section 744.23 have been updated several times in the past two and a half years. The controls have changed from DRAM ICs using a “production” technology node of 18nm half-pitch or less in October 2022 to DRAM ICs having either a memory cell area less than 0.0019 μm^2 or a memory density greater than 0.288 gigabits per square millimeter in December 2024 to the current definition above. The January IFR is the first time that DRAM advanced-node ICs were identified by the amount of through-silicon vias (TSV) per die.

The continuous broadening of the DRAM memory density and memory cell calculations and the corresponding half pitch they represent have expanded the scope of US person and end user restrictions of the EAR to capture legacy DRAM ICs. If the definition were amended to only retain the last threshold that captures any DRAM IC having more than 3,000 TSV per die, the IFR would more accurately correspond to BIS’s intention to capture only advanced DRAM ICs and prevent possible workarounds, especially HBM used in advanced-computing ICs.

Alternatively, BIS should provide incentives to legitimate end users of items subject to the EAR that have good compliance records with the EAR. For these end users, BIS should create a new general license or license exception for legacy DRAM ICs captured above. Such a license or exception should be available when BIS receives confirmation that the items subject to the EAR will not be used in the production of HBM (ECCN 3A090.c).

Case study: Naura Technologies

To illustrate the fact that US export controls are creating industry champions in China, it is worth examining Chinese SME companies’ financial performance, as well as domestic perceptions of progress in China’s efforts to achieve technology self-sufficiency. Naura Technologies, which makes cleaning, deposition, and etching equipment, among other items, has exhibited exceptional financial performance following the imposition of US export controls. Its revenue in the first half of 2024 increased 46 percent year-on-year, and its gross and net profit margins increased 45 percent and 22 percent, respectively, across the same period. Prior to 2022, Naura’s revenue, which USCBC examined on a quarterly basis, was stagnant. In 2023, a year after export controls on SME were expanded, Naura joined the world’s top 10 largest SME manufacturers. As of Q1 2025, it is the world’s sixth largest SME firm.

Open-source reports conclude that the indigenization rate for China’s SME industry has reached 13.6 percent, up from 7.2 percent in 2020. Another report argues that across China’s semiconductor industry writ large, the self-sufficiency rate reached 23.3 percent in 2023 after

hovering in the mid-teens prior to 2022. These trends beg a reconsideration of broad-based export controls on semiconductors. The best way to recalibrate the controls is to establish an appropriate foreign availability assessment process as discussed above and to remove certain unilateral aspects of US controls, principally license requirements on servicing and the coverage of consumer-grade ICs. Enabling US firms to compete against their Chinese and global peers will strengthen US national security and minimize harm to US jobs and manufacturing.

Maximizing American competitiveness

USCBC appreciates the opportunity to comment on the IFRs and hopes to continue to work with the administration to craft an export controls strategy that helps bolster, rather than harm, America's long-term global competitiveness. Export controls on semiconductors and SME should be recalibrated to account for foreign availability and harmonize systems with allies and partners. The parameters of controlled technologies should also be adjusted so that they do not capture consumer-grade items that do not pose harm to US national security interests. We hope this feedback helps BIS reconsider the IFRs to ensure that US export controls policy remains focused on enhancing, rather than impeding, US technological leadership and, by extension, US national security.