PUBLIC

January 17, 2024

Via the Federal eRulemaking Portal: *http://www.regulations.gov*

Attn: Eileen Albanese, Director
Office of National Security and Technology Transfer Controls
Bureau of Industry and Security
U.S. Department of Commerce
1401 Constitution Avenue, NW
Room 2616
Washington, DC 20230
References: RIN 0694-AJ23, 88 Fed. Reg. 73424 (Oct. 25, 2023)

RIN 0694-AI94, 88 Fed. Reg. 73458 (Oct. 25, 2023)

Subject: Comments of ASML US LLC on Interim Final Rules:

Export Controls on Semiconductor Manufacturing Items ("SME IFR")

Implementation of Additional Export Controls: Certain Advanced Computing Items; Supercomputer and Semiconductor End Use; Updates and Corrections ("Computing IFR")

Ladies and Gentlemen:

ASML US, LLC ("ASML US") welcomes the opportunity to comment on the above-referenced interim final rules (together, the "October 2023 IFRs").

These comments build on ASML US's comments on the October 2022 interim final rule regarding certain advanced computing and semiconductor items and supercomputer and semiconductor end uses, 87 Fed. Reg. 62186 (October 7, 2022) ("January 2023 Comments"), which are included as an attachment to this submission. The January 2023 Comments' input regarding, among other things, acute problems with the new regulations' unilateral character remain relevant to the October 2023 IFRs.

A. SUMMARY

ASML US understands that the October 2023 IFRs are based on national security concerns. But the interim rules reinforce and extend requirements that go beyond traditional export controls in ways that undermine U.S. interests.

The touchstone of U.S. export control policy making regarding semiconductor manufacturing equipment ("SME") and China should be that the United States benefits from accommodating supply to and servicing of Chinese trailing edge, "legacy" production of semiconductors. "Decoupling" through restrictions on such supply and servicing provides no

benefits – it only causes harm. It is far better to "de-risk" by addressing supply to China that the U.S. government has determined could actually impair U.S. security.

- As a starting point, eliminating the Chinese legacy integrated circuit ("IC") production installed base is not possible or desirable. The Chinese producers will also likely find or develop ways to keep their legacy fabs operational.

- Blocking supply to and servicing of China's legacy IC production would force it to develop a competitive SME industry – exactly what the U.S. government represents that it is trying to prevent.

- October 2023 IFR provisions identified below such as the SME Restriction and Advanced Fab Restriction, which, as interpreted by BIS, restrict supply to and support for Chinese legacy IC production, conflict with BIS's stated intention to make relevant export controls "calibrated and measured."

- Since Chinese companies will not allow the installed base for legacy IC production to deteriorate, the U.S. government should allow U.S. and other Western suppliers – over which there is jurisdiction – to supply, repair and otherwise service that installed base.

With these key points in mind, ASML US respectfully urges BIS to:

- Rescind the "SME Restriction" (EAR § 744.23(a)(4)), or at least (i) make permanent the Temporary General License or (ii) permanently authorize intra-company transfers of items otherwise restrained by the SME Restriction.

- Retract guidance that BIS considers the "Advanced Fab Restriction" (EAR § 744.23(a)(2)) to apply to export of a component to a third country if the exporter has "knowledge" that it will be incorporated into a system (not subject to the EAR) and that system will be exported from the third country to a restricted end user.

- Retract guidance that, for purposes of enforcing restrictions on in-country transfers, BIS will consider repair or storage at another location to be a change of end use such that return of the item could require authorization.

- Retain October 2023 IFR deemed export exclusions.

- Extend an exemption regarding U.S. person restrictions (EAR § 744.6(d)(4)) to (i) individuals who are employed or working on behalf of a company "headquartered in" the United States or a Country Group A:5 or A:6 country or (ii) those employed by or working on behalf of a company owned by such a company.

- Confirm that a new 0% *de minimis* rule regarding certain lithography systems (EAR § 734.4(a)(3)) does not apply to "specially designed" components that are covered by ECCN 3B001.

B. ASML

ASML

ASML US is a wholly owned subsidiary of ASML Holding NV ("ASML"), a world leader in semiconductor technology and systems headquartered in the Netherlands. ASML US is part of the U.S. technology base, with facilities in Arizona, California, Connecticut, Idaho, New York, Oregon, Texas, and Virginia.

ASML US contributes significantly to ASML's semiconductor technology and systems. ASML US employs 8,000 full-time employees and undertakes research and development, design, manufacturing, customer sales and service, and supply-chain activities in the United States.

ASML operates globally. ASML's technology and engineering expertise as well as its global activity is devoted to semiconductor equipment and services, especially lithography, where, since its founding, ASML has been engaged in accordance with Moore's Law in the development and extension of technology and systems solely for commercial semiconductor manufacturing.

Key ASML customers are headquartered in the United States and have U.S. fabrication facilities.

ASML's semiconductor lithography systems are primarily developed, manufactured, and assembled in the Netherlands, while its non-lithography systems are developed, manufactured, and assembled in the Netherlands, the United States and Asia. Components, modules, and software for ASML's lithography systems are developed and produced by thousands of suppliers worldwide, with major suppliers in the United States, Germany, the Netherlands, and Japan. Certain of these components, modules, and software are subject to EAR.

Export Control Cooperation

ASML has long cooperated closely with BIS and other export control administrators around the world to promote effective, multilateral export control policy making and compliance with export control requirements. Pursuant to the U.S. and multilateral export control list review process, leading edge semiconductor lithography systems are subject to national security and multilateral control. As they have become trailing-edge, semiconductor lithography systems have been routinely decontrolled for national security purposes pursuant to the same process.

C. ACCOMODATING SUPPLY TO AND SERVICING OF CHINESE LEGACY IC PRODUCTION IS IN U.S. INTERESTS

As Western SME and semiconductor device makers have long sought to produce at the leading edge of technology, Chinese companies have become a mainstay of the trailing edge or legacy level of technology, supplying Western-origin companies with standard, low-cost consumer integrated circuits for both memory and logic chips. As a result, there is an established base of deep ultraviolet ("DUV") lithography systems in China.

There is little apparent technological, supply chain, or policy basis to restrain U.S. and allied country-headquartered companies' supply to or servicing of such Chinese legacy IC production.

Eliminating Chinese Legacy IC Production Via U.S. Export Controls or Public Policy is Not Possible: For a number of reasons, there is no possibility that Chinese legacy fabs will suspend operations in reaction to U.S. export controls. Given the strong need for mature semiconductors to keep the Chinese manufacturing economy functioning, Chinese producers of legacy semiconductors can and will likely find or develop ways to keep their fabs operational. Further, the Chinese market has launched and expanded its own localized supply chain for mature semiconductor equipment manufacturing.

Chinese Legacy IC Production and Support from Western Suppliers Are Helpful to Allies and the Global Supply Chain: China's production of legacy semiconductors has provided major economic benefits to Western companies for consumer goods and to the U.S. and global economies by both reducing inflationary pressures and increasing global economic growth. Further, a robust global supply of mature semiconductors is an essential component of U.S. and allies' public policy goals around electrification, SmartGrid, healthcare technologies and other policy priorities impacting the climate and global health. Furthermore, China should be encouraged to rely on Western legacy SME to mitigate incentives to expand the domestic SME design and production capability. Blocking China's access to products and technology needed to maintain its legacy IC-production base would force it to continue to grow and develop a competitive SME industry – exactly what the U.S. government represents that it is trying to prevent. Therefore, signaling to Chinese producers a dependable and predictable reliance on Western legacy SME helps preserve U.S. and allied country technology leadership.

Repair Assistance Does Not Provide Any New Technological Capacity for the Chinese Industry: Rather, repair activity relates to equipment that was approved for export. The fab operation depends on stable and predictable SME repair service. For the same reasons servicing of legacy IC producers is generally not export restricted, repair activity for these Chinese legacy IC fabs should not be export restricted. If a customer cannot obtain repairs for SME from its supplier, the customer will necessarily stop buying all SME from that supplier, *i.e.*, decoupling the supplier entirely from the market, and develop domestic SME repair capabilities – exactly what the U.S. government should not want.

October 2023 IFR Provisions that Restrict Supply to and Support for Chinese Legacy IC Production Conflict with BIS's Stated Approach to Deploying Export Controls: In promulgating the October 2023 IFRs, BIS announced that it designed the new regulations to be "calibrated and measured" and "focused on key force-multiplying technologies." It continued that the regulations would "interfer[e] with commercial trade no more than necessary to accomplish" their objectives.[1]

[1] SME IFR, 88 Fed. Reg 73,424.

More specifically, BIS advised that the new restrictions would cover only SME "essential to producing advanced-node ICs."[2] Finally, BIS said that it was deploying a "scalpel approach" that "restrict[s] China's military modernization efforts through the narrowest possible restrictions of sensitive technologies without unduly interfering with commercial trade."[3]

If BIS observes these aspects of its approach to the new regulations, it will permit reasonable supply for and servicing of legacy SME for Chinese fabs.

No Reason to Restrict Western SME Suppliers' Ability to Service, Repair and Otherwise Support Equipment that They Have Supplied for Chinese Legacy IC Production for 30+ Years: As a policy goal, the United States should desire a Chinese legacy IC production capability supplied by U.S. and allied country SME companies. Servicing and repair are imperative for this capability. Again, the Chinese legacy IC producers will maintain legacy production capacity, and it is in the interest of the United States that maintenance and repair is attributable to efforts of companies within the jurisdiction of the United States and its allies.

D. SME RESTRICTION – SUPPLY CHAIN ISSUES AND LIMITS ON ABILITY TO SUPPLY AND SERVICE CHINESE LEGACY PRODUCTION SYSTEMS (EAR § 744.23)

The SME IFR retains the "SME Restriction" – the restriction on knowing supply of items for development or manufacture of SME and SME components in China and, now, other countries. EAR § 744.23(a)(4). As explained in our January 2023 Comments, the SME Restriction will create a strong incentive for companies operating in China, including those headquartered in the United States and allied countries, to replace U.S.-origin items with non-U.S. alternatives.

While BIS has made the SME Restriction somewhat less restrictive, the government should rescind the provision entirely.[4] Even with the revisions, the SME Restriction remains broader than is needed to prevent indigenous Chinese SME manufacturers from developing or advancing.

The SME Restriction creates uncertainty regarding U.S. and allied country SME suppliers' ability to maintain supply chains. The semiconductor industry is global in nature and features companies across the value chain located around the world, each reliant on a complex and integrated supply chain. The global nature of the industry facilitates cost savings and continuous performance enhancements. Given supply chain complexity, companies need stability in their supply chains. While the temporary general license from the October 2023 IFRs ("Temporary General License") is helpful, its limited lifespan gives rise to uncertainty, which is detrimental to decision making. As a result, the SME Restriction could continue to have a

[2] SME IFR, 88 Fed. Reg. 73,424.

[3] SMR IFR, 88 Fed. Reg. 73,424, 73,425.

[4] BIS has mitigated problems with the SME Restriction by limiting it to items on the Commerce Control List.

negative impact on the manufacturing activities of companies like ASML, even though the manufacture of ASML's systems occurs outside of China.

In addition, the SME Restriction allows Chinese SME companies to claim that they are more reliable than allied country SME companies because their supply chains are not subject to U.S. export controls. This could also have a detrimental impact on U.S. and allied country SME companies.

If BIS will not rescind the restriction, it should make permanent the Temporary General License which enables companies to continue to rely on their supply chains. Alternatively, BIS could permanently authorize intra-company transfers of items, including technology, to ensure that subsidiaries of U.S. and allied country companies in China can effectively operate and contribute to U.S. and allied country SME suppliers' ability to continue to develop and supply IC production systems.

E. ADVANCED FAB RESTRICTION – APPLYING END USE/END USER CONTROLS TO RESTRICT EXPORT OF COMPONENT IF SYSTEM INTO WHICH IT WILL BE INCORPORATED IS "DESTINED FOR" RESTRICTED DESTINATION/END USE/END USER (EAR § 744.23)

The SME IFR also retains the "Advanced Fab Restriction" – the restriction on knowing supply of items "destined for" an advanced node-IC fab in China and, now, certain other countries. *See* EAR § 744.23(a)(2). BIS advises that it will consider that the restriction applies to export of a component to a third country if the exporter has "knowledge" that it will be incorporated into a system (not subject to the EAR) and that system will be exported from the third country to a restricted end user.[5] BIS indicated that, in these circumstances, the *component* would be, in the regulation's words, "destined for" the restricted end user.

BIS should retract this guidance. The component is not "destined for" the destination of the system into which it is incorporated. Consistent with long-standing interpretations, it is "destined for" incorporation into the system.

At the end of SME IFR guidance regarding the Advanced Fab Restriction (Topic 45), BIS seems to suggest that BIS's theory about supply of components for incorporation into systems in third countries is also relevant to compliance with Entity List restrictions.[6] As to the Advanced Fab Restriction, BIS appears to rely heavily on the phrase "destined for" in construing the regulation to cover supply of components that are incorporated into systems in third countries. "Destined for" does not appear in Entity List provisions. *See* EAR § 744.16. It is important that the agency eliminate ongoing confusion by retracting this reference to Entity List restrictions.

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[5] SME IFR, 88 Fed. Reg. 73,424, 73,433-73,434.

[6] SME IFR, 88 Fed. Reg. 73,424, 73,434

F. APPLYING IN-COUNTRY TRANSFER CONTROLS TO RESTRICT REPAIR AND STORAGE (EAR § 734.16)

The EAR impose a variety of license requirements on "transfer (in country)" of items. The regulations generally define "transfer (in country)" as "a change in end use or end user of an item within the same foreign country." EAR § 734.16.

BIS has advised that, for purposes of enforcing restrictions on in-country transfers, it will consider repair or storage at another location to be a change of end use such that return of the item could require authorization.[7] BIS should rescind this advice. There is no reasonable basis to construe the regulations such that an item's end use or end user changes when the item is repaired or stored.

Furthermore, as described above in Section C, it is in the United States' interests that U.S. and other Western SME suppliers be permitted to supply, service and maintain China's legacy IC-production base. Doing so will (a) allow U.S. and other Western SME suppliers to have the ability to maintain physical control of the equipment that they supplied, thereby minimizing opportunities for reverse engineering and (b) mitigate the incentive for China to expand its indigenous SME-production industry and leave the U.S. government with no ability to observe and potentially influence suppliers to Chinese IC producers. If Western suppliers cannot engage in servicing and repair, Chinese companies will increasingly repair and service SME.

G. NEW REGIONAL STABILITY RESTRICTIONS AND DEEMED EXPORTS (EAR § 742.6)

Under the October 2023 IFRs, regional stability restrictions regarding SME and advanced computing items do not apply to deemed exports. EAR § 742.6(a)(6)(iv). BIS requested comments on this exclusion:

> Commenters are asked to provide feedback regarding the impact of this provision on their business and operations, in particular, what if any impact companies would experience if the deemed export and deemed reexport provision was removed and a license were to be required. Commenters are asked to provide guidance on what if any practices are utilized to safeguard technology and intellectual property and the role of foreign person employees in obtaining and maintaining U.S. technology leadership.[8]

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[7] Computing IFR, 88 Fed. Reg. 73,458, 73,469-70.

[8] SME IFR, 88 Fed. Reg. 73, 424, 73,442. *See also* Computing IFR, 88 Fed. Reg. 73,458, 73,481, 73,486.

Excluding deemed export restrictions from these new controls was a thoughtful step. In this respect, it makes the controls more consistent with business realities. It is crucial that BIS retain this feature. The alternative would be an unworkable set of deemed export requirements.[9]

[REDACTED]

H. U.S. PERSON SUPPORT RESTRICTIONS – HEADQUARTERS DEFINITION (EAR § 744.6)

The SME IFR establishes that the U.S. person-support restrictions do not apply to natural U.S. persons (meaning U.S. citizens, permanent residents and persons located in the United States) who are employed or working on behalf of a company "headquartered in" the United States or a Country Group A:5 or A:6 country and not majority-owned by an entity headquartered in a restricted destination. EAR § 744.6(d)(4). The exemption should be extended such that it does not apply to (i) individuals who are employed or working on behalf of a company "headquartered in" the United States or a Country Group A:5 or A:6 country or (ii) those employed by or working on behalf of a company owned by such a company.

I. NO *DE MINIMIS* FOR LITHOGRAPHY SYSTEMS IN ECCN 3B002.f.1.b.2.b (EAR § 734.4)

By and large, foreign-made products can be subject to the EAR by virtue of having U.S.-origin controlled content only if there is at least a *de minimis* level of such content – ordinarily, 25%. The SME IFR establishes that foreign-made lithography systems in ECCN 3B001.f.1.b.2.b are subject to the EAR if they contain *any* U.S.-origin controlled content. EAR § 734.4(a)(3).

BIS should confirm that this provision does not apply even further by reaching items that are specially designed for 3B001.f.1.b.2.b systems. The new regulatory language is clear: "There is no *de minimis* level for equipment meeting the parameters in ECCN 3B001.f.1.b.2.b." Explanatory material, however, provides that "[t]his rule revises § 734.4 by adding a new paragraph (a)(3) to specify that there is no *de minimis* level for lithography equipment and 'specially designed' items therefor."[10]

The reference to specially designed items appears to be a mistake, which should be corrected. It is true that, per the heading of ECCN 3B001, the classification encompasses components that are specially designed for items described in the ECCN. But specially designed components do not "meet[] the parameters in ECCN 3B001.f.1.b.2.b."[11]

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[9] There is an additional deemed export exemption for technology relating to certain lithography immersion systems. *See* EAR § 742.4(a)(4). There is likewise every reason to retain this exemption.

[10] SME IFR, 88 Fed. Reg. 73424, 73441.

[11] The parameters of ECCN 3B001.f.1.b.2.b are: "Align and expose step and repeat (direct step on wafer) or step and scan (scanner) equipment for wafer processing using photo-optical or X-ray methods and having any of the following . . . f.1.b. A light source wavelength equal to or longer than 193 nm and having all of the following: f.1.b.1. The capability to produce a pattern with a "Minimum Resolvable Feature size" (MRF) of 45 nm or less . . . ; and f.1.b.2. Having any of the following . . . f.1.b.2.b. A maximum 'dedicated chuck overlay' value greater than 1.50 nm but less than or equal to 2.4 nm."

Sincerely,

Maryam Khan Cope
Head, U.S. Government Affairs
ASML US LLC

Attachment: January 2023 Comments (Public)

Attachment

PUBLIC

January 31, 2023

Via the Federal eRulemaking Portal: http://www.regulations.gov

RIN 0694-AI94; BIS-2022-0025

87 Fed. Reg. 62186 (Oct. 13, 2022); 87 Fed. Reg. 74966 (Dec. 7, 2022)

Docket No. 220930-0204

Comments of ASML US LLC on the Interim Final Rule Entitled "Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification"

ASML US LLC ("ASML US") welcomes the opportunity to comment on the interim final rule (the "Rule")[1] concerning the implementation of export controls targeting certain advanced computing and semiconductor items and supercomputer and semiconductor end uses.

A. SUMMARY

While ASML US understands it is based on national security concerns, the Rule is expansive, goes beyond traditional export controls and appears to have significant unintended adverse impacts.

In particular, ASML US's submission addresses the following:

- The negative impact on U.S. companies of unilateral imposition of the Rule and the corresponding need for U.S. companies who face foreign availability for their products to be granted immediate licenses to supply items and services to Covered Fabs[2] in China.

  [REDACTED]

- The need for the U.S. government to publish a list of Covered Fabs that is pre-aligned with stakeholders. The U.S. government rather than industry is in the best position to identify facilities for which it has national security concerns. Publication of a limited, narrow and stable list would eliminate a major source of

[1] Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification 87 Fed. Reg. 62186 (Oct. 13, 2022).

[2] "Covered Fabs" refers to fabrication facilities in China that fabricate (a) Logic integrated circuits using a non-planar architecture or with a "production" technology node of 16/14 nanometers or less; (b) NOT-AND (NAND) memory integrated circuits with 128 layers or more; or (c) Dynamic random-access memory (DRAM) integrated circuits using a "production" technology node of 18 nanometer half-pitch or less. *See* 15 C.F.R. § 744.6(c)(2)(i)(A)-(C).

regulatory and business uncertainty and need for extensive and challenging due diligence by industry.

- The need for BIS to limit the scope of the U.S. person restrictions to address their unduly adverse impact.

- The debilitating impact on the supply chain and on semiconductor manufacturing worldwide of the restriction on the supply of items subject to the Export Administration Regulations ("EAR") for the development or manufacture of semiconductor manufacturing equipment ("SME") and SME components in China ("SME Restriction"). The SME Restriction is unnecessarily broad and unqualified, and ASML respectfully requests that BIS limit its scope by exempting (i) legacy SME and SME components, (ii) exports to companies located in China but headquartered in the United States and allied countries and (iii) exports of items to China intended for incorporation into SME or SME components that will be utilized outside of China.

- The need for greater regulatory clarity given the EAR's strict liability standard rather than requiring industry to rely on questions and answers and informal guidance from U.S. officials to ascertain the Rule's impact. Further, applicability of the strict liability standard should be relaxed where Covered Fabs are implicated and good faith due diligence measures are deployed.

- The need to interpret the Rule in a manner that is narrow and consistent with longstanding precedent.

- The importance of an adequate opportunity for notice and comment prior to the implementation of export controls.

B. ASML INTRODUCTION

ASML US is a wholly owned subsidiary of ASML Holding NV ("ASML"), a world leader in semiconductor lithography technology and systems headquartered in the Netherlands. ASML US is part of the U.S. technology base, with facilities in Arizona, California, Connecticut, Idaho, New York, Oregon, Texas, and Virginia.

ASML US contributes significantly to ASML's semiconductor lithography technology and systems. ASML US employs over 7,000 full-time employees and undertakes research and development, design manufacturing, customer sales and service, and supply-chain activities in the United States.

ASML operates globally. ASML's technology and engineering expertise as well as its global activity is wholly devoted to semiconductor equipment and services, especially lithography, where, since its founding, ASML has been engaged in accordance with Moore's Law in the development and extension of lithography technology and systems solely for commercial semiconductor manufacturing. ASML's semiconductor lithography systems are node agnostic.

Key ASML customers are headquartered in the United States and have U.S. fabrication facilities.

ASML's semiconductor lithography systems are developed, manufactured, and assembled in the Netherlands. However, components, modules, and software for ASML's lithography systems are developed and produced by thousands of suppliers worldwide, with major suppliers in the United States, Germany, and Japan. Certain of these components, modules, and software are subject to EAR.

Pursuant to the U.S. and multilateral export control list review process, leading edge semiconductor lithography systems are already subject to national security and multilateral control. As they have become trailing edge, semiconductor lithography systems have been routinely decontrolled for national security purposes pursuant to the same process.

ASML complies with all applicable export controls in all jurisdictions in which it does business.

C. IMPLEMENTATION OF THE RULE ON A MULTILATERAL BASIS IS ESSENTIAL

1. Semiconductor Manufacturing Equipment is Effectively and Appropriately Controlled Under the Existing Multilateral Process

The Rule's broad new unilateral controls extend far beyond the current scope of existing multilateral export controls. However, the current state of the global semiconductor industry indicates the multilateral process has adequately controlled the supply of SME to China.

American companies and companies headquartered in allied countries lead the main categories of SME such as etching, deposition, and lithography. The next generation of semiconductor manufacturing technologies also appear to be within the ambit of these non-Chinese companies.

Not only is the development of advanced manufacturing equipment concentrated outside of China, manufacturing in China is focused overwhelmingly on legacy semiconductors.

The U.S. CHIPS Act, which appropriated over $52 billion to shore up the semiconductor ecosystem in the United States, will enable continued American leadership in leading-edge semiconductors and SME, and help preserve the large technological differential vis-à-vis China.

While precise targeting of certain specific technologies via the multilateral process could play an important role in deterring perceived industrial and military threats to the United States, ASML respectfully submits that broad unilateral controls harm the U.S. semiconductor industry and do not appear to be necessary to maintain U.S. leadership in the sector.

2. Unilateral Controls Undermine Multilateral Regimes and Impede Allied Cooperation

The U.S. government has repeatedly declared its commitment to resolving export control issues within a multilateral framework. In particular, Annex II, Statement on Export Control

Cooperation, of the U.S.-EU Trade and Technology Council Inaugural Joint Statement ("Statement") serves as a blueprint of U.S.-EU understanding on the use of export controls.

The Statement memorializes the U.S. government's understanding "that a multilateral approach to export controls is most effective for protecting international security" and the importance of "consultations prior to the introduction of controls outside the multilateral regimes." The U.S. government also specifically recognized that "export controls should not unduly disrupt strategic supply chains."

ASML US respectfully submits that **imposition of broad unilateral controls undermines the United States' commitment to its multilateral obligations**. The U.S. government could be seen as adopting an "implement first, seek consensus second" approach. Such a unilateral approach can have a significant impact on companies in allied countries. As described in detail below, **the emerging and unintended consequences of the Rule have resulted in significant business disruption and have the potential to debilitate semiconductor supply chains.**

A unilateral approach therefore can impede cooperation with allies on export control related issues where targeting foreign availability is crucial to the success of a control, and could therefore result in an adverse effect on U.S. foreign policy and national security objectives.

3. Unilateral Controls in the Face of Foreign Availability of Competing Products Harm U.S. Companies, Jobs and Competitiveness, and Fail to Achieve their Objectives

i. Harm to U.S. Companies and Failure to Achieve Goals

Unilateral controls on items with foreign availability harm U.S. industry while doing little to benefit national security.

Unilateral controls impacting U.S. companies with foreign competitors strengthen the market share of the foreign competitors and create incentives for their other non-U.S. companies to develop competing products. Loss of sales revenue by U.S. companies will not only adversely impact jobs in the United States, but will also have a material adverse effect on the ability of U.S. companies to invest in research and development, workforce training and education, and construction of facilities in the United States. By undermining economic security, **unilateral controls undermine U.S. foreign policy and national security objectives**.

U.S. SME companies all have competitors, and unilateral controls benefit non-U.S. SME companies at the expense of their U.S. counterparts. Even when the Rule does not restrict the supply of SME to a particular fabrication facility in China because it does not operate at advanced nodes, U.S. companies risk losing that fab's business. History has shown that when the supply of U.S. items is considered unreliable and substitutable, they are designed out. Thus, the Rule could again have a broader than intended impact.

In addition, the unilateral nature of the Rule will encourage movement of SME manufacturing outside of the United States, contrary to the goal of the Rule and also of the CHIPS Act.

Lastly, and perhaps most importantly from a national security perspective, when there are non-U.S. substitutes, unilateral controls do little to impact the Chinese industry. While U.S. companies and companies with operations in the United States may face significant hardship in light of the Rule, Chinese industry can obtain foreign substitutes and continue manufacturing relatively unabated.

ii. [REDACTED]

iii. Licenses Should be Granted Immediately

ASML US respectfully submits that American companies with foreign competitors should be granted authorizations or licenses *immediately* to supply items to, and provide services for, Covered Fabs in China. Delays in licensing will significantly impact the ability of American companies to maintain, or regain, business with Chinese legacy customers. Granting immediate authorizations or licenses ensures that American companies do not unilaterally suffer unnecessary economic harm while ceding market share to foreign competitors.

D. A LIMITED, NARROW AND STABLE LIST OF COVERED FABRICATION FACILITIES IN CHINA IS NEEDED

The Rule imposes multiple restrictions on the activities of companies and U.S. persons involving Covered Fabs. The Rule also imposes restrictions on the activities of companies and U.S. persons when such parties are unable to ascertain whether a fabrication facility is a Covered Fab. Compliance with the Rule therefore generally requires companies to determine the technological capabilities of fabrication facilities in China.

BIS guidance states that appropriate due diligence to determine whether a fabrication facility in China is a Covered Fab "includes review of publicly available information, capability of items to be provided or serviced, proprietary market data, and end-use statements."[3] Despite deploying the recommended due diligence measures, it is often quite challenging to ascertain technological capabilities of any particular fabrication facility. This difficulty is compounded where the item being supplied is, like ASML's lithography systems, node agnostic. Most companies, including SME companies, have no way of knowing at exactly which node a fabrication facility is producing.

The Rule is subject to strict liability for any non-compliance. Deployment of BIS-described due diligence measures would not eliminate civil liability for a company nor would other good faith measures reasonably undertaken with a view toward compliance. Accordingly, in situations where a company is unable to determine whether a fabrication facility is a Covered Fab, the most likely course of action is (i) to over-comply and abandon a transaction for fear of potential non-compliance or (ii) seek a license and risk loss of the business as a result of delay,

[3] Department of Commerce Bureau of Industry and Security, FAQs for Interim Final Rule - Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification, IV.A2 (Oct. 28, 2022), available at https://www.bis.doc.gov/index.php/documents/product-guidance/3181-2022-10-28-bis-faqs-advanced-computing-and-semiconductor-manufacturing-items-rule-2/file (hereinafter, "BIS FAQs").

even when ultimately the fabrication facility in question in not a Covered Fab. Such approach disrupts ordinary course of business and can also jeopardize supply chain stability.

ASML US respectfully submits this situation can be avoided if the U.S. government publishes a limited, narrow and stable list of Covered Fabs that raise national security concerns, and respectfully requests the U.S. government publish such a list as part of the final rule. The U.S. government, by virtue of its resources, intelligence capabilities, and communication with industry is in a much better position than an individual company to identify Covered Fabs. BIS already maintains similar lists in the form of the Entity List and the Unverified List, which aid company compliance, minimize business and supply chain disruption, and appear to adequately protect U.S. national security and foreign policy interests. A limited, narrow and stable list of Covered Fabs, focused on the facilities that present national security concerns, will serve the same purpose.

E. CERTAIN ASPECTS OF THE RULE UNNECESSARILY ADVERSELY IMPACT U.S. PERSONS

The Rule specifically imposes on U.S. persons added restrictions with respect to certain activities involving items *not subject to the EAR*.[4] Despite added clarifications from BIS regarding the scope of these restrictions,[5] the relevant provisions continue to be mired in uncertainty. Companies, consequently, may choose to interpret the U.S. persons provisions broadly, and needlessly restrict their U.S. person employees and contractors from engaging in a number of business critical functions, which prevents such persons from participating fully in company operations. In the long term, such restrictions, and risk of similar provisions in the future, may reduce the appetite of companies to hire U.S. persons in critical roles.

As an example, U.S. persons are prohibited from shipping, transmitting, or transferring (in-country) or "facilitating" any such activities for items not subject to the EAR when, broadly, such activities implicate a Covered Fab. BIS guidance indicates that "facilitating" such activities means "authorizing" such activities. Nonetheless substantial uncertainty persists as "facilitating" continues to remain part of regulations. If BIS intends that "facilitating" means only "authorizing," the regulations should be amended to replace the word "facilitating" with the word "authorizing." Without such an amendment, U.S. persons can be unnecessarily cut out from fully engaging in the business of its employer.

In any event, U.S. person individuals can often be readily replaced by non-U.S. person individuals without impeding the shipment of non-EAR items to a Covered Fab. Thus, the restriction does not appear to advance intended policy objectives when applied to U.S. person individuals.

ASML US respectfully requests BIS limit and clarify in the regulations the scope of restrictions on U.S. persons set forth in 15 C.F.R. § 744.6.

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[4] 15 C.F.R. § 744.6(c).

[5] BIS FAQs, IV.A2.

F. RESTRICTIONS ON SME-RELATED ACTIVITIES COULD HURT LEGACY MANUFACTURING AND DRIVE TOWARD DECOUPLING

The SME Restriction imposes a licensing requirement for the supply of any item subject to the EAR with knowledge that the item will be used in the "development" or "production" in China of most types of SME and most hardware components for such equipment.[6] BIS has indicated that the Rule, including the SME Restriction, is intended to "limit the PRC's ability to obtain semiconductor manufacturing capabilities to produce ICs . . . for uses that are contrary to U.S. national security and foreign policy interests."[7]

ASML US respectfully submits, as drafted, rather than advance U.S. national security and foreign policy interests, the SME Restriction is likely to have unintended adverse consequences on the semiconductor supply chain and thus on semiconductor manufacturing worldwide. This will undermine U.S. interests generally.

The SME Restriction will create a strong incentive for companies operating in China, including those headquartered in the United States and allied countries, to replace U.S. origin items with non-U.S. alternatives. Moreover, when U.S. origin components cannot be designed out, it will create a major incentive for companies to move their supply chains out of China even when U.S. and allied companies are the economic beneficiaries of these supply chains.

If the SME Restriction is intended to prevent indigenous Chinese SME manufacturers from developing or advancing, it is far broader than what is needed to achieve this goal.

For the reasons described below, ASML US respectfully requests BIS consider narrowing the SME Restriction. At a minimum, ASML US requests that BIS consider delaying implementation to allow industry to accommodate to the restriction.

1. The SME Restriction Adversely Affects SME Suppliers, and Consequently, SME Manufacturers Outside China

The semiconductor industry is global in nature and features companies across the value chain located around the world and each reliant on a complex and integrated supply chain. The global nature of the industry enables cost savings and continuous performance enhancements.

Owing primarily to cost savings and the considerable infrastructure in China for the manufacture of lower-technology components, manufacturing operations of a significant number of SME component suppliers ("SME Component Suppliers"), including those headquartered outside of China, are located in China. Such SME Component Suppliers sell their products to companies around the world for incorporation into semiconductor manufacturing systems.

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[6] The regulations specify that a license is required if the item subject to the EAR will be used in the "development" or "production" of any "parts," "components," or "equipment" specified under export control classification number ("ECCN") 3B001, 3B002, 3B090, 3B611, 3B991, or 3B992. 15 C.F.R. § 744.23(a)(2)(v).

[7] 87 Fed. Reg. 62186, 62188.

SME Component Suppliers, in turn, rely on items, including U.S. origin items, from their worldwide suppliers. A license is now required to send these U.S. origin items to SME Component Suppliers in China even if such U.S. origin items have been supplied to China without licenses for many years.

Unlike other provisions of the Rule that focus on narrowly defined integrated circuits or advanced fabs, the SME Restriction is sweeping and open-ended. It requires a license for the export of *any* item subject to the EAR, regardless of its strategic sensitivity or foreign availability, for use in developing or producing in China virtually all SME and related components. The SME Restriction, unlike standard controls on the export of SME and SME components to China, is not limited by the features of the SME and SME components being built in China. License applications are to be reviewed with a presumption of denial.

Given its substantial supply chain impact, the SME Restriction could have a detrimental effect on the manufacturing activities of companies like ASML, even though the manufacture of ASML's systems occurs outside of China. [REDACTED]

In addition, the SME Restriction impacts the ability of companies headquartered in the United States and allied countries to manufacture or even assemble their systems in China. The restriction applies even to the manufacture of legacy SME and could greatly impede the viability of such activity.

In these ways, the Rule creates a powerful incentive to move activities and supply chains out of China, the very decoupling of the Chinese and global semiconductor industry U.S. officials have said they would like to avoid. Moreover, it incentivizes the "engineering out" of U.S.-origin items, to the detriment of U.S. workers and companies.

China's critical role in the manufacturing of legacy semiconductors and legacy SME and components necessitates a more nuanced restriction on the manufacture of SME and SME components in China. Manufacture of these items in China helps drive cost-efficiency and enables high volume, civil production to tackle ever increasing demand. Relatedly, economic efficiency and embedded infrastructure of legacy semiconductor manufacturing in China is a major pillar supporting the global electronics industry and the U.S. economy.

If allowed to persist in its current form, the SME Restriction is likely to have an adverse impact on SME manufacturing in the United States and other allied countries which would negatively impact semiconductor production worldwide.

To minimize the negative and presumably unintended effects of the SME Restriction, BIS should consider the following measures.

i. The SME Restriction Should Not Extend to Legacy SME

As drafted, the SME Restrictions extends to all levels of technology processes. In line with the U.S. government's stated policy objectives and the more targeted approach utilized in connection with the Covered Fabs and elsewhere in the Rule, the SME Restriction, at a

minimum, and in conjunction with the recommendations set forth elsewhere in this Comment, should be limited *only* to the development and production of SME and SME components designed for advanced nodes. The SME Restriction should not apply to the production of legacy SME or SME components.

The production of SME and SME components used for the manufacture of legacy semiconductors, which can generally be sent to China without a license under current multilateral and U.S. export controls (notwithstanding the Rule), can be permitted in China without impacting the ability of the United States to restrict advanced manufacturing in China.

Given lower production costs in China, without modification, the SME Restriction will result in greater fabrication costs for Western semiconductor equipment manufacturers and the entire electronics sector in the United States. These costs do not appear to be balanced by a substantial strategic benefit. Most SME has only the most distant connection to military items and would not appear to be a strategic differentiator. The strategic benefit is especially tenuous for equipment that is not leading-edge.

The U.S. government has taken pains to make clear that the New Rule is not intended to shut down legacy manufacturing in China. Such an exemption would be consistent with this stated intention. Accordingly, ASML US respectfully requests that BIS exempt from the SME Restriction legacy SME and SME components.

ii. SME and SME Component Manufacturing in China Should be Permitted for Companies Headquartered in the United States and Other Allied Countries

In connection with the restriction on the provision of items to Covered Fabs, the U.S. government adopted a more favorable licensing policy for fabs operated by companies headquartered in the United States and certain allied countries. In addition, BIS granted blanket authorization for the provision of items to these fabs within days of the issuance of the Rule. It is appropriate to treat the SME Restriction in a similar fashion and in fact to exempt from the restriction exports to companies headquartered in the United States or allied countries.

iii. SME Manufacturing in China Should be Permitted for Items that will be Utilized Outside of China

Lastly, given the realities of the global supply chain, ASML US also respectfully requests BIS exempt from the SME Restriction exports of U.S. items to China that will be incorporated into SME or SME items that will be utilized outside of China.

At the very least, ASML US respectfully requests that BIS delay the SME Restriction's implementation.

G. THE RULE SHOULD NOT BE INTERPRETED BROADLY

Issues with uncertainty and overcompliance could be compounded if BIS chooses to interpret the Rule broadly. ASML US strongly cautions against interpreting new provisions expansively and contrary to general EAR understandings. For example, ASML US cautions

against an attempt to control the export of items subject to the EAR that are intended for incorporation into an end item on the basis that the end item that is not subject to the EAR will be supplied to a Covered Fab. Such an interpretation is contrary to long-standing EAR guidance and industry practice.

H. OPPORTUNITY TO REVIEW AND COMMENT ON THE FINAL RULE

The almost immediate effectiveness of the Rule coupled with what ASML understands to be quite limited consultation with private sector stakeholders gave semiconductor companies very little time to review and analyze the Rule and understand its business implications. Coupled with strict liability for any non-compliance, such an approach pressured companies to over-comply at the risk of significant business disruption, uncertainty, and potential for supply chain stress.

Additional consultation with industry prior to the implementation of the Rule would have provided industry with an opportunity to share its views on issues where the U.S. government may not necessarily have more insight than industry. As an example, industry may have been able to highlight how the breadth of the SME Restriction would have an adverse effect on the supply chains of SME manufacturers, impact legacy manufacturing in China, and potentially lead to a decoupling of U.S. and Chinese legacy semiconductor value chains, an outcome not intended by U.S. officials. Similarly, industry would have also alerted the U.S. government to issues underlying identification of Covered Fabs.

To minimize adverse outcomes, ASML US respectfully requests the U.S. government:

- Provide adequate notice and comment for any additional enhanced export controls in this area prior to effectiveness;
- Continue to engage with industry to review industry concerns and to revise the Rule accordingly; and
- Reconsider the current strict liability standard for any non-compliance under the Rule.

I. ASML US REQUESTS

In conclusion, ASML US requests the U.S. government:

- Strive for a multilateral arrangement for implementation of the Rule;
- Until such time as a multilateral arrangement is effective, grant immediate authorizations and/or licenses to U.S. companies with foreign competitors to supply items to and provide services for Covered Fabs;
- Provide a limited, narrow and stable list of Covered Fabs;
- Limit and clarify in the regulations the scope of the U.S. person restrictions;
- Amend the SME Restriction to exempt:

  - legacy SME and SME components;
  - exports to companies headquartered in the United States or allied countries; and
  - exports of items that will be incorporated into SME or SME components that will be utilized outside of China.

- Interpret the Rule in a manner that is narrow and consistent with longstanding precedent;
- Continue to engage with industry to review industry concerns and to revise the regulations accordingly;
- Reconsider the strict liability standard for compliance with the Rule; and
- Provide adequate notice and comment opportunities prior to the effectiveness of new controls.

Sincerely,

Maryam Khan Cope

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ASML US LLC