Hearing
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Trade, Investment and Technology

Panel II: Measures to Limit the Flow of Key Technologies to China

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Hearing Chairmen Wessel and Miller and distinguished members of the Commission, thank you for inviting me to testify before you today on a topic of critical importance to US-China relations and to the effective recognition of global interests in this relationship: the use of export controls to manage ongoing engagement with China. I appreciate the opportunity to provide you relevant background regarding how US export controls, in particular the Export Administration Regulations ("EAR") and the Export Control Reform Act of 2018 ("ECRA"), currently address these engagements, and how the Department of Commerce's governing policies on licensing and enforcement have impacted industry.

I am here today in my capacity as a National Security Fellow at the George Mason University National Security Institute and bring my 37 years of experience as a practicing attorney in the national security field as well as my US Naval Reserve intelligence service. The views presented are solely my own and do not represent the views of any individual, client, organization or company with whom I am affiliated. In addition to the practice of law and intelligence reserve duty, my perspectives are also informed by my continuing participation (since 1992) on various US Federal Advisory Committees at the Departments of State, Commerce and Defense. These experiences have allowed me to immerse myself in the operational and compliance requirements of US export controls and the challenges (or positives) of how the regulatory process functions. I look forward to answering any questions you may have.

US Export Controls: Export Control Reform Act of 2018 and The Export Administration Regulations

The United States manages global relationships through a combination of hard and soft power projection tools. Hard power is most often reflected through the power projection of our military forces as well as the global alliances the US and its partners have through gaming exercises, overseas military bases, and aligned international arrangements such as the Nuclear Suppliers Group, the Missile Technology Control Regime, the Australia Group and now, the AUKUS Coalition. Soft power is more often reflected in public statements by senior US Government officials regarding US interests, coordinated public releases by the US and its allies of common positions and the establishment of avenues for enhancing these common positions through laws and regulations of sovereign governments.

US export controls represent a hybrid hard power-soft power approach premised on laws and regulations that articulate US and multilaterally agreed to policies regarding the manner by which sensitive items (products, materials, equipment, software and technology – collectively, "items") may be shared and under what limitations, if any. The impact of these laws has made them one of several tools for managing a global environment while protecting the interests of the US and its allies and partners. While these laws and regulations have responded to changing global conditions, they have been reactive and focused on managing engagements after a critical issue

has been identified. The need for nimble, targeted, and anticipatory regulations in the integrated global environment is enhanced by the speed and diffusion of technology.

Understanding the history of how specific US export control laws and regulations reached their current stage is instructive for assessing the success or failure of national security objectives. Export controls have been in place in the United States formally since 1905 with the passage of the Trading with the Enemy Act ("TWEA"). Since that time, Congress and presidents have passed the Export Administration Act of 1979 ("EAA"), ECRA, the International Emergency Economic Powers Act ("IEEPA"), the National Emergency Act ("NEA"), the Arms Export Control Act of 1976 ("AECA"), and a myriad of sanctions tailored laws related to countries such as Iran, Syria, Cuba, Russia, Venezuela and Belarus.

Each of these laws and regulations include reasons for restrictions, lists of controlled items, licensing policies, and enforcement mechanisms. Although all are based on national security and/or foreign policy interests, this common focus has not produced consistent or reliable outcomes for industry and has contributed to high compliance costs for both industry and the Government. As noted below, ECRA and the EAR provide a case study for this conclusion.

To inform our discussion, my written testimony provides:

- An overview of the EAR
    - Licensing
    - Policy
    - Enforcement
- A case study of the semiconductor and supercomputing rules of October 2022, October 2023 and April 2024; and
- Next steps for Congress to consider

A. EAR: Licensing, Policy and Enforcement

US export laws and regulations are complex, granular and, at times, inconsistent internally and among the various agencies that manage the different regimes. The complexity arises, in part, from:

- The approach used to identify what items are subject to US export laws
- The need to classify any product or technology that will be transferred to a foreign party or foreign country

- Identification of the foreign parties involved in any transaction
- The need to review multiple lists of controlled items
- The different licensing policies and types of licenses
- The presumptions that apply for issuing licenses for specific activities; and
- The diligence required to "know your customer" in a world where key data points may not be readily available.

Understanding and operationalizing the requirements is resource intensive, time consuming, and inherently risky due, in part, to the disagreements that can occur between industry and the US Government regarding the export classification and licensing decisions made by those who export, reexport, retransfer or release controlled items. ECRA and the EAR are not immune to these risks.

Some detailed background on the EAR framework, classification and licensing processes as well as enforcement approach places these challenges in context.

The EAR is based primarily on five main principles:

- Multilateral controls with the authority to impose unilateral controls when deemed appropriate
- Export classification
- Licensing (*i.e.,* authorizations, license exceptions, and decision-making presumptions whether for approval or denial)
- Recordkeeping; and
- Enforcement

The regulations are administered by the Department of Commerce, Bureau of Industry and Security ("BIS") and control the export, reexport, retransfer (in-country) and release of dual-use items between or among US persons and foreign persons, wherever located. Dual-use items include those with commercial, civil, or civil-military applications and post-Export Reform, some military only items, such as fasteners for stealth applications. Controlled items are generally included on the Commerce Control List ("CCL") which is primarily a multilaterally developed itemization of items that are subject to US jurisdiction and conditioned release.

The EAR provides two licensing mechanisms for authorizing transfers: Individual Validated Licenses ("IVLs") and License Exceptions. BIS manages the licensing process and determines whether to permit the transfers of items controlled on the CCL, as well as items subject to the EAR but not listed on the CCL. BIS chairs an interagency review process that allows the Departments of State, Defense and Energy to opine on the approval or denial. The regulations

also require parties to maintain records related to activities, information and items subject to the EAR as well as some reporting, such as for certain encryption exports.

The foundation of every licensing decision under the EAR is the export classification that applies. Because multiple agencies have jurisdiction over items, identifying the correct export classification is key. Errors in classification – like the fruit of the poisonous tree doctrine in evidence – taint every decision based on that classification including, which agency controls the item, what licenses are needed and what national security or foreign policy risks exist for any transaction or activity.

1. Export Classification

The CCL includes detailed descriptions of controlled items with references to performance requirements, technical specifications and other information on an item's function. CCL listed items are assigned an Export Control Commodity Number ("ECCN") which identifies the technical parameters of the product, the reasons for control and the licensing policies that apply to the items. As noted above, proper classification forms the foundation for any export licensing decision as the CCL is not the only list of controlled items published by the US Government.[1]

Ensuring the proper classification requires a detailed technical understanding of how an item functions as well as a foundational knowledge of the EAR. In addition to the CCL, other agencies develop and manage separate lists of controlled items and the lists change frequently as technology advances. This generally requires a continuous evaluation of product development, regulatory changes, and modifications to compliance programs to ensure that gaps do not arise when changes occur. Parties, however, are placed on notice of which items are controlled based on the specific technical details used to describe any item in an ECCN or on one of the other lists – the United States Munitions List ("USML") under the ITAR or the Appendix to the Part 110 nuclear regulations.

In addition to the CCL enumerated items, the EAR also includes a basket category called EAR99 that covers items not specifically enumerated on the CCL, but which are "subject to US jurisdiction."[2] These items are not described in technical detail and are not included in the regulations in the same manner as an ECCN-controlled item. EAR99 items can include, for example:

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[1] Items could also be controlled by the Department of State, Directorate of Defense Trade Controls (DDTC) under the International Traffic in Arms Regulations (ITAR) or the Department of Energy/Nuclear Regulatory Commission/Nuclear National Security Administration (DOE/NRC/NNSA) under the Part 110 and Part 810.

[2] 15 CFR 734.3.

Item	Classification
Positive high voltage ideal diode controller (product)	EAR99
Cartographic Web Services System (software)	EAR99
G700SE-M GPS-Enabled Tactical Digital Camera (product)	EAR99
Climate Four-Dimensional Data Assimilation System (technology and software)	EAR99
ARC3-Tactile (gesture recognition software that processes sensor data) (software	EAR99

EAR99 classifications could cover any item from safety pins to constituent chemicals to the items noted above, but parties would be unaware of those classifications unless someone obtained a classification from a US Government agency (whether BIS or DDTC) or had access to classifications from a readily accessible source such as on a company's website. The lack of consistent public availability makes it challenging, at times, for parties to assess licensing obligations. The results of this gap are reflected in the number of BIS civil enforcement cases over the last 15 years that include exports of EAR99 items to sanctioned parties.

2. Licensing under the EAR

Once an item is classified, a licensing determination is required to ensure that proper authorizations are used to transfer any EAR-controlled item to a foreign person or destination. Licensing requirements apply to both CCL and EAR99 items but the reasons for control vary – for example, some items are controlled for national security reasons, others for regional security and some for nonproliferation reasons. EAR99 items have no separately itemized reasons for control and are generally able to be exported, reexported, released or retransferred without licenses based on the end user, the end use and the destination. Licensing for CCL listed items is based on the same three factors but also includes the reasons for control.

The EAR includes two types of general authorizations:

- Individual Validated Licenses ("IVLs") – Require parties to apply to BIS and await a determination from the agency prior to conducting any activity included in the application; or
- License Exceptions – Are pre-approved authorizations that require no submission to BIS, but obligate parties to ensure that all the elements of the license exception have been satisfied so that it may be used for the export, reexport, retransfer or release.

IVLs are reviewed under one of two presumptions:

- A presumption of approval; or
- A presumption of denial.

It is important to highlight that presumptions of approval or denial are not guarantees of any particular BIS decision. A license application for an export of an EAR-controlled item to a US partner or ally that is reviewed under a presumption of approval does not mean that the license will issue. It means that BIS approaches the application with an intent to approve the request unless national security or foreign policy circumstances exist.

A presumption of denial does not mean that all license applications will be denied. Presumptions of denial tend to apply for licenses involving sanctioned countries or sanctioned parties, although the reach of the presumption varies. Sanctioned parties are included on one of three lists managed by BIS:

- The Entity List
- The Unverified List; or
- The Denied Persons List.

The Entity List includes details regarding the sanctioned party and the types of restrictions that apply. For example, a party from China or Switzerland or Russia on the Entity List could be sanctioned but for only certain EAR-controlled items. Footnotes are added to Entity List designations that could indicate no item subject to the EAR may be exported to the party without a license – which would cover ECCN and EAR99 items – or it could exclude EAR99 classified items from the restrictions. These variations result in denials or, in some cases, license approvals even with the presumption. BIS may determine, for example, that the presumption can be overcome through licensing restrictions (such as provisos or limitations) or approval for a shorter time period or through specific recordkeeping and reporting requirements that keep BIS apprised of how the exported item is being used. This is how parties subject to sanctions on the Entity List may sometimes legitimately receive EAR-controlled items via a license.

Parties who submit license applications are responsible for the accuracy, completeness and support for any requested authorization and a misrepresentation or material omission can result in a separate violation of the EAR. Embedded within these obligations is the expectation that parties will conduct sufficient due diligence into the transaction activity and the parties involved to ensure that the application correctly reflects the information BIS needs to issue a license decision.

Due diligence varies depending upon a number of factors including, but not limited to:

- Countries involved
- Parties (*e.g.,* companies, educational institutions, non-profits, individuals, etc.)
- The results of screening against published US Government lists
- Whether the activity involves high risk factors identified by the US Government.

Once the agency receives an application, BIS may:

- Issue the license without conditions
- Issue the license with conditions or limitations
- Deny the license; or
- Return the license without action (which may occur either because BIS lacks jurisdiction over the items in the licenses – due, for example, to a misclassification – or because no license is needed)

Errors could occur throughout the process and BIS civil enforcement actions highlight the two most frequently cited mistakes:

- Misclassifications; and
- Failures to identify sanctioned parties

As discussed in the recommendations section, these types of errors occur for a number of reasons, but frequently because there are too many information gaps related to proper export classifications or the parties involved in a transaction. Information gaps arise because data on foreign parties may be unavailable in the home country or the US Government has information which has not been published due to countervailing factors such as intelligence gathering concerns. The verification process, therefore, is fraught with risk, some of it irremediable before an error occurs.

The importance of information availability and sharing was highlighted by both BIS and the Department of Energy ("DOE") in recent regulatory changes. For example, on May 6, 2024, DOE issued an advance notice of proposed rulemaking ("ANPRM") regarding foreign entities of concern. In the preamble to the ANPRM, and in response to a request by industry for DOE to provide a list of government officials as senior officials, DOE stated:

> "*Compiling a complete list of current and former senior government officials would prove challenging* given that the list would likely be subject to frequent change, difficult to predict and very likely underinclusive. Furthermore, *DOE does not have the resources to*

> *do so for every company that may be in the battery supply chain*." 88 Fed. Reg. 37079, 37081 (May 6, 2024)(Emphasis added)

The same limitations italicized above exist within industry. BIS also acknowledged similar difficulties but noted that it is essential that lists of sanctioned or otherwise challenging parties be published to inform the regulated industry of where pitfalls may arise. In the December 2020 amendments to the EAR adding Military End User parties to the MEU List, BIS stated:

> "Publishing a list of parties that already have been determined to be 'military end-users' allows the public to be informed of BIS's determinations in these individual cases. Therefore, *the most practical and effective approach is to publish a Federal Register notice adding these 'military end users' to the MEU List, so all potential exporters, reexporters, or transferors are informed simultaneously"* (Emphasis added) 85 Fed. Reg. 83793-83804 (December 23, 2020), at 83794.

Without significant assistance or information sharing from the US Government to identify entities or parties of concern, gaps arise.

3. Enforcement

BIS includes policy, licensing and enforcement offices all of whom report up to the Under Secretary for Industry and Security. Assistant Secretaries (one for Industry and Security and the other for Enforcement) oversee the processes and the Industry and Security office also has a principal deputy assistant secretary and two additional deputy secretaries to manage the policy and licensing requirements. One overall office, therefore, manages all aspects of EAR classification, licensing, and compliance.

The current Assistant Secretary (AS) for Export Enforcement Matthew Axelrod has taken a forward leaning approach to enforcement by communicating BIS' enforcement policies through memoranda, public presentations at conferences, enforcement decisions, and testimony before Congress using these avenues to inform industry, allies, and partners of the US Government's enforcement related priorities. These communications have also allowed other governments to assess the viability of the approaches discussed and formed the foundation for the implementation of various export control restrictions not only related to the Russia-Ukraine conflict but towards China as well. For example, since 2022, AS Axelrod has issued policy memos that:

- State that industry and universities must have compliance programs[3] ("Both industry and academia ***must have*** proper compliance systems in place to identify, prevent and mitigate export control violations.")[*Memorandum: Clarifying Our Policy Regarding Voluntary Self-Disclosures and Disclosures Concerning Others, April 18, 2023*, at p. 1]("April 18th Memo")

- Establish a two-tiered voluntary disclosure process – for "technical" violations and for more serious transgressions [*Memorandum: Further Enhancements to Our Voluntary Self-Disclosure Process, January 16, 2024*]("January 16th Memo")

- Encourage the reporting of third parties that violate or appear to have violated the EAR [*April 18th Memo,* at p. 3]

- Identify when a failure to disclose discovered violations will be seen as an aggravating factor in any enforcement action before the agency [*April 18th Memo*, at p. 3]

The increased communication informs parties of the agency's interpretations and priorities, but the speed and frequency of regulatory changes strains compliance programs and even the Government as it seeks to enforce the changing requirements.

B. The Semiconductor, Semiconductor Manufacturing Equipment and Supercomputer Regulations

In October 2022, BIS issued its first EAR rule regarding new controls on specific semiconductors, certain supercomputers, and some semiconductor equipment.[4] The regulation, and the rules that followed in October 2023 and April 2024, provide a case study for the difficulties under the current approach to the EAR and the underlying reactive manner in which new regulations are implemented.

According to Assistant Secretary for Export Administration Thea Kendler and Undersecretary Alan Estevez, the October 2022 regulation was designed to address the national security concerns that

[3] Unlike the Bank Secrecy Act, neither ECRA nor the EAR requires any organization to have a compliance program. Parties subject to the EAR are expected to manage their compliance to ensure that they meet the EAR requirements and can identify, remediate and disclose any violations however discovered. AS Axelrod's statement regarding compliance programs, therefore, highlights an apparent inconsistency with the previously stated view that compliance with the EAR was a risk-based process and parties were permitted to determine how best to manage that risk.

[4] 87 Fed. Reg. 62186-62215 (October 13, 2022), at 62187 ["These controls are being imposed through this interim final rule to address immediate concerns with the PRC's demonstrated intent and ability to use these items [certain semiconductors and supercomputers] for activities of national security and foreign policy concerns to the United States."]

existed with China's military-civil fusion policy and the rapid development of more advanced semiconductors by China.[5] To manage these concerns, BIS:

- Established new ECCNs for controlling certain advanced semiconductors and related items
- Expanded the obligations for US persons when providing support or facilitating transactions involved in advanced semiconductor and supercomputer related technologies
- Established and enhanced various diligence requirements to determine what kind of activity was occurring at facilities in China that were handling advanced research and development ("R&D") or a mix of advanced and legacy product activity; and
- Imposed new licensing requirements.

At the time, the US Government had discussed its perceived need for these changes with several allies and partners including the Netherlands and Japan, as well as the Five Eyes countries (the UK, Australia, Canada and New Zealand). The Netherlands and Japan are among countries at the forefront of advanced R&D and product/equipment manufacture in the semiconductor industry. The items these countries produce are important to the advanced manufacturing process. As the EAR is primarily focused on multilateral controls, the US believed the imposition of multilateral export controls[6] would more effectively address any perceived national security concerns.

Japan and the Netherlands, however, were at different stages of export control policy development than the United States. Because of this variance, BIS decided to proceed with the October 2022 changes a majority of which were unilateral. The revisions included phased in effective dates and a request for comments.

In mid-2024, Japan and the Netherlands took steps to enhance their export controls licensing policies and imposed new restrictions on the transfers of semiconductor equipment or related products that could be used in the manufacture of advanced semiconductors. At the same time, BIS had received extensive comments to the October 2022 regulations, which highlighted the

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5 "The PRC Government expends extensive resources to eliminate barriers between China's civil research and commercial sectors, and its military and defense industrial sectors." *Id.* at 62187.

6 "In the context of export controls, multilateral and plurilateral controls are typically the most effective path toward accomplishing our national security and foreign policy objectives." *Commerce Issues Rules to Reflect Export Control Coordination with Allies and Partners to Facilitate Secure Trade, December 7, 2023,* at p. 2; *see also* Press Release: *United States-Australia-Canada-New Zealand-United Kingdom Release Joint Guidance on Countering Russia Evasion, September 26, 2023;* Press Release: *Five Eyes Partners Agree to Formalize Cooperation on Export Control Enforcement, June 28, 2023;* Press Release: *Commerce Announces Addition of Iceland, Liechtenstein, Norway and Switzerland to the Global Export Controls Coalition, April 8, 2022.*

regulations' vagueness, unclear requirements, ineffective controls, and practical implementation problems.[7]

Based on these comments, BIS issued a revised interim final regulation that included significant changes to the October 2022 rule. Among the various changes, the October 2023 regulations[8]:

- Consolidated the new ECCNs into existing ECCNs and eliminated some of the October 2022 classifications
- Included responses and clarifications to open issues related to US person support and facilitation
- Confirmed the scope of licensing requirements while imposing new ones

Industry concerns remained with the compliance requirements, the changed export classifications and the diligence obligations, as well as the lack of ongoing consistency with respect to the type of support that could be provided in the advanced semiconductor realm by US persons. As a result, BIS issued yet a third rule on April 4, 2024, "correcting" and clarifying the October 2022 and October 2023 regulations.[9]

The corrected rule:

- Reimposed licensing and other restrictions on items that had been excluded (or omitted) in the prior rules
- Outlined and clarified additional diligence obligations
- Updated a number of technical performance parameters for various semiconductor ECCNs; and
- Updated the licensing policies for certain exports to particular destinations (to include Macau).

While regulations change to accommodate shifting geopolitical and geostrategic considerations, the approach to the semiconductor technology regulations highlights the significant challenges inherent in speedy actions that then need to be corrected to address essential gaps. Undersecretary Estevez, in a speech before the Center for Strategic and International Studies, noted that the Government believed it was essential to take swift and unilateral action to address the perceived national security issues. While understandable, the burden this type of action places on industry, the academic community and the supply chain, is especially acute when

7 Regulations.gov, RIN:0694-AJ23.

8 88 Fed. Reg. 73424-73455 (October 25, 2023).

9 88 Fed. Reg. 23876-23905 (April 4, 2024).

reversals in course take place – for example, recontroling items that had been excluded from control.

C. Recommendations

With the pending Supreme Court decision in *Loper Bright Industries* and *Relentless* regarding the viability of the Chevron doctrine, BIS could find itself constrained in some of its regulatory processes should the Court decide to limit the application of Chevron. Were that to occur, BIS would need clear, consistent and tailored guidance from Congress through legislation that forms the basis for regulatory changes BIS may make to the EAR.

Congressional leadership in legislatively framing the AUKUS partnership from an export control context provides a path forward for managing other export control requirements. Streamlining licensing, ensuring proper classification, dealing with reliable partners and managing resilient supply chains apply beyond AUKUS to most of export controls and sanctions requirements. As such, Congress should consider the elements of AUKUS that apply more broadly to the EAR to enhance the various challenges that exist for both the agency and industry.

Using the AUKUS framework as a baseline, Congress could consider legislation to address the following issues:

- Authorize the development one export control list that includes all items from the CCL, the USML, the nuclear regulations and other export regimes and can be used by any agency with export control responsibilities. Among the considerations for this approach, definitional consistency becomes key. For example, as of the date of this written testimony, there is no one definition of AI – with legislation providing some contours while the Departments of Defense, Homeland Security, and Commerce, plus the intelligence community and the Office of the Science and Technology Policy Advisor providing others. Finding a common baseline definition can reduce confusion

- Authorize the creation of one sanctioned parties list for the same efficiencies that would be gained by one control list

- Authorize and identify the requirements for more robust information sharing between the US Government and industry on sanctioned parties, subsidiaries, affiliates, 50% owned entities and organizations for whom scant public information exists
- Authorize the streamlining of licensing decision and the sharing of information regarding the reasons a specific license decision occurred requirements. Too often vague "national security" or "foreign policy" grounds are asserted as the reason for various decisions. While national security and foreign policy may be the reasons the Executive branch makes

the decisions it does, those justifications provide no guidance to industry or others in order to prevent future errors in judgement. Post-hoc correction because the US Government fails to provide adequate reasoning that informs the parties for why a particular transaction is untenable may not be the most effective way to protect national security or advance foreign policy interests. Closing the barn door after the horses are gone may be an exercise in futility

Thank you for the opportunity to provide these views and I look forward to answering any questions you may have.

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