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Export Controls: New Challenges

Overview

Congress has authorized the President to control the export of various items for national security, foreign policy, and economic reasons. Separate programs and statutes for controlling different types of exports exist for nuclear materials and technology, defense articles and services, and dual-use items and technology—items that have both civilian and military uses. Under each program, licenses of various types are required before export. The Departments of Commerce, State, and Energy administer these programs. At the same time, Congress also legislates country-specific sanctions that restrict aid, trade, and other transactions to address U.S. policy concerns about weapons proliferation, regional stability, and human rights.

Export Control Act of 2018 (ECA)

Export controls have become part of the debate over U.S. technological leadership and attempts by other nations to obtain critical U.S. technology legally or illegally. Congress passed the Export Control Act of 2018 (ECA) (Subtitle B, Part 1, P.L. 115-232) as part of a wider effort to revise U.S. investment policy through passage of the Foreign Investment Risk Review Modernization Act (FIRREA) (Title XVII of the same act).

The ECA replaces most of the expired Export Administration Act of 1979 and provides a permanent statutory basis for controlling the export of dual-use goods and certain military parts and components. The ECA requires the President to control “the export, reexport, and in-country transfer of items subject to the jurisdiction of the United States, whether by United States persons or by foreign persons.” The ECA also requires the Secretary of Commerce to “establish and maintain a list” of controlled items, foreign persons, and end-uses determined to be a threat to U.S. national security and foreign policy. The legislation also called on Commerce to require export licenses; “prohibit unauthorized exports, reexports, and in-country transfers of controlled items”; and “monitor shipments and other means of transfer.”

The ECA largely maintains the current system as codified under the Export Administration Regulations (EAR) (15 C.F.R. 730 et seq.), which had been maintained under the International Emergency Economic Powers Act (P.L. 95-223) for nearly a quarter-century. Under Commerce, the Bureau of Industry and Security (BIS) continues to administer the dual-use export control system and the EAR, which contains the licensing policy for dual-use items and certain military parts and components. The regulations control items for reasons of national security, foreign policy, or short supply. National security controls are based on a common multilateral control list, known as the Wassenaar Arrangement (WA); however, the manner in which those controls are applied, and to which countries, is

based on U.S. policy. Foreign policy controls may be unilateral or multilateral in nature. The EAR unilaterally control items for antiterrorism, regional stability, sanctions, or crime control purposes.

The EAR also comprises lists of sanctioned, denied or unverified parties, subject to a license policy of denial. It also sets out licensing procedures and civil and criminal penalties for violations. While nearly all exports are subject to the EAR, the Commerce Control List (CCL) establishes controls on specific items either on a multilateral or unilateral basis. Sanctioned countries or entities are subject to a policy of denial for all products, whether on the CCL or not. **Table 1** lists the types of items on the CCL.

Table 1. Commerce Control List Categories

- 0 – Nuclear Materials, Facilities & Equipment (and Misc. items).
- 1 – Materials, Chemicals, Microorganisms, Toxins.
- 2 – Materials Processing.
- 3 – Electronic Design, Development, and Production.
- 4 – Computers.
- 5.1 – Telecommunications.
- 5.2 – Information Security.
- 6 – Sensors and Lasers.
- 7 – Navigation and Avionics.
- 8 – Marine.
- 9 – Aerospace and Propulsion.

Source: Export Administration Regulations, Part 774.

Issues for Congress

With the passage of the ECA, some Members of Congress have expressed interest in other aspects of export controls, including controls over emerging, surveillance and repression technologies, deemed exports, and Hong Kong.

Emerging and Foundational Technology

Perhaps the most significant change in the ECA requires the President to establish an interagency process—led by Commerce, including Defense, State, Energy, and other agencies—to identify emerging and foundational technologies. Commerce then is to establish a licensing policy for those items. The ECA stipulated that at a minimum, exports to countries subject to an embargo, or arms embargo, including China, would require a license for export of such technology.

Currently, BIS is determining this policy through the rule-making process. BIS announced a Notice of Proposed Rulemaking for controls on emerging technology in October 2018 and received comments in January 2019. BIS sought industry input on defining emerging technology; criteria for determining whether specific technologies

(**Table 2**) are essential to U.S. national security; other technology categories that could warrant review to identify emerging technologies; status of development of those technologies in the United States and worldwide, including the foreign availability of the technology—often a key impediment to effective controls; the impact of specific controls on U.S. technological leadership; and other potential approaches to identifying emerging technologies warranting consideration for export controls. After evaluating these comments, BIS is to decide on the next steps for the proposed regulation.

Table 2. Emerging and Foundational Technologies

- Additive Manufacturing
- Advanced Computing Technology
- Advanced Materials
- Advanced surveillance technology
- Artificial Intelligence (AI) and machine learning
- Biotechnology
- Brain-computer interfaces
- Data analytics technology
- Hypersonics
- Logistics technologies
- Microprocessor technology
- Position, navigation and timing (PNT) technology
- Quantum information and sensing technology
- Robotics

Source: Bureau of Industry and Security.

This emphasis on foundational and emerging technologies serves to determine whether new export controls on these technologies are feasible and also identifies technologies that should be included in regulations of foreign investment. Under FIRRMA, the critical technologies selected by this process would receive additional screening by the Committee on Foreign Investment in the United States (CFIUS). This process responds to the concern that potential adversaries could obtain nascent technology through investment in U.S. firms.

Deemed Exports

Congress is also giving attention to the role of “deemed exports.” When an item is exported, the technology and software associated with that item are also exported. An item is “deemed” to be exported when a foreign national receives information about controlled technology in the United States, whether through academic research or work in a company laboratory. Under the EAR, deemed exports are treated in the same manner as other exports. If an item requires a license for export to a certain destination, an academic institution or firm engaging a person from that destination would also need a license to allow that person to work with that technology in the United States. Not all technology is subject to the deemed export requirements; there is a broad exception for “fundamental” research.

The number of foreign students, especially Chinese students, studying applied sciences and technology in the United States has led to questions about how the deemed export requirements are enforced. According to BIS statistics for FY2017, BIS approved 1,406 deemed export licenses and rejected 24. China was the largest country of origin for deemed licenses, at 55.5%, with Iran making up 19%. Overall, electronic design, development, and

production was the largest category of items for which deemed export licenses were obtained. BIS conducts outreach efforts to universities and research laboratories to make them aware of the license requirements.

Surveillance and Repression Controls

Observers have expressed concern for several years about export controls on items that assist repressive regimes to surveil and control their populations. The Wassenaar Arrangement included network cyber-surveillance and intrusion software on its control list in 2013, but industry and civil society have resisted such proposals, and the United States has not yet adopted the controls. Yet these technologies are on the emerging and foundational list (see **Table 2**) and may yet be subject to export controls.

Recently, Congress has paid particular attention to the export of surveillance equipment, including facial and voice recognition, as well as DNA sequencing technology of potential use by repressive regimes. In the 116th Congress, Members of Congress introduced legislation (S. 178, H.R. 649) to support the Uyghur minority in China’s Xingiang province, which included a recommendation to the Commerce Secretary to review and consider the prohibition of exports of U.S. goods and services to state security entities in China and to place those organizations on the BIS “entity list” of denied parties.

Hong Kong

The export control status of Hong Kong (HK) has also come under scrutiny. Hong Kong continued to maintain a separate customs territory from the mainland following its return to China in 1997. Under the HK Policy Act, the United States recognizes HK as a separate customs territory and maintains special export controls agreements with the HK government. Under the act, this distinct export control status is predicated on HK maintaining a “high degree of autonomy” under the “one country, two systems” policy enshrined in its Basic Law. While the U.S. customs and export control officials engage in close cooperation on strategic trade, some observers have expressed concern, given the perceived erosion of HK autonomy in other areas, regarding HK’s continued ability to prevent diversion of sensitive goods to China. In its 2018 annual report, the U.S.-China Security and Economic Review Commission recommended that Congress seek a report from Commerce on the feasibility of maintaining HK’s differential policy.

Further Suggested Reading

CRS Report R41916, *The U.S. Export Control System and the Export Control Reform Initiative*, by Ian F. Fergusson and Paul K. Kerr

CRS In Focus IF10952, *CFIUS Reform: Foreign Investment National Security Reviews*, by James K. Jackson and Cathleen D. Cimino-Isaacs

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