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Updated January 14, 2021

Export Controls: Key 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 exist for controlling different types of exports, including 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, U.S. government review and licenses of various types are required before export. The Departments of Commerce, State, and Energy administer these programs, in cooperation with input from other relevant agencies. 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, some of which are administered by the Department of the Treasury.

Export Control Reform Act (ECRA)

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 (ECRA) (Subtitle B, Part 1, P.L. 115-232) as part of a wider effort to revise U.S. trade and investment policy that also included passage of the Foreign Investment Risk Review Modernization Act (FIRRMA) (Title XVII of the same act).

ECRA 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. ECRA 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 ECRA 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 calls 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."

ECRA 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 supply shortages. National security controls are based on a common multilateral control list, known as the Wassenaar Arrangement (WA). 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 ECRA, some Members of Congress have expressed interest in expanding and strengthening the application of export controls, including controls over emerging, surveillance and repression technologies; deemed exports; and exports to Hong Kong.

Emerging and Foundational Technology

Perhaps the most significant change in ECRA 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. ECRA stipulated that at a minimum, countries subject to general U.S. embargoes, or a U.S. arms embargo—including the People's Republic of China (PRC, or China)—would require a license for export of such technology. Currently, BIS is determining this policy by seeking industry and national security stakeholder input on defining emerging technology and the criteria to determine

whether specific technologies (**Table 2**) can or should be controlled. As a result of this process, BIS has implemented controls on a few technologies, and has sought to include them in the WA dual-use list.

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 process also serves to identify technologies to be included in potential reviews of national security implications of certain foreign investment transactions. 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 concerns that potential adversaries could obtain nascent technology through investment in U.S. firms, although the arguably slow pace of identification of these technologies may delay implementation of key provisions of FIRRMA and ECRA.

Entity List

The Trump Administration made use of the Entity List as a key policy tool to restrict the export of U.S. dual-use technologies to Chinese entities of concern. The Entity List was first published in 1997 as a way to inform the public of entities engaged in the diversion of items to weapons of mass destruction (WMD) programs. Over time, the list has grown to include entities subject to State Department sanctions, as well as entities acting "contrary of the national security and foreign policy interests of the United States." Exports to these entities require licenses and many face a presumption of denial, although some applications are examined and licenses are issued on a case-by-case basis. The Trump Administration added China's state-led national champions, such as ZTE, Huawei, and Semiconductor Manufacturing and Industry Corp (SMIC). It also added other entities: linked to China's military; involved in reclaiming disputed territory in the South China Sea; furthering surveillance and human rights abuses; engaging in theft of trade secrets; and state security services.

Deemed Exports

Congress is also giving attention to "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. If an item requires a license for export to a certain destination, an academic institution or firm would need a license to engage a person from that destination to allow that person to work with that technology. The focus on illicit technology transfer has heightened concerns about the efficacy of deemed export licensing.

Surveillance and Repression Technology Controls

Some observers have expressed concern about the need to strengthen export controls on items that assist repressive regimes to surveil and control their populations. Some of 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 technologies, as well as DNA sequencing technology of potential use by repressive regimes. Legislation (S. 178, H.R. 649) considered in the 116th Congress to support the Uyghur minority in China's Xinjiang province would have directed the Commerce Secretary to identify and control technology used to "suppress individual privacy, freedom of movement, and other basic human rights." BIS has added 42 entities to the entity list due to their role in human rights abuses in the province.

Hong Kong

China's enactment of a national security law for Hong Kong in June 2020, as well as other actions of the PRC and Hong Kong governments, contributed to President Trump issuing Executive Order 13936 (EO13936) in July 2020, which eliminated or suspended different and preferential treatment for Hong Kong. EO13936 also suspended Hong Kong's separate treatment under the Arms Export Control Act. Under the 1992 Hong Kong Policy Act, the U.S. government recognized Hong Kong as a separate customs territory and maintained special export controls agreements with the Hong Kong government predicated on Hong Kong maintaining a "high degree of autonomy" under the "one country, two systems" policy enshrined in the Joint Declaration. Some policymakers had expressed concern, given the perceived erosion of Hong Kong autonomy in other areas, about Hong Kong's continued ability to prevent diversion of sensitive goods to China.

Multilateral Controls

Most observers would concur that multilateral controls are more effective than unilateral controls in preventing the unwanted dissemination of strategic goods and technology. However, other governments' commercial considerations and differing threat perceptions have complicated reaching agreement on such controls. The WA list is a common control list, but each member state determines the manner in which those controls are applied. Identifying foreign availability in the licensing process can inform decisions on specific and general controls to avoid undermining U.S. industry competitiveness. Congress may urge the incoming Biden Administration to engage in greater adoption of common export control policies among like-minded countries and any needed reforms in multilateral regimes.

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