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Updated January 14, 2021

U.S. Export Control Reforms and China: Issues for Congress

Over the past two years, the U.S. government has reformed—through legislation, regulation, and licensing practices—the export control system that regulates dual-use exports (goods and technology that have both civilian and military uses). These changes largely aim to address concerns about China's attempts to seek global civilian and military leadership in advanced and emerging technologies through coordinated industrial policies. Some of these reforms have prompted U.S. business concerns because they tighten technology trade with China, which is a growing market for many firms. Other reforms—such as setting emerging technology controls, expanding controls on existing technologies of concern, and reforming the licensing process—are ongoing. Congress has an important role in overseeing the reforms it legislated and shaping the evolving U.S. export control regime.

China's Industrial Policies

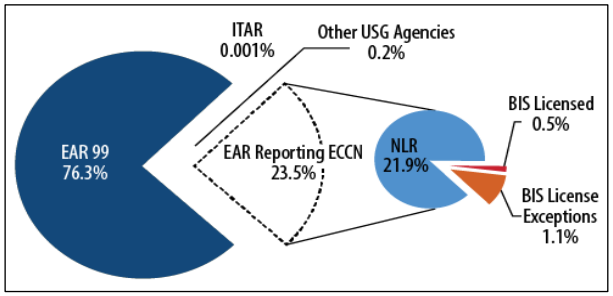
Tightened controls respond to China's ambitious state-led industrial efforts, such as its *Made in China 2025* (MIC 2025), that intend to create competitive advantages for China in strategic industries, in part by obtaining technology and expertise from U.S. and foreign firms. MIC 2025 aims to make China a leader in emerging technologies important to future commercial, government, and military systems and capabilities. Priority sectors include advanced manufacturing, aerospace, artificial intelligence, information technology, new materials, robotics, and semiconductors. U.S. policy makers have expressed concern and sought to counter MIC 2025 because they say it generally incentivizes technology transfer, licensing, and joint venture requirements; state-directed technology and intellectual property (IP) theft; and government-funded acquisitions of U.S. companies in strategic sectors. Many Members of Congress are also concerned about China's military-civil fusion program, which seeks to leverage MIC 2025 technological advancements for military development, including gains achieved through business ties in advanced and dual-use technologies. Some experts contend that China's approach blurs commercial and military distinctions and challenges a core tenet of the U.S. export control regime that assumes clear distinctions between military and civilian end use and end users. See CRS In Focus IF10964, *"Made in China 2025" Industrial Policies: Issues for Congress*, by Karen M. Sutter.

U.S. Dual-Use Export Controls

The Export Control Reform Act of 2018 (ECRA) (P.L. 115-232) restored legislative authority to the President for the control of dual-use exports for national security and foreign policy reasons. The Bureau of Industry and Security (BIS) of the Department of Commerce (USDOC) administers dual-use export controls and chairs an interagency process that includes the Departments of Defense (DOD), State, and Energy. BIS administers these controls through the Export Administration Regulations (EAR, 15 C.F.R. 730 *et seq.*), which includes the Commerce Control List (CCL). The EAR sets licensing policy for specific destinations, end-use, and end-user controls. On the CCL, national security (NS) controlled items are on the Wassenaar Arrangement's multilateral control list. The EAR presumes denial for license applications of NS items that would make a direct and significant contribution to China's military. Separate programs and statutes control nuclear materials and technology and International Traffic in Arms Regulations (ITAR) defense articles and services. The United States has prohibited arms sales to China since 1989. Congress has mandated a policy of denial for exports of satellites and space equipment to China. See CRS Report R41916, *The U.S. Export Control System and the Export Control Reform Initiative*, by Ian F. Fergusson and Paul K. Kerr.

Figure 1. U.S. Exports to China in 2019

Export Authorizations by U.S. Regulatory Authority



Source: CRS with data from U.S. Customs and Border Protection.

Note: EAR99 items are subject to the EAR, but not currently controlled; ECCN, Export Control Classification Number, refers to items on the CCL. NLR - no license required.

U.S. Licensing Approach

Currently, a relatively small amount of U.S. trade is controlled and most controlled technology is approved for export under a license. In 2019, $500 million (0.5%) of U.S. exports to China required a BIS license. Of the $106.6 billion in total U.S exports to China, $104.7 billion required no license. While $1.7 billion in trade required a license, $1.2 billion was exempted from the license requirement. (See **Figure 1**.) BIS has removed licensing requirements for much of U.S. technology trade to China over time as technologies have become more widely available and in response to business pressures to pursue market opportunities in China. Although most items on the CCL require a license for export to China, in practice, BIS has until recently waived license requirements for national security-controlled items destined for civilian end-use in sectors including aerospace, microelectronics, and semiconductors. China's technology policies often require joint ventures and partnerships in which the Chinese side controls the technology and IP. Many Chinese partners for U.S. firms are government-controlled entities, increasing

the possibility that U.S. technology could be advancing China's government and military capabilities.

Surveillance and Crime Controls

ECRA defined dual-use explicitly to include law-enforcement applications. Crime control equipment requires a license for export to China, but does not carry a presumption of denial. U.S. government and congressional concern about China's human rights abuses against Muslim minorities in China's Xinjiang region and other surveillance have prompted tighter U.S. scrutiny of exports to China of surveillance and crime control and detection technologies.

BIS Entity List

The Trump Administration has used the BIS Entity List (EL) to restrict dual-use trade with China by placing certain Chinese state-tied firms of concern on the list. The EL identifies persons involved, or with the potential to be involved, in activities contrary to U.S. national security or foreign policy interests. BIS typically requires a license for U.S. shipments of EAR items to those listed. BIS presumes denial for some parties, but can approve licenses on a case-by-case basis. For example, BIS can still review and approve some licenses for exports to Huawei. BIS amended rules that restrict Huawei's ability to acquire chips from any source using U.S.-controlled equipment. Some industry groups have criticized unilateral controls, preferring to advance controls multilaterally, to avoid advantaging foreign competitors and fostering workarounds. In this instance, U.S. semiconductor design, software, and equipment play a critical role in China's development. Since June 2020, DOD has identified 35 Chinese military firms operating in the United States under reporting requirements established in the Strom Thurmond National Defense Authorization Act for FY1999 (P.L. 105-261). Since August 2020, BIS has added four of these firms to the EL: Semiconductor Manufacturing International Corporation (SMIC), two state shipbuilding firms, and a military construction firm. The presumption of denial for SMIC applies to semiconductor technology below 10 nanometers, excluding current U.S. trade from the restriction. The extension of export licensing requirements to military end-users (MEU) in China, in addition to military end-uses, led BIS in December 2020 to create a MEU list that includes 58 PRC entities subject to a presumption of denial for certain items but not for the full CCL. Twenty-one of the DOD-listed firms are not on the EL and others are only partially listed. The MEU is non-exhaustive, and omits most DOD-listed firms. This may cause some to question the comprehensiveness of the EL and the MEU list and BIS' ability to differentiate military and civilian activities within Chinese corporate structures.

ECRA-Reforms

ECRA called for tightening U.S. licensing practices. It included requirements to reform foreign availability determinations by focusing more on quality in ascertaining to what extent a global alternative is comparable to a U.S. technology. Foreign availability determinations can justify decisions on specific and general controls in an effort to avoid undermining U.S. industry competitiveness. ECRA also clarified that U.S. controls apply to re-exports regardless of the structure of the underlying transaction, including identification and consideration of any foreign participant to a license with significant ownership interest. This requirement increases scrutiny of China's joint ventures and other collaboration. In response to these reforms, the Administration has proposed to cancel the license exemption for civilian end-users for NS items and require more detail on ultimate end-users With the U.S. government decision to no longer treat Hong Kong separately from China (E.O. 13936), BIS is imposing licensing requirements for U.S. exports to Hong Kong and re-exports from Hong Kong to mainland China.

ECRA required the President to establish an interagency process to establish new controls on emerging technologies and critical technologies of concern—including through a review of the CCL—and regulate their release to foreign persons. ECRA stipulated that, at a minimum, exports of such technology to China would require a license. In October 2018, BIS launched a rule-making process, but has only issued a few determinations thus far to establish new controls over emerging technologies. BIS has drafted an approach for foundational technologies that is under review. The absence of new technology controls arguably impedes not only ECRA implementation but also congressional reforms that expanded the authority of the Committee on Foreign Investment in the United States (CFIUS) to review Chinese and other foreign investments in critical and emerging technologies below a traditional threshold of foreign control (Title XVII, P.L. 115-232). CFIUS can only act against non-controlling foreign investments if the technologies involved in the transaction are controlled.

ECRA reformed the U.S. government's decision-making process and strengthened national security perspectives. It introduced a role for the Director of National Intelligence to assess risks and required BIS to coordinate with DOD on commodity classifications, which determine when a license is required. ECRA called for a review of the interagency dispute resolution process, which some have criticized as allowing BIS to determine the outcome of appeals for licensing decisions on China. ECRA also expanded licensing authority to consider the effects of a particular license on the U.S. industrial base, arguably broadening national security considerations in licensing decisions.

Issues for Congress

Issues before Congress for possible oversight include:

- The status of ECRA implementation and whether the pace and scope of action and reforms are sufficient.
- The global context of dual-use controls and practices by key U.S. trading partners to determine if more multilateral controls and reforms should be pursued.
- The status of the interagency process to create controls in emerging and foundational technologies and related reforms in classification determinations and licensing decision-making, including for escalated cases.
- Closer scrutiny of China-related licensing decisions, justifications, waivers, and exceptions.
- Potential enhanced reporting that is more frequent and regularized (e.g., quarterly) to allow oversight of licensing reforms in practice, including licensing to parties on the EL and the DOD and MEU lists or tied to China's military-civilian fusion programs more broadly.

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