serves as the board's chair.<sup>34</sup> Effectively, then, the United States controls the board's agenda, through the chair, and is given a veto over the board's decisions, through the unanimity requirement. The board's other members are the Fund's founders Anwar Ahady, former governor of the DAB and Afghan finance minister, and Shah Mehrabi, a current member of the DAB Supreme Council, as well as Alexandra Baumann, head of the Prosperity and Sustainability Division of the Swiss Federal Department of Foreign Affairs.<sup>35</sup> The board met for the first time on November 21.<sup>36</sup> It "took steps to further operationalize" the Fund, including agreeing "to the principle of initial Afghan co-chairmanship and to the establishment of an Afghan Advisory Committee."<sup>37</sup>

The Taliban denounced the establishment of the Afghan Fund as an "illegal venture" and a "violation of international norms."<sup>38</sup> Afghan Foreign Ministry Spokesperson Abdul Qahar Balkhi stated, "Disbursing these reserves for other purposes without the express agreement of the Afghan people is a negative step against Afghan economic stability taken by the United States."<sup>39</sup> China has also criticized the creation of the Afghan Fund, and Chinese Foreign Ministry Spokesperson Mao Ning indicated that the United States should lift all "unilateral sanctions" on Afghanistan as the funds are the "national property" of Afghanistan.<sup>40</sup> Afghans and foreign policy experts have argued that the assets need to be returned to the DAB as soon as possible since an operational central bank is essential to a functioning economy.<sup>41</sup> They note that the assets belong to the people of Afghanistan, and not the U.S. government or the U.S. courts.

The United States Announces Export Controls to Restrict China's Ability to Purchase and Manufacture High-End Chips doi:10.1017/ajil.2022.89

On October 7, 2022, the Department of Commerce's Bureau of Industry and Security (BIS) announced an interim final rule (IFR)<sup>1</sup> that "restrict[s] the [People's Republic of

<sup>36</sup> See U.S. Dept. of the Treasury Press Release, Readout of Fund for the Afghan People Board Meeting (Nov. 21, 2022), *at* https://home.treasury.gov/news/press-releases/jy1122 [https://perma.cc/3H46-WX2T].

<sup>38</sup> Ayaz Gul, *Taliban Rebuke US for Afghan Assets' Transfer to Swiss-Based Trust Fund*, VOA NEws (Sept. 16, 2022), *at* https://www.voanews.com/a/taliban-rebuke-us-for-afghan-assets-transfer-to-swiss-based-trust-fund/ 6750232.html [https://perma.cc/5HJ9-5F9M]. The DAB issued a statement to the same effect when the executive order was issued. *See* Press Release of Da Afghanistan Bank on the Decision of United States of America Regarding the Foreign Exchange Reserves of Afghanistan (Feb. 12, 2022), *at* https://www.dab.gov.af/press-release-da-afghanistan-bank-decision-united-states-america-regarding-foreign-exchange [https://perma.cc/CT3H-KH78].

<sup>39</sup> Imtiaz Tyab, *U.S. Sets Up \$3.5 Billion Fund to Aid Afghanistan Using Frozen Bank Reserves*, CBS NEWS (Sept. 15, 2022), *at* https://www.cbsnews.com/news/afghan-fund-us-aid-afghanistan-under-taliban [https://perma.cc/6YHZ-2YTL].

<sup>40</sup> Gul, *supra* note 38.

<sup>41</sup> See Smith, supra note 6.

<sup>1</sup> Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification, 87 Fed. Reg. 62,186 (Oct. 13, 2022), *at* https://www.govinfo.gov/content/pkg/FR-2022-10-13/pdf/2022-21658.pdf [https://perma.cc/GZU6-MSQB] [hereinafter IFR]. Some provisions of the rule became effective immediately,

<sup>&</sup>lt;sup>34</sup> See Central Business Name Index, *supra* note 2.

<sup>&</sup>lt;sup>35</sup> See id.

 $<sup>^{37}</sup>$  Id.

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China's] ability to obtain advanced computing chips, develop and maintain supercomputers, and manufacture advanced semiconductors"<sup>2</sup> in order "to protect U.S. national security and foreign policy interests."<sup>3</sup> The rule stems from concerns about Chinese development of "[a]dvanced computing items and 'supercomputers' [that] can be used to enhance data processing and analysis capabilities, including through artificial intelligence (AI) applications[,]... [that] improve the speed and accuracy of its military decision making, planning, . . . logistics, [and] autonomous military systems, . . . improve calculations in weapons design and testing including for WMD, such as nuclear weapons, . . . [and] monitor, track, and surveil citizens ['without regard for basic human rights']."4 Amending the Export Administration Regulations (EAR),<sup>5</sup> the IFR "implement[s]... controls on advanced computing integrated circuits (ICs), computer commodities that contain such ICs, and certain semiconductor manufacturing items."<sup>6</sup> They also "expand[] controls on transactions involving items for supercomputer and semiconductor manufacturing end uses" and impose a license requirement on "specific activities of 'U.S. persons' that 'support' the 'development' or 'production' of certain ICs in the PRC."7 In effect, the rule restricts direct access to the most advanced U.S. chips, chip design software, and semiconductor manufacturing equipment (and components for that equipment). It also cuts off indirect access to U.S. technology and software through foreign manufacturers of chips and chip-making equipment. Since all high-end chips produced worldwide have some connection to the United States, either directly or indirectly, and since China lacks equivalent-quality homemade substitutes, the rule endeavors to prevent China from using, manufacturing, and developing such chips.<sup>8</sup> These new export controls are part of a broad legal and economic policy strategy designed to advance U.S. national security goals in light of increased competition with China.

<sup>3</sup> IFR, *supra* note 1, at 62,187.

<sup>6</sup> IFR, *supra* note 1, at 62,186.

<sup>8</sup> See Ana Swanson, Biden Administration Clamps Down on China's Access to Chip Technology, N.Y. TIMES (Oct. 7, 2022), at https://www.nytimes.com/2022/10/07/business/economy/biden-chip-technology.html.

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while others became effective on October 12 and October 21. On the same day, BIS issued a final rule on Revisions to the Unverified List; Clarifications to Activities and Criteria That May Lead to Additions to the Entity List, 87 Fed. Reg. 61,971 (Oct. 13, 2022), *at* https://www.govinfo.gov/content/pkg/FR-2022-10-13/pdf/2022-21714. pdf [https://perma.cc/HS3H-K9CJ]. This action added thirty-one Chinese persons to the Unverified List and updated the criteria for adding an entity to the Entity List pursuant to 15 CFR 744.11. Thirty-six entities, Chinese or Chinese-owned, were added to the Entity List on December 16, including some that had been on the Unverified List. *See* Additions and Revisions to the Entity List and Conforming Removal from the Unverified List, 87 Fed. Reg. 77,505 (Dec. 19, 2022), *at* https://www.govinfo.gov/content/pkg/FR-2022-12-19/pdf/2022-27151.pdf [https://perma.cc/TU7L-5NCU].

<sup>&</sup>lt;sup>2</sup> U.S. Dep't of Commerce Press Release, Commerce Implements New Export Controls on Advanced Computing and Semiconductor Manufacturing Items to the People's Republic of China (PRC) (Oct. 7, 2022), *at* https://www.bis.doc.gov/index.php/documents/about-bis/newsroom/press-releases/3158-2022-10-07-bis-press-release-advanced-computing-and-semiconductor-manufacturing-controls-final/file [https://perma. cc/F4M3-6GCC]. Two U.S. companies—Nvidia and Advanced Micro Devices—were notified at the end of August of restrictions on sales of their high-end graphics processing units (GPUs) to China. *See* Don Clark & Ana Swanson, *U.S. Restricts Sales of Sophisticated Chips to China and Russia*, N.Y. TIMES (Aug. 31, 2022), *at* https://www.nytimes.com/2022/08/31/technology/gpu-chips-china-russia.html.

<sup>&</sup>lt;sup>4</sup> *Id.* at 62,186–87.

<sup>&</sup>lt;sup>5</sup> 15 CFR Parts 730–74.

<sup>&</sup>lt;sup>7</sup> Id.

Chips make the computing world possible by processing, storing, and receiving information.<sup>9</sup> They manipulate data, run software, and control electronics. They fuel a wide variety of technologies and industries, including artificial intelligence, super and quantum computing, and advanced wireless networks. In addition to being critical for civilian products like smartphones, chips can be used to develop nuclear weapons, hypersonic missiles, and missile defenses.<sup>10</sup> Chips are thus not only essential for everyday life, they are also vital to national security.

For all their ubiquity and import, chips are not easy or cheap to make. A chip's core is composed of a semiconductor, a material, such as silicon and gallium arsenide, with electrical conductivity values less than conductors, like copper, but greater than insulators, like rubber. Chip fabrication involves fashioning the semiconductor into a thin wafer, coating it, exposing it to UV light to transfer a pattern, and lithographically etching it to create switches, called transistors.<sup>11</sup> The transistors are then networked together into integrated circuits. A single wafer can comprise hundreds of integrated circuits with, possibly, billions of transistors. Once finished, it is sliced into chips, each made of a single integrated circuit, tested, packaged, and sold for its ultimate end use.<sup>12</sup> The process can take up to two months and include thousands of steps.

The supply chain for chips is global. The silicon, design software, chip design, semiconductor manufacturing equipment, fabrication facility (or fab), testing and packaging plant, and end use assembly may all be from or in different countries.<sup>13</sup> Often, companies will specialize in one of these steps. Fabricating chips requires incredibly sophisticated buildings, equipment, and technology. Fabs cost billions of dollars to build, and single machines that are part of the fabrication process can cost more than a hundred million dollars. Given the demand for chips, the number of fabs worldwide is relatively small. For the most advanced chips that power supercomputers and artificial intelligence capabilities, there are only a handful of firms that create the chip design software, design the chips, produce the manufacturing equipment, and fabricate the chips. The supply chain for these high-end chips is thus quite tenuous and susceptible to disruption.

The centrality of chips to economic development, their potential for military use, the scarcity of their manufacture, and their vulnerability to supply chain interruptions make them a resource, like oil and gas, of immense strategic importance. Even though semiconductors remain one of the United States' top five exports,<sup>14</sup> it fabricates only 12 percent of the world's

<sup>9</sup> This and the following paragraph are based on: Don Clark, *The Huge Endeavor to Produce a Tiny Microchip*, N.Y. TIMES (Apr. 8, 2022), *at* https://www.nytimes.com/2022/04/08/technology/intel-chip-shortage.html; Ian King, Adrian Leung & Demetrios Pogkas, *The Chip Shortage Keeps Getting Worse. Why Can't We Just Make More?*, BLOOMBERG (May 6, 2021), *at* https://www.bloomberg.com/graphics/2021-chip-production-why-hard-to-make-semiconductors. For a history of chips, their development and geopolitical importance, see CHRIS MILLER, CHIP WAR: THE FIGHT FOR THE WORLD's MOST CRITICAL TECHNOLOGY (2022).

<sup>10</sup> See Semiconductor Indus. Ass'n, Building America's Innovation Economy, at https://www.semiconductors. org/wp-content/uploads/2021/05/SIA-Industry-Facts\_4-20-2022.pdf.

<sup>11</sup> For a fuller description, see Nanotec Museum, *How a Semiconductor Is Made, at* https://www.tel.com/museum/exhibition/process.

<sup>12</sup> Because the semiconductor material, as the substrate, is so essential, chips are often simply referred to as semiconductors. They also go by other names, such as integrated circuits.

<sup>13</sup> See Rishi Iyengar, *Biden Short-Circuits China*, FOR. POL'Y (Oct. 28, 2022), *at* https://foreignpolicy.com/2022/10/28/biden-china-semiconductors-chips.

<sup>14</sup> See Semiconductor Indus. Ass'n, supra note 10.

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semiconductors,<sup>15</sup> down from 37 percent thirty years ago, and none of the most advanced semiconductors.<sup>16</sup> A 2016 report from the National Security Agency and the Department of Energy warned that a loss of American leadership in the development of semiconductors would "severely compromise" national security and "undermine profitable parts of the U.S. economy."<sup>17</sup> And a 2021 report by the National Security Commission on Artificial Intelligence concluded that,"[i]f a potential adversary bests the United States in semiconductors over the long term or suddenly cuts off U.S. access to cutting-edge chips entirely, it could gain the upper hand in every domain of warfare."<sup>18</sup> Consequently, the U.S. government has sought to ensure that U.S. access to the most technologically advanced chips is not threat-ened. For the same reason, the government has an interest in ensuring that countries that are considered national security threats do not have access to these same technologies. These dual interests—to maintain technological advantage and to prevent adversaries from equaling or gaining that advantage—are imperatives that have led the Biden administration to undertake two corresponding sets of initiatives: the CHIPS and Science Act and the IFR.

To preserve U.S. technological superiority, the administration sought passage of the Act, which was signed by President Joseph R. Biden, Jr. on August 9, 2022.<sup>19</sup> The Act "provides \$52.7 billion for American semiconductor research, development, manufacturing, and workforce development," including \$39 billion in incentives for manufacturers and \$13.2 billion for research and development and workforce development.<sup>20</sup> Multiple firms have already announced investments in new U.S. chip fabrication facilities.<sup>21</sup> Secretary of Commerce Gina Raimondo emphasized: "Semiconductors are ground-zero in [the] technological competition [with China] and central to our new investment strategy. They drive innovation in nearly every emerging technology and support critical national security applications."<sup>22</sup>

<sup>15</sup> Catherine Thorbecke, *The US Is Spending Billions to Boost Chip Manufacturing. Will It Be Enough?*, CNN BUS. (Oct. 18, 2022), *at* https://www.cnn.com/2022/10/18/tech/us-chip-manufacturing-semiconductors/index. html [https://perma.cc/TM9B-F6P5].

<sup>16</sup> White House, Fact Sheet: Biden-Harris Administration Bringing Semiconductor Manufacturing Back to America (Jan. 21, 2022), *at* https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/21/fact-sheet-biden-harris-administration-bringing-semiconductor-manufacturing-back-to-america-2 [https://perma.cc/QH82-8EJK].

<sup>17</sup> U.S. Leadership in High Performance Computing (HPC), NSA-DOE Technical Meeting on High Performance Computing 5, 6 (Dec. 1, 2016), *at* https://www.nitrd.gov/nitrdgroups/images/b/b4/NSA\_DOE\_HPC\_TechMeetingReport.pdf [https://perma.cc/588D-EVFW].

<sup>18</sup> Nat'l Security Comm'n on Artificial Intelligence, Final Report 214 (2021), *at* https://www.nscai.gov/wp-content/uploads/2021/03/Full-Report-Digital-1.pdf [https://perma.cc/M8TT-QNC7].

<sup>19</sup> Pub. L. 117–167, 136 Stat. 1366 (Aug. 9, 2022).

<sup>20</sup> White House Press Release, Fact Sheet: CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China (Aug. 9, 2022), *at* https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china [https://perma.cc/BM5K-L6NM].

<sup>21</sup> See White House Press Release, Remarks by President Biden on Rebuilding American Manufacturing Through the CHIPS and Science Act (Sept. 9, 2022), *at* https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/09/09/remarks-by-president-biden-on-rebuilding-american-manufacturing-through-the-chips-and-science-act [https://perma.cc/Y56N-9SUD].

<sup>22</sup> U.S. Dep't of Commerce Press Release, Remarks by U.S. Secretary of Commerce Gina Raimondo on the U.S. Competitiveness and the China Challenge (Nov. 30, 2022), *at* https://www.commerce.gov/news/speeches/2022/11/remarks-us-secretary-commerce-gina-raimondo-us-competitiveness-and-china [https://perma.cc/V8QZ-3LHN] [hereinafter Raimondo Remarks].

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The IFR is designed to prevent China from having access to, or being able to fabricate itself, the most sophisticated chips. The comprehensive and proactive approach undertaken by the rule is new.<sup>23</sup> A few weeks before it was announced, National Security Adviser Jake Sullivan telegraphed the coming rule and its rationale: "Our competitors are using increasingly sophisticated means to illicitly acquire sensitive technologies, information, and know-how, and we must adapt accordingly. On export controls, we have to revisit the longstanding premise of maintaining 'relative' advantages over competitors in certain key technologies."<sup>24</sup> He continued: "We previously maintained a 'sliding scale' approach that said we need to stay only a couple of generations ahead. That is not the strategic environment we are in today. Given the foundational nature of certain technologies, such as advanced logic and memory chips, we must maintain as large of a lead as possible."<sup>25</sup>

To achieve these ends, the new rule leverages U.S. technological dominance at key steps in the high-end chipmaking supply chain to restrict China's access to and its ability to make the most sophisticated chips and supercomputers. Broad in scope, the changes comprise additions and revisions to five components of the EAR: the Commerce Control List (CCL); end-use controls; Foreign-Direct Product (FDP) rules; the Entity List; and U.S. persons rules. Changes to the CCL established new export controls and expanded existing controls for advanced chips and associated technology and software. These revisions include: creating new Export Control Classification Numbers (ECCNs) to cover high-end chips, chip-making equipment, and supercomputers; expanding the scope of some existing ECCNs; revising the regional stability (RS) controls specific to China; expanding the applicability of those RS controls to the new ECCNs and their associated technology and software; creating a presumption of denial for license applications from non-U.S. persons for all these items; and limiting license exceptions.<sup>26</sup> The updates to the CCL prevent the export of these items from the United States to China or (when sold to a party in a third country) their re-export to

<sup>24</sup> White House Press Release, Remarks by National Security Advisor Jake Sullivan at the Special Competitive Studies Project Global Emerging Technologies Summit (Sept. 16, 2022), *at* https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/09/16/remarks-by-national-security-advisor-jake-sullivan-at-the-special-competitive-studies-project-global-emerging-technologies-summit [https://perma.cc/3E9K-DPLV].

<sup>&</sup>lt;sup>23</sup> Previous efforts to limit Chinese access to U.S. technology were scattershot. The Trump administration focused initially Huawei Technologies Co. Ltd., seeking to prevent it and its affiliates from obtaining U.S.-made chips or chips made by foreign manufacturers with U.S. technology. But the rationale for the control focused on Huawei's evasion of Iranian sanctions. *See* Addition of Entities to the Entity List, 84 Fed. Reg. 22,961 (May 21, 2019), *at* https://www.govinfo.gov/content/pkg/FR-2019-05-21/pdf/2019-10616.pdf [https://perma.cc/TJC3-VB92]; Addition of Huawei Non-U.S. Affiliates to the Entity List, the Removal of Temporary General License, and Amendments to General Prohibition Three (Foreign-Produced Direct Product Rule), 85 Fed. Reg. 51,596 (Aug. 20, 2020), *at* https://www.govinfo.gov/content/pkg/FR-2020-08-20/pdf/2020-18213.pdf [https://perma.cc/3BQ9-7JE7]. The administration also pressured the Dutch government to block the sale to China of a EUV machine, which is essential to making advanced chips. *See* Alexandra Alper, Toby Sterling & Stephen Nellis, *Trump Administration Pressed Dutch Hard to Cancel China-Chip-Equipment Sale: Sources*, REUTERS (Jan. 6, 2020), *at* https://www.reuters.com/atticle/us-asml-holding-usa-china-insight/trump-administration-pressed-dutch-hard-to-cancel-china-Chip-equipment-sale-sources-idUSKBN1Z50HN. It also added the Semiconductor Manufacturing International Corporation Incorporated and its related entities to the Entity List, due to their support of China's military modernization efforts. *See* Addition of Entities to the Entity List, 85 Fed. Reg. 83,416, 83,418 (Dec. 22, 2020), *at* https://www.govinfo.gov/content/pkg/FR-2020-12-22/pdf/2020-28031.pdf [https://perma.cc/G6L6-5D4W].

<sup>&</sup>lt;sup>25</sup> Id.

<sup>&</sup>lt;sup>26</sup> See IFR, supra note 1, at 62,199 (revising 15 CFR 742.6(a)(6)j & (b)(10)), 62208-15 (adding and revising ECCNs on the CCL).

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China, without a license. As a backup, the IFR also adds a provision that establishes a license requirement for controlled chips or associated technology and software when a person has knowledge that such item is destined for an end-use relating to supercomputers located in or destined for China or IC fabrication facilities in China.<sup>27</sup> In addition, the FDP rules subject foreign-made items (chips, chip manufacturing equipment, and supercomputers) that are destined for the PRC to the EAR controls when those items are "the 'direct product' of certain specified 'software' or 'technology' subject to the EAR" or were made by a product that itself was direct product of such software or technology.<sup>28</sup> A new FDP rule also controls foreign-made products destined for twenty-eight Chinese entities that are on the Entity List.<sup>29</sup> Finally, the IFR bars "U.S. persons," corporations and individuals, from "'support[ing]' the 'development' or 'production' of certain ICs in" China without a license.<sup>30</sup> "Supporting" includes "servicing" items and shipping or facilitating the shipment of items to or within the PRC. Since the IFR's announcement, numerous American executives, engineers, and scientists working in the semiconductor industry in China have resigned, been let go, or been reassigned.<sup>31</sup>

Cooperation with other countries will be critical to the rule's success. The Netherlands, where ASM International and ASML Holding NV are headquartered, and Japan, where Tokyo Electron Ltd. is located, are especially important, as these companies develop and manufacture semiconductor production equipment critical to fabricating the most advanced chips. They could create equipment that is not reliant on U.S. technology (and therefore not subject to the FDP rules), and sell it to the PRC, making the U.S. rules ineffective. Following discussions with the United States, the two countries have reportedly agreed to adopt export control measures of their own.<sup>32</sup> Should the Dutch and Japanese governments indeed accede, "[t]he three-country alliance would represent a near-total blockade of China's ability to buy the equipment necessary to make leading-edge chips."<sup>33</sup> Countries where chips are made will also need to take actions to effectuate the goals set by the United States. In November, Germany announced that it would block the sale of a fab in Dortmund to a Swedish subsidiary of a Chinese company.<sup>34</sup> And shortly thereafter the United Kingdom ordered a Dutch subsidiary of a Chinese company to reverse its takeover of Britain's largest fab.<sup>35</sup> Taiwanese

- <sup>28</sup> *Id.* at 62,196–97 (adding 15 CFR 734.9(h)–(i)).
- <sup>29</sup> See id. at 62,195–96 (revising 15 CFR734.9(e)), 62,202–07 (revising the Entity List).
- <sup>30</sup> *Id.* at 62,186; *see also id.* at 62,199 (amending 15 CFR 744.6).

<sup>31</sup> Andrew Backhouse, *China's Semiconductor Industry Rocked by US Export Controls*, NEWS.COM.AU (Oct. 18, 2022), *at* https://www.news.com.au/finance/economy/world-economy/chinas-semiconductor-industry-rocked-by-us-export-controls/news-story/a5b46fb3cfd2651be23a549c38b3e2d6 [https://perma.cc/DZX8-XSP3]; Ryan McMorrow, Qianer Liu & Nian Liu, *China's YMTC Asks Core US Staff to Leave Due to Chip Export Controls*, FIN. TIMEs (Oct. 28, 2022), *at* https://www.ft.com/content/97147102-a02c-48df-b3a0-28c77c4c298f.

<sup>32</sup> Cagan Koc, Eric Martin & Jenny Leonard, *Netherlands Plans Curbs on China Tech Exports in Deal with US*, BLOOMBERG (Dec. 7, 2022), *at* https://www.bloomberg.com/news/articles/2022-12-07/us-led-curbs-on-chinatech-to-tighten-as-dutch-plan-new-controls [https://perma.cc/J3DR-NSJ3]; Takashi Mochizuki, Cagan Koc & Peter Elstrom, *Japan Said to Join US Effort to Tighten China Chip Exports*, BLOOMBERG (Dec. 12, 2022).

<sup>33</sup> Mochizuki, Koc & Elstrom, *supra* note 32.

<sup>34</sup> See Guy Chazan, Sam Jones & Yuan Yang, Germany Set to Block Chinese Chip Deal, FIN. TIMES (Nov. 8, 2022), at https://www.ft.com/content/21469daa-66c8-40ed-9435-53a6c0528cc7.

<sup>35</sup> See Michelle Toh, *The US-China Chip War Is Spilling Over to Europe*, CNN BUSINESS (Nov. 25, 2022), *at* https://www.cnn.com/2022/11/25/tech/us-china-chip-war-spillover-europe-intl-hnk/index.html [https://perma. cc/W5QY-6TRN].

<sup>&</sup>lt;sup>27</sup> See id. at 62,201 (adding 15 CFR 744.23).

and South Korean companies operating in China—Taiwan Semiconductor Manufacturing Co. (TSMC), Samsung Electronics Co., and SK Hynix Inc.-have been granted one-year licenses by the Department of Commerce.<sup>36</sup> The controls have had immediate impact, with Chinese imports of semiconductor manufacturing equipment down 40 percent in November.37

The Chinese government has described the export controls as "sci-tech hegemony" and "technological bullying."<sup>38</sup> In a meeting with President Biden in Bali on November 14, President Xi Jinping said that "starting a trade war or a technology war, building walls and barriers, and pushing for decoupling and severing supply chains [as the United States has done] run counter to the principles of market economy and undermine international trade rules."39 "Such attempts," he continued, "serve no one's interests. We oppose politicizing and weaponizing economic and trade ties as well as exchanges in science and technology."40 A month later, China initiated a dispute at the World Trade Organization alleging the new export control rules are inconsistent with U.S. obligations under provisions of the General Agreement on Tariffs and Trade 1994, the General Agreement on Trade in Services, the Agreement on Trade-Related Investment Measures, and the Agreement on Trade-Related Aspects of Intellectual Property Rights.<sup>41</sup> The Ministry of Commerce commented in a statement: "In recent years, the US side has continuously overstretched the notion of national security, abused export control measures, [and] hindered the normal international trade of chips and other products."42

<sup>37</sup> James Mayger, *China's Imports of Chip-Making Gear at Lowest Since Mid-2020*, BLOOMBERG (Dec. 21, 2022). <sup>38</sup> Id.; 商务部新闻发言人就美商务部升级半导体等领域对华出口管制并调整出口管制"未经验证 清单"应询答问 [The Spokesperson of the Ministry of Commerce Answers Questions on the U.S. Department of Commerce's Upgrade of Export Controls to China in Semiconductors and Other Fields and Adjustment of the "Unverified List" of Export Controls] (Oct. 10, 2022), *at* http://www.gov.cn/xinwen/2022-10/10/content\_5717114.htm [https://perma.cc/R4ZR-WJRX].

<sup>39</sup> China State Council, Highlights of Xi-Biden Meeting Ahead of G20 Summit in Indonesia (Nov. 15, 2022), *at* http://english.www.gov.cn/news/topnews/202211/15/content\_WS6372df2dc6d0a757729e32ba.html [https:// perma.cc/K6YE-P62F].

 $^{40}$  Id

<sup>41</sup> See Request for Consultations by China, United States – Measures on Certain Semiconductor and Other Products, and Related Services and Technologies, WTO Doc. WT/DS615/1 (Dec. 15, 2022), at https://docs. wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/DS/615-1.pdf&Open=True.

<sup>42</sup> Orange Wang, China Files WTO Suit Against US Over Chip Export Controls, Saying Policy Is "Trade Protectionism," S. CHINA MORNING POST (Dec. 13, 2022), at https://www.scmp.com/news/china/article/ 3203066/china-files-wto-suit-against-us-over-chip-export-controls-saying-policy-trade-protectionism [https:// perma.cc/E52N-38JJ].

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<sup>&</sup>lt;sup>36</sup> See Jiyoung Sohn & Asa Fitch, Samsung, TSMC Win Exemption from New U.S. Chip Restrictions on China, WALL ST. J. (Oct. 13, 2022), at https://www.wsj.com/articles/samsung-gets-one-year-exemption-from-new-u-schip-restrictions-on-china-11665639994.