THE GLOBAL TRADE LAW JOURNAL

Volume 1, Number 4

July–August 2024

Editor's Note: Exports, Imports Victoria Prussen Spears

Controlling for the Future: Why Export Controls Are Not Going Anywhere David P. Levine

Trends in Unfair Import Competition Brooke M. Ringel and Matthew T. Martin

Imported Products Containing an Aluminum Extrusion Part or Any Extruded Aluminum Are Subject to Countervailing Duties; Additional Antidumping Duties Are on the Horizon Nancy A. Noonan, Leah Scarpelli, Jessica Dipietro, Yun Gao, Diana Dimitriuc Quaia, and

Mario A. Torrico

National Defense Authorization Act for Fiscal Year 2024 Adds Significant Trade Provisions David M. Schwartz, Aaron C. Mandelbaum, and Scott E. Diamond

Made in Italy: The New Anticounterfeiting Measures Pietro Fioruzzi, Giulia Checcacci, Giuseppe Scassellati-Sforzolini, Marco Accorroni, and Paola Maria Onorato

European Union Green Bonds Regulation Nicholas P. Pellicani, Vera Losonci, and John Young



THE GLOBAL TRADE LAW JOURNAL

Volume 1, No. 4

July–August 2024

- 235 Editor's Note: Exports, Imports Victoria Prussen Spears
- 239 Controlling for the Future: Why Export Controls Are Not Going Anywhere David P. Levine
- 267 Trends in Unfair Import Competition Brooke M. Ringel and Matthew T. Martin
- 279 Imported Products Containing an Aluminum Extrusion Part or Any Extruded Aluminum Are Subject to Countervailing Duties; Additional Antidumping Duties Are on the Horizon Nancy A. Noonan, Leah Scarpelli, Jessica Dipietro, Yun Gao, Diana Dimitriuc Quaia, and Mario A. Torrico
- 283 National Defense Authorization Act for Fiscal Year 2024 Adds Significant Trade Provisions David M. Schwartz, Aaron C. Mandelbaum, and Scott E. Diamond
- 291 Made in Italy: The New Anticounterfeiting Measures Pietro Fioruzzi, Giulia Checcacci, Giuseppe Scassellati-Sforzolini, Marco Accorroni, and Paola Maria Onorato
- 295 European Union Green Bonds Regulation Nicholas P. Pellicani, Vera Losonci, and John Young

EDITOR-IN-CHIEF

Steven A. Meyerowitz *President, Meyerowitz Communications Inc.*

EDITOR

Victoria Prussen Spears Senior Vice President, Meyerowitz Communications Inc.

BOARD OF EDITORS

Robert A. Friedman Partner Holland & Knight LLP

Geoffrey M. Goodale Partner Duane Morris LLP

Renée Latour

Partner Clifford Chance

Britt Mosman

Partner Willkie Farr & Gallagher LLP

> Anthony Rapa Partner Blank Rome LLP

Brooke M. Ringel Partner Kelley Drye & Warren LLP

> Samir D. Varma Partner Thompson Hine LLP

Timothy C. Welch Partner Weil, Gotshal & Manges LLP THE GLOBAL TRADE LAW JOURNAL (ISSN 2995-1089) at \$495.00 annually is published six times per year by Full Court Press, a Fastcase, Inc., imprint. Copyright 2024 Fastcase, Inc. No part of this journal may be reproduced in any form—by microfilm, xerography, or otherwise—or incorporated into any information retrieval system without the written permission of the copyright owner.

For customer support, please contact Fastcase, Inc., 729 15th Street, NW, Suite 500, Washington, D.C. 20005, 202.999.4777 (phone), or email customer service at support@fastcase.com.

Publishing Staff Publisher: Leanne Battle Production Editor: Sharon D. Ray Cover Art Design: Morgan Morrissette Wright and Sharon D. Ray

This journal's cover features a 1855 depiction of the American clipper ship *Red Jacket* on her journey from Melbourne, Australia, to Liverpool, England. The artwork was originally created by Charles Parsons and Joseph B. Smith, and later lithographed and published by Nathaniel Currier. It is reproduced courtesy of The Met Museum's public domain library.

Cite this publication as:

The Global Trade Law Journal (Fastcase)

This publication is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If legal advice or other expert assistance is required, the services of a competent professional should be sought.

Copyright © 2024 Full Court Press, an imprint of Fastcase, Inc. All Rights Reserved. A Full Court Press, Fastcase, Inc., Publication

Editorial Office

729 15th Street, NW, Suite 500, Washington, D.C. 20005 https://www.fastcase.com/

POSTMASTER: Send address changes to THE GLOBAL TRADE LAW JOURNAL, 729 15th Street, NW, Suite 500, Washington, D.C. 20005.

Articles and Submissions

Direct editorial inquiries and send material for publication to:

Steven A. Meyerowitz, Editor-in-Chief, Meyerowitz Communications Inc., 26910 Grand Central Parkway, #18R, Floral Park, NY 11005, smeyerowitz@ meyerowitzcommunications.com, 631.291.5541.

Material for publication is welcomed—articles, decisions, or other items of interest to international attorneys and law firms, in-house counsel, corporate compliance officers, government agencies and their counsel, senior business executives, and others interested in global trade law.

This publication is designed to be accurate and authoritative, but neither the publisher nor the authors are rendering legal, accounting, or other professional services in this publication. If legal or other expert advice is desired, retain the services of an appropriate professional. The articles and columns reflect only the present considerations and views of the authors and do not necessarily reflect those of the firms or organizations with which they are affiliated, any of the former or present clients of the authors or their firms or organizations, or the editors or publisher.

QUESTIONS ABOUT THIS PUBLICATION?

For questions about the Editorial Content appearing in these volumes or reprint permission, please contact:

Leanne Battle, Publisher, Full Court Press at leanne.battle@vlex.com or at 202.999.4777

For questions or Sales and Customer Service:

Customer Service Available 8 a.m.–8 p.m. Eastern Time 866.773.2782 (phone) support@fastcase.com (email)

Sales 202.999.4777 (phone) sales@fastcase.com (email)

ISSN 2995-1089

Controlling for the Future: Why Export Controls Are Not Going Anywhere

David P. Levine*

In this article, the author argues that, despite the prevalence of commentators noting the various ways that the targets of export controls have been able to get around new restrictions, the future of export controls is bright. In the author's view, the United States' restrictions have been largely successful (even if not completely so), and, perhaps more importantly for the future, its allies seem on-board with the philosophical and policy goals undergirding the controls.

Introduction

The United States has, over the past five years, turned increasingly to export controls as a tool of coercive diplomacy. Deploying increased restrictions on the export of everything from advanced semiconductors to flavored cigarettes, the United States has attempted to use its economic heft to answer the varying threats it faces around the globe, but most prominently from China and Russia.

This newfound prominence represents quite the turnaround for export controls. Described in multiple news articles within the past four years as previously having been a "backwater,"¹ export controls appeared, in recent years, to be coming of age, so to speak. Beginning with former President Trump's use of the "foreign direct product rule" to choke off exports of semiconductors to Chinese tech giant Huawei, the United States then enacted sweeping controls on exports to Russia in response to the invasion of Ukraine and significant restrictions on the entire semiconductor industry in China in the face of China's increasingly aggressive military posture. American policymakers were seemingly awakened to the possibilities of just how much global commerce they could proclaim jurisdiction over and used that realization to try to advance U.S. economic and national security goals. After the initial wave of restrictions against both Russia and China, the Department of Commerce's Bureau of Industry and Security (BIS)—the agency drafting and enforcing America's "dualuse" export controls²—received generally positive mainstream coverage for its efforts. Articles were written about the United States "hobbl[ing] China's semiconductor ambitions"³ and strangling Russia's access to strategic goods.⁴ Export controls were presented as more targeted, more humane, and more effective than the wideranging embargoes imposed on Iraq a generation earlier.

Recently, however, the shine appears to be coming off export controls' bloom. Mainstream publications are now explaining "Why Sanctions Haven't Hobbled Russia,"⁵ and warning that "China on cusp of next-generation chip production despite US curbs."⁶ New articles appear on a seemingly regular basis reporting on the shortcomings of the export restrictions imposed by the United States and its allies over the past few years. The expectations created by the initial wave of positive press that accompanied export controls' rejuvenation has seemingly created a backlash, as enforcement took time to catch up with the new regulations and impacts have been more limited than some may have expected.

For practitioners, all this attention—both positive and negative—on a previously mostly ignored policy tool can induce cognitive whiplash. This article aims to break through the static and assess export controls' usefulness on their own merits, free from (perhaps unrealistic) expectations about their effects, and evaluate their future usefulness as the United States encounters increasingly global challenges. Despite the prevalence of commentators noting the various ways the controls' targets have been able to get around new restrictions, this article argues that the future of export controls is bright. The United States' restrictions have been largely successful (even if not completely so), and, perhaps more importantly for the future, its allies seem on-board with the philosophical and policy goals undergirding the controls.

Historical Background

Before diving into the successes and failures of the recent period of more aggressive reliance on export controls, it is worth a short review of the path the United States took to get to this point. Practitioners will be largely familiar with the general chronology, but the highlights provide useful context for the successes and failures of the most recent efforts.

Birth of the Modern Export Control System

The United States has used export controls since its earliest days,⁷ but the modern era of controls on goods and technology began during and immediately following World War II.

During the war, Congress authorized the President to control the export of military equipment and munitions as well as certain civilian goods.⁸ And in the wake of the destruction of significant overseas production capacity, after the war Congress sought to "reduce the inflationary effect of abnormal foreign demands upon [U.S.] supplies."⁹

The Cold War, however, and the resulting military and economic competition with the Soviet Bloc, truly birthed the system of dual-use export controls that we are familiar with today. In 1949, Congress enacted the Export Control Act (ECA 1949) (P.L. 81-11), "the first comprehensive system of export controls ever adopted by the Congress in peace time."¹⁰ In the ECA, Congress declared that it was now the policy of the United States to use export controls for three reasons: "(a) to protect the domestic economy [...]; (b) to further the foreign policy of the United States [...]; and (c) to exercise the necessary vigilance over exports from the standpoint of their significance to the national security."11 Subsequently, Congress passed the Export Administration Act of 1969¹² and then the Export Administration Act of 1979.¹³ This latter law represents the basis for the modern Export Administration Regulations (EAR). The EAR, of course, houses the current system of dual-use controls-including the Commerce Control List (the classification system for export controlled goods and technologies), end user and end use-based controls, and licensing guidelines.¹⁴

U.S. policymakers recognized relatively early in the process that unilateral export controls were unlikely to be successful: foreign markets presented ample opportunity to evade controls, while domestic industries would bear the cost of enforcement alone. Together with its major allies in Europe and Japan, the United States formed the Coordinating Committee (COCOM) in 1949, which focused on coordinating export controls targeting the Eastern Bloc.¹⁵ The China Committee (CHINCOM) followed in 1952, coordinating controls targeting the People's Republic of China (PRC).¹⁶ These committees were replaced by the Wassenaar Arrangement in 1997, which brought a wider spectrum of countries

into the multilateral dual-use export control community.¹⁷ In general, however, export controls were viewed as specialized, technical measures to keep specific technology out of the hands of bad actors.¹⁸ The EAR was generally the province of specialists, and export control measures rarely broke through as mainstream news.

Recent Aggressive Uses Against China and Russia

If export controls were regarded as a "backwater"¹⁹ during these previous eras, it was because controls were generally applied to a relatively narrow cross-section of goods-either purely military goods (in the United States subject to the International Traffic in Arms Regulations²⁰) or those civilian goods that were likely to be used for military purposes (the so-called dual-use goods subject to the EAR). Under the Trump administration, with its desire to fulfill campaign promises for a more aggressive approach to China, however, the United States turned to export controls as another economic weapon to use in the promised trade war. Many observers expected the Biden administration to reverse course and effectively return export controls to the technocratic province it had been prior to President Trump. Those expectations, however, were confounded by the one-two punch of a bipartisan appetite for continuing pressure on China and the Russian invasion of Ukraine. Instead of repealing Trump's actions, the Biden administration put them on firmer legal footing and then used them as a blueprint for its own efforts to undermine Russia's war machine and ratchet up pressure on China.

Trump Expands Foreign Direct Product Rule Versus Huawei

The EAR's Foreign Direct Product Rule, or FDPR, is a feature of the U.S. export control system that, before the Trump administration, had been used primarily with reference to specialized rocket and missile technology and other national security-related concerns. The FDPR is based on a theory that the United States has jurisdiction not only over products that originated in the United States, but over products produced overseas but based on technology or using equipment that itself originated in the United States.²¹ While the FDPR is based on an expansive theory of jurisdiction, it was able to fly under the radar for many years because it was not applied to broad swaths of goods or in particularly contentious circumstances.²²

The Trump administration, however, saw the potential that such an expansive grant of jurisdiction presented. Because the United States occupies a unique position in the global supply chain—it does not actually produce many of the end products, but does provide the technology and intellectual property behind many advanced chip-manufacturing tools-an assertion of control over equipment with any American components or technology meant that the United States could exert significant leverage over the entire semiconductor market. In May 2020, the Trump administration applied the FDPR to, effectively, any semiconductors bound for Huawei.²³ This meant that virtually any semiconductor manufacturing facility that used American equipment or American technology was prohibited from selling their chips to Huawei. According to market figures cited by the New York Times, in 2020 Huawei had an 18 percent share of the global smartphone market, but by 2022 "its share had fallen to 2 percent."²⁴

Biden Administration Builds on Expansion to Counter Russia and China

Instead of reversing the Trump administration's novel export control moves, the Biden administration not only left them in place, but built on them.

With respect to China, the Biden administration first put the Huawei FDPR-related restrictions on firmer administrative ground.²⁵ Then, however, instead of targeting individual bad actors (such as, allegedly, Huawei) the United States restricted access to advanced semiconductor-related technologies for the entire Chinese semiconductor industry. Introduced October 7, 2022, and known colloquially as the "October 7 rule," the expansive controls were intended to prevent China "not just from importing the most advanced chips, but also from acquiring the inputs to develop its own advanced semiconductors and supercomputers, and even from the U.S.-origin components, technology and software that could be used to produce semiconductor-manufacturing equipment to eventually build their own fabs to make their own chips."²⁶ The October 7 rule established new entries on the Commerce Control List using specifications of the most advanced computer chips, and established a presumption of denial for license requests for end-users in China for "semiconductor manufacturing equipment" and "supercomputers."²⁷ Furthermore, BIS made findings that semiconductor manufacturing items that enable the "development" or "production" of advanced semiconductors may support the weapons of mass destruction–related and military intelligence-related end uses and end users, and so prohibited U.S. persons from facilitating the export or transfer of goods (even those not subject to the EAR) that would support that manufacturing activity.

Roughly a year later, the Biden administration updated and expanded these controls in order to respond to evasion strategies adopted in the wake of the October 7 rule.²⁸ The 2023 controls implemented a new metric for identifying which chips would be export controlled. This new metric, "performance density," was intended to counteract producers who had throttled performance of their most advanced chips to avoid the previous controls, and then chained them together to achieve performance levels similar to the high-end, controlled chips. The updated controls also expanded the geographic scope beyond China, targeting exports to a range of countries that are generally viewed as less integrated into world export control enforcement regimes.²⁹

While the Trump administration was not coy about the fact that it had, in part, an economic rationale for its China-targeted controls,³⁰ the Biden administration has at least paid lip service to the idea that its controls are grounded in national security concerns. The promulgated rules discuss the role that advanced semiconductors play in Chinese WMD, missile, and surveillance capabilities, and link the desire to control exports to preventing China from improving its military and intelligence capabilities.³¹ However, U.S. officials have also identified apparently economic goals, or goals related more generally to strategic competition, as rationales for the controls.³²

The Biden administration also used the Trump administration's example and incorporated an FDPR-based feature in the export controls imposed on Russia (and Belarus) in the wake of the invasion of Ukraine. The controls imposed following the invasion were designed to "choke off Russia's import of technological goods critical to a diversified economy and Putin's ability to project power."³³ To do so, the United States imposed a license requirement on any item described on the Commerce Control List when exported to

either Russia or Belarus.³⁴Additionally, some of these controls were meant to limit the political capacity of Russia to continue the invasion. For example, controls placed on the export of luxury goods were intended to "increase the costs on Russian and Belarusian persons who support the government of Russia and its invasion of Ukraine."³⁵ But, as mentioned, the United States also incorporated a new FDPR provision into the controls. Foreign-produced goods that are equivalent to items described on the Commerce Control List and are direct products of controlled U.S. technology or software or are produced in a factory that uses U.S.-controlled technology or software are also subject to a licensing requirement.³⁶

Together, the China- and Russia-related controls represented a unique expansion of U.S. export control regulations in a compressed period of time. As noted above, mainstream media coverage of these measures in 2022 and 2023 was largely positive and premised on the successes and promise that such measures held for U.S. diplomatic efforts. Soon, however, as the next section will describe, cracks began to show.

Weaknesses in the Recent U.S. Export Controls

Before reviewing the strengths that will continue to make export controls an important part of the U.S. foreign policy toolkit, it is important to acknowledge the weaknesses and cracks in the current rules. And, to be sure, those weaknesses exist. Most notably, export control enforcement is difficult and evasion, via both traditional smuggling and newer technological means, is common. And, as countries around the world push technology forward, the U.S.'s claim to jurisdiction over the most advanced products is not certain. Further, there has been pushback to the most recent controls by domestic industry participants who are worried about losing lucrative overseas markets.

Evasion

The most common rejoinder to the narrative that U.S. export controls will see more expansive deployment going forward is that they are easily, or at least too easily, evaded. Evasion of export controls is not a new phenomenon. A now-declassified CIA report from 1977, titled "The Illegal Acquisition by the USSR and the PRC of Western Technology and Equipment," details the efforts in place at the time to get around the COCOM and CHINCOM controls.³⁷ The methods, including reliance on falsifying end-use or end-user data to make otherwise legitimate purchases and the use of "dummy corporations," would be familiar to anyone with a passing familiarity with export controls in 2024. Indeed, with respect to the controls imposed on both China and Russia in recent years, recent articles exposing how the targeted countries have been able to maneuver and adjust supply chains to mitigate the worst impacts of the restrictions have highlighted methods that echo the 45-year old CIA report.

Russia's efforts, in particular, harken back to the smuggling networks the Soviet Union relied on at the height of the Cold War. Russia has built out networks of companies and traders that move controlled goods from the West to Russia, primarily through Central and Eastern Europe and the former Soviet Republics.³⁸ These networks provide a lifeline of Western goods that support Russia's war effort in Ukraine.

A *New York Times* article from January 2023, for instance, highlighted how Armenia's import of smartphones exploded to approximately 10 times previous levels during 2022.³⁹ Not coincidentally, the value of its smartphone exports to Russia increased by a similar amount. And Silverado Policy Accelerator, a D.C.-based think tank, noted in a report that "[a] few countries increased exports well above prewar levels, including China, Belarus, Turkey, Kazakhstan, Kyrgyzstan, Armenia, and Uzbekistan. Exports from many other countries rebounded from their spring 2022 lows, and some post-Soviet states increased their transshipments of goods produced by multinational firms that no longer export the goods directly to Russia."⁴⁰

Moreover, Russia has been able to replace Western goods with products from other, less antagonistic markets. China, in particular, has replaced many of the previous Western imports and provided everything from semiconductors to consumer electronics that the Western restrictions have curtailed.⁴¹

Chinese customers too have availed themselves to murky, grayand black-market supply chains for the high-end chips that U.S. controls have restricted. Chips themselves are small and produced in large numbers. This renders them easy to smuggle and difficult to track. A Reuters article from June 2023 described, for instance, a booming underground market in Shenzen for the highest-end Nvidia chips.⁴² The Chinese vendors described in the article stated that, among other procurement methods, they were able to acquire the chips via companies incorporated in third countries, such as "India, Taiwan, and Singapore," where the restrictions were not applicable.⁴³ Among the vendors' customers for the high-end chips was the Chinese government.⁴⁴

China also has a substantial industrial espionage program that has possibly given it access to technology that is otherwise controlled, and give it a chance to replicate Western technological advances at home. A survey of Chinese espionage cases in the United States since 2020 identified several related to the semiconductor industry.⁴⁵ Taiwan's counterintelligence efforts are focused on Chinese industrial espionage against its semiconductor industry,⁴⁶ and a report from a Dutch cybersecurity firm in late 2023 noted that state-backed Chinese hackers are targeting the semiconductor manufacturing industry in East Asia.⁴⁷

But, even beyond the traditional smuggling and cloak-anddagger methods that China has used to evade the recent controls, technological advances have in many ways mitigated the impact of the measures. Due to advances in cloud technology, Chinese artificial intelligence (AI) developers have been able to access chip capabilities without needing to possess the physical chips themselves.⁴⁸ This created a significant loophole in the October 7 measures and allowed Chinese consumers to work around the restrictions. While the Biden administration has released proposed rules attempting to impose restrictions on the so-called infrastructure-as-a-service sector,⁴⁹ it is a near certainty that new technical work-arounds will be discovered.

Advances in Technology

Despite relevant export controls, other countries continue to conduct their own research and produce technological advances. Advances not only in target countries but also in allied countries and even the United States can complicate the U.S. strategy. Recently, this dynamic has been on display most notably with respect to the China-targeted controls imposed on semiconductors.

When the United States first imposed restrictions on the export of advanced semiconductors to China in October 2022, it identified specific performance metrics that chips would have to surpass in order to qualify as "controlled" under the regulations. Within a matter of months, if not weeks, following the issuance of the new rules, those metrics were outdated. Nvidia, a major U.S.-based purveyor of high-end chips, had reportedly identified a technical workaround to coax similar results out of chips whose relevant qualities had been throttled so as to fall outside of the export controls.⁵⁰ This work-around meant that many of the most-touted controls were, effectively, obsolete almost as soon as they were released. The October 2023 rules were designed to prevent at least this specific type of workaround.⁵¹ And Commerce Secretary Gina Raimondo has said that, "[i]f you redesign a chip around a particular cut line that enables [China] to do AI I'm going to control it the very next day."52 But to the extent the United States continues to pursue controls of cutting-edge technology, it is inevitable that the edge will continue to be pushed, potentially in unexpected directions that complicate the control strategy.

Beyond the cat-and-mouse game between regulatory drafters and semiconductor engineers, technological advances also pose a more fundamental challenge to the U.S. export control strategy. To a significant extent, the United States is able to turn to export controls—and the FDPR specifically—as a worthwhile tool because of the significant edge it enjoys in fundamental research and technological innovation. If or when other countries begin to erode that advantage, the United States will have less of a claim to jurisdiction over the most advanced technologies. In that scenario, unilateral export controls will be even less effective than they are now, and fewer allied countries will be incentivized to join U.S.-led regimes.⁵³

Domestic Industry Concerns

Export controls are usually positioned as instruments of the national interest. But domestic constituencies are not monolithic. Domestic producers often oppose export controls to the extent they cut off lucrative international markets. That has been a particular concern when it comes to the controls on advanced semiconductors and domestic suppliers.

Nvidia is a prime example of this dynamic. The California-based chip producer makes some of the most advanced computer chips in the world, chips that are integral for cutting-edge AI applications.⁵⁴ Those have included the types of chips targeted by the recent rounds

of semiconductor-focused export controls. However, as of late 2023, China accounted for approximately 22 percent of Nvidia's annual revenue. And, according to Nvidia's chief financial officer, Colette Kress, export controls will indeed have a "substantial" negative impact on revenue from China.⁵⁵ The Company further warned that "over the long-term, our results and competitive position may be harmed, and we may be effectively excluded from all or part of the China market if there are further changes in the [U.S. government's] export controls, if customers in China do not want to purchase our alternative product offerings, if customers purchase product from competitors, if customers develop their own internal solution, if the [U.S. government] does not grant licenses in a timely manner or denies licenses to significant customers, or if we incur significant transition costs."⁵⁶ Domestic industry in general expressed concern that the controls would "disrupt complex global supply chains, and incentivize foreign manufacturers to exclude U.S. origin items from their production lines."57 The U.S.-based Semiconductor Industry Association has tried to acknowledge "the need to protect national security," but have expressed concern that, "[o]verly broad, unilateral controls risk harming the U.S. semiconductor ecosystem without advancing national security as they encourage overseas customers to look elsewhere."58

These are not unique sentiments from domestic producers of items targeted for export controls. Losing lucrative overseas markets, and concerns about clearing the playing field for new competitors or overburdensome bureaucracy have been common refrains with respect to export controls generally, and specifically with respect to the semiconductor controls enacted in 2022 and 2023.

What the Current Naysayers Are Missing

Despite the apparent headwinds that future export controls will face, there are many reasons to believe that critics are missing the forest for the trees. Most importantly, despite the challenges export controls have faced in implementation, the benefits that proponents of such controls have identified are still readily apparent—export controls represent a more humane, flexible, and targeted approach to coercive diplomacy. And because of these benefits, the recent deployment of export controls targeting China and Russia have achieved significant results (even if enforcement has so far been incomplete and uneven). However, by their nature, many of the successes of export controls may lie in trying to divine events that did not happen—a tricky proposition in the best of circumstances—and evidence of successes that did occur may be not yet be apparent due to the recency of the controls. And it seems apparent that the political will continues to exist—both domestically and in allied countries—to continue to use export controls as a primary tool for responding to international crises.

All the Purported Benefits of Export Controls Still Exist

Although it is certainly true that Russia has been able to adapt their supply chains, and the nature of cloud computing means that users all over the world can tap into networked supercomputers, the benefits that made export controls a popular policy tool three years ago still exist today.

Export controls, particularly in the U.S. system where they are based on regulatory action, can be adjusted relatively quickly and without significant overhead costs in response to changing security environments, emerging technologies, or shifts in diplomatic relations. The United States for instance, was able to impose wideranging export controls on Russia within approximately a week.⁵⁹ That nimbleness allows for agile responses to new challenges, while minimizing unintended consequences for legitimate trade and economic cooperation that come with comprehensive embargoes.

Moreover, export controls are inherently targeted instruments of foreign policy, as they can be applied selectively to restrict the export of specific goods, technologies, or services to designated entities or countries of concern. By focusing restrictions on highrisk items or sensitive technologies, governments can effectively constrain the military capabilities of adversaries and deter destabilizing behavior. This targeted approach allows policymakers to exert pressure on rivals and bad actors while maintaining channels for legitimate commerce and cooperation.

Furthermore, export controls can be calibrated to avoid undue harm to civilian populations or legitimate economic activities, unlike broad-based embargoes or military actions that may result in collateral damage or unintended consequences. This sensitivity to the broader humanitarian context allows export controls to serve as a more precise and proportionate tool for addressing geopolitical crises, offering policymakers a means to promote accountability without resorting to measures that could exacerbate suffering or undermine efforts to support vulnerable populations.

And despite the dispersions inherent in the global supply chain, the United States is still able to claim jurisdiction over a broad swath of global economic activity by virtue of its current strengths in fundamental research and intellectual property protections. Because of the United States' continuing ability to attract engineering and entrepreneurial talent from across the globe, much advanced technology still relies on U.S. technology to at least some degree. Accordingly, the United States' assertions of jurisdiction under the FDPR have real impacts. Using the FDPR, the United States is able to wield tremendous power of the rest of the world's access to many cutting-edge technologies.

Coordination Efforts Are Unprecedented, and Promising

Although, as discussed above, several multilateral export control agreements have either sprouted or continued in the post–Cold War environment—Wassenaar, the Australia Group, etc.—coordination among allies has been limited in most respects. Notably, Wassenaar lacks clear enforcement mechanisms,⁶⁰ and the EU export regime has generally been less developed and more permissive than its U.S. counterpart.⁶¹ However, the challenges presented by both Russia and China have changed the calculus for the U.S.'s allies, and the export control system has witnessed coordination that has been unprecedented in the past 25 years.

The United States and its allies have coordinated both sanctions and export controls on Russia to an extraordinary degree in the wake of the invasion of Ukraine. As described above, the baseline controls imposed by the United States imposed a license requirement on any item described on the Commerce Control List when exported to either Russia or Belarus.⁶² BIS also used the FDPR to apply this same license requirement to equivalent foreign-produced goods that are direct products of U.S. technology.⁶³ But, BIS "excluded countries that committed to implementing substantially similar export controls on Russia and Belarus under their domestic laws."⁶⁴ In total, 37 countries committed to implementing such controls.⁶⁵ When announcing the controls, the White House described this "[h]istorical multilateral cooperation" as "unprecedented."⁶⁶

With respect to China, the results of diplomatic engagement have been just as encouraging. While the United States can claim jurisdiction over large swaths of the semiconductor supply chain, Japan and the Netherlands are particularly key producers of the equipment used to produce the most advanced semiconductors the chips targeted by the October 7 (and subsequent) controls.⁶⁷ Accordingly, securing cooperation and, ideally, coordinated control policies from those two countries was viewed as key to the longterm success of the semiconductor control initiative.⁶⁸ Indeed, roughly three months after the initial October 7 controls, a deal was reportedly reached that made both countries partners in the U.S. policy of restricting China's access to advanced chips.⁶⁹ By spring of 2023 both countries had publicly announced the implementation of measures that would effectively wed them to the U.S. framework and make the advanced semiconductor export controls a multilateral affair.70

Even beyond the more newsworthy examples of export control coordination, the United States has gone to significant effort to synchronize its controls with its allies even it what could otherwise be considered fairly anodyne ways. For instance, for the first year after the Russian invasion, the United States identified goods controlled under the "Russian and Belarus industry sector sanctions," 15 CFR 746.5, via what is known as a "Schedule B" number. A Schedule B number is a 10-digit export classification code used by the United States for recordkeeping purposes. Our European allies, however, identified goods controlled under the comparable regulation via six-digit "Harmonized System" or "HS" Codes. These are trade classification codes governed by the World Customs Organization and used for most global transactions outside the United States. While similar and often co-extensive, the use of the 10-digit Schedule B Numbers and the six-digit HS Codes meant that certain goods were export controlled by Europe that were not controlled by the United States and vice versa, though the intent was for overlapping controls. In deference to our allies, beginning in February 2023, the United States adjusted its classification approach, and identified controlled goods via the U.S. equivalent of HS Codes, six-digit Harmonized Tariff Schedule (or HTS-6) Codes.⁷¹ While technical, this change

2024]

had the effect of synchronizing controls between allies, making compliance easier for industry and enforcement easier for officials.

Even If Not Perfect, Export Controls Are Still Achieving Results

Even articles detailing the levels of evasion acknowledge that the U.S.'s efforts have achieved some of their goals. For instance, in a *New York Times* article from September 2023 about Russia's efforts to evade controls in support of its missile industry, the author notes that "Russian production is still not keeping pace with how fast the military is burning through ammunition and wearing out equipment," and that, "although Moscow has been successful in smuggling processors and circuit boards, it is facing a shortage of rocket propellant and basic explosives."⁷² The same article notes that "overcoming Western export bans has not come cheaply.... Russia had reallocated nearly a third of its commercial economy toward arms production."⁷³

Similarly, articles that note China's ability to get around certain aspects of the recent controls on advanced semiconductors are compelled to acknowledge what the country's evasion efforts have not been able to accomplish. A Center for Strategic and International Studies report noted that, "[w]hatever the imperfections of U.S. and allied export controls on chips, the current restrictions appear to have a significant impact on China's semiconductor ecosystem. The Dutch decision to block exports of ASML's most advanced extreme ultraviolet (EUV) lithography tools should, in principle, foreclose China's ability to produce advanced chips."⁷⁴ That article further cites reports that China's largest chipmaker (YMTC) was laying off 10 percent of its workforce⁷⁵ and that China's largest semiconductor foundry was delaying production due to equipment shortages.⁷⁶

These delays and reductions and anecdotes of resource reallocation are all evidence of the impact export controls have had. Even where the restrictions do not prevent the target from ultimately acquiring a specific good, forcing the adversary or rival to expend additional effort in the pursuit of the controlled item is, in itself, an achievement. The measures have not, on their own, completely decimated the Russian military industrial complex or dissuaded China from pursuing advanced semiconductors. But they have certainly exacted a cost.

The Most Recent Export Controls Are Still Too "Young" for True Enforcement Effects to Be Felt

Identifying, investigating, developing, and charging export controls evaders takes a significant amount of time. Looking only at enforcement cases the Department of Commerce and the Department of Justice (DOJ) have recently publicized that are based on the recent PRC- and Rusia-focused controls, it is apparent why success stories have not saturated the press despite U.S. government claims that it is devoting significant resources to the export control effort. The most stringent Russia-related controls are barely two years old, and the advanced semiconductor controls date to only 18 months ago. It can take longer than that to complete an investigation.

For instance, the DOJ announced at the end of February 2024 the guilty plea of a defendant who had participated in an "illicit procurement network" that re-exported "military grade" OLED micro-displays on behalf of Russia-based end users.⁷⁷ The technology involved in the export violations had significant military applications, such as in rifle scopes, night-vision goggles, thermal optics, and other weapon systems. The charged violations began soon after the post-Ukraine export controls were implemented, dating from between May 2022 and August 2023. Similarly, the DOJ announced in January 2024 the arrest of an individual who arranged for thousands of microchips-a vital component for many of Russia's missiles and other weapon systems-to ship to Russia during 2022.78 What these cases demonstrate is that we are only now approaching the event horizon for export cases that originated during the early days of these restrictions to being brought to conclusion.

As we enter the third year of the Russia controls, and mark 18 months following the first round of controls on advanced semiconductors, we will likely begin to see more enforcement cases being both brought and concluded going forward. DOJ's National Security Division has significantly added to its ranks, BIS has incorporated experienced attorneys with export control (and counterintelligence) experience.⁷⁹ Both institutions are clearly taking their mandate seriously. Moreover, their political overseers in both Congress and the Executive branch do not appear to have a diminishing appetite for such targets.⁸⁰

By Their Nature, Successful Export Controls May Not Create Visible Victories

Finally, for even the most successful export control regimes, victories largely exist in negative space—the evidence of success is in what the targeted person or jurisdiction does not achieve or acquire. Enduring export control successes often lack the dramatic narratives that captivate public attention. Unlike military operations or diplomatic breakthroughs, the impact of export controls is typically measured in the absence of crises rather than tangible victories. This inherent nature of preventive measures makes it challenging to showcase their accomplishments. Moreover, the complexities of global trade and the interconnectedness of various economies make it difficult to attribute specific outcomes solely to export controls. Successful controls often manifest as the absence of evidence of evasion or the prevention of proliferation rather than the presence of high-profile triumphs.

Success in preventing the spread of sensitive technologies or materials often hinges on the cooperation of multiple stakeholders, including governments, businesses, and international organizations. This collaborative effort, while essential, dilutes the visibility of individual achievements and obscures the direct impact of export control policies.

Furthermore, the best way for policymakers to evaluate that success is, by necessity in the modern world, largely the fruit of classified intelligence collection. Public assessments of, for instance, Chinese or Russian evasion or the overall success of the programs are, by definition, incomplete and may not include the best evidence of successful restrictions. The covert nature of proliferation activities means that many successful interventions remain classified or undisclosed to the public, further diminishing the ability to trumpet export control achievements.

Path Forward

While this article is bullish on the future of U.S. export controls, the U.S. government needs to continue to devote resources to the project for that optimism to come to fruition. This section identifies several areas where additional effort will help cement future successes. In particular, the United States should continue to prioritize engagement with allies. Both the Russia- and Chinatargeted controls have demonstrated the important role that other economies play in crafting an effective export control regime in an era of globalized supply chains. Additionally, in order to help realize those diplomatic partnerships, clarity about the policy goals the controls are meant to achieve will be important. At home, the United States must continue to engage with the relevant industries and invest resources in enforcement. Without those pillars, even clear, well-drafted rules will fail to keep pace with technological advances and fall into irrelevance.

Continue to Work with Allies

The United States has recognized from the earliest post-war implementation of export controls that going it alone is a recipe for failure. Effective export controls require engagement and cooperation with allies. And such operational coordination produces a number of positive effects. Domestic industry will face fewer concerns about being disadvantaged in the global marketplace. Enforcement resources can be shared and reinforced. And there will simply be fewer jurisdictions in which aspiring evaders will be able to buy and sell their wares.

While the recent rounds of export controls have not been perfect, the effort the United States has put in to coordinate with its allies has been salutary and likely lays the groundwork for more effective controls in the future.

Indeed, that seems to be where U.S. effort is directed at present. Public reporting indicates that "[t]he US government is pressing allies including the Netherlands, Germany, South Korea and Japan to further tighten restrictions on China's access to semiconductor technology."⁸¹ The U.S. diplomatic push appears aimed at closing off what it views as loopholes in the current controls—for instance, the fact that the Dutch company ASML can still service semiconductor manufacturing equipment in China that it would not be allowed to export there today—and further limiting China's ability to establish domestic versions of the highest-end chips. But the United States is, apparently, also trying to bring additional countries (such as Germany and South Korea) on board. Despite reports that allies "have responded coolly to Washington's latest push,"⁸² the fact of the push demonstrates that the United States believes in the future of export controls as a method of containing Chinese capacity.

Clarify Policy Goals

As discussed above, historically, export controls have been used primarily to prevent hostile or competitor countries from acquiring goods or technologies that could be used to improve military or intelligence capabilities. Indeed, even the Federal Register notices announcing the recent rounds of export controls relating to semiconductors have dutifully nodded to the role that advanced computer chips could play in supporting China's missile and surveillance programs (for instance). However, much of the messaging from the Biden administration regarding the semiconductor controls, and certainly much of the outside commentary, have focused on the economic and technological impacts of the controls. For instance, National Security Advisor Jake Sullivan has said that "we have to revisit the longstanding premise of maintaining 'relative' advantages over competitors in certain key technologies. 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."83 And Commerce Secretary Raimondo has said that the goal of the semiconductor controls is "slowing [China] down," and that "[w]e just cannot let them access the most sophisticated, cutting-edge artificial intelligence chips."84 This, understandably, causes cynicism about the purpose of the controls-among domestic constituencies, potential or actual allies, and the target(s) of the controls. And it can create unrealistic or unhelpful expectations among the public. But it can also create confusion among those charged with drafting, updating, and enforcing the controls. Measures designed to, for instance, prevent an adversary from acquiring a specific military capability may look much different than measures designed to ensure continued American dominance in a specific industry. Accordingly, political leaders and policymakers must be clear about the goals future export control measures are intended to achieve if they are to remain a vital foreign policy tool. Muddled intent can lead to muddled policy.

Continue to Engage Industry Experts

One of the lessons from the first round of advanced semiconductor controls was that the U.S. government needs to engage experts from industry in order to craft effective controls. The relatively quick technical workaround identified by Nvidia, and resulting restriction-compliant A800 and H800 chips demonstrated in real time that BIS needed more feedback from the semiconductor industry to design controls that cannot be engineered around. Moreover, industry experts possess technical expertise that can enhance the BIS's understanding of emerging technologies, market dynamics, and supply chain vulnerabilities. By continuing to leverage the knowledge and experience of industry stakeholders, BIS can develop more informed and effective export control policies that strike the right balance between national security imperatives and economic competitiveness. Moreover, collaboration with industry experts fosters a cooperative relationship between government and private-sector entities, facilitating information sharing, transparency, and mutual understanding of regulatory requirements. BIS already has a forum for such collaboration in its standing Technical Advisory Committees.⁸⁵ BIS must continue to leverage these experts, and build on this partnership, in order to keep its export controls effective in the modern, global economy.

Invest in Enforcement

Finally, if the United States expects to continue to use export controls as a significant policy tool, it must invest in their enforcement. As of the summer of 2023, BIS had only three enforcement agents stationed in China.⁸⁶ Public reports have described the agency as "understaffed and underequipped."⁸⁷ And a report from the Chairman of the House Foreign Affairs Committee identified shortcomings in BIS's "linguistic, geopolitical, targeting, and technical expertise."⁸⁸ BIS should leverage the willingness of policymakers to push for tougher export control measures⁸⁹ to request additional resources. Chairman McCaul's report also suggests permitting the agency to charge a fee for export control licenses as a way to fund enforcement activities.⁹⁰ If BIS does not continue to invest in enforcement, export control rules—even when wellcrafted with industry and allied buy-in—risk being ignored.

Conclusion

As noted at the outset, devoting this much energy and attention to the subject of export controls is outside the historical norm. Traditionally, export controls have been a sleepy, technocratic area of regulatory law that rarely garnered mainstream attention. The fact that export controls can now make front-page news, or merit long-form articles in widely read publications⁹¹ is somewhat incredible. With that increased attention, however, has come increased expectations and, most recently, increased disenchantment with seemingly flagging or slow-to-materialize results. That disenchantment is misplaced. Properly viewed, whatever their weaknesses, the recent rounds of export controls have been mostly successful and have laid the groundwork for future successes. Policymakers should take these successes seriously. If they do, export controls will remain an important arrow in the U.S.'s diplomatic quiver.

Notes

* David P. Levine is an attorney in the Global Trade & Investment Group of Willkie Farr & Gallagher LLP, based in the firm's office in Washington, D.C. He may be contacted at dplevine@willkie.com.

1. James Politi, "Export Controls Emerge as a Way to Curb China's Rise," Financial Times (Jan. 29, 2020), https://www.ft.com/content/ab39b596-169a-11ea-b869-0971bffac109; Alex W. Palmer, "An Act of War': Inside America's Silicon Blockade Against China," N.Y. Times Magazine (July 12, 2023), https:// www.nytimes.com/2023/07/12/magazine/semiconductor-chips-us-china .html (An Act of War).

2. This article's primary focus is on export controls of dual-use goods, such as those enforced by the U.S. Department of Commerce's Bureau of Industry and Security via the Export Administration Regulations (EAR). There are, of course, other relevant export controls—on arms and military goods (22 CFR Parts 120-130) and on nuclear material (10 CFR Part 110), most notably. For purposes of this article, however, I use the term "export controls" to refer to the dual-use regime embodied in the EAR.

3. Arjun Kharpal, "America's 'Once Unthinkable' Chip Export Restrictions Will Hobble China's Semiconductor Ambitions," CNBC.com (Oct. 11, 2022), https://www.cnbc.com/2022/10/12/us-chip-export-restrictions-couldhobble-chinas-semiconductor-goals.html.

4. Maria Shagina, "Technology Controls Can Strangle Russia— Just Like the Soviet Union," ForeignPolicy.com (Aug. 8, 2022), https:// foreignpolicy.com/2022/08/22/russia-ukraine-war-sanctions-exportcontrols-technology-transfer-semiconductors-defense-industry-militaryespionage/.

5. Ana Swanson, "Why Sanctions Haven't Hobbled Russia," N.Y. Times (Feb. 16, 2024), https://www.nytimes.com/2024/02/16/briefing/russian-sanctions.html.

6. Qianer Liu, "China on Cusp of Next-Generation Chip Production Despite US Curbs," Financial Times (Feb. 6, 2024), https://www.ft.com/content/b5e0dba3-689f-4d0e-88f6-673ff4452977.

7. "The U.S. Export Control System and the Export Control Reform Act of 2018," Congressional Research Service (June 7, 2021) (quoting Continental Congress, "Articles of Association," October 20, 1774, art. 4, Journals of the Continental Congress 1 (GPO, 1904), p. 77: "If the said acts ... are not repealed, we will not directly or indirectly, export any merchandise or commodity whatsoever to Great Britain, Ireland, or the West-Indies, except rice to Europe;" Embargo Act, P.L. 10-5 (December 22, 1807), 2 Stat. 451).

8. P.L. 77-638 (June 30, 1942) § 6(a), 56 Stat. 463 authorized the President to restrict the export of "any articles, technical data, materials or supplies."

9. U.S. Congress, Senate Committee on Banking and Currency, Export Control Act of 1949, report to accompany S. 548, 81st Cong., 1st sess., S. Rept. 81-31 (GPO, 1949), p. 2.

10. Harold J. Berman & John A. Garson, "United States Export Controls— Past, Present, and Future," Columbia Law Review 67, no. 5 (May 1967), p. 792.

11. Export Control Act of 1949, P.L. 81-11 (Feb. 26, 1949 § 2), 63 Stat. 7.

12. Export Administration Act of 1969, P.L. 91-184 (Dec. 30, 1969).

13. Export Administration Act of 1979, P.L. 96-72 (Sept. 29, 1979).

14. 15 CFR Parts 730-774.

15. "Export Controls—International Coordination: Issues for Congress," Congressional Research Service (Sept. 8, 2023), at 2.

16. "The U.S. Export Control System and the Export Control Reform Act of 2018," Congressional Research Service (June 7, 2021), at 3.

17. "Export Controls—International Coordination: Issues for Congress," Congressional Research Service (Sept. 8, 2023), at 2.

18. Id. at 20 ("Wassenaar was not used as part of a broader strategy to limit the economic or technological development of a civilian economy. Wassenaar's focus was, like the other nonproliferation regimes, constraining objectionable behaviors.").

19. James Politi, "Export Controls Emerge as a Way to Curb China's Rise," Financial Times (Jan. 29, 2020), https://www.ft.com/content/ab39b596-169a-11ea-b869-0971bffac109.

20. 22 CFR Parts 120-130.

21. See 15 CFR § 734.9.

22. Palmer, "An Act of War," supra note 1 (describing the FDPR as a "formerly obscure provision").

23. Id.

24. Id.

25. "Foreign-Direct Product Rules: Organization, Clarification, and Correction," Bureau of Industry and Security, 87 Fed. Reg. 6022 (Feb. 3, 2022).

26. Palmer, "An Act of War," supra note 1.

27. "Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification," Bureau of Industry and Security, 87 Fed. Reg. 62186 (Oct. 13, 2022), https://www.federalregister.gov/documents/2022/10/13/2022-21658/implementation-of-additional-export-controls-certain-advanced-computing-and-semiconductor.

28. "Commerce Strengthens Restrictions on Advanced Computing Semiconductors, Semiconductor Manufacturing Equipment, and Supercomputing Items to Countries of Concern," Bureau of Industry and Security (Oct. 17, 2023), https://www.bis.doc.gov/index.php/documents/about-bis/newsroom/ press-releases/3355-2023-10-17-bis-press-release-acs-and-sme-rules-final-js/ file.

29. Id.

30. See, e.g., Ana Swanson, "U.S. Delivers Another Blow to Huawei with New Tech Restrictions," New York Times (May 15, 2020), https://www .nytimes.com/2020/05/15/business/economy/commerce-department-huawei .html ("Secretary of State Michael R. Pompeo said the deal would increase American economic independence from China and strengthen the U.S. relationship with Taiwan, a self-governing island claimed by Beijing.").

31. See 87 Fed. Reg. 62186 (noting, among other things, China's use of advanced computers for its military modernization efforts, military decision making, planning, and logistics, cognitive electronic warfare, radar, signals intelligence, and jamming, as well as China's use of supercomputers to improve calculations in weapons design and testing including for WMD such as nuclear weapons and hypersonics and other advanced missile systems).

32. See, infra, notes 77 and 78.

33. "Fact Sheet: Joined by Allies and Partners, the United States Imposes Devastating Costs on Russia," White House (Feb. 24, 2022), https://www .whitehouse.gov/briefing-room/statementsreleases/2022/02/24/fact-sheetjoined-by-allies-and-partners-the-united-states-imposes-devastating-costson-russia/ (White House Fact Sheet).

34. 15 C.F.R. § 746.8(a)(1).

35. "Imposition of Sanctions on 'Luxury Goods' Destined for Russia and Belarus and for Russian and Belarusian Oligarchs and Malign Actors Under the Export Administration Regulations (EAR)," Bureau of Industry and Security (Mar. 16, 2022), 87 Fed. Reg. 14785.

36. 15 C.F.R. § 746.8(a)(2)-(3); 15 C.F.R. § 734.9(g).

37. "The Illegal Acquisition by the USSR and the PRC of Western Technology and Equipment," Central Intelligence Agency (Mar. 2, 1977), https:// www.cia.gov/readingroom/docs/CIA-RDP81B00401R002500150008-4.pdf.

38. Ana Swanson, "Russia Sidesteps Western Punishments, with Help from Friends," New York Times (Jan. 31, 2023), https://www.nytimes .com/2023/01/31/business/economy/russia-sanctions-trade-china-turkey .html. 39. Id.

40. Andrew David, Sarah Stewart, Meagan Reid & Dmitri Alperovitch, "Russia Shifting Import Sources Amid U.S. and Allied Export Restrictions," Silverado Policy Accelerator (Jan. 2023), https://cdn.sanity.io/files/0wfzc71x/ production/6745ea42c21d65d6709231e0e7767bd5de57469b.pdf.

41. Steven Feldstein & Fiona Brauer, "Why Russia Has Been So Resilient to Western Export Controls," Carnegie Endowment for International Peace (Mar. 11, 2024) ("shifting geopolitical incentives have motivated many countries—such as China, India, Türkiye, and the UAE—to ignore Western sanctions and sustain trading ties with Russia").

42. Josh Ye, David Kirton & Chen Lin, "Focus: Inside China's Underground Market for High-End Nvidia Chips," Reuters (June 20, 2023), https:// www.reuters.com/technology/inside-chinas-underground-market-highend-nvidia-ai-chips-2023-06-19/.

43. Id.

44. Id.

45. "Survey of Chinese Espionage Cases in the United States Since 2000," Center for Strategic and International Studies, https://www.csis.org/programs/strategic-technologies-program/survey-chinese-espionage-united-states-2000.

46. Yimou Lee & Sarah Wu, "'Tip of the Iceberg': Taiwan's Spy Catchers Hunt Chinese Poachers of Chip Talent," Reuters (Apr. 8, 2022), https://www.reuters.com/world/asia-pacific/tip-iceberg-taiwans-spy-catchers-hunt-chinese-poachers-chip-talent-2022-04-08/.

47. Daryna Antoniuk, "China-Based Spies Are Hacking East Asian Semiconductor Companies, Report Says," The Record (Oct. 6, 2023), https:// therecord.media/china-budworm-apt27-east-asia-semiconductor-companies.

48. Yuka Hayashi & John D. McKinnon, "U.S. Looks to Restrict China's Access to Cloud Computing to Protect Advanced Technology," Wall Street Journal (July 4, 2023), https://www.wsj.com/articles/u-s-looks-to-restrict-chinas-access-to-cloud-computing-to-protect-advanced-technology.f771613 ("If any Chinese company wanted access to Nvidia A100, they could do that from any cloud service provider. That's totally legal," said Emily Weinstein, a research fellow at Georgetown Center for Security and Emerging Technology.).

49. "Taking Additional Steps to Address the National Emergency with Respect to Significant Malicious Cyber-Enabled Activities," Bureau of Industry and Security, 89 Fed. Reg. 5698 (Jan. 29, 2024).

50. Stephen Nellis & Jane Lee, "Nvidia Tweaks Flagship H100 Chip for Export to China as H800," Reuters (Mar. 21, 2023), https://www.reuters.com/technology/ nvidia-tweaks-flagship-h100-chip-export-china-h800-2023-03-21/.

51. Jay Peters, "Nvidia's H800 AI Chip for China Is Blocked by New Export Rules," The Verge (Oct. 17, 2023), https://www.theverge.com/2023/10/17/23921131/us-china-restrictions-ai-chip-sales-nvidia.

52. Evelyn Cheng, "U.S. Export Controls Need to 'Change Constantly' Even If It's Tough for Businesses, Secretary Raimondo Says," CNBC.com

(Dec. 5, 2023), https://www.cnbc.com/2023/12/05/commerce-sec-raimondo-us-export-controls-need-to-change-constantly.html.

53. Cf. "Export Controls—International Coordination: Issues for Congress," Congressional Research Service (Sept. 8, 2023), at 22 ("The United States can use the FDPR to force foreign manufacturers to comply with U.S. export-control strategies. But the FDPR can also be used to coordinate controls with cooperative foreign governments that might lack the legal capacity to enact their own controls.").

54. Evelyn Cheng, "U.S. Export Controls Need to 'Change Constantly' Even If It's Tough for Businesses, Secretary Raimondo Says," CNBC.com (Dec. 5, 2023), https://www.cnbc.com/2023/12/05/commerce-sec-raimondo-us-export-controls-need-to-change-constantly.html.

55. Kenio Fontes, "How US Limitations on Chip Exports Could Strain Nvidia Stock," The Street (Nov. 27, 2023), https://www.thestreet.com/memestocks/others/how-us-limitations-on-chip-exports-could-strain-nvidia-stock.

56. Eric Revell, "Nvidia Says US Sped Up Export Curbs on AI Chips," Fox Business (Oct. 24, 2023), https://www.foxbusiness.com/markets/ nvidia-says-us-sped-up-export-curbs-ai-chips.

57. Matthew A. Goldstein, "Will Recent Expansions of U.S. Export Controls on Foreign Electronics Backfire?" Reuters (Nov. 22, 2023), https://www .reuters.com/legal/legalindustry/will-recent-expansions-us-export-controlsforeign-electronics-backfire-2023-11-22/.

58. "SIA Statement on New Export Controls," Semiconductor Industry Association (Oct. 17, 2023), https://www.semiconductors.org/sia-statement-on-new-export-controls-2/.

59. See "Implementation of Sanctions Against Russia Under the Export Administration Regulations (EAR)," Bureau of Industry and Security (Mar. 3, 2022) 87 Fed. Reg. 12226 (though published March 3, this rule was effective as of February 24, 2022—the day generally understood to mark the beginning of Russia's invasion).

60. See "Export Controls—International Coordination: Issues for Congress," Congressional Research Service (Sept. 8, 2023), at 20-21.

61. Gregory Allen & Emily Benson, "Japan and the Netherlands Announce Plans for New Export Controls on Semiconductor Equipment," Center for Strategic and International Studies (Apr. 10, 2023), https://www .csis.org/analysis/japan-and-netherlands-announce-plans-new-exportcontrols-semiconductor-equipment ("By contrast [to the U.S.], the EU system makes it more difficult, though not impossible, for EU member countries to pursue controls on items not included [on the Wassenaar list].").

- 62. 15 C.F.R. § 746.8(a)(1).
- 63. 15 C.F.R. § 746.8(a)(2)-(3); 15 C.F.R. § 734.9(g).
- 64. 15 C.F.R. § 746.8(a)(4).
- 65. 15 C.F.R. § 746.8(a)(4), Supplement no. 3.

66. White House Fact Sheet, supra note 33 ("Countries that adopt substantially similar export restrictions are exempted from new U.S. licensing requirements for items produced in their countries. The European Union, Australia, Japan, Canada, New Zealand and the United Kingdom, have already communicated their plans for parallel actions").

67. Gregory Allen & Emily Benson, "Japan and the Netherlands Announce Plans for New Export Controls on Semiconductor Equipment," Center for Strategic and International Studies (Apr. 10, 2023), https://www .csis.org/analysis/japan-and-netherlands-announce-plans-new-exportcontrols-semiconductor-equipment.

68. Id.

69. Alexandra Alper & David Shepardson, "U.S. Official Acknowledges Japan, Netherlands Deal to Curb Chipmaking Exports to China," Reuters (Jan. 31, 2023), https://www.reuters.com/technology/us-official-acknowl edges-japan-netherlands-deal-curb-chipmaking-exports-china-2023-02-01/ ("We can't talk about the deal right now," Deputy Commerce Department Secretary Don Graves said on the sidelines of an event in Washington. "But you can certainly talk to our friends in Japan and the Netherlands.").

70. Toby Sterling, Karen Freifeld & Alexandra Alper, "Dutch to Restrict Semiconductor Tech Exports to China, Joining US Effort," Reuters (Mar. 8, 2023), https://www.reuters.com/technology/dutch-responds-us-china-policy-with-plan-curb-semiconductor-tech-exports-2023-03-08/, and Tim Kelly & Miho Uranaka, "Japan Restricts Chipmaking Equipment Exports as It Aligns with US China Curbs," Reuters (Mar. 31, 2023), https://www.reuters.com/technology/japan-restrict-chipmaking-equipment-exports-aligning-it-with-us-china-curbs-2023-03-31/.

71. "Implementation of Additional Sanctions Against Russia and Belarus Under the Export Administration Regulations (EAR) and Refinements to Existing Controls," Bureau of Industry and Security, 88 Fed. Reg. 12175 (Feb. 27, 2023), https://www.federalregister.gov/documents/2023/02/27/2023-03927/ implementation-of-additional-sanctions-against-russia-and-belarus-under-the-export-administration.

72. Julian E. Barnes, Eric Schmitt & Thomas Gibbons-Neff, "Russia Overcomes Sanctions to Expand Missile Production, Officials Say," New York Times (Sept. 13, 2023), https://www.nytimes.com/2023/09/13/us/politics/russia-sanctions-missile-production.html.

73. Id.

74. Sujai Shivakumar & Charles Wessner, "Balancing the Ledger: Export Controls on U.S. Chip Technology to China," Center for Strategic and International Studies (Feb. 21, 2024), https://www.csis.org/analysis/ balancing-ledger-export-controls-us-chip-technology-china.

75. Lilian Zhang, "Tech War: Chairman of YMTC, China's Top Memory Chip Maker, Warns of 'Turbulence and Disorder' in Semiconductor Sector Amid Geopolitical Tensions," South China Morning Post (June 29, 2023), https://www.scmp.com/tech/tech-war/article/3225983/tech-war-chairmanymtc-chinas-top-memory-chip-maker-warns-turbulence-and-disorder-semi conductor. 76. Ann Cao & Che Pan, "Tech War: China's Top Chip Maker SMIC Admits to Delays at New Plant as US Tightens Export of Semiconductor Equipment," South China Morning Post (Feb. 10, 2023), https://www.scmp.com/tech/tech-war/article/3209797/tech-war-chinas-top-chip-maker-smic-admits-delays-new-plant-us-tightens-export-semiconductor.

77. "Russian International Money Launderer Pleads Guilty to Illicitly Procuring Large Quantities of U.S.-Manufactured Dual-Use, Military Grade Microelectronics for Russian Entities," U.S. Department of Justice Press Release (Feb. 29, 2024), https://www.justice.gov/opa/pr/russian-internationalmoney-launderer-pleads-guilty-illicitly-procuring-large-quantities-us.

78. "Businessman Arrested for Scheme to Illegally Export Semiconductors and Other Controlled Technology to Russia," U.S. Department of Justice Press Release (Jan. 18, 2024), https://www.justice.gov/opa/pr/businessmanarrested-scheme-illegally-export-semiconductors-and-other-controlledtechnology.

79. See, e.g., "BIS Announces Appointment of Elizabeth 'Liz' Cannon as Executive Director of Office of Information and Communications Technology and Services," Bureau of Industry and Security (Jan. 22, 2024), https://www.bis.doc.gov/index.php/documents/about-bis/newsroom/ press-releases/3438-press-release-liz-cannon/file.

80. See, e.g., Stephen Nellis, "US Lawmakers Press White House for Tougher Enforcement of China Chip Rules," Reuters (Oct. 6, 2023), https://www.reuters.com/technology/us-lawmakers-press-white-house-tougher-enforcement-china-chip-rules-2023-10-06/.

81. Diederik Baazil, Cagan Koc, Mackenzie Hawkins & Michael Nienaber, "US Urges Allies to Squeeze China Further on Chip Technology," Bloomberg Law (Mar. 7, 2024), https://news.bloomberglaw.com/product/blaw/bloom berglawnews/exp/eyJpZCI6IjAwMDAwMThlLTE1MTAtZDY0ZS1hZjllL WQ3NWUwNmVhMDAwMSIsImN0eHQiOiJJVE5XIiwidXVpZCI6IkZH dmpWNEdVa3F5V2lpaHFDdmNlblE9PS90S2lnRTRsOEo2TWtSWElUNk M1aUE9PSIsInRpbWUiOiIxNzA5ODE2NjY1MTAzIiwic2lnIjoiaE5wYmp6 SHFGNmJiZmZCY0NuR0pHRWMxV09vPSIsInYiOiIxIn0=?source=news letter&item=headline®ion=digest.

82. Id.

83. "Remarks by National Security Advisor Jake Sullivan at the Special Competitive Studies Project Global Emerging Technologies Summit," White House (Sept. 16, 2022), https://www.whitehouse.gov/briefing-room/ speeches-remarks/2022/09/16/remarks-by-national-security-advisor-jakesullivan-at-the-special-competitive-studies-project-global-emerging-tech nologies-summit/.

84. Evelyn Cheng, "U.S. Export Controls Need to 'Change Constantly' Even If It's Tough for Businesses, Secretary Raimondo Says," CNBC.com (Dec. 5, 2023), https://www.cnbc.com/2023/12/05/commerce-sec-raimondo-us-export-controls-need-to-change-constantly.html.

85. See https://tac.bis.doc.gov/.

86. Palmer, "An Act of War," supra note 1.

87. Emily Benson, "Want to Help Ukraine? Fund This U.S. Government Agency," Foreign Policy (Dec. 23, 2022), https://foreignpolicy.com/2022/12/23/russia-ukraine-war-military-bureau-industry-security-export-controls/.

88. "Bureau of Industry & Security: 90-Day Review Report," Chairman Michael McCaul, House Foreign Affairs Committee at 40, https://foreignaffairs .house.gov/wp-content/uploads/2024/01/1.2.24-BIS-Report.pdf.

89. Stephen Nellis, "US Lawmakers Press White House for Tougher Enforcement of China Chip Rules," Reuters (Oct. 6, 2023), https://www.reuters.com/technology/us-lawmakers-press-white-house-tougher-enforce ment-china-chip-rules-2023-10-06/.

90. "Bureau of Industry & Security: 90-Day Review Report," Chairman Michael McCaul, House Foreign Affairs Committee at 40, https://foreignaffairs.house.gov/wp-content/uploads/2024/01/1.2.24-BIS-Report.pdf.

91. E.g., Palmer, "An Act of War," supra note 1.