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Security Exception may Determine the Future of Global Chip
Markets

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List of Abbreviations

BIS=U.S. Bureau of Industry and Security

CHIPS Act=Creating Helpful Incentives To Produce Semiconductors (CHIPS); a US law

DSU=Dispute Settlement Understanding

EAR=Export Administration Regulations; US law regarding export controls

ECCN=Export Control Classification Number; a nomenclature for US export controlled goods

Expanded BIS Rules=US rulemaking regarding export controls

FDP=Foreign Direct Product; a regulation of the BIS

GATT=General Agreement on Tariffs and Trade

IDM=Integrated Device Manufacturer, a firm that designs, manufactures, and sells semiconductors

MFN=Most Favoured Nation

NVNI= Nonviolation Nullification and Impairment

OECD=Organization for Economic Cooperation and Development

SIA=Semiconductor Industry Association

WTO=World Trade Organization

Introduction

The relationship between China and the United States is a complex mix of trade interdependencies and mutual mistrust, with great consequence for the rest of the world due to each country's powerful economies and military might. These two “friendly enemies” are currently locked in a strategic battle over this century's most valued resource—semiconductors and the advanced computing technologies which they power.

The race to develop the next generation of semiconductors has led the US, China, and the EU all to commit massive funds to spur domestic production and supercharge the research and design of next generation chips. In 2015, China launched its “Made in China 2025” industrial policy. The US followed suit in its 2022 CHIPS Act, and the EU in 2023 with its European Chips Act.

At the same time, the US has gone a step further and imposed export controls on China that are so wide-ranging and complete that they work an effective total ban on the exports of advanced semiconductors to China. In essence, the US strategy is to starve China of the next generation of computing technology, and to force trading partners to choose between the Chinese market or the US.

This battle has landed before the World Trade Organization. The setting is apt, given that the US championed the WTO in the post-WW2 era, and that China’s economic and military ascendancy was spurred by their membership in the WTO starting in 2001. The Chinese government claims that the US export controls on China violate the WTO’s foundational principle that every member nation be provided with equal trade benefits. From the Chinese viewpoint, the US has imposed punitive trade measures on its computing industry, and has done so under the sweeping justification of national security. These measures, according to the Chinese, are simply prohibited trade measures disguised as national security measures.

The US claims that the WTO lacks jurisdiction to even review the claim because measures taken for national security are subject to a blanket exemption, provided by the WTO’s Security Exception. This exception found at Article XXI of the GATT 1994 provides that no signatory to the WTO may be prevented from “taking any action which it considers necessary for the protection of its essential security interests.” The US takes this provision to its logical extreme, claiming that whenever a party invokes the Security Exception, it acts as an absolute shield to WTO panel review of the decision.

For decades, WTO scholars have warned how the Security Exception could be used as a loophole which could threaten the stability of the WTO’s comprehensive trade system, with one scholar noting that “article XXI might be considered the easiest way out of the discipline of GATT.”¹ By

¹ Michael J. Hahn, "Vital Interests and the Law of GATT: An Analysis of GATT's Security Exception," 12 Michigan Journal of International Law 558, p. 560 (1991)

2011, some had already claimed victory over the dangerous loophole, claiming that the “atmosphere” of collegial respect between the member states had been an efficient guarantee against abuses.² Unfortunately, it seems the pessimist’s worst fears have been realized.

The Security Exception has been increasingly invoked by Russia, the US, and other countries since 2019, and the US continues to take the position that the invocation of the Security Exception is absolute. A number of WTO panels have ruled against the US’s position, but the problem is far from being solved due to the status of the WTO Appellate Body. Since 2019, the Appellate Body has been blocked from making any decisions due to the US’s continued refusal to make appointments to the body.³

What, then, is the path forward? How can the WTO strike a balance between state sovereignty to make national security decisions, and the continued effectiveness of the WTO’s reciprocal obligations? And on a more practical level, how can the WTO effectively rule on the issue, when one of the litigants claims that the WTO dispute resolution body lacks jurisdiction to even hear the claim? Finally, what will come of the US blockage of the WTO Appellate Body?

This paper will examine the existing body of law regarding the WTO security exception, and will discuss how the historical basis for the inclusion of Article XXI informs the modern-day application of the rule. Along with a discussion of the facts underlying China’s WTO challenge—including the state of the global semiconductor industry and the details of the new US export control measures targeting China—this paper will discuss the different approaches that the WTO may take with respect to the US’s reliance on Article XXI, and consider various outcomes of the dispute.

Section II will provide necessary background information regarding the current dispute between the US and China. It will discuss how China’s booming economic growth spurred its ambition to become more than “just” the world’s factory, and how China’s Made in China 2025 plan was

² Roger P. Alford, “The Self-Judging WTO Security Exception,” 2011 Utah L. Rev. 697, 699 (2011), (citing United Nations, Econ. & Soc. Council, Preparatory Comm. of the U.N. Conference on Trade & Emp’t, Thirty-Third Meeting of Commission A, at 19, U.N. Doc. E/PC/T/A/PV/33 (1947) (Mr. Colban on behalf of Norway) <http://www.wto.org/gatt_docs/English/SULPDF/90240170.pdf> accessed 3 November 2024

³ Warren Maruyama, Alan. Wm. Wolff, “Saving the WTO from the national security exception,” Peterson Institute for International Economics Working Paper No. 23-2, p. 1 (2023) <<https://www.piie.com/publications/working-papers/saving-wto-national-security-exception>> accessed 3 November 2024

viewed by the Americans as a threat to their existing dominance over the upstream phases of the semiconductor manufacturing process.

Section III of the paper will explore the status of the semiconductor global value chain, and will discuss how the three separate stages of the semiconductor manufacturing process—upstream, middle stream, and downstream—are each concentrated in their own region of the world, with great ramifications for global security strategy.

Section IV will discuss the so-called first prong of the US strategy in its semiconductor war with China, namely, to use US export controls to prevent China from further developing its domestic semiconductor industry, and will explain the recent changes to the US export control regime that triggered China's WTO claim.

Section V will discuss the second prong of the US strategy, subsidies. From its earlier crusades against China's domestic subsidies to now, when the US seems to have adopted the Chinese approach, this Section will discuss the details of the US CHIPS Act and how it aims to boost domestic semiconductor manufacturing.

Section VI will discuss the EU CHIPS Act and its strategy to boost domestic semiconductor manufacturing through the use of subsidies for domestic producers.

Section VII will detail China's WTO challenge to the US semiconductor measures, and will analyze the sections of the new US export control regulations with which China takes issue. Finally, in the context of that dispute, Section VI will explore the balance that WTO panels are trying to find between state sovereignty in national security and adherence to the free trade systems that is the hallmark of the WTO system.

Background of the US and China Trade War

China entered the WTO in 2001, and it is hard to argue that its membership in the organization has been anything but a smashing success for China and the WTO system itself. From accession to the WTO in 2001 to 2023, China's GDP increased from 1.3 trillion US dollars to 18 trillion, and its annual trade in goods jumped from 510 billion to 6.3 trillion US dollars.⁴ During the period from

⁴ World Trade Organization, Statement by China at the 11th China Roundtable, (2023) <https://www.wto.org/library/events/event_resources/acc_0102202309/55_223.pdf>

2013-2021, China's contribution to global economic growth averaged 38.6 percent, which was higher than that of the G7 members combined.⁵

Whether proven through economic data or the ubiquity of consumer products "Made in China," China's economic rise is undeniable. If the circumstances that led to China's meteoric rise was globalism—typically defined as the process of increasing interdependence among nations⁶—then it is arguable that de-globalization is the trend that now defines the relationship between China and the US. Defined as "the process of weakening interdependence among nations," at least one scholar argues that globalization reached its peak between the years 2007 and 2010, with foreign direct investment peaking around the same time.⁷

This strategic de-coupling taking place today through export controls and a trade war is shocking considering the optimism that accompanied China's entry onto the world stage. The opening-up of China's economy through the WTO was welcomed by foreign interests, especially those eager to take advantage of China's then-dormant manufacturing potential. In 1999, the US-based Semiconductor Industry Association ("SIA") issued a statement welcoming China into the WTO, writing that "bringing China into the rules based world trading system is vital to America's interest and is extremely important for China as well."⁸ The SIA noted that "China is expected to become one of the largest semiconductor markets in the world" and touted China's reduction in semiconductor tariffs from 20 percent in 1995, to the then-current 6-10 percent.⁹

The SIA's predictions were correct: by 2005, China had become the world's largest consumer of semiconductors, and by 2012, it was purchasing more than half of world consumption of semiconductors.¹⁰ The Chinese share of imports of semiconductors surged from 1 percent in 1995 to 23 percent in 2019.¹¹

⁵ *Id.*

⁶ Michael A. Witt, "De-Globalization: Theories, predictions, and opportunities for international business research," *Journal of International Business Studies* 50 1053, p. 1054 (2019)

⁷ *Id.*

⁸ "Semiconductor Industry Applauds U.S.-China World Trade Organisation Agreement," *Business Wire* (12 June 1999) <<https://www.proquest.com/wirefeeds/semiconductor-industry-applauds-u-s-chinaworld/docview/446554672>> accessed 3 November 2024

⁹ *Id.*

¹⁰ Chad P. Bown, "How the United States Marched the Semiconductor Industry into Its Trade War with China" 24(4) *East Asian Economic Review*, Special Issue 365 (2020)

¹¹ *Id.*

The semiconductor, of course, is more than just another commodity—it is arguable the most critical modern technological component. Computer chips are essential elements to any computing device, and artificial intelligence cannot exist without the computing infrastructure underlying it. This importance has been recognized by many world governments, who “have concluded that semiconductors are a strategic technology, drivers of technological progress, economic prosperity and military power.”¹² As a result, reliable access to semiconductors is a strategic security concern for all nations and a prerequisite for economic and military dominance now and in the imaginable future.

Although China reigns supreme in the *assembly* of finished semiconductors—recent estimates suggest that 90 percent of all smartphones, 67 percent of all smart televisions, and 65 percent of all personal computers are made in China.¹³—it lags behind the US when it comes to global market share of the semiconductor industry. In 2022, American firms collected a whopping 48 percent of global semiconductor revenue,¹⁴ with those firms focusing mostly on the invention and design stages of the manufacturing process. Taiwan, meanwhile, dominates the manufacturing process, with 50 percent of the global market share coming from its semiconductor manufacturing sites, or foundries.¹⁵ China’s market share in foundry operations was much lower, at approximately 2-3%.¹⁶

¹² Chris Miller, “Global chip war for strategic semiconductors,” *Nature Reviews Electrical Engineering* 1 2-3, p. 1 (2024)

¹³ Li Tao, “How China’s ‘Big Fund’ Is Helping the Country Catch up in the Global Semiconductor Race” *South China Morning Post* (Shenzen, 10 May 2018) <<https://www.scmp.com/tech/enterprises/article/2145422/how-chinas-big-fund-helping-country-catch-global-semiconductor-race>> accessed 3 November 2024

¹⁴ Semiconductor Industry Association, “State of the U.S. Semiconductor Industry” (2023) <https://www.semiconductors.org/2023-state-of-the-u-s-semiconductor-industry/> accessed 3 November 2024

¹⁵ Gartner, “Worldwide Semiconductor Foundry Market Grew 16 Percent in 2014, According to Final Results by Gartner” (13 April 2015) <<https://www.gartner.com/en/newsroom/press-releases/2015-04-13-worldwide-semiconductor-foundry-market-grew-16-percent-in-2014-according-to-final-results-by-gartner>> accessed 3 November 2024

¹⁶ *Id.*

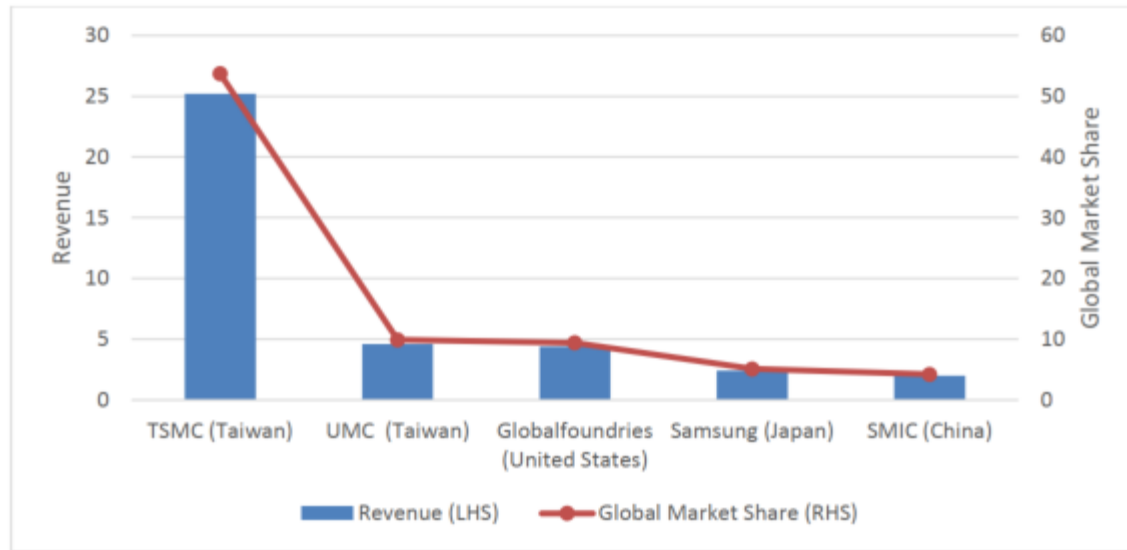


Figure 1. Source: <https://www.gartner.com/en/newsroom/press-releases/2015-04-13-worldwide-semiconductor-foundry-market-grew-16-percent-in-2014-according-to-final-results-by-gartner>

Despite its outsized role in the assembly phase, China has clearly been unhappy with its status in the semiconductor value chain market. This economic position, combined with the immense strategic military importance of the semiconductor market, drove China to release in 2014 its *Guidelines to Promote National Integrated Circuit Industry Development*. The plan outlined ambitious development targets and created a \$19.5 billion fund to support the domestic Chinese semiconductor industry.¹⁷

The US Trade Representative summarized the motivations that led China to develop its \$19.5 billion semiconductor subsidy fund in a trade bulletin aptly titled “China’s Push for Microchip Independence.”¹⁸ The bulletin listed two motivations for the Chinese plan: “First, [China] wants to build globally competitive domestic semiconductor firms, which will capture the revenue currently accruing to foreign companies. Second, it wants to ensure China’s national security by breaking “the technological dominance of the West and strengthening the country’s position in the cybersecurity war.”¹⁹

¹⁷ U.S. Trade Representative, “Monthly Analysis of U.S.-China Trade Data” (5 August 2015), <<https://www.uscc.gov/trade-bulletins/august-2015-trade-bulletin>> accessed 3 November 2024

¹⁸ *Id* at 12

¹⁹ U.S. Trade Representative, “August Trade Bulletin 2015” (5 August 2015), <https://www.uscc.gov/trade-bulletins/august-2015-trade-bulletin> (citing Ministry of Industry and Information Technology, “Yan Xueshan Introduces the Essential Points of the Guidelines to Promote the National Integrated Circuit Industry,” Staff translation,

Only one year later, China sought in 2015 to realign its relationship with world markets. No longer wishing to be just the “factory of the world,” the Chinese government released its “Made in China 2025” strategy, the purpose of which was to boost China’s ability to design and innovate high-tech products at home. Instead of manufacturing high-tech items designed by foreign firms, China sought to kickstart domestic R&D and production with \$1.5 billion in subsidies for “industrial capability, smart manufacturing, innovation, as well as product quality and branding.”²⁰ In other words, China wanted to jump into those earlier stages of the production process, and become a leader not just in assembly, but also in the R&D-heavy invention and development stages.

The US response came in 2017, when the US government launched an investigation into China’s trade practices. Two resulting reports, released in 2018, alleged that China was improperly manipulating markets through two avenues: first, the US alleged that China’s \$19.5 billion semiconductor fund was an unfair subsidy to boost domestic producers; second, the reports accused the Chinese of committing state-sponsored industrial espionage, and of forcing technology transfers to Chinese firms by requiring foreign firms to engage in joint ventures with Chinese companies, as a sort of quid pro quo for access to the Chinese market.²¹

Based on these findings, the US government in 2018 imposed 25 percent tariffs on semiconductor imports from China, along with other items with a combined \$350 billion in import value. The Chinese retaliated with tariffs on their own through 2018 and 2019 totaling \$100 billion.²² Notably, the tariffs installed by the Chinese did not include semiconductors or semiconductor manufacturing equipment, almost certainly because of continued Chinese reliance on the US for advanced manufacturing equipment.

The semiconductor war was heating up, and higher tariffs were only the start. In 2019, the US employed another weapon to starve the Chinese market of advanced semiconductors—export

<<http://www.miit.gov.cn/n11293472/n11293832/n11293907/n11368223/16044279.html>> (accessed 1 December 2023)

²⁰ The State Council of the People's Republic of China, “China to invest big in ‘Made in China 2025’ strategy,” (12 October 2017), <https://web.archive.org/web/20190111000623/http://english.gov.cn/state_council/ministries/2017/10/12/content_281475904600274.htm> accessed 3 November 2024

²¹ John Verwey, “Chinese Semiconductor Industrial Policy: Past and Present,” United States International Trade Commission, Journal of International Commerce and Economics (2019 July) <https://www.usitc.gov/publications/332/journals/chinese_semiconductor_industrial_policy_past_and_present_jice_uly_2019.pdf> accessed 3 November 2024

²² Bown supra at p. 374

controls. The US specifically targeted Chinese electronics giant Huawei by placing the firm and all its global affiliates on the “Entity List,” which prohibited any US firms from sharing any targeted technology with Huawei without a license—and, of course, licenses are presumptively denied, leading to a de facto prohibition. Already, this was a notable expansion of US export controls, which previously had only used the entity list to target the production of weapons of mass destruction using US technology.²³ Now, the US was targeting Huawei—which had no involvement in the development of weapons—and was instead using export controls to prevent the advancement of Chinese semiconductor technology.

But the US soon found the restrictions ineffective. In response to the US controls, Huawei simply turned to other non-US manufacturers in Taiwan and South Korea to obtain computer chips.²⁴ The US response to this cat-and-mouse game was, unsurprisingly, to further tighten the export control screws on China. Thus, in 2020 the US reworked and expanded its “Foreign Direct Product Rule” (“FDP”) which targeted products made outside of the US that were the “direct product” of US-made technology. Thus, the FDP was a way to control *non-US* entities, when they were developing products based on controlled US technology. For example, if a US manufacturer developed software to operate an advanced radar system, and a Brazilian manufacturer incorporated that software into its own radar system, the US would use the FDP rules to control the sharing and use of that technology worldwide through the threat of ostracizing the offending manufacturer from the U.S. financial system.

But with Huawei, the US increased the scope of the FDP rule. The 2020 changes imposed a license requirement for *all* commercial products that 1) would be going into something that eventually would be ordered or purchased by Huawei; or 2) would be part of a transaction to which Huawei is a party.²⁵ Put more simply, the US government made it nearly impossible for any entity worldwide to do any business with Huawei, if the underlying technology was of US origin.

²³ U.S. Department of Justice, Bureau of Industry and Security “Entity List,” <<https://www.bis.doc.gov/index.php/policy-guidance/lists-of-parties-of-concern/entity-list>> accessed 3 November 2024

²⁴ Semiconductor Industry Association, “2020 State of the U.S. Semiconductor Industry” <<https://www.semiconductors.org/wp-content/uploads/2020/07/2020-SIA-State-of-the-Industry-Report-FINAL-1.pdf>> accessed 3 November 2024

²⁵ Arent Fox Schiff, “BIS Expands the Huawei Foreign Direct Product Rule to Capture a Wide Swath of COTS,” <<https://www.afslaw.com/perspectives/alerts/bis-expands-the-huawei-foreign-direct-product-rule-capture-wide-swath-cots>> accessed 3 November 2024

This approach was intended to leave semiconductor manufacturers in Taiwan, South Korea and other states with a choice: refuse to engage with Huawei, in which case the company would remain compliant with the US FDP rules and retain access to US semiconductor manufacturing equipment; or, continue to engage with Huawei in violation of the US export control rules, and lose access to the US manufacturing equipment.²⁶

Soon after the US introduced its new FDP rules on Huawei, the Coronavirus pandemic swept the world and shocked global markets and supply chains. For the first time since the globalization heyday of the early 2000's, citizens worldwide recognized in their daily lives the negative side of this interconnectedness. Western governments and businesses were reliant on Chinese suppliers to provide medicine, masks, and all manner of commodities, and the supply chain disruptions and resulting high prices for commodities highlighted the precarious position that many countries had found themselves in. One particularly poignant example of these disruptions was the *Ever Given* cargo ship, which was stuck in the Suez Canal for six days in 2021, causing yet another blockage in international trade.²⁷

In response to these unprecedented supply chain disruptions, the US government conducted a study on supply chain vulnerabilities. The US report was released in February, 2022. Conducted by the Department of Commerce—which, not coincidentally, is responsible for implementing export controls—the report specifically targeted supply chains “supporting the U.S. Information and Communications Technology Industry.”²⁸ Unsurprisingly, China was a major focus of the report. The authors identified vulnerabilities related to the semiconductor supply chain, including a lack of domestic production capacity for many product categories, overreliance on single-source and region suppliers, and a shortage of qualified workers.²⁹ The report’s recommendations included revitalizing the US manufacturing base through financial incentives, and increasing international collaboration with allies.³⁰

²⁶ Bown *supra* at p. 379

²⁷ “Suez Canal: Fresh effort to refloat wedged container ship,” BBC (27 March 2021) <<https://www.bbc.com/news/world-middle-east-56550350>> accessed 3 November 2024

²⁸ US Department of Defense, “Securing Defense-Critical Supply Chains: An action plan developed in response to President Biden's Executive Order 14017,” (February 2022) <<https://media.defense.gov/2022/Feb/24/2002944158/-1/-1/1/DOD-EO-14017-REPORT-SECURING-DEFENSE-CRITICAL-SUPPLY-CHAINS.PDF>> accessed 3 November 2024

²⁹ *Id*

³⁰ *Id*

The increased collaboration suggested in the US supply chain report specifically mentioned the U.S.-EU Trade and Technology Council, and as will be discussed later, the US subsequently launched an influence campaign targeting EU-based semiconductor manufacturers. At the same time, the EU released a similar study highlighting similar dependencies in its own supply chain. The report noted that the EU is "highly dependent on imports for 137 products in its most sensitive ecosystems" with China representing a massive 52 percent share of those EU imports.³¹ The report also highlighted the EU's decline of competitiveness in high-tech areas compared to China and the US, and also stressed the importance of building trade alliances with allies.

The US was quick to take action after the supply chain vulnerability report was published, and the action came in the form of a two-pronged approach to the semiconductor problem: the first prong consisted of even more restrictive export controls, targeting only China and taking even more restrictive steps to starve the Chinese economy of semiconductor technology. The second prong consisted of an expansive program of subsidies for domestic US semiconductor manufacturers known as the "Creating Helpful Incentives to Produce Semiconductors" or more commonly, the CHIPS Act.

After the US CHIPS Act was passed, the EU passed a similar law in July 2023 entitled the "European Chips Act." The law will leverage €47 billion from public and private investment, with the same goal as the US CHIPS Act, namely, to increase semiconductor independence.

China, of course, has not sat idly by while the leading economic powers of the world actively worked to prevent them from acquiring the technology that will determine the leaders of the new world technological order. In December 2022, the Chinese filed a Request for Consultation before the very body that catalyzed their meteoric economic growth, the WTO. The Chinese assert that the US is improperly using export controls as tools of economic leverage, instead of a means to protect national security. From the Chinese perspective, the existing multilateral export control regime was designed to prevent the proliferation of dangerous weapons in the hands of terrorists and other bad actors, and the US use of export controls is just a thinly veiled attempt to impose

³¹ European Commission, "Commission Staff Working Document: Strategic dependencies and capacities" (Brussels, 5 May 2021), p. 1, <https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1124> accessed 3 November 2024

trade-based restrictions by other means. Notably, the Chinese have not yet challenged the subsidy programs in the US CHIPS Act nor the European Chips Act.

The US response to the Chinese complaint has been, in a word, evasive. Rather than defend its actions as legal within the WTO system, the US has instead claimed that the legality of export controls measures is not subject to the jurisdiction of the WTO dispute resolution body. As the US wrote, “issues of national security are political matters not susceptible to review or capable of resolution by WTO dispute settlement.”³² The US relies on Article XXI of the GATT 1994, known as the “security exception,” for this argument. Article XXI provides:

Nothing in this Agreement shall be construed

(a) to require any contracting party to furnish any information the disclosure of which it considers contrary to its essential security interests; or

(b) to prevent any contracting party from taking any action which it considers necessary for the protection of its essential security interests

(i) relating to fissionable materials or the materials from which they are derived;

(ii) relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military;

(iii) taken in time of war or other emergency in international relations; or

³² World Trade Organization, “UNITED STATES – MEASURES ON CERTAIN SEMICONDUCTOR AND OTHER PRODUCTS, AND RELATED SERVICES AND TECHNOLOGIES: Communication from the United States,” WT/DS615/4 (12 January 2023), p. 1.

(c) to prevent any contracting party from taking any action in pursuance of its obligations under the United Nations Charter for the maintenance of international peace and security.

Article XXI clearly provides that the rules of the WTO do not apply to national security measures taken by a state. The US has therefore taken the position that the WTO has no jurisdiction to police the export control measures targeting the Chinese semiconductor industry, because the export control regulations are national security measures. While disclaiming the application of the WTO, the US has agreed to enter into consultations with China to resolve the dispute.

The outcome of this dispute will have massive implications for the liberalized trade system created by the WTO and the integrity of its dispute resolution process, not to mention the course of the ongoing trade war between the US and China in which the EU finds itself buffered. The outcome of this dispute is unclear because the security exception, on its face, has no clearly defined limits, and the body of WTO law regarding Article XXI is in its nascency.

Under the most liberal interpretation of Article XXI, nations are free to impose whatever trade-based restrictions they would like, free from the strictures of the WTO texts (or even the review of the WTO dispute settlement bodies!), so long as they claim the restrictions were done in the interest of their national security. In this case, the WTO would be prevented from hearing the disputes, prevented from analyzing the facts behind a party's trade measure (i.e., is the measure genuinely taken as a security measure, or is it merely a trade restriction in disguise?), and even prevented from further developing its Article XXI body of law because it could not rule on the underlying dispute. This is the approach put forward by the US government in all disputes in which it claims national security is at stake.

On the other hand, a more narrow interpretation of Article XXI would see limits placed on the application of the exception. Under this approach, WTO dispute resolution bodies would, most importantly, have jurisdiction over any claim where Article XXI was asserted as a defense, and they would examine the facts behind the measures to determine if security was really the motivating factor. The end result would be a defined body of Article XXI law, which recognizes the limits of the exception.

Semiconductors and the Global Value Chain

Semiconductors are products of the global, interconnected supply chain in which goods are designed in one country, manufactured in another, and assembled in yet another. The semiconductor value chain can be separated into the upstream, middle, and downstream segments, with each segment having its own state that dominates the segment. The following section will discuss this value chain in depth, and discuss recent governmental reports on the strategic importance of this supply chain to global financial and military interests.

What is a Semiconductor?

Often described as the “brains” of modern electronics, semiconductors are the building blocks of cell phones, computers, and nearly every other electronic device in use today.³³ These devices combine the properties of insulators and conductors (hence the “semi” prefix) to control the flow of electric current.³⁴

Although there are various types of semiconductors, this paper concerns the most technologically advanced and economically valuable semiconductor: the “integrated circuit,” “microchip,” or “computer chip.” There are typically multiple chips placed on the circuit board of an electronic device, with each chip responsible for a different function, e.g., central processing unit (“CPU”), memory, graphics, audio, and so on.³⁵ The most valuable function for a chip to perform is within a logic device, followed by memory and logic functions.³⁶

Since the ushering in of the computer age, the semiconductor industry has been marked by swift technological advancement. As Intel scientist Gordon Moore put it in 1965, “cramming more components onto integrated circuits” would likely result in a doubling of the number of components on a microchip every year.³⁷ This maxim, now famously known as “Moore’s Law”,

³³ Organisation for Economic Co-operation and Development, “Measuring distortions in international markets: The semiconductor value chain,” OECD Trade Policy Papers, No. 234, p. 11 (2019) <http://dx.doi.org/10.1787/8fe4491d-en>, accessed 3 November 2024

³⁴ *Id*

³⁵ *Id*

³⁶ Semiconductor Industry Association, “Beyond Borders, the Global Semiconductor Value Chain: How an interconnected industry promotes innovation and growth” (2016) <<https://www.semiconductors.org/wp-content/uploads/2018/06/SIA-Beyond-Borders-Report-FINAL-June-7.pdf>>

³⁷ Intel Corporation, “Moore’s Law” <<https://www.intel.com/content/www/us/en/history/virtual-vault/articles/moores-law.html>> accessed 3 November 2024

has largely proven true, and the result is an constant race to cram the most components onto ever-smaller computer chips.

The technological innovation of semiconductors is most often measured by the number of “nodes” that can be inserted onto a chip. Nodes are applied to the chips through photolithography, a process by which ultra-violet light is used to print and etch circuits directly onto the surface of a silicon wafer.³⁸ Simply put, the more nodes on a given space, the better. Nodes were originally measured in micrometers (μm) but due to advancement are now measured in nanometers (nm).³⁹ The pace of innovation has been steady, in line with Moore’s 1965 prediction.

Given the fast pace of innovation in the industry, product lifecycles are often measured in months, instead of years,⁴⁰ putting great demands on the research and development of smaller, more capable chips and prioritizing access to the lithography machines capable of printing these ever-smaller nodes.

Smaller is better in the semiconductor world, and the technologies and know-how to make the cutting edge chips lies mostly in the US and Taiwan. Without access to the cutting edge-machines and background research, a country is under the economic thumb of another, a fact China has sought to remedy since 2014.

The Semiconductor Global Value Chain

The semiconductor global value chain is a complex, dense web. By one estimate, a large US-based semiconductor firm may have as many as 16,000 suppliers worldwide.⁴¹ As a result of this interconnectedness, the manufacturing of semiconductors is heavily influenced by cross-border flows of research and development knowledge, Intellectual property, raw materials, manufacturing processes and machines, and human talent.

The process of manufacturing a semiconductor can be broken down into three separate stages: (1) the upstream segment (2) the middle segment (3) the downstream segment.

³⁸ Organisation for Economic Co-operation and Development *supra*

³⁹ *Id*

⁴⁰ *Id*

⁴¹ Semiconductor Industry Association, "Beyond Borders, the Global Semiconductor Value Chain: How an interconnected industry promotes innovation and growth" (May 2016), <<https://www.semiconductors.org/wp-content/uploads/2018/06/SIA-Beyond-Borders-Report-FINAL-June-7.pdf>> accessed 3 November 2024

No one company dominates all three stages of the process. And although the semiconductor industry is rather consolidated—the top twenty firms account for 81% of global revenue, with the top five companies representing half of that revenue—none of these manufacturers are vertically integrated.⁴² This is a great example of the global supply chain partly ushered in by the WTO. For semiconductors, the supply chain is a globalized network of suppliers and high-tech manufacturing, providing everything from R&D to raw materials to packaging in locations across the globe.

For example, at the design stage, American and to lesser extent British firms dominate in providing the software, technology, and IP foundation for the next generation chips.⁴³ At the manufacturing stage, production is reliant upon specialty industrial gases and chemical produced largely in Germany and Japan, and silicon wafers made in Japan, Taiwan, Germany, and France.⁴⁴ Finally, the last stage of assembly, packaging, and testing is reliant on precision machines produced in the U.S., Netherlands, Singapore, and Japan.⁴⁵

In short, the manufacturing of a semiconductor is incredibly dependent on inputs from around the globe, and because each stage of the manufacturing process is dominated by firms in different parts of the world, it is likely impossible to manufacture a semiconductor without global sourcing. Because the sources are so diverse for each stage, a discussion of the different segments and their market leaders follows below.

The Upstream Segment: Research and Development

Semiconductors are one of the most R&D intensive products available on the market, with one source citing R&D as “the lifeblood of the semiconductor industry.”⁴⁶ Across all industries, semiconductor firms spend the largest relative amount of their revenue on R&D, beating out their

⁴² Organisation for Economic Co-operation and Development *supra*

⁴³ *Id* at p. 22

⁴⁴ *Id*

⁴⁵ *Id*

⁴⁶ McKinsey and Co., “Getting Mo(o)re out of semiconductor R&D,” (2011) <https://www.mckinsey.com/~media/mckinsey/dotcom/client_service/semiconductors/pdfs/mosc_1_revised.ashx> accessed 3 November 2024

closest competitors in the pharmacological/biotech, software/computer sciences, and even aerospace and defense industries⁴⁷.

Given the massive outlay of capital required for R&D in the industry—and the expected positive externalities connected with having a leading edge chip technology on its shores—state involvement is very common in the upstream R&D stage.⁴⁸ This state involvement includes grants and favorable tax treatment of R&D spending, with nearly all the major economies offering tax incentives for R&D spending.⁴⁹ Notably, the OECD posits that the shift away from targeted, direct investment in the form of grants, and towards blanket tax incentives, has been driven in part by the belief⁵⁰ that upstream tax incentives have less of a market-distorting effect prohibited by the WTO's trade rules.

The upstream segment is dominated by American firms, with nearly 72% of all R&D activities taking place in the United States, followed by Europe (20%) and the Asia Pacific region (8%).⁵¹

The Middle Segment: Chip Design, Manufacturing, and Assembly, Testing and Packaging

The middle segment of the value chain is where microchips are designed, manufactured, and packaged for shipment. At the design stage, engineers use computer drawing software to map out the components to be installed on the chip. Next comes the actual manufacturing of the microchip, which takes place at a semiconductor “foundry.” Each chip is built upon a “wafer,” a razor-thin slice of silicon refined to 99.9999% level of purity, making silicon wafers “the purest product manufactured on a commercial scale.”⁵²

⁴⁷McKinsey and Co., “Moneyball for engineers: What the semiconductor industry can learn from sports,” <<https://www.mckinsey.com/industries/semiconductors/our-insights/moneyball-for-engineers-what-the-semiconductor-industry-can-learn-from-sports>> accessed 3 November 2024

⁴⁸ Organisation for Economic Co-operation and Development, “Measuring distortions in international markets: The semiconductor value chain,” OECD Trade Policy Papers (2019) <<http://dx.doi.org/10.1787/8fe4491d-en>> accessed 3 November 2024

⁴⁹ Organisation for Economic Co-operation and Development, “R&D Tax Incentives Statistics,” (2024) <<https://www.oecd.org/sti/rd-tax-stats.htm>> accessed 3 November 2024

⁵⁰ Organisation for Economic Co-operation and Development, “OECD Science, Technology and Industry Outlook 2014” (2014) <https://dx.doi.org/10.1787/sti_outlook-2014-en> accessed 3 November 2024

⁵¹ Semiconductor Industry Association, “State of the U.S. Semiconductor Industry 2022,” (2022) p. 21 <<https://www.semiconductors.org/state-of-the-u-s-semiconductor-industry/>> accessed 3 November 2024

⁵² Eric D. Williams, Robert U. Ayres, Miriam Heller, “The 1.7 Kilogram Microchip: Energy and Material Use in the Production of Semiconductor Devices,” *Environmental Science & Technology*, Vol. 36/24 5504, p. 5510 (2002)

The photolithography process is then used to etch the circuitry onto the wafer, after which the chips, or “dies,” are cut from their wafers before being sent along for final testing and packaging.⁵³

Relative to the upstream R&D stage, the middle segment is more labor intensive and less capital intensive. As a result, the middle segment was the first stage in the value chain to be outsourced as production grew in volume and scope.⁵⁴

The prevalence of outsourcing has led the semiconductor industry to recognize two different business models, based on whether a firm outsources the middle segment. An Integrated Device Manufacturer (“IDM”) is a firm that designs, manufactures, and sells semiconductors, while a “fabless-foundry” firm focuses on chip design and outsources production to a contract foundry.⁵⁵ The Asia Pacific region dominates the contract foundry industry, with Taiwan, China, and Korea in the lead—Taiwan accounts for an estimated 54% of the global contract foundry market.⁵⁶

After a chip is manufactured, it then must be assembled, tested, and packaged into the end-use electronic. Outsourcing is even more prevalent here, with both IDM and fabless-foundries outsourcing their assembly, testing, and packaging. These so-called “OSAT” firms are again dominated by Asian players, with Taiwan owing approximately 54% of the OSAT market share.⁵⁷

The Downstream Segment: Use in Electronic Devices

The downstream segment of the value chain is where semiconductors are actually used in devices, including, in decreasing order of sales, mobile phones, PC’s, automotive, internet of things, servers, digital TV’s, tablets, and video game consoles.⁵⁸ Notably, the demand from the defense industry is comparatively small compared to other domestic markets, like cell phones and video

⁵³ Semiconductor Industry Association, “Beyond Borders, the Global Semiconductor Value Chain: How an interconnected industry promotes innovation and growth” (May 2016), p. 18, <https://www.semiconductors.org/wp-content/uploads/2018/06/SIA-Beyond-Borders-Report-FINAL-June-7.pdf> accessed 3 November 2024

⁵⁴ *Id*

⁵⁵ Semiconductor Industry Association, “State of the U.S. Semiconductor Industry 2022,” (2022) <<https://www.semiconductors.org/state-of-the-u-s-semiconductor-industry/>> accessed 3 November 2024

⁵⁶ Semiconductor Industry Association, “Beyond Borders, the Global Semiconductor Value Chain: How an interconnected industry promotes innovation and growth” (May 2016) p. 19 <https://www.semiconductors.org/wp-content/uploads/2018/06/SIA-Beyond-Borders-Report-FINAL-June-7.pdf> accessed 3 November 2024

⁵⁷ *Id*

⁵⁸ Lapedus, Mark, “Semiconductor R&D Crisis?,” Semiconductor Engineering (11 June 2015) <<https://semiengineering.com/semiconductor-rd-crisis/>> accessed 3 November 2024

game consoles: defense use of chips accounted for approximately 2% of the semiconductor market.⁵⁹

Given that China's dominates the electronics assembly market, the majority of the downstream segment begins in China, when finished semiconductors are assembled into smartphone and other electronics. It has been estimated that as much as 75% of all chips were assembled into electronics in China at its peak.⁶⁰ However, given that a large majority of these finished electronics are exported for consumption in other countries, this reflects China's role as the leader in electronics assembly and not domestic demand for microchips.

China has been ambitious in changing its place in the semiconductor value chain from 'only' an assembler. The Made in China 2025 plan sought to develop a complete Chinese semiconductor industry to rival the dominance of US and Taiwanese firms. In its 2025 plan, China recognized just how much it was reliant on US-based technology to develop its own systems, and sought to free itself.

The First Prong of the US Strategy: Domestic Subsidies

For many years, the US government, through its Trade Representative and also the Department of Commerce, has asserted that China is unfairly subsidizing its domestic markets and manipulating markets.⁶¹ Seeming to decide to 'fight fire with fire', the Biden administration responded to the conclusions of its Supply Chain Report by announcing its plan to subsidize its own semiconductor industry. Designed to develop domestic innovation and onshore more steps of the value chain, the CHIPS act was mirrored by the European Chips Act.

The US CHIPS Act

In 2022 the United States enacted into law the "Creating Helpful Incentives To Produce Semiconductors (CHIPS) for America Fund." Better known by its acronym, the "CHIPS Act of

⁵⁹ Defense Science Board, "Report of the Defense Science Board Task Force on High Performance Microchip Supply," Office of the Under Secretary of Defense For Acquisition, Technology, and Logistics, US Department of Defense, (2005) <<https://dsb.cto.mil/reports/2000s/ADA435563.pdf>> accessed 3 November 2024

⁶⁰ Dieter Ernst, "From Catching Up to Forging Ahead: China's Policies for Semiconductors", East-West Center Special Study, (2015)

⁶¹ See e.g. U.S. Trade Representative, "US Statement on the Trade Policy Review of China" (2021) <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2021/october/us-statement-trade-policy-review-china> accessed 3 November 2024

2022” is a massive funding expenditure, releasing approximately \$280 billion in total spending for general scientific R&D, workforce development, and semiconductor manufacturing.

Despite the law’s name, the bulk of the funding—approximately \$200 billion—is not focused on the manufacture of semiconductors. Instead, the CHIPS Act funds public research in a wide range of critical scientific disciplines, including artificial intelligence, fusion energy, critical materials, and drones, and funds STEM education and other workforce development programs designed to train the workers necessary for these emerging fields.

Semiconductor funding comprises approximately \$52 billion of the CHIPS Act. In a tranche of funds designated the “Chips for America Fund,” the Act authorizes the U.S. Department of Commerce to disburse various forms of financial support for the semiconductor industry, ranging from direct payments to semiconductor manufacturers, to funding for public-private research consortiums, to a 25% tax break for advanced semiconductor manufacturing.

The CHIPS Act Subsidies and Tax Breaks

The CHIPS Act seeks to fuel development through 3 main subsidies: direct funding, funding for research, and tax breaks.

Direct Funding

The largest source of funding within the CHIPS for America Fund, totaling \$39 billion over 5 years, is authorized for direct payment to semiconductor manufacturers. These manufacturers can use the funds to:

- finance the construction, expansion, or modernization of a facility, or equipment for that facility
- support site development and modernization for a facility
- support workforce development for a facility
- pay reasonable operating expenses for a facility, as determined by the Department of Commerce⁶²

⁶² 15 U.S.C. § 4652(a)(4) (2024)

The funds can be provided through three separate funding modalities: (1) direct funding, which can take the form of grants, cooperative agreements, or other transactions. Importantly, any amounts received under this funding source will not need to be repaid; (2) direct loans from the federal government; and (3) loan guarantees, which are federal guarantees of private loans made to the applicant.⁶³

Funding for Joint Research Consortia

The remainder of the \$52 billion CHIPS for America Fund is dedicated to funding semiconductor R&D partnerships, with a smaller amount going to address the anticipated need for a larger and more skilled semiconductor manufacturing workforce.

The R&D funding is spread across four discrete stages of the semiconductor manufacturing process, and is split between public-private and purely public recipients. The public-private funding source creates two consortia: (1) the National Semiconductor Technology Center (“NSTC”), envisioned as a partnership to develop advanced semiconductor R&D and prototyping; and (2) the Manufacturing USA Semiconductor Institute, intended to be a partnership between government, industry, and academia with a focus on semiconductor machinery and the development of assembly, test, and packaging capabilities.⁶⁴

Finally, the Act also creates a \$200 million education fund to “kick start development of the domestic semiconductor workforce” in cooperation with the National Science Foundation.⁶⁵

Tax Breaks

In addition to outright payments and loans, the CHIPS Act also authorizes a 25% tax break for investments made until 2027 to a property used for the “manufacturing of semiconductors or semiconductor manufacturing equipment.”⁶⁶ The tax incentive covers new construction,

⁶³ National Institute of Standards and Technology, United States Department of Commerce, “Notice of Funding Opportunity (NOFO): CHIPS Incentives Program – Commercial Fabrication Facilities” (2023) <<https://www.example.com/nofo>> accessed 3 November 2024

⁶⁴ Michael Bennet, “Chips and Science Act of 2022: Section-by-Section Summary” (2022), <https://www.bennet.senate.gov/public/cache/files/4/0/40919cb4-ff63-4434-8ae2-897a4a026b30/7BCDD84F555A6B85BEC800514F1D3AFD.chips-and-science-act-of-2022-section-by-section.pdf> accessed 3 November 2024

⁶⁵ *Id*

⁶⁶ Chips and Science Act of 2022, H.R. 4346, 117th Cong. (2022) <https://www.congress.gov/117/bills/hr4346/BILLS-117hr4346enr.pdf> accessed 3 November 2024

renovation, and the repurposing of existing buildings for manufacturing.⁶⁷ This provision is anticipated to amount to \$24 billion in reduced tax liabilities for participating companies.⁶⁸

The CHIPS Act Restrictions on Funding Foreign Entities

The CHIPS Act clearly has the goal of boosting domestic semiconductor production. However, the many references in the Act to national security make it clear that Congress also had accompanying foreign policy considerations in mind when it passed the Act, the clearest of which is preventing foreign adversaries from acquiring any new research developed as a result of the CHIPS Act subsidies. To that end, the CHIPS Act contains a number of provisions designed to protect the subsidies from being used by foreign entities.

However—likely owing to the foreign ownership of many semiconductor companies operating in the US, and the desire to spur friendly foreign investment in the US—the prohibition only applies to certain foreign entities. The Act provides “None of the funds authorized to be appropriated to carry out this chapter may be provided to a foreign entity *of concern*.”⁶⁹ An “entity of concern” is a statutory definition referring to companies located in a number of nations, as well as individuals deemed contrary to the national security of the United States. These include companies “controlled by” or “subject to the jurisdiction of” China, Russia, Iran and North Korea,⁷⁰ any individual on a US sanctions list, and any designated terrorist organization.⁷¹

In addition to these well-defined criteria, an entity can also be added to the Entity of Concern list by the U.S. Secretary of State if he or she determines the entity “to be engaged in unauthorized conduct that is detrimental to the national security or foreign policy of the United States.”⁷² This broad criterion gives the US government flexibility to prohibit foreign companies, even those from friendly nations, from receiving CHIPS Act funding without additional congressional action.

Besides prohibiting payment to foreign Entities of Concern, the CHIPS Act actually goes a step further and prohibits companies who have received awards from engaging in any “joint research

⁶⁷ *Id*

⁶⁸ McKinsey & Company, “The Chips and Science Act: Here's What's in It” (2022), <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-chips-and-science-act-heres-whats-in-it> accessed 3 November 2024

⁶⁹ 15 U.S. Code § 4657 (emphasis added)

⁷⁰ 10 U.S. Code § 4872

⁷¹ 15 USC § 4651(8)

⁷² *Id*

or technology licensing effort” with a foreign Entity of Concern that “relates to a technology or product that raises national security concerns.”⁷³ This broad provision has a powerful reach, as the prohibition is not limited to the technology for which the funding was used. In effect, any company that accepts CHIPS funding must avoid *any* joint research or licensing efforts with a business deemed an Entity of Concern. Violating this provision will result in a clawback of all awarded amounts. This provision is a microcosm of the broader US export control regime, under which the US government controls the disclosure of US dual use or military technology with foreign firms.

Finally, the CHIPS Act makes numerous provisions contingent on national security interests. The Department of Commerce is expressly instructed to consider in funding applications whether the award “is in the economic and national security interests of the United States”⁷⁴ and to give priority to firms that will “provide a secure supply of semiconductors necessary for the national security” of the United States.⁷⁵ Taken together, these provisions make it clear that the CHIPS Act, and by extension the United States Congress, views semiconductor manufacturing as both an economic and national security prerogative.

The European Chips Act

The goals of the European Chips Act is the same as that of the similar US legislation—to foster domestic innovation in the hopes of semiconductor independence. However, unlike the US, the EU did not take additional punitive measures to prevent the Chinese from developing their own next-generation semiconductors. This is no doubt due to the EU’s delicate balancing act between the US and China. The EU is reliant on the US for semiconductor technology and defense, while at the same time reliant on China for manufactured goods. This “man in the middle” positioning of the Europeans prevented them from being subjected to a WTO challenge by the Chinese, discussed later.

For now, the European Chips Act has seen moderate successes since its passage. For example, the EU provided direct subsidies to chipmakers STMicroelectronics and GlobalFoundries in France

⁷³ 15 U.S. Code § 4652(5)(C)

⁷⁴ 15 U.S. Code § 4652(2)(c)

⁷⁵ 15 U.S. Code § 4652(2)(D)(i)(II)

for the construction of a new chip factory in France,⁷⁶ and future R&D funding is expected to close the gap. And quite a gap that is—Europe owns only 9% of the overall global semiconductor production market share and is, in its own words, “heavily dependent on third-country suppliers, notably China and Taiwan and more globally East Asia.”⁷⁷

It remains to be seen whether the EU’s middle way (only subsidies and no export control measures) will enable it to increase its market share and overcome the dominance of its trading partners.

The Second Prong of the US Strategy: Export Controls

On October 13, 2022—roughly two months after the United States enacted the CHIPS Act and its billions of dollars in domestic semiconductor subsidies—the Biden administration issued sweeping changes to the United States EAR export control regime. If the CHIPS Act was the proverbial carrot, then the export controls were the stick.

These changes transformed the purpose and scope of the EAR, at least with respect to China. Historically, the EAR was the mechanism for the United States to implement multilateral export control regimes to prevent the Soviet Union and other states from acquiring western military technology. Now, in its current iteration, the EAR may arguably be considered also as a strategic trade tool used by the United States to prevent China and a few select nations from further developing their own semiconductor industries.

The changes were announced by Department of Commerce’s Bureau of Industry and Security in a rulemaking document titled the “Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification” (the “Expanded BIS Rules”).⁷⁸ In the Expanded BIS Rules, the agency based the new and more restrictive rules on trade with China solely on national security

⁷⁶ “STMicroelectronics, GlobalFoundries win EU approval for French chip factory” Reuters, (28 April 2023) <<https://www.reuters.com/technology/stmicroelectronics-globalfoundries-win-eu-approval-french-chip-factory-2023-04-28/>> accessed 3 November 2024

⁷⁷ European Commission, “Questions and Answers: Proposal for a Directive on Corporate Sustainability Due Diligence” (23 June 2023) <https://ec.europa.eu/commission/presscorner/detail/en/qanda_23_4519> accessed 3 November 2024

⁷⁸ U.S. Department of Commerce, Bureau of Industry and Security, “Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification,” (13 Oct. 2022) <https://www.federalregister.gov/documents/2023/10/25/2023-23055/implementation-of-additional-export-controls-certain-advanced-computing-items-supercomputer-and> accessed 3 November 2024

and foreign policy grounds—no mention was made of the broader economic impacts the measures would have on the nations’ respective semiconductor industries.

The BIS’s justification for the new rules is that China is using advanced semiconductors to modernize its military, develop weapons of mass destruction, and develop surveillance tools that are being used “without regard to basic human rights to monitor, track, and surveil citizens, among other purposes.”⁷⁹ The BIS claims these goals of the Chinese government are “contrary to U.S. national security and foreign policy interests.”⁸⁰ Therefore, the stated aim of the Expanded BIS Rules is to “limit [China’s] ability to obtain semiconductor manufacturing capabilities to produce ICs” for these uses contrary to US interests.⁸¹

It is important to remember that the EAR does not outright prohibit exports of the controlled goods; rather, it imposes a license requirement on the exporting party. However, given that the BIS imposed a “presumption of denial” policy to exports of the items to China, the end effect will likely be the same as an outright prohibition.⁸² The only exception to this policy is for items destined to end users in China that are headquartered in the United States, or within a small group of nations friendly to the US. Even in these cases, the BIS will consider the license application on a case-by-case basis “taking into account factors including technology level, customers and compliance plans.”⁸³

New Categories of Controlled US-Origin Items

The first change in the Expanded BIS Rules was to create new categories of items, or Export Control Classification Numbers (“ECCNs”) that are subject to the EAR. In export control lingo, everything made in the US or developed using underlying US technology is “subject to the EAR” and thus regulable worldwide by the US government. The concept is paternalistic, in the sense that the US views technologies developed by private firms within its borders as somehow under the control of the US government.

⁷⁹ *Id* at p. 5

⁸⁰ *Id*

⁸¹ *Id*

⁸² *Id* at p. 11

⁸³ *Id*

Specifically, new ECCN 3A090 now controls “integrated circuits” of certain advanced technology, and new ECCN 4A090 controls “computers” that use the advanced semiconductors listed in 3A090. Thus, these new controls regulate advanced semiconductors themselves, and also the computers into which they are assembled.

These new ECCNs are accompanied by matching controls on the “software” and “technology” used in the “development” and “production” of those semiconductors and computers.⁸⁴

Another new ECCN 3B090 was created for “semiconductor manufacturing equipment” and parts thereof.⁸⁵ Unlike the previous two categories, which target semiconductors only above a certain technology threshold, this ECCN includes broad descriptions of equipment used in the manufacture of semiconductors and is likely to sweep in even non-advanced manufacturing equipment. For example, the ECCN includes eight separate categories of equipment used for lithography and the production of metal contacts.⁸⁶ And like the other new ECCNs, the control on ECCN 3B090 is accompanied by controls on the software and technology (3D001 and 3E001, respectively) used to make the semiconductor manufacturing equipment.⁸⁷

The creation of the new ECCNs, standing alone, would have no effect on exports to China, as the ECCNs are simply the categories of items to which restrictions on exports can be applied. Therefore, to make the new ECCNs actionable, the BIS declared the items as controlled under the “Regional Stability” ground for control. Then, the BIS applied that control only to China. This “unilateral” control, in the BIS’s terms, is a unique approach in the context of the EAR, which typically prohibits exports to dozens of states for any given item. The BIS addressed this in the following statement repeated often throughout the Expanded BIS Rules:

If, in the future, a multilateral export control regime adopts controls
for the specified items controlled in this interim final rule, BIS will

⁸⁴ *Id* at p. 5

⁸⁵ *Id*

⁸⁶ 15 CFR § 77

⁸⁷ U.S. Department of Commerce, Bureau of Industry and Security, “Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification,” (13 October 2022) <https://www.federalregister.gov/documents/2023/10/25/2023-23055/implementation-of-additional-export-controls-certain-advanced-computing-items-supercomputer-and> accessed 3 November 2024

amend the controls implemented in this rule as needed to implement multilateral controls in place of the unilateral control.⁸⁸

This statement reflects BIS's understanding that the measures it is taking with respect to exports to China are indeed unilateral and not part of the multilateral export control regime. One might also discern a desire by the US administration to expand the multilateral regime to include these restrictions on semiconductors.

The practical effect of these new ECCNs is that any company wishing to export or re-export any US-origin semiconductors, computers, semiconductor manufacturing equipment, and any software and technology related to them, will require a license from BIS in order to do so. Given the presumption of denial policy, these licenses are unlikely to be granted.

Again, this is unprecedented because semiconductors are not principally weapons of war. Of course, they are critical components for military technology, but they are also the foundation of automobiles, cell phones, and all the other technology critical to modern society, and the US measures do not differentiate between semiconductors used for ICBMs or video games.

New Restrictions on Exports *From* China

The Expanded BIS rules also address exports *from* China to any destination worldwide. The basis of this extraterritoriality is the use of US-origin technology. The EAR now require a license for the export from China of “technology” for the production of advanced semiconductors described in ECCN 3A090. This new control on exports from China was made possible by addition of the new ECCNs described above—after the US declared that technology controlled through an ECCN, it opened the door for the BIS to control its use worldwide.

The license requirement is triggered when a party in China wishes to export technology that has been developed in China, but is the “direct product” of certain software subject to the EAR (i.e., US-origin controlled software). When such an item is for the production of certain advanced semiconductors or computers, the exporting party in China will require a license from BIS to export the item lawfully.

⁸⁸ *Id*

This provision must be viewed in tandem with 762.4 of the EAR, which make it a violation for a party to knowingly buy or use an item that was shipped in violation of the EAR. Therefore in practice, a business outside of China that is seeking to purchase semiconductor technology from within China must be aware of whether the item was developed from underlying US technology. If the item was the “direct product” of US-origin software controlled by the EAR, then the party must seek a license (which will be presumptively denied) or risk violations from the US government.

This rule gives businesses great incentive to move away from China as a supplier for semiconductor manufacturing equipment. In effect, this rule forces businesses to pick a side: China or the US. If the business purchases these manufacturing components from China without a license, it risks being punished by the US government for knowingly using unlicensed US technology, including potential lack of access to US markets. Thus, the far “safer” choice for manufacturers is to source only US-origin equipment.

Creation of New Foreign Direct Product Rules

The EAR’s longstanding Foreign Direct Product (“FDP”) rules target products made outside of the US that incorporate US technology. The BIS claims jurisdiction over these wholly foreign-made items, and thus requires a license for their export or reexport, when they are a “direct product” of otherwise controlled US technology.

The Expanded BIS Rules created two new categories of products subject to the FDP rules: advanced computing and supercomputers.⁸⁹ Like any other FDP rule, the application of these two new FDP categories depends on the “product scope” and the “destination” or end-use scope.

The product scope for each of the new rules includes any items made outside the US that are the direct product of US-origin “technology” or “software.” This technology and software concerns certain controlled electronics, computers, and telecommunication equipment that are used to make advanced semiconductors.⁹⁰ However, the scope goes even further, to also regulate items when the manufacturing facility in which they were made—or even a “major component” of that plant—were the direct products of certain controlled US tech.⁹¹ Thus, in addition to regulating items based

⁸⁹ *Id*

⁹⁰ 15 CFR § 749

⁹¹ *Id*

on their inclusion of US-controlled technology, the BIS is also regulating items based on the origin of the underlying technology on which the manufacturing facility was built. This approach is broader than simply focusing on the product itself, as it requires one to look back into the lineage of the machines and facilities used to develop the item.

Besides the product scope, the FDP rules also establish a destination or end user scope. Unsurprisingly, the only restricted destination under these two new rules is China and Macau. This singling-out of China under the FDP rules is a recent feature of the EAR. For the advanced computing FDP rules, there are two controlled end uses. The first is when the item is “[d]estined to the PRC or Macau or will be incorporated into any part, component, computer, or equipment” that is controlled by the EAR. The second end use is “technology developed by an entity headquartered in the PRC or Macau for the production” of semiconductor.⁹² The supercomputing FDP’s rules on end use are both simpler and more restrictive: the prohibited end use includes basically any function related to supercomputers in China or Macau (including development, production, installation, repair, refurbishing, and so on) and also includes the development of products outside of China if they will eventually be destined to supercomputing uses in China.

These new FDP rules will be of most consequence to non-US manufacturers looking to trade with China. Take, for example, a semiconductor manufacturer operating in the Netherlands. Assume that manufacturer has developed a component critical to supercomputer technology, and wants to ship to a customer. To determine if the business can make the deal without running afoul of the US FDP rules, it will first need to determine if the item—or the equipment or facility used to make the item—is a product of US technology. Next, the manufacturer will need to determine if the end use is in China for the restricted supercomputer uses. If both the product scope and destination/end use scope is satisfied, a license requirement will be triggered in the eyes of the US government. Given the presumption of denial policy for license applications, the manufacturer will not be able to ship the item to China and also remain in compliance with the EAR.

In effect, through these new FDP rules the BIS is attempting to prevent any US-sourced technology, worldwide, from being used to any effect in Chinese advanced computing systems.

⁹² 15 CFR § 734

New End-Use Controls on Supercomputer and Semiconductor Manufacturing End Uses in China

The BIS also implemented a new end use control, preventing the shipment of US-origin items to China when the user knows the items' end use will be for semiconductor manufacturing in China. In contrast to the FDP rules discussed above—which govern the export of items produced *outside* of the US using US technology—these end use controls regulate the export and reexport of US-origin items from the US to a third country. These end use controls can thus be seen as the domestic counterpart to the FDP rules; the FDP rules prevent non-US persons from sharing foreign-made tech with the Chinese by virtue of the inclusion of US technology, while the end use rules prevent US persons from sharing items with China by virtue of their originating status in the US. The new FDP rules and the controls described in this section target the same commodities, but with a different geographic focus.

End use controls are typically used throughout the EAR as controls on wide groupings of countries or recognized entities (e.g. country groups, certain Iraqi government officials, terrorists, etc.) but again here, China is the only country singled out for these prohibited end uses.

Like the FDP rules, the new end use rule has both a product scope and a destination/end-use scope, and both must be satisfied for the license requirement to be triggered. However, this particular control was structured in such a way as to make the end use element the critical factor. This is because the prohibited end uses are so broadly worded that they effectively ensure no item originating from the US may be sent to China if the end use in China concerns the manufacturing of supercomputers or semiconductors.

For example, the list of prohibited end uses for supercomputers includes “[t]he development, production, use, operation, installation (including on-site installation), maintenance (checking), repair, overhaul, or refurbishing of a supercomputer located in or destined to the PRC or Macau.”⁹³ And with respect to standard semiconductors, the prohibited end use includes “[t]he development or production of integrated circuits at any semiconductor fabrication facility located in the PRC or Macau.”⁹⁴ This end use scope is so broad that it includes essentially any semiconductor manufacturing operation occurring in China, regardless of technological sophistication.

⁹³ 15 CFR § 744.23

⁹⁴ *Id*

The accompanying product scope is similarly broad, and in certain cases sweeps in *any item* that is US-origin. It does so by introducing a knowledge element that further complicates the matter. Thus, if the exporter knows the item will be used in an advanced semiconductor fab or for supercomputer uses, then only certain advanced products will be covered under the product scope. On the other hand, if the exporter does *not* know the technological sophistication of the end use fab, but knows that the end use will be the production of semiconductors, then *every* item subject to the EAR requires a license before shipping.

This is an extraordinary restriction, given that every item produced in the US is “subject to the EAR” either through a controlled ECCN or through “EAR99” status, which applies to every single item produced in the US that does not have an ECCN. This means that a license is required to send normal, everyday items—pencils, desk lights, standard computers, software, screwdrivers, ladders, conveyor belts,—from the US to a semiconductor manufacturing facility in China. The inclusion of such a broad restriction likely flowed from the sometimes difficult task of determining the technological sophistication of the end use. Rather than risk the creation of a loophole whereby exporters would simply claim they did not know the sophistication of the fab, the BIS instead decided to sweep in *every* US product and prevent its export to China if the end use related to semiconductor manufacturing of any technology level.

The result of this new rule is, at best, a labyrinthine regulatory landscape which will require the expenditure of much time and effort on the part of businesses to determine if their products are swept within the new end use rules. At worst, these rules will result in a near-total stoppage on any US-origin goods that are destined to Chinese semiconductor fabs, regardless of their technological sophistication or even controlled status under the EAR. Given the presumption of denial policy, the lack of license exceptions to this rule (as well as nearly all the new rules applicable to China), and the exceedingly broad scope of the end use rules, it is apparent that the very goal of the BIS rules was to effect such a blockade on the Chinese semiconductor industry.

[New Restrictions on US Person Support to the Chinese Semiconductor Industry](#)

The last of the new regulations is designed to eliminate any US person support of advanced semiconductor fabrication within China. These rules apply only to US persons, and apply only to items that are non-US origin (US-origin items are covered by the other controls discussed above).

The BIS has long had provisions relating to US person support of the development or production of WMDs, nuclear weapons, and other military items. In the Expanded BIS Rules, the BIS added China, and specifically semiconductor manufacturing sites in China, to the list of prohibited US person support activities. It justified the new prohibitions on national security grounds, asserting that such assistance “could involve support for the weapons of mass destruction-related end uses set forth in paragraph (b) of this section.”⁹⁵ Here one can see the importance of the opening statements in the Expanded BIS Rule, where the BIS asserted the use of advanced semiconductors in China’s development of weapons of war.

The new regulations prohibit any US person, and by definition any US business, from shipping, transmitting, shipping, transferring, facilitating a shipment, or servicing any item *not* subject to the EAR (i.e., non-US origin items) when that person knows the item will be involved in the production of an advanced semiconductor in China. The criteria for an advanced semiconductor are described below. If the factory produces chips that meet any of these criteria, the US person support provision applies:

(A) Logic integrated circuits using a non-planar architecture or with a “production” technology node of 16/14 nanometers or less;

(B) NOT–AND (NAND) memory integrated circuits with 128 layers or more; or

(C) Dynamic random-access memory (DRAM) integrated circuits using a “production” technology node of 18 nanometer half-pitch or less; or

Again, the knowledge of the US person is paramount. Under this rule, if the US person knows that the site in China manufactures chips that meet the above criteria, they are prohibited from engaging in essentially any business deal with the site. There is not even a US nexus required with respect to the item itself. To the contrary, this rule applies only to items not subject to the EAR, or, more simply put, to every item worldwide other than those produced in the US.

Like in the end use rule described above, there are different results if the US person lacks knowledge regarding the technological sophistication of the chips that are manufactured. If the

⁹⁵ 15 CFR § 744

person does *not* know how advanced the chips are, then the restricted items include those “meeting the parameters of any ECCN in Product Groups B, C, D, or E in Category 3 of the CCL.”⁹⁶ The same restrictions on shipping, servicing etc. apply to those items.

In effect, this regulation sweeps in every product worldwide (except for US-origin items and those produced from US technology), and prohibits US persons from sending them to China, facilitating their shipment to China, or servicing them in China, if an advanced semiconductor manufacturing facility is involved.

Take, for example, a software program developed in Germany used to manage business operations and customer relations at a semiconductor site in China. That business would need to ensure that no US persons were involved in any aspect of that operation—transmitting the software to China, assisting setup in China, maintaining the software and so on. Moreover, due to the prohibition on US person “facilitation,” many other processes related to international trade may also be prohibited. This could include the transfer of software or other electronic data using US-based software, or the involvement of US banks in collecting and providing payment. Finally, with respect to exports of physical items, US-based freight forwarders operating overseas will need to be aware of the products they are shipping, lest they run afoul of these new rules by facilitating a shipment to China.

China’s WTO Challenge

On December 12, 2022 the People’s Republic of China took its first steps in response to the United States’s new export control provisions by filing a Request for Consultation with the WTO. The Request targeted nearly the entire range of export control measures that the US took in its Expanded BIS Rules.⁹⁷

The overarching theory of the Chinese Request is the assertion that the United States is using its export control laws and regulations not as national security measures, but instead as weapons to distort international trade in semiconductors in its favor. In support of its argument that the United States “abuses its export control regime as a tool” to achieve its economic objectives, the Request

⁹⁶ *Id*

⁹⁷ China filed a revised Request for Consultations on February 10, 2023. The revision was made to correct inaccurate citations in the original document. The revised document did not contain any substantive changes.

contrasts the “international export control regime” with the United States’s EAR, and asserts that the American EAR goes beyond the purpose and scope of the otherwise permissible international export control regime.⁹⁸

The Chinese begin by referencing the specific multilateral agreements which they consider to comprise the “international export control regime.”⁹⁹ These include the UN conventions on weapons of mass destruction, nuclear non-proliferation, biological weapons, and chemical weapons. Notably, the list does not include the Wassenaar Arrangement, an organization of mainly Western states to which China is not a party. According to the Chinese Request, these UN agreements cover approximately 1,800 items. In contrast, the United States Commerce Control List, which governs the scope of items subject to the EAR, “covers approximately 2,800 items, far exceeding that of the international export control regime.”¹⁰⁰

Thus, the Chinese assert that the sheer scope of the EAR outstretches that of the legitimate international export control regime, which alone suggests that something more than security is at stake. But this number disparity may be a simple result of the US being part of the Wassenaar Arrangement, which necessarily controls more items than the UN agreements alone.

However, on a deeper level, the difference may stem from a fundamental difference in what the nations view as the purpose of export control—to the Chinese, export control regimes “should serve to promote global security and facilitate responsible export with respect to the international commitments of *non-proliferation*.”¹⁰¹ Thus, the Chinese view non-proliferation as the primary purpose of export control. However, to the US and the 41 other participants in the Wassenaar Arrangement, in addition to non-proliferation, export controls are also used to prevent terrorists from acquiring dual use goods, and to preserve regional and international stability by preventing “destabilizing accumulations”¹⁰² Unsurprisingly, the Chinese may not agree with these goals, given that the logic of the Wassenaar Arrangement is used against China to prevent it from receiving certain dual use goods.

⁹⁸ WTO, *United States: Measures on Certain Semiconductor and other Products, and Related Services and Technologies* (15 December 2022) DS615/

⁹⁹ *Id*

¹⁰⁰ *Id*

¹⁰¹ *Id*

¹⁰² Wassenaar Arrangement, <<https://www.wassenaar.org/the-wassenaar-arrangement/>> accessed 3 November 2024

Besides the difference in scope between the international export control regime and the US EAR, China's Request also takes aim at the extraterritoriality of the US EAR, accurately citing that "the United States not only imposes export controls itself on China, but also compels other WTO Members to follow suit by virtue of its extra-territorial control."¹⁰³ The US EAR is unique in this respect, as none of the international export control regimes mandate (or even contemplate) extraterritorial application. This statement is likely directed at the EAR's new foreign direct product rules, which China summarizes as imposing "broad and vague controls . . . on shipments from outside the United States with respect to non-U.S.-origin items produced with certain U.S. technology, software or equipment."¹⁰⁴

Finally, China relies on statements made by U.S. government officials to make its case that the new EAR rules are simply economic tools disguised as national security measures. The Chinese Request quotes directly the following statement made by an American National Security Advisor in September, 2022 (approximately one month before the new China-specific EAR regulations were published) at a Special Competitive Studies Project Global Emerging Technologies Summit: "[o]n export controls, we have to revisit the longstanding premise of maintaining 'relative' advantages over competitors in certain key technologies. Given the foundational nature of certain technologies, such as advanced logic and memory chips, we must maintain as large of a lead as possible . . . *technology export controls can be more than just a preventative tool.*"¹⁰⁵

To China, the use of export controls for any purpose beyond nonproliferation (or the stated goals in the various multilateral export control agreements) is improper. Thus, in the American statement supporting the use of export controls as "more than just a preventative tool," China has found persuasive evidence in support of its theory of the case.

After laying out the foregoing arguments in support of its Request, China summarized its complaints thusly: "[b]y overstretching the extent of export controls and by bullying other WTO Members, the United States has caused severe disruption to international trade and risked the

¹⁰³ WTO, *United States: Measures on Certain Semiconductor and other Products, and Related Services and Technologies* (15 December 2022) DS615/1

¹⁰⁴ *Id*

¹⁰⁵ Jake Sullivan, "Remarks by National Security Advisor Jake Sullivan at the Special Competitive Studies Project Global Emerging Technologies Summit," (16 September 2022) <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/> accessed 3 November 2024

disintegration of the global semiconductor supply chain.”¹⁰⁶ It continued, “[i]n China’s view, the Interim Final Rule and other disruptive export control measures constitute politically-motivated and disguised restrictions on trade.”¹⁰⁷

China then went on to relate the specific laws and regulations it was challenging and the legal basis within the WTO for its challenge.

The Measures at Issue

The Chinese Request is limited to the US dual use export control regime, as codified in the EAR, and the alleged US failure to properly publish the rule changes. China specifically named the following statutes and regulations:

- The Export Administration Regulations
- The Export Control Reform Act of 2018
- The Interim Final Rule (i.e., the new China-specific semiconductor rules)
- FAQs for Interim Final Rule (a non-binding webpage regarding the new rules)
- The failure of the United States to promptly publish the Interim Final Rule

Although China sweeps in the entirety of the EAR, it is clear from the text of the Request (and from the lack of earlier WTO challenges to the EAR) that China’s complaint lies with the Expanded BIS Rules and their focus on the Chinese semiconductor industry. Interestingly, the Chinese Request did not make much attempt to articulate *how* these changes violated the WTO. Instead, the Request takes the approach of listing the changes made to the BIS, often without argument regarding their effect on China. This relative vagueness regarding the details of China’s claim may be strategic, allowing China to hide its hand until later negotiations require more specificity.

China complains of the following provisions in the EAR:

Addition of New ECCNs

The first issue addressed by the Chinese Request results from the creation of new ECCNs for various computer technology. In essence, China argues that the creation of these new ECCNs

¹⁰⁶ WTO, United States: Measures *supra*

¹⁰⁷ *Id*

opened the door for the US to single China out for overly broad, improper restrictions on trade in these goods.

China begins by discussing the new ECCNs for advanced computing technology. After the BIS created these new categories, they applied the “Regional Stability” control criterion, but only applied it to China and Macau. As a result, these new ECCNs effectively control trade only with China, and appear to have been made with China as the focus.¹⁰⁸

As a result of these new ECCNs on certain semiconductor technology, the US also afforded itself the ability to exert control over such items worldwide by virtue of the inclusion of US technology. It exercised that option and imposed a license requirement on Chinese items that are the “direct product” of US controlled technology. Thus, China argues that this restriction on exports *from* China, and only on China, solely by reason of the inclusion of US technology, is improper.¹⁰⁹

Finally, China argues that the American controls on EAR99 items are too broad. The Expanded BIS Rules prohibit the export of these everyday goods to businesses on the BIS China Entity List, or to semiconductor manufacturing sites in China. China argues the restrictions on these “low-technology consumers goods . . . will result in discrimination to trade in non-sensitive commercial items destined for certain WTO Members or commercial end-users, such as the Chinese entities designated in the Entity List.”¹¹⁰

FDP rules

The Chinese next target the new FDP rules created in the Expanded BIS Rules.¹¹¹ These two new FDP rules—the Advanced Computing FDP Rules and the Supercomputer FDP Rules—effectively prohibit the export of non-US origin items from being exported to China for advanced computing or supercomputer uses, if the item is the direct product of US technology.

¹⁰⁸ These new ECCNs were also controlled on the “Anti-Terrorism” grounds, which applies to Iran, North Korea, and Syria. *See* U.S. Department of Commerce, Bureau of Industry and Security, “Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modification,” (13 October 2022) <<https://www.federalregister.gov/documents/2023/10/25/2023-23055/implementation-of-additional-export-controls-certain-advanced-computing-items-supercomputer-and>> accessed 3 November 2024

¹⁰⁹ WTO, United States: Measures *supra*

¹¹⁰ *Id*

¹¹¹ *Id*

The Chinese Request does not specify which part of the new FDP rules it challenges; however, given that the rules apply only to products headed to China, the challenge is almost certainly the result of China being singled out for this treatment.

Entity List FDP rules

China also separately addressed the Entity List FDP rules. This section of China's Request is unique because the so-called Footnote 4 entities—which are all located in China—were already targeted in earlier BIS changes. The Footnote 4 List contains 28 entities in China that are essentially subject to double scrutiny when it comes to end use—not only will they be swept in by the new FDP rules on Advanced Computing and Supercomputing, they are also subject to broad end use restrictions for any US-origin goods.

End Use/End User Rules

Here, China targets the new US restrictions on the shipment of US-origin items to China, when the end use will be semiconductor manufacturing. These regulations control any item “subject to the EAR,” which by definition includes *any* US-origin item regardless of technological sophistication.

The Chinese Request again does not specifically claim how these rules violate the WTO; instead, China claims the new license requirement will have the effect of “limiting semiconductor manufacturing and supercomputer end use in China.”¹¹²

US Person Activity Rules

China's Request also addresses the rules that prevent US persons from engaging in activities related to the production of certain semiconductors in China. Again, China's request does not elaborate how these rules violate the WTO, but the reader can infer that the singling-out of China for this treatment is the critical factor.

Procedural Deficiencies

Finally, China alleges procedural deficiencies in the manner in which the US implemented its Expanded BIS Rules. This is essentially the only claim for which China explicitly articulated the WTO provision that it claims was violated, namely, Article X:3 of the GATT 1994. Article X:3

¹¹² WTO, United States: Measures *supra*

requires contracting parties to “administer in a uniform, impartial and reasonable manner all its laws [and] regulations” pertaining to, inter alia, “restrictions or prohibitions on imports or exports.”¹¹³

China makes three related claims under the Article X:3 umbrella. First, it claims the US failed to “publish promptly the [Expanded BIS Rules] in such a manner as to enable traders and other interested parties to become acquainted with it.”¹¹⁴ This claim stems from the advance notice that at least one American semiconductor manufacturer seemed to receive from the US government before the Expanded BIS Rules were published. China cited an August 2022 filing before the US Securities and Exchange Commission by NVIDIA in which the company stated, approximately one month before the Expanded BIS Rules were published, that “the U.S. government . . . has imposed a new license requirement, effective immediately, for any future export to China.”¹¹⁵ This filing by NVIDIA seems to show that not only did the US government give advance warning of the rulemaking to (presumably) only US manufacturers, it also implemented the rule before publishing the actual regulation. Of course, the statement of NVIDIA regarding the effective date of the rules does not alone prove that the US government was somehow enforcing rules that had not yet been legally adopted; nevertheless, it does show that the US government provided its domestic industries with a forewarning of the changes to come.

The second claim China makes is that the US procedure for adding and removing an entity from the Entity List is neither uniform, reasonable, or impartial, as required by Article X:3. Under the current procedure, an entity can be added to the list by a majority vote of the End-User Review Committee, which is comprised of representatives from the US Departments of Commerce, State, Defense, Energy, and when appropriate, the Treasury.¹¹⁶ However, the removal of an entity requires an unanimous vote from the same body. The affected entity has no right of recourse regarding any part of this process, as the only right of appeal is granted to the agencies sitting on the End-User Review Committee. China’s argument seems to be that this lack of input or appeal granted to the entities is de facto unreasonable. In an understatement, China asserts that “the entity concerned is

¹¹³ World Trade Organization, General Agreement on Tariffs and Trade 1994, Article X:3

¹¹⁴ WTO, United States: Measures *supra*

¹¹⁵ U.S. Securities and Exchange Commission, “NVIDIA Corporation - Form 8-K,” (26 August 2022) <<https://www.sec.gov/ix?doc=/Archives/edgar/data/0001045810/000104581022000146/nvda-20220826.htm>> accessed 3 November 2024

¹¹⁶ 15 C.F.R. § 749, par. 1

afforded with fewer opportunities than the ERC member agencies to seek review and remedies for the administrative decision that imposes restriction on trade.”¹¹⁷

Third and finally, China argues that those parts of the Expanded BIS Rules which prevent the export of common, everyday items “subject to the EAR” to China are imprecise, overly broad, and “result . . . in restrictions on non-sensitive and commercial items and on commercial entities that should not have been restricted under the export control regime.”

The Claimed Violations of the WTO

China’s Request unfortunately does not describe in detail how the aforementioned measures violate the WTO’s agreements. While the Request does recite the “Legal Basis of the Complaint,” this section does little more than recite certain provisions of the WTO and fails to specify which US measures violate which portions of the covered agreements. Thus, everyone reading the complaint—including the dispute settlement body and the US government—is left to draw their own conclusions about the specifics of the case that China is making.

Nevertheless, one can reasonably infer the nature of China’s claims by comparing the complained of measures with the WTO provisions cited in the Request.

Most Favored Nation Treatment

The first measure that China alleges the US violates is the Most Favored Nation (“MFN”) treatment provision, found at Article I:1 of the GATT 1994. A cornerstone of the WTO system and literally the first provision created as part of the WTO, the MFN provision is a nondiscrimination provision for foreign goods—it prohibits member states from treating goods from one foreign state worse than the same goods from another foreign state. Put another way, “the MFN obligation restricts the right of members to discriminate between and among like products of different origins.”¹¹⁸

Under this so-called “foreign parity,” a member state such as Italy that has imported, for example, bananas from Costa Rica at a 0% duty rate must then also afford that same 0% duty rate to bananas

¹¹⁷ WTO, United States: Measures *supra*

¹¹⁸Mitsuo Matsushita, Thomas J. Schoenbaum, Petros C. Mavroidis, Michael Hahn, *The World Trade Organization: Law, Practice, and Policy* (3rd Edition 2015) para. 5.79

imported from Ecuador.¹¹⁹ The MFN rule prevents Italy from granting a favor of duty-free imports to Costa Rica and not sharing that favor also with all other trading partners. The only exception would be a WTO-compliant free trade agreement between the countries, which provides an exception to MFN treatment. In fact, one commentator has noted that due to the explosion of free trade agreements between contracting states, “MFN is no longer the rule; it is almost the exception.”¹²⁰ However, because the US and China do not have a free trade agreement in place, the MFN provision is still in full effect as between them.

The scope of the MFN is incredibly broad. It applies to every action a signatory takes with the potential to affect international trade.¹²¹ This “all-encompassing” nature stems from the language of the provision itself.¹²² The clause expressly requires MFN treatment with respect to “border measures,” which are customs duties, fees, and other measures applied when the product is crossing a border. MFN also applies to “internal measures” that are applied to the product after it has entered the market. These measures include laws and regulations affecting the internal sale, distribution, and use of the goods in-country.

Importantly, MFN treatment is not limited to monetary benefits. Instead, the clause has been interpreted broadly to prohibit any discriminatory treatment, including the removal of licensing and other bureaucratic obstacles to trade.¹²³ In effect, “virtually any discriminatory administrative treatment will constitute an advantage” prohibited by the MFN.¹²⁴

The WTO dispute settlement bodies have condensed the MFN article into a three-part test, under which all three elements must be satisfied in order for the MFN provision to be violated. These elements include: (i) there must be an “advantage, favour, privilege or immunity” of the type covered by Article I:1; (ii) the advantage is not granted “immediately and unconditionally”; (iii) to like products originating in or destined for all other WTO Members.¹²⁵

¹¹⁹ Rüdiger Wolfram, Peter Tobias-Stoll, *Max Planck Commentaries on World Trade Law: WTO—Trade in Goods* (2010) Vol 5, para. 2

¹²⁰ WTO, *The Future of the WTO*, Report by the Consultative Board to Director-General Supachai Panitchpakdi, (2004) para. 60, < https://www.wto.org/english/thewto_e/10anniv_e/future_wto_e.pdf > accessed 3 November 2024

¹²¹ Matsushita *supra*

¹²² *Id*

¹²³ WTO, *European Communities: Bananas III (Ecuador) (Panel)* (19 May 2008) DS27, para. 7.188 et seq

¹²⁴ Matsushita *supra*

¹²⁵ WTO, *European Communities: Measures Prohibiting the Importation and Marketing of Seal Products (Panel)* (25 November 2013) DS400, DS401, p. 162

Thus, to analyze China's MFN claims against the US, it is imperative to first identify which "advantage or favor" is being granted to states other than China, and then to identify if China has been discriminated against as a result.

The Expanded BIS Rules do not, per se, grant any special advantages to the US's trading partners. Instead, the Expanded BIS Rules single China out for incredibly complex and restrictive rules regarding trade in semiconductors and other electronics. Thus, the apparent "advantage" that states other than China are receiving is the *absence* of this incredibly restrictive framework. More specifically, the advantage relates to the BIS's licensing requirements.

Each of the new rules created by the BIS were imposed on China, and China alone. For example, after the new ECCNs for advanced semiconductors and computers were created, the only country for which a license requirement was imposed was China. Another new rule restricted exports from China if the export was the direct product of US technology. With respect to goods made outside of the US but based on US technology, the US again imposed a license requirement in the event those goods are shipped to China. Finally, the US instituted incredibly broad restrictions regarding US origin goods that would be used in China for the end use of supercomputer or semiconductor manufacturing. Given the US policy of presumptively denying license applications for any of the foregoing actions, the US has effectively worked an outright prohibition on these actions in China.

The advantage granted to other states is the freedom to operate without such licensing requirements. For example, assume a business in America wishes to send semiconductors controlled by the new ECCNs to Italy. Because Italy is not a state listed in those ECCNs as requiring a license, the American business is free to ship the parts to Italy. However, that same business would require a license (which would be presumptively denied) if it wished to ship to China.

The same applies where a foreign company has developed a semiconductor product using US technology. Take, for example, a semiconductor manufacturer in the Netherlands wishing to export to South Korea. Because the license requirement only applies when the product of US technology is being sent to China, the product can be shipped from the Netherlands to South Korea without a license requirement. Finally, an American wishing to send parts to an advanced semiconductor fab in Germany would not need a license; however, for that same shipment to go to China, a license would be required.

In effect, the US has turned the MFN provision on its head. Instead of granting an advantage to one of its favorite trading partners and withholding that favor from others, the US has singled out China for discriminatory treatment and granted its other trading partners the freedom from such restrictions.

If the cornerstone of MFN treatment is “like treatment for like products,” then the US seems to have violated that provision by applying the licensing requirements only to China. The decisions of the WTO’s dispute settlement bodies support that finding.

For example, the dispute settlement bodies have widely adopted a broad reading of the term “advantage” in Article I:1, which prevents the US from effectively arguing that the lack of a license requirement here is not an advantage in trade. In *Colombia—Ports of Entry*, the panel reflected on earlier cases concerning the definition of advantage for the MFN clause. The panel heartily adopted an earlier approach taken by the Appellate Body wherein it stated:

The words of Article I:1 refer not to some advantages granted 'with respect to' the subjects that fall within the defined scope of the Article, but to 'any advantage'; not to some products, but to 'any product'; and not to like products from some other Members, but to like products originating in or destined for 'all other' Members.¹²⁶

The *Colombia—Ports of Entry* panel then went on to state that an advantage includes those situations that “create more favorable competitive opportunities or affect the commercial relationship between products of different origins.”¹²⁷ Again, the standard for “advantage” is not a high hurdle to overcome.

The *Colombia—Ports of Entry* panel then applied the standard to its case at hand. Colombia had instituted a rule under which importers of goods arriving from Panama were required to submit customs import declarations in advance and therefore pay customs duties and taxes in advance.¹²⁸ In contrast, importers of goods from other destinations were not required to file declarations in advance nor pay duties and taxes in advance. The panel ruled that this measure conferred an

¹²⁶ WTO, *Colombia: Ports of Entry* (20 May 2009) DS366, citing WTO, *Canada: Autos* (31 May 2000) DS139, DS142, para. 79

¹²⁷ WTO, *European Communities: Bananas III (Guatemala and Honduras)* DS27, para. 7.239

¹²⁸ *Id*

advantage to countries other than Panama, because those countries were not granted the flexibility to make customs duties and tax payments when they saw fit.¹²⁹

The panel's approach in *Colombia—Ports of Entry* seemed to place more emphasis on the mere fact of disparate treatment than it placed on the monetary value that the advantage conferred. In its opinion, the only real monetary harm the panel could ascribe to the policy was the fact that exporters from Panama had less ability to verify the dimension and weight of their shipments, and that as a result, they were at a higher risk of having fees imposed by the Colombian government for inaccurate customs documents.¹³⁰

Another panel opinion took an even more liberal view of an "advantage" for MFN purposes and decided that disparate levels of *market access* alone was enough to constitute an advantage. In *EC—Seal Products*, Canada and Norway challenged the European Union's so-called "Seal Regime" on MFN grounds. The Seal Regime resulted from a 2009 EU law that prohibited the sales of certain seal products unless certain requirements were met. Different requirements were applied to seal products, depending on whether they came from indigenous communities or commercial harvesting operations.¹³¹ Canada and Norway argued that the differing requirements based on product origin had the result of treating seal products from Canada and Norway less favorably than seal products that were domestically produced in Sweden and Finland.¹³²

The *EC—Seal Products* found that "the advantage granted by the EU Seal Regime is in the form of market access; it is granted to seal products that meet the conditions under the IC exception."¹³³ Thus, the advantage there was the access to the market, which Canada and Norway did not receive because their seal products did not meet the stringent EU requirements for importation.

Applying these principles to the Expanded BIS Rules illustrates that the US provisions clearly confer an advantage upon parties other than China for the purposes of MFN. These other parties do not require a license when sharing technology and products with the United States. As a result, they may continue to engage in commerce with the United States and reap the benefits thereof,

¹²⁹ *Id*

¹³⁰ *Id*

¹³¹ WTO, *European Communities: Measures Prohibiting the Importation and Marketing of Seal Products (Panel)* (25 November 2013) DS400, DS401, p. 25

¹³² *Id*

¹³³ *Id*

while China is locked out. In fact, the advantage granted to the other countries in this scenario is far greater than the advantage conferred to the parties in the *EC—Seal Products* case. There, the advantage consisted of EU market access for certain seal products produced in a handful of countries in the world; here, the relevant market is the global semiconductor market and the two most powerful economies in the world.

Although the scope and consequences are different, the lack of market access that the Expanded BIS Rules inflict upon China are essentially the same as for Canadian seal products. Chinese semiconductor manufacturers are stripped of their ability to sell their products on the world market, if the products are based on US technology. In contrast, semiconductor manufacturers in other states can freely sell their products that are based on US technology without a license. This clearly results in a lack of market access for only Chinese manufacturers.

Given that the term “advantage” is so broadly defined in the WTO, the US will have a very difficult time arguing that its licensing infrastructure does not provide an advantage to parties other than China.

The second and third elements of the MFN clause also seem to be clearly satisfied by the Expanded BIS Rules. Again, those are satisfied when (ii) the advantage is not granted “immediately and unconditionally”; (iii) to like products originating in or destined for all other WTO Members.¹³⁴ The satisfaction of these elements is self-evident from the very text of the Expanded BIS Rules. These rules clearly exclude China and only China from the US 's worldwide semiconductor market. Moreover, there is clearly no intention in their regulations to grant China access at any point in the near future, and the products its sweeps in are certainly “like” because the Expanded BIS Rules apply to defined sets of goods ECCN numbers.

In summary, all three elements of the MFN clause seemed to be satisfied here. The US clearly grants a market access advantage to all states other than China with respect to semiconductor materials; this market access is withheld from China, and it clearly relates to the same products.

¹³⁴ *Id* at p. 162

Quantitative Restrictions on Imports and Exports

The second provision in the WTO that China claims the US violates is Article XI:1 of GATT 1994. Article XI:1 is entitled “General Elimination of Quantitative Restrictions” and provides:

No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas ..., export licenses or other measures, shall be instituted or maintained by any contracting party ... on the exportation or sale for export of any product destined for the territory of any other contracting party.¹³⁵

Thus, Article XI:1 is concerned with measures that affect imports and exports. Like the MFN clause, Article XI:1 is comprehensive and sweeps in “*all* measures instituted or maintained by a contracting party prohibiting or restricting the importation, exportation or sale for export of products other than measures that take the form of duties, taxes or other charges.”¹³⁶

In *Japan—Trade in Semi-Conductors*, a foundational case in Article XI:1 jurisprudence, the panel was called to determine whether measures taken by Japan to increase access to their markets and reduce dumping of Japanese semiconductors in the US were impermissible export restrictions. The Japanese government, succumbing to pressure from a US government concerned with lack of access to the Japanese market and alleged dumping of Japanese semiconductors in the US, undertook in cooperation with the US a series of actions that were eventually challenged by the European Union.

The Japanese government agreement with the US had two key elements: first, the Japanese government agreed to endorse American access to the Japanese semiconductor market, including through an organization which provided various types of assistance to American businesses looking to break into the Japanese market. The International Semi-conductor Co-operation Centre, an organization to promote the sales of foreign semiconductors, was established in 1987 and was open to all foreign companies.¹³⁷ Second, the Japanese government attempted to prevent the dumping of Japanese semiconductors in the US by monitoring prices of exports to the US. If the exports to the US were for less than “company-specific fair value,” then the US government could

¹³⁵ General Agreement on Tariffs and Trade 1994 (GATT 1994), Article XI

¹³⁶ WTO, *Japan: Trade in Semiconductors* (1988) DS413

¹³⁷ *Id* at p. 6.

immediately seek consultations with Japan.¹³⁸ The agreement was planned to be effective for five years.

Two elements are notable about the Japan-US arrangement. First is the fact that no portions of the agreement compelled price increases or quantitative requirements, as “the minimum prices for exports and the communications by [Japan] to the companies were not legally binding.”¹³⁹ Instead, “the arrangement was operated as Japanese government ‘encouragement’ to domestic producers, without any domestic enforcement mechanism to force Japanese manufacturers to reduce export prices.”¹⁴⁰

Second, to implement the agreement and track the export prices for semiconductors, Japan made use of its existing weapons export control regime. Whenever a license request was submitted with respect to a semiconductor export, the Japanese extracted the sales data for analysis.¹⁴¹ The EU complained that the licensing process was delayed due to the information demands of the Japan-US agreement. According to the EU, delays of up to three months in receiving a license were now normal. Notably, the EU was not attacking the underlying export control system that Japan used--instead, the EU was complaining of the use of the pre-existing export control system for new purposes.

The EU argued that the very purpose of the agreement was to raise export prices, and it quoted policy papers of the Japanese government in support of that position.¹⁴² The panel also made reference to statements from other nations—including, ironically, from the US Semiconductor Industry Association—that the Japanese measures had disrupted the pricing and supply of semiconductors which had the effect of raising prices and lowering supply.¹⁴³

In defense of these charges, the US and Japan relied on a number of factors. First, the measures at issue simply did not set quantitative limits on exports. This was not a case where the government had limited its domestic producers to export 50,000 semiconductors per year. Instead, the government had issued a policy encouraging Japanese semiconductor manufacturers to sell their

¹³⁸ *Id*

¹³⁹ *Id*

¹⁴⁰ *Id*

¹⁴¹ *Id*

¹⁴² *Id*

¹⁴³ *Id*

products closer to market value. The argument was based on the text of Article XI:1, which is addressed to “quantitative” restrictions.

Second, the US and Japan argued that because the measures were not legally enforceable in Japan, that they did not fit within the intended scope of Article XI:1. 3rd and finally, they argued that the measures did not restrict trade, but in fact had liberalized trade and actually increased exports out of Japan.¹⁴⁴

The panel first determined that the non-mandatory structure of the arrangement did not save it from violating Article XI:1. This was because the arrangement had created an administrative structure that enabled the Japanese government to exert pressure on manufacturers, even if the formal structure of the arrangement was nonbinding. Next, the panel turned to the core of the matter—did the measures serve as impermissible restrictions on exports?

The panel found that the measures did violate Article XI:1. To do so, it relied on an earlier panel decision concerning licenses for imports.¹⁴⁵ In that case, the contracting party required the filing of an import license prior to importation, and the processing time for those import licenses was typically within 5 days of the receipt of the application. As a result, in that earlier case the panel determined that these were essentially “automatic licenses” and therefore did not violate Article XI:1.

Finding no difference between an import license and an export license, the *Japan—Trade in Semi-Conductors* panel found that the three-month delay caused by the Japanese arrangement was too long, and thus worked an impermissible restriction on exports. The panel was less clear on whether the complaining party needed to show harm in the analysis. The panel referred to the export data and noted that it did not “present a clear picture” regarding the effect that the measures had on exports. Nevertheless, the panel moved on and seemed to place little emphasis on the showing of harm, instead focusing on the three month delay as the gravamen of the violation.

Thus, it is evident from *Japan—Trade in Semi-Conductors* that dispute settlement bodies will broadly interpret the provisions of Article XI:1 to prevent any measures that could be deemed as a restriction on exports. This analysis does not seem to place any emphasis on the actual harm

¹⁴⁴ *Id*

¹⁴⁵ *Id* citing WTO, *Japan: Trade in Semiconductors* (1988) BISD 35S/116

proven; rather, the core question is whether a government has taken action that has resulted in any restrictions on importing or exporting.

Besides *Japan—Trade in Semi-Conductors*, four other cases regarding export measures have been decided by the dispute settlement bodies that warrant discussion. First, *Canada—Measures Affecting Exports of Unprocessed Herring and Salmon* concerned regulations maintained by Canada that prohibited the export of herring and salmon that had not been cooked.¹⁴⁶ There, the panel found that the restrictions were prohibited.

Second, in *Argentina—Hides and Leather* an Argentinian law that allowed domestic tanners to take part in a customs clearance committee regarding the importation of bovine hides was challenged.¹⁴⁷ The panel found no violation of Article XI:1 but struck down the measure on other grounds.

The third and fourth cases relate to exports out of China of raw materials, and are remarkable for China's unsuccessful attempts to justify its export restrictions using the exceptions found in the WTO. In *China—Raw Materials* China had instituted four types of export restraints in order to keep the cost of raw materials low in China and higher in the rest of the world. These restraints were export duties, export quotas, export licensing, and minimum export price requirements.¹⁴⁸ Facing an Article XI:1 challenge from the EU, US, and Mexico, China argued that its measures were justified by GATT Article XX, which is the GATT's "General Exceptions" section. Specifically, China argued that its actions were permissible under subsections (b) and (g), which respectively provide exceptions for measures that are "necessary to protect human, animal or plant life or health" and "relating to the conservation of exhaustible natural resources."¹⁴⁹ China argued that limiting the exports of these raw materials protected human health in China because it reduced mining and its effects on the environment. China also argued the measures conserved limited mineral resources in China.

¹⁴⁶ WTO, *Canada: Measures Affecting Exports of Unprocessed Herring and Salmon* (22 March 1988) DS48

¹⁴⁷ WTO, *Argentina: Measures Affecting the Export of Bovine Hides and the Import of Finished Leather* (16 February 2001) DS155

¹⁴⁸ WTO, *China: Measures Related to the Exportation of Various Raw Materials* (22 February 2012) DS394, DS395, DS398

¹⁴⁹ GATT 1994, Article XX; Ibid

China also asserted another exception found in the text of Article XI. Section 2 of that Article includes a number of situations to which the prohibition on quantitative restrictions do not apply. China relied on provision XI:2(a), which permits restrictions that are “temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party.”¹⁵⁰

The *China—Raw Materials* panel did not allow China to make use of any of the three exceptions they cited. First, the Article XX(b) general exception for actions “necessary to protect” the health of its domestic population was held inapplicable because it could not pass a balancing test analysis, under which the panel determined the measures in question were not “necessary.” According to the panel, the export measures in question made no mention of environmental or health concerns, and there was no evidence the measures made a material contribution to reducing pollution. Additionally, the panel stated that numerous alternatives were available to safeguard the health of the Chinese people other than export restrictions.¹⁵¹

Second, nor was China’s reliance on Article XX(g)’s “conservation” exception successful. The crucial question was whether China’s export restrictions related to a bonafide conservation program, and if yes, whether the export measures were made in conjunction with restrictions on domestic production and consumption.¹⁵² the panel answered both questions in the negative, holding that “Article XX(g) cannot be invoked for GATT-inconsistent measures whose goal or effect is to insulate domestic producers from foreign competition in the name of conservation.”¹⁵³

Third and finally, China’s reliance on Article XI:2(a), which allows for measures to prevent critical shortages, was also not successful because the measures were not “temporary” as mandated by the exception. Instead, China’s policies had been in effect for 10 years.¹⁵⁴

The first *China—Raw Materials* panel illustrates that the WTO dispute settlement bodies will greatly scrutinize any nation’s use of the general exceptions to prevent the application of WTO rules. Although the panel did not explicitly state as much, it seemed to have decided that China’s

¹⁵⁰ GATT 1994, Article XI:2(a)

¹⁵¹ *See Matsushita supra* at Chapter 15

¹⁵² *Id*

¹⁵³ WTO, *China: Measures Related to the Exportation of Various Raw Materials* (22 February 2012) DS394, DS395, DS398

¹⁵⁴ *Id*

policies were primarily designed to distort international trade. Once that determination was made by the panel, China faced a very difficult road claiming that these measures were actually designed to protect human health and the environment.

The fourth WTO case on export measures is very similar to the *China—Raw Materials* case. The 2014 case of *China—Rare Earths* concerned China’s use of export duties, export quotas, and export administration requirements regarding rare earth minerals as well as tungsten and molybdenum.¹⁵⁵ Again, the panel knocked down China’s assertions that the measures were to control pollution. In its opinion, the panel noted that there was no evidence that the export measures were part of a plan to control pollution. Moreover, the panel also faulted China for violating the chapeau of article XX—which limits the use of general exceptions only to those situations where the measures are not applied in a discriminatory manner—as it found that the export measures were being applied on a discriminatory basis.¹⁵⁶

In summary, it is clear that the WTO dispute settlement bodies have taken an approach to Article XI that is both expansive and strict. The approach is expansive in the way that it defines “prohibitions and restrictions” that are swept in by the article. For example, in *Japan—Trade in Semi-Conductors* the dispute settlement body deemed a series of measures taken by the Japanese government to prevent the dumping of Japanese semiconductors as prohibited restrictions on exports, despite the fact that the measures were not mandatory, and despite the fact that the data failed to establish that the measures actually had a distortive effect on international trade. In other words, *any* measure affecting the import or export of goods other than through customs duties and the like will fall under the umbrella of Article XI.

On the other hand, the WTO dispute settlement bodies have taken a strict approach concerning the use of exceptions to evade Article XI. In both *China—Raw Materials* and *China—Rare Earths*, the dispute settlement bodies rejected China’s attempts to claim that export restrictions on raw materials were permitted because they would have some appreciable impact on human health and the domestic environment. The panels would not accept export restrictions disguised as environmental regulations.

¹⁵⁵ WTO, *China: Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum (China – Rare Earths)* (29 August 2014) DS431, DS432, DS433

¹⁵⁶ *Id*

As a result, nations attempting to enact export restrictions will face an uphill battle trying to evade the strictures of Article XI. To avail themselves of the exceptions, nations must ensure they build their programs from the ground-up with a focus on domestic health and environmental issues (or focusing on the other grounds for exclusion under Article XI) and narrowly tailor the export restriction provisions as an accompaniment to the broader internal measures.¹⁵⁷

With respect to the US and the Expanded BIS Rules challenged by China, it is clear that the rules in question are “restrictions” on exports—in fact, the entire EAR is designed to restrict exports of goods, and through the creation of new ECCNs which are prohibited to be sent to China, the US clearly placed export restrictions on China as defined in Article XI. The restrictions are mandatory, and affect trade in US-origin goods globally. Nor can the US avail itself of any of the exceptions to Article XI. This is because the Expanded BIS Rules are clearly not part of a broader environmental, human health, or other non-trade focused regime implemented by the US, and in any event, the restrictions are so clearly targeted towards China alone that the US would be precluded from making use of the exceptions because the measures do not conform with the chapeau of Article XX, which requires that any restriction be applied in a non-discriminatory fashion.

Thus, the Expanded BIS Rules are clearly in violation of Article XI’s prohibition on export restrictions, and none of the general exceptions are likely to help the US.

Procedural Deficiencies and Claims Founded in WTO Annexes

In addition to the core substantive claims above, China also raised procedural issues and claims related to the WTO Annexes—namely, the agreements on Trade Related Investment Measures (“TRIMS”), Trade Related Aspects of Intellectual Property Rights (“TRIPS”), and the General Agreement on Trade in Services (“GATS”). China’s claims related to these annexes are essentially secondary to the claims noted above, as the rights in the TRIMS, TRIPS, and GATS are contingent upon the core provisions of the WTO.

For the procedural claims, China cites Article X of the GATT 1994. Originally proposed by the US government, Article X “basically requires the rule of law in trade regulation: transparency of trade

¹⁵⁷ For an interesting example of a measure that fell within the environmental exception to Article XI but was nevertheless rejected because it was applied in a discriminatory manner, see WTO, *United States: Import Prohibition of Certain Shrimp and Shrimp Products (US – Shrimp)* (6 November 1998) DS58

measures, uniform and impartial administration, and review.”¹⁵⁸ China specifically cited Article X:1, entitled “Publication and Administration of Trade Regulations,” which requires contracting parties to promptly publish any laws or regulations regarding “restrictions or prohibitions on imports.”¹⁵⁹ China also cited Article X:3, which requires parties to administer all of its laws in a “uniform, impartial, and reasonable manner” and obligates states to maintain tribunals where decisions can be challenged.¹⁶⁰ Importantly, Article X is only applicable to the trade in goods; thus, China cannot assert the Article in any claim regarding TRIMS, TRIPS, or GATS.¹⁶¹

Article X has undergone somewhat of a renaissance since its inclusion in the original GATT 1947. Although the Article was cited in earlier cases prior to the WTO era, dispute settlement bodies typically dismissed it and relegated it to secondary status beneath the “substantive” other provisions.¹⁶² However, with the start of the WTO era, Article X was resuscitated, with dispute settlement bodies elevating it out of obscurity and affording real weight to its requirements, and complaining parties no longer listing it as a subsidiary claim. Since the inception of the WTO in 1994, complaining parties have cited Article X in increasing frequency. For the period from 1994 to 2008, there were at least 20 complaints citing Article X, and the US was the defending party in about half of those complaints.¹⁶³ WTO panels have also increasingly found violations of Article X in the WTO era.¹⁶⁴

Whether China can prevail over the US on Article X is a challenging question. In essence, China is claiming that the US violated Article X by informing regulated parties in the US of the upcoming Expanded BIS Rules before they announced to foreign parties. China also uses X:3’s general requirement of uniform and impartial application of the law, almost certainly to address the fact that only China was singled out for this treatment. From the Chinese perspective, every country in the world with sufficient technological sophistication is working with advanced semiconductors to boost their own economies and strengthen their own national security, but the US chose to

¹⁵⁸ Richard B. Stewart, Michelle Ratton Sanchez Badin, “The World Trade Organization: Multiple Dimensions of Global Administrative Law,” *International Journal of Constitutional Law*, Volume 9/3-4, 556, 570 (2011)

¹⁵⁹ WTO, United States: Measures *supra*

¹⁶⁰ *Id*

¹⁶¹ Padideh Ala’i, “From the Periphery to the Center? The Evolving WTO Jurisprudence on Transparency and Good Governance” *Journal of International Economic Law* 1-24, 779 (2008)

¹⁶² *Id*

¹⁶³ *Id*

¹⁶⁴ *Id*

implement these restrictions only on China. To the Chinese, this approach is neither uniform nor impartial.

The alleged prior notice that the US gave to its domestic industries would not seem to violate the text of Article X:1, as that provision requires only the prompt publishing of rule changes. China has not articulated how advance notice to some parties would violate the technical publishing requirements of the Article.

More interesting is the question of Article X:3 and whether the Expanded BIS Rules violate that provision by virtue of the fact that China is singled out for the treatment. In cases applying Article X:3, at least one panel has held that “the reasonableness required by Article X:3(a) does not refer to the laws and regulations, but to the administration of those laws and regulations.”¹⁶⁵ Thus, the question is not whether the rules themselves are fair, but instead, whether the rules are being fairly *administered*. This question is difficult to answer because the Expanded BIS Rules should all be implemented in a manner consistent with the underlying EAR, which has been implemented law for decades in the US. It is therefore difficult to separate out the substantive impact of the rules from how they are administered.

The Security Exception: The US Defense and the Evolving WTO Jurisprudence

The United States response to the Chinese challenge can be summarized rather simply: the WTO lacks jurisdiction to hear the claims. This argument is based on the Security Exception to the WTO agreements, which provides an exception for GATT-violating measures that are taken in the interest of a member state’s national security.

This self-judging approach taken by US was, as recent as 2011, recognized as an underused exception, perhaps due to the “gentlemen’s agreement” between member states.¹⁶⁶ Prior to its

¹⁶⁵ WTO, *Dominican Republic: Measures Affecting the Importation and Internal Sale of Cigarettes* (26 November 2004) DS302, para. 7.384

¹⁶⁶ See, e.g. Roger P. Alford, “The Self-Judging WTO Security Exception,” 2011 Utah L. Rev. 697, 758 (2011) (noting that member states had, to the date of the article, played nicely with the Exception and not abuse its power)

recent uptick in use, it was argued that “member states understand the exception to be self-judging, and presume that it will be exercised with wisdom and in good faith.”¹⁶⁷

Those days are gone. US and Russian reliance on the self-judging approach is now disfavored by WTO scholars, because of its nuclear effect on the cohesiveness of the WTO system itself.¹⁶⁸ According to Maruyama and Wolf, “by 2020 enforceability of the [WTO] rules ceased to exist” because of the US’s reliance on the Security Exception, coupled with its blocking of the functioning of the WTO appellate panel.¹⁶⁹ As will be discussed later, these authors suggest a compromise approach to the Security Exception, under which the invocation of the Exception could be opposed by the imposition of retaliatory trade measures.¹⁷⁰

Before the WTO panel, the United States first asserted that the measures it took against China were done “to protect U.S. national security” and then summarized its position as follows:

Issues of national security are political matters not susceptible to review or capable of resolution by WTO dispute settlement. Every Member of the WTO retains the authority to determine for itself those measures that it considers necessary to the protection of its essential security interests, as is reflected in [the national security exception].¹⁷¹

From the US perspective, the invocation of national security interests acts as a complete shield to any WTO claims, preventing a dispute settlement board from even hearing the challenge. In other words, the Security Exception is “self-judging” and not justiciable by a WTO panel. The national security exception of Article XXI(b), GATT 1994, provides in relevant part:

Nothing in this Agreement shall be construed

¹⁶⁷ *Id*

¹⁶⁸ See Tania Voon, “Can International Trade Law Recover? The Security Exception in WTO Law: Entering a New Era,” *American Journal of International Law*, 113, 45, 47 (2019) (writing that “the suggestion that the security exception is wholly self-judging takes on an even more extreme form in the view of the United States, which sees the exception as ‘non-justiciable.’”); see also Maruyama, *supra*

¹⁶⁹ Maruyama, *supra* at 1

¹⁷⁰ *Id.*

¹⁷¹ WTO, *United States: Measures on Certain Semiconductor and Other Products, and Related Services and Technologies* (12 January 2023) DS615

(a) ...

(b) to prevent any Member from taking any action which it considers necessary for the protection of its essential security interests

(i) relating to fissionable materials or the materials from which they are derived;

(ii) relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment;

(iii) taken in time of war or other emergency in international relations; or

(c) ...

As is clear from the above text, the Security Exception could serve as the ultimate loophole for WTO obligations—a member need only assert that the GATT-violating action it took was in the interests of its national security, and the entire structure of the WTO dispute settlement procedure becomes inapplicable to the action. Such an interpretation could have disastrous effects on the regime of liberalized trade created by the WTO, because evading the system could be as easy as invoking a vague sense of national security. The US approach has therefore been labeled as “extreme,” putting the WTO in a dangerous position, under which the US withdrawal from the body would likely threaten its very existence.¹⁷²

Although the Security Exception has existed in the WTO system for over 70 years, it remained mostly a rarely-invoked element of the new trade system created in the aftermath of the Second World War, when rationing and access to weapons systems were fresh in the drafter’s minds. But amazingly, the dispute settlement systems of the WTO were not called upon to interpret the

¹⁷² Voon *supra* at 47

Security Exception until the past five years. While the Security Exception had been invoked—most famously between the US and Czechoslovakia during the Cold War, and during the dispute between England and Argentina regarding the Falklands—a dispute settlement board never issued an opinion in the matter. Finally, in 2019, a WTO panel issued the first decision on the Security Exception in *Russia—Measures Concerning Traffic in Transit*. Three other panel reports followed, all of which rejected the US’s broad reading of the exception.

Before this new jurisprudence is discussed, an analysis of the text of the Security Exception is needed to understand where the dispute lies in its interpretation.

The Security Exception: What Does the Phrase “Which it considers” Apply to?

The Security Exception may appear on first glance to be a relatively clear provision—and on its face, it is! But the trouble is that the direct application of the Security Exception could undermine the integrity of the entire WTO system, if members are permitted to use it as a “fallback defense for whatever retaliatory measure a WTO member wishes to impose.”¹⁷³

As a result, the Security Exception has become one of the most scrutinized provisions in WTO jurisprudence in recent years, as panels dutifully craft interpretations to conclude that the Exception cannot mean what its plain language says.

Stripped to its core, the provision can be broken down into the following elements:

- 1) The WTO agreement cannot be construed to prevent any member state from taking any action
- 2) which it considers necessary
- 3) for the protection of its essential security interests
- 4) relating to:
 - a. fissionable materials
 - b. the traffic in arms

¹⁷³ Tania Voon, “International Decisions, Russia—Measures Concerning Traffic in Transit,” *American Journal of International Law*, 96, 102 (2020)

- c. taken in time of war or other emergency in international relations

The trouble comes in the chapeau, and more specifically at element (2) above. The question is, what clause is element (2) modifying?¹⁷⁴

Under the approach advanced by the US, the phrase “which it considers” modifies the entire subsequent provision, and allows the member state to determine on its own what is necessary to protect its interests regarding the three subparagraphs under element (4). This self-judging approach places the entire determination of the Security Exception in the hands of the member state, and strips the WTO of any jurisdiction to hear a challenge due to the mere invocation of the Security Exception.

Viewed in the absence of any geopolitical context, this approach makes sense—the phrase “which *it* considers necessary” clearly places the determination of necessity in the hands of the member state, and the phrase “relating to” in element (4) lists those types of security interests to which the measure may be addressed.

Under this self-judging approach, the member state is free to determine the fit between the security interests that it deems essential, and the measures that it chooses to take to protect its interests listed in the subparagraphs. The member state only has to invoke the Security Exception, which serves as a type of magic wand releasing it from the strictures of the WTO.

Of course, the risk with this approach is the absence of any boundaries on the invocation of the Security Exception. There is simply no check preventing member states from adopting trade measures disguised as national security measures and using absurd grounds to justify the measures.

Under the competing approach advanced by China and adopted in one form or another by a number of dispute settlement boards, the phrase “which it considers” modifies only the word “action” and, most importantly, a dispute settlement board would have the jurisdiction to review the invocation of the Security Exception. Under this approach, the member state is free to choose which action it considers necessary to protect its security interests, but it cannot self-judge whether the action it chose really relates to the three subparagraphs. In other words, the phrase “which it considers”

¹⁷⁴ Geraldo Vidigal, “WTO Adjudication and the Security Exception: Something Old, Something New, Something Borrowed—Something Blue?,” *Legal Issues of Economic Integration*, 203, 210

modifies the word “action,” but it does not modify element (4), which lays out the specific types of security interests which are included.

This interpretation of the Security Exception includes a subjective component and an objective component.¹⁷⁵ The subjective component is the member state’s identification of what it considers “necessary” to protect its security. Thus, the member state alone is allowed to determine which actions are necessary to take. The objective component, determined by a DSB, is whether the elements in the subparagraph are actually satisfied.

Take, for example, the case where a member state blocked shipments of weapons to a nation on the grounds that there was an “emergency in international relations.” The member state would subjectively decide what action it deemed necessary, and the DSB would decide whether there was objectively an ongoing “emergency” and whether the action taken actually “related to” the emergency. This mix of member state subjectivity and DSB objective analysis seems to be the path forward, based on the developing Security Exception jurisprudence.

The path to this mixed subjective/objective analysis is a pragmatic one, driven not by the actual text of the Security Exception, but instead by the geopolitical realities of the alternative approach, which would grant member states carte blanche to evade the WTO’s whenever they see fit with no repercussions. Reaching this conclusion has tied the DSB’s into knots searching for legal justifications for an interpretation that seems to be contrary to the actual text of the Exception. However, as discussed below, the difficulty lies not in establishing this approach, but in actually applying it.

[The Panel Rulings: How the Security Exception has Been Interpreted](#)

The modern history of the Security Exception begins in 2019 with the *Russia—Measures Concerning Traffic in Transit* case.

In that case and the few following it, panels have routinely rejected the United States argument that the security exception is self-judging. Instead, panels have developed a multi-step approach under which they determine if the measures taken were objectively taken in the furtherance of national security concerns.

¹⁷⁵ *Id* at 213 (explaining the *Russia Traffic in Transit* panel’s bifurcation into subjective and objective)

Factual background

The Security Exception is inherently a politically charged provision, and no case better illustrates the underlying geopolitical tension of Article XXI than the 2019 panel decision in *Russia—Measures Concerning Traffic in Transit between Russia and Ukraine*. This dispute between two countries now engaged in a bloody war led to the first WTO panel report on the Security Exception and served as a watershed moment for WTO jurisprudence. Although the law regarding the Security Exception remains in flux, WTO law will forever be divided into the pre- and post-*Russia Measures in Transit* eras.

The dispute between the parties arose from two competing visions for Ukraine. In one corner stood Russia, which sought to maintain Ukraine under its post-Soviet umbrella, and in the other stood Ukraine, which sought to move westward and align itself under the European sphere of influence. These tensions, present in so many ex-Soviet republics, were brought to a flashpoint in Ukraine during the Euromaidan protests and the Russian annexation of Crimea, which took place in the spring of 2014.

In response to Russia's annexation of Crimea, a number of western nations sanctioned Russia, and Ukraine refused to join the Eurasian Economic Union ("EaEU"), a free trade agreement between Russia, Belarus, Kazakhstan, the Kyrgyz Republic, Tajikistan, Moldova, and Armenia.¹⁷⁶ Instead of joining the EaEU, the newly-sworn in Ukrainian government signed in March 2014 an EU-Ukraine association agreement, the object of which was to facilitate closer political and economic ties between the EU and Ukraine. This move was set against the background of a Ukrainian economy that was heavily dominated by Russian influence until 2014.¹⁷⁷

The Russians responded by banning imports of certain products from the nations that had sanctioned it, and restricted how these banned products could be transported through its territory. Most critically for the Ukrainians, these restrictions prevented goods destined to the EaEU

¹⁷⁶ WTO, *Russia: Measures Concerning Traffic in Transit* (26 April 2019) DS512, p. 24

¹⁷⁷ Ramadhan Bismono, Joko Priyono and Nanik Trihastuti, "The problems of interpreting GATT Article XXI(b)(iii) in Russia – Traffic in Transit," *Journal of International Trade Law and Policy*, Vol 21. No. 1, 57 (2022)

countries from transiting through Ukraine by road or rail. These were not military goods, but instead consumer goods like beer, juice, and candies.

The challenge brought by Ukraine before the WTO in 2016 saw the parties take remarkable positions: the Ukrainians denied that Russia's recent annexation by force of the Crimean peninsula was relevant to the dispute. Instead, Ukraine presented the challenge as an "ordinary trade dispute."¹⁷⁸ In complete contrast, Russia argued that "the dispute involves obvious and serious national security matters that Members have acknowledged should be kept out of the WTO, an organization which is not designed or equipped to handle such matters."¹⁷⁹

The Russian response was driven by its reliance on the Security Exception—without an armed conflict, Russia could not credibly avail itself of its best defense under the provision, Article XXI(b)(iii), which refers to a "war or other emergency in international relations."¹⁸⁰ In other words, Russia annexed the Crimean peninsula by force, and then claimed that its blockage of transit was justified by the state of war it had just created.

Russia did not argue that its measures were compatible with the WTO. Instead, it relied solely on the Security Exception to claim that the panel lacked jurisdiction to hear the claim, the so-called "self-judging" approach also supported by the US in the litigation. The Russian argument was that the phrase "which it considers necessary" modified the entire Article XXI clause and therefore permitted Russia to act uninhibited by the WTO rules whenever the Security Exception was cited.

Does the panel have jurisdiction to hear the claim?

Thus the panel was faced with a preliminary question: did it have jurisdiction to review the claim? Or was the mere invocation of the Security Exception sufficient to block any panel involvement? The panel refused to distinguish between "justiciability" and "jurisdiction" as Russia and the US had argued.¹⁸¹

Ukraine's counterargument was that Article XXI did not provide the member with "total discretion" but instead served as an affirmative defense, subject to panel review. In support of this argument, Ukraine noted the structure of the Security Exception, which provides three

¹⁷⁸ *Id* at 29

¹⁷⁹ *Id*

¹⁸⁰ GATT 1994, XXI(b)(iii)

¹⁸¹ Bismono et al *supra*

subparagraphs of circumstances in which the Exception may be invoked. Ukraine argued that, if the intention was to give the member total discretion when invoking Article XXI, those three subparagraphs would be completely unnecessary. Thus, Ukraine inferred that the three subparagraphs were inserted to limit the application of the exception to those three circumstances, and that panels were empowered to review if those subparagraphs were satisfied.

To jump over the jurisdictional hurdle, the panel referred to the powers granted to dispute settlement panels under the dispute settlement agreement. The panel noted that the DSU blankly applies to all disputes brought under the cover WTO agreements, and made no special rules of procedure applicable to invocations of Article XXI. Moreover, the panel referred to its “inherent jurisdiction” to determine all matters arising under the WTO’s agreement.¹⁸²

Based on this relatively straightforward application of the DSU, the panel ruled that it had jurisdiction to consider the claim.

What amount of discretion does a member have under the Security Exception?

Having dispatched with the preliminary jurisdictional issue, the panel turned to the second issue, namely, whether Russia's measures were taken “in time of an emergency in international relations” as required by Article XXI(b)(iii). Here the panel went directly to the analysis, dropping any pretext that it lacked the authority to answer this question. Clearly cognizant of the tense geopolitical situation and the limited role of the WTO panel to settle matters of war, the panel refused to assign blame to Russia for the annexation of Crimea and the resulting war, instead stating that “it is not relevant to this determination which actor or actors bear international responsibility for the existence of this situation to which Russia refers.”¹⁸³ Thereafter the panel found that there was an emergency in international relations, regardless of the cause, and held that Russia’s actions were taken during that emergency. This ruling was based on a finding that the situation between Russia and Ukraine was close to a “hard core” armed conflict.¹⁸⁴ As a result the panel confirmed that it is the panel’s role to determine if the elements of the chapeau of the security exception are satisfied.

¹⁸² Pramila Crivelli and Mona Pinchis-Paulsen, “Separating the Political from the Economic: The Russia Traffic in Transit Panel Report,” *World Trade Review*, 20, 582-605 (2021)

¹⁸³ *Russia: Measures Concerning Traffic in Transit* at 54

¹⁸⁴ Bismono *supra* at 70.

The panel had now ruled that a) WTO panels had the jurisdiction to review claims made under the Security Exception, and b) that WTO panels were also responsible for determining whether the measure was taken “in time of” an emergency in international relations. Now, it turned to the core question of the dispute: how much discretion did the members have in using the security exception? Was the security exception entirely self-judging, as advanced by Russia and the United States? Or did the panel have the role of determining whether the elements of the clause were satisfied?

The panel split the analysis into three separate tracks that could be taken, based on the interpretation of the phrase “which it considers” in the chapeau of the Exception.¹⁸⁵ First, in the most limited reading of the phrase, it would qualify only the word “necessary” and therefore limit the member’s discretion to the determination of what is “necessary” for the protection of its essential security interests.

Second, the clause could be read to also qualify the determination of the “essential security interests” referred to in the Exception. Under this reading the member would have the discretion to determine both the necessity of the action, *and* the appropriate scope of the security interests.

Third, the most expansive interpretation of the clause is that advanced by Russia and the United States, under which the entire provision is self-judging and the member alone determines the appropriateness of any measures taken under the Exception. The panel had essentially already rejected this approach by deciding, as a preliminary matter, that an emergency in international relations had existed when Russia took its measures.

Taking a logical approach, the panel first examined the third, most expansive and self-judging interpretation, because its validity would mean the end of the analysis and a blank check for panel members to invoke the Exception. The panel dispatched of the self-judging interpretation by relying on three main points. First, it agreed with Ukraine’s argument that the three sub paragraphs would be rendered unnecessary if the entire provision was self-judging. Second, the panel examined the three subparagraphs with the goal of determining whether they were intended to be subjectively or objectively reviewed. It noted that the circumstances referred to in the

¹⁸⁵ Prabhash Ranjan, “Russia-Ukraine War and WTO’s National Security Exception,” *Foreign Trade Review*, 58(2), 246-258, 249 (2023)

subparagraphs—the existence of a war especially—were objective facts, amenable to objective determination.¹⁸⁶ Then, noting the phrase “relating to” was placed at the beginning of each subparagraph, the panel cited another case in which the appellate body analyze the meaning of that phrase. In that case, the appellate body determined that the phrase “relating to” required a “close and genuine relationship of ends and means.”¹⁸⁷ Thus, the panel held that this approach was intended here.

Third and finally, the panel addressed the drafting history of the security exception to devastating effect. Russia's position that the security exception was a blank check for parties to evade the WTO's regulations and the history of the security exception plainly contradicted that approach. Reaching all the way back to 1947, the panel discussed the draft of the ITO Charter led by the United States, and noted that the negotiations concerning the ITO Charter reflected the tension between a party's trade obligations and the need to retain state sovereignty with respect to security interests.

During the negotiations the United States delegation spoke of the “great danger of having too wide an exception” which would “permit anything under the sun.”¹⁸⁸ To address that danger, the US delegation “thought it well to draft provisions which would take care of real essential security interests and, at the same time, *time, so far as we could, to limit the exception* so as to prevent the adoption of protection for maintaining industries under every conceivable circumstance.” The delegate went on to describe the limitations in detail, noting that “the limitation” on the subparagraph relating to a war or other emergency “is primarily in the time. First, ‘in time of war.’”¹⁸⁹

The panel then eliminated any doubt about the intent behind the Security Exception with this quote from the US delegate:

It is really a question of a balance. We have got to have some exceptions. We cannot make it too tight, because we cannot prohibit measures which are needed purely for security reasons. On

¹⁸⁶ Bismono *supra* at 69

¹⁸⁷ *Russia: Measures Concerning Traffic in Transit* at 64

¹⁸⁸ *Id* at 47

¹⁸⁹ *Id* at 48

the other hand, we cannot make it so broad that, under the guise of security, countries will put on measures which really have a commercial purpose.¹⁹⁰

Therefore, in light of a) the Existence of the three sub paragraphs, which suggested something less than ultimate discretion of the members, b) the objective elements within those three subparagraphs, and c) the negotiating history of Article XXI, the panel held that the self-judging interpretation advanced by the Russians and the Americans was not proper.¹⁹¹

The panel's decision that the Security Exception is not self-judging was hardly surprising—such an approach would have left a giant, unfettered loophole to the entire WTO agreements, with no possibility for panel review.

Having dispensed with the most expansive, self-judging interpretation of the Security Exception, the panel turned to the two other interpretations of the chapeau of Article XXI to define the limits of the member's discretion when invoking the security exception. Thus, the question now was whether the “which it considers” language modifies a) both the invocation of the security interests *and* the necessity of the measures themselves, or b) the determination of their necessity only.

Nothing in this Agreement shall be construed

(b) ...

(b) to prevent any Member from taking any action **which it considers necessary** for the protection of its **essential security interests**

(i) relating to fissionable materials or the materials from which they are derived;

(ii) relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and

¹⁹⁰ *Id*

¹⁹¹ Stephanie Hartmann, “Introductory Note to Russia—Measures Concerning Traffic in Transit (WTO),” *American Society of International Law*, Vol. 58, 899-1027, 900 (2019)

materials as is carried on directly or indirectly for the purpose of supplying a military establishment;

(iii) taken in time of war or other emergency in international relations; or

(c) ...

The answer to this question is critical because it determines the degree to which panels will second guess the essential security interests of member states. Should the panel judge only whether the action was necessary? Or will it also review the fit between the claimed security interests of the party and the measure taken?

Rather than take a binary approach and adopt one test or the other, the panel split the difference and reserved a role for itself in reviewing both elements based on a very loosely applied “good faith” standard.¹⁹² The panel derived the “obligation of good faith” which is a “general principle of law and a the principle of general international law which underlies all treaties” under the Vienna Convention.¹⁹³ Thus, the panel used the rules of treaty interpretation under the Vienna Convention to add a good faith standard underlying the use of the entire Security Exception.

The panel applied the good faith standard to Russia's invocation of its “essential security interests” and determined that Russia had sufficiently articulated them. In practice, the panel applied less of a good faith standard, and more of a minimally satisfactory standard.¹⁹⁴ The panel noted that Russia's claimed security interests were neither “obscure or indeterminate.”¹⁹⁵ In essence then, while the panel refers to an obligation of good faith, it's clear at least in this case that the bar is very low. Any member need only demonstrate a plausible connection between their security interests and the state of war existing between the parties.

Having determined that a good faith standard will apply to the determination of essential security interests, the panel next turned to the question whether the measures actually taken by Russia were connected to those security interests. The panel described the analysis as:

¹⁹² Mona Pinchis-Paulsen, Kamal Saggi, Petros C. Mavroidis, “The National Security Exception at the WTO: Should It Just Be a Matter of When Members Can Avail of It? What About How?,” *World Trade Review*, 23, 271-295 (2024)

¹⁹³ *Russia: Measures Concerning Traffic in Transit* at 57; see also Hahn, *supra* at 599-605

¹⁹⁴ Hartmann *supra* at 900

¹⁹⁵ *Russia: Measures Concerning Traffic in Transit* at 57

The Panel must therefore review whether the measures are so remote from, or unrelated to, the 2014 emergency that it is **implausible** that Russia implemented the measures for the protection of its essential security interests arising out of the emergency.¹⁹⁶

The keyword in the above quotation is “plausible.” While the panel referred to a good faith standard under the Vienna Convention, the analysis here is only whether the measures are plausibly related to a state’s security interests. Clearly, mere plausibility is a very low bar.

Applying the plausibility standard to the case at hand, the panel unsurprisingly determined that Russia's restriction of transit by road and rail from Ukraine to Kazakhstan or the Kyrgyz Republic was plausibly connected to Russia's security interests.

Given the stark contrast between the panel’s recognition of the potential for abuse under the security exception—and the lax standard that was actually applied to Russia—it has been argued that there exists two standards under this ruling: first is the formal legal standard set out by the panel, under which states must pass a good faith test subject to review by the panel; and second, the actual application of the test, where any plausible justification is enough to pass muster.¹⁹⁷

Summary

The Russia panel was the first to decide on a matter involving the security exception. The panel first held that it had jurisdiction to hear the claim regarding the security exception because nothing in the WTO text prevented it from doing so, and the underlying dispute clearly involved the WTO trade system and its agreements.

After confirming that it had jurisdiction to even hear the challenge, the panel next rejected the self-judging approach advanced by Russia and the United states. Instead of this blank check approach, the panel instead held that it was the proper party to determine whether the elements of the sub paragraph were objectively satisfied. Finally, the panel drew from the Vienna Convention to

¹⁹⁶ *Id*

¹⁹⁷ Jacob Gladysz, “The National Security Exception in WTO Law: Emerging Jurisprudence and Future Direction,” *Georgetown Law Journal* Vol. 52 853, 849 (2021)

establish a good faith standard applying to the members invocation of its security interests and its choice of measures to protect those interests.

In practice, however, the panel only required that Russia have some degree of plausibility connecting its security interests and the measures taken. Under this rubric, Russia satisfied the Security Exception and won the dispute.

The panel's approach has been described as a hybrid, blending both subjective and objective approaches—the member states are free to subjectively decide whether their “essential security interests” are implicated. But, the panel is empowered to decide, on an objective basis, whether the measure ‘was taken at the time of’ such emergency, whether there was ‘good faith’ determination of ‘essential security interests’, and whether the measure at issue met a ‘minimum requirement of plausibility’ in relation to the argued security interest.¹⁹⁸

Saudi Arabia – Measures Concerning the Protection of Intellectual Property Rights

The next occasion for a dispute settlement panel to consider the security exception was *Saudi Arabia—Measures Concerning the Protection of Intellectual Property Rights*.¹⁹⁹ This case is remarkable for the panel's adoption of—and the party's acquiescence to—the approach to the security exception taken in the *Russian Trade in Transit* case.

This dispute centered around a dispute between Saudi Arabia and Qatar. In 2017, Saudi Arabia and a host of other nations in the region severed all diplomatic relations with Qatar. Saudi Arabia broke off relations claiming that Qatar was contributing to an unstable security situation in their region, and had not taken the steps that Saudi Arabia thought necessary to remedy the situation.

Saudi Arabia severed all diplomatic relations with Qatar, imposed travel restrictions for Qatari or Saudi Arabian citizens traveling to Qatar, and imposed anti sympathy measures, the goal of which was to prevent Saudi Arabian nationals from assisting Qatari nationals in Saudi Arabia.

This dispute came before the WTO in the context of football. More specifically, Qatar claimed that Saudi Arabia was endorsing the large scale piracy of football games licensed by a Qatari firm, and

¹⁹⁸ Daria Boklan and Amrita Bahri, “The First WTO’s Ruling on National Security Exception: Balancing Interests or Opening Pandora’s Box?,” *World Trade Review*, 19, 123-136, 135 (2020)

¹⁹⁹ WTO, *Saudi Arabia: Measures Concerning the Protection of Intellectual Property Rights* (16 June 2020) DS567

preventing Qatari nationals from seeking redress before the civil courts in Saudi Arabia for the piracy.

The Qatari firm, BeIN media group, held licenses as the exclusive distributor of football matches and other global multimedia. After Saudi Arabia severed diplomatic relations in 2017, visitors to the BeIN website from Saudi Arabia were met with a notice stating that the BN websites violated Saudi law. Soon thereafter, Saudi Arabia created its own Media Group, tauntingly named BeoutQ, a play on the name of the Qatari firm. In August 2017, BLQ began the unauthorized distribution and streaming of all media content owned by BeIN. The Saudi Arabian government advertised the new media service on social media platforms, and even circulated an anti-BN cartoon that encouraged Saudi citizens to use BeoutQ instead of BeIN.²⁰⁰

In essence then, after diplomatic relations were severed, Saudi Arabia began to engage in large-scale, state-supported piracy of BNS licensed media.

Qatar's claims were based on the TRIPS agreement.²⁰¹ Qatar claimed that Saudi Arabia's acts were preventing BeIN from protecting its IP, that Qatari nationals were treated less favorably in terms of protecting their IP, and that Saudi Arabia had refused to prosecute violations of licensing when BeIN was a license holder.

In defense to these claims, Saudi Arabia invoked the Security Exception. It claimed that the measures taken to break off all diplomatic relations with Qatar were justified as means to fight terrorism within the broader region, and that the effects on BeIN's IP were simply a part of that broader anti-terrorism strategy.

Saudi Arabia's defense was made in the post-*Russia Trade in Transit* environment. Therefore, an existing WTO panel had already ruled that it had jurisdiction to review invocations of the security exception. Likely as a result of that result, Saudi Arabia did not take the self-judging approach to the Security Exception that Russia and the United States had unsuccessfully advanced in the *Russia Trade in Transit* case. Instead, both parties accepted the framework laid out in *Russia Trade in*

²⁰⁰ For more background info See Frances Josephine Espeso, "European Commission calls out Saudi Arabia for piracy operation BeoutQ," SNL Kagan Media & Communications Report (29 January 2020) https://www.spglobal.com/marketintelligence/en/news-insights/trending/-nbbfji5lplncc_pa5d6aq2

²⁰¹ Giovanni Gruni, "Copyright protection in times of regional instability: national security and the relevance of the WTO case Saudi Arabia – Measures Concerning the Protection of Intellectual Property Rights," Measures Concerning the Protection of Intellectual Property Rights (2020)

Transit and instead focused their efforts on working within that framework.²⁰² The panel summarized the test from *Russia Trade in Transit* as the following 4-step test:

- 1) whether the existence of a "war or other emergency in international relations" has been established in the sense of subparagraph (iii) to Article 73(b);
- 2) whether the relevant actions were "taken in time of" that war or other emergency in international relations;
- 3) whether the invoking Member has articulated its relevant "essential security interests" sufficiently to enable an assessment of whether there is any link between those actions and the protection of its essential security interests; and
- 4) whether the relevant actions are so remote from, or unrelated to, the "emergency in international relations" as to make it implausible that the invoking Member considers those actions to be necessary for the protection of its essential security interests arising out of the emergency.²⁰³

Thus an incredibly important element of WTO's security exception jurisprudence had been further cemented--the panel had the jurisdiction to review the claim, and it had the ability to assess whether the elements of the security exception were satisfied. Notably, panel decisions under the WTO are not supposed to have precedential effect, but here, the panel seemed to adopt the *Russia* panel decisions as precedential, a development that could be seen as puzzling.²⁰⁴

²⁰² The self-judging argument was almost an afterthought in many commentaries on the case as well. *See, e.g.,* Terence P. Stewart, "Qatar's WTO dispute with Saudi Arabia—panel report released on June 16, 2020," *Current Thoughts on Trade* (16 June 2020) <https://currentthoughtsontrade.com/2020/06/16/qatars-wto-dispute-with-saudi-arabia-panel-report-released-on-june-16-2020/>

²⁰³ *Saudi Arabia* at 112.

²⁰⁴ *See e.g.,* Jesse Kreier, "Saudi Arabia-IP Rights and the security exception," *International Economic Law and Policy Blog* (14 October 2020) <https://ielp.worldtradelaw.net/2020/10/saudi-arabia-ip-rights-and-the-security-exception.html> (noting that the *Saudi Arabia* panel never explicitly states that it agrees with the *Russia* panel; nor does it state that it is adopting that approach because the parties wanted it; and criticizing the panel for not making it clear the reason upon which it relied upon the *Russia* test)

Notably, the *Saudi Arabia* panel did not apply the above test in the four steps that it outlined. Instead, it combined the four elements above into a two-step analysis: steps 1 and 2 were combined to make Step 1, and steps 3 and 4 were combined to make step 2. This was an odd choice by the panel, especially considering they spent much time describing the test as four discrete elements. Nevertheless, in practice this approach was functionally the same as the four step analysis, albeit combined into two steps.

The Application of the Russia Test to the Saudi Arabia case

The panel began with the first step of the *Russian* analysis, asking whether there existed a war or other emergency and international relations, and whether the action was taken during that emergency. Notably, both parties agreed that this determination was to be made objectively. The panel was careful to include many statements throughout the analysis indicating that the parties agreed to the *Russian* analysis. In any event, the panel recognized that the total severance of diplomatic relations is a very rare occurrence in international diplomacy, and therefore held that an emergency in international relations existed.²⁰⁵

From here, it was simply a matter of the panel determining when the actions by Saudi Arabia were taken. Clearly, they were taken after the severance of diplomatic relations, and therefore, this first element was satisfied.

The panel next turned to the second element (which consisted of elements 3 and 4 from their summation, combined into a single element) , namely, whether Saudi Arabia 1) had sufficiently articulated its essential security interests, and 2) whether the measures it actually took were “so remote from, or unrelated to, the ‘emergency in international relations’ as to make it implausible that [Saudi Arabia] implemented the measures for the protection of its ‘essential security interests’ arising out of the emergency.” In other words, the second element is all about fit between the claimed security interests and the measures taken.

For the first prong, Saudi Arabia had claimed that it was protecting itself “from the dangers of terrorism and extremism.” Qatar responded by claiming that this formulation was vague and

²⁰⁵ Jay Manoj Sanklecha, “A look at the WTO Panel report in ‘Saudi Arabia- Measures concerning the protection of Intellectual Property Rights,” Spicy IP, De-Coding Indian Intellectual Property Law (4 July 2020) <https://spicyip.com/2020/07/a-look-at-the-wto-panel-report-in-saudi-arabia-measures-concerning-the-protection-of-intellectual-property-rights.html>

imprecise. However, the panel, relying on the “minimally satisfactory” language from the Russia traffic and transit case and further noted that the panel would only conduct a “limited review” of a party’s invocation of its security interests. Thus, the Panel deferred to Saudi Arabia and found that it had sufficiently articulated its security interests.

Turning next to the second prong of the analysis, the panel again began by noting the support that both parties had given to the *Russian Trade in Transit* analysis. In particular, the panel noted that it was the panel's job to address the fit between the measures taken and the claimed security interests.²⁰⁶

Here the panel decided to separately analyzed the two measures that were at issue: the anti-sympathy measures on one hand, and the non-application of criminal procedures and penalties to beoutQ on the other.

The anti-sympathy measures were aimed at denying Qatari nationals access to civil remedies in Saudi Arabia. As part of those measures, Saudi Arabia had prevented Saudi law firms from representing beoutQ before a Saudi court. The panel, relying on the total severance of diplomatic relations between the two nations, found that it was “not implausible that Saudi Arabia might take other measures to prevent Qatari nationals from having access to courts.”²⁰⁷ In other words, it was a natural consequence of the severance of diplomatic relations that Qatari nationals would also not have access to Saudi Arabian courts. Therefore, the court upheld the Saudis’ invocation of the security exception with respect to the anti-sympathy measures.²⁰⁸

Saudi Arabia’s refusal to prosecute criminal copyright violations, on the other hand, was another story. The panel could not find any connection between Saudi Arabia’s stated security interests and its refusal to apply criminal procedures or penalties to beoutQ. As a result, the panel found that Saudi Arabia’s invocation of the security exception was improper when it came to the refusal to prosecute.

Why didn't the refusal to prosecute also fall under the same umbrella as the anti-sympathy measures? The panel's opinion was woefully short of legal argument here, but in essence, the panel gave great weight to the fact that prosecuting IP infringements would not require “any entity in

²⁰⁶ *Saudi Arabia* at 121.

²⁰⁷ *Id* at 122.

²⁰⁸ Stewart *supra*.

Saudi Arabia to engage in any form of interaction with BeIN or any other Qatari national.” From the panel's perspective, Saudi Arabia 's actions all flowed from their cessation of diplomatic relations with Qatar, and the anti-sympathy measures were a natural element of that. However, the breaking of diplomatic relations was not related to the refusal to prosecute, because prosecuting the violations of beoutQ's piracy would not require the Saudis to interact with the Qataris. In other words, the Saudis could prosecute licensing violations in their country without communicating with the Qataris and breaking the frozen state of relations between the states.

However, much more ink was dedicated to how this infringement affected third party rights holders, and one gets the impression that the panel's decision was driven more by third party right holders than anything else. For example, the panel opinion quoted numerous letters from UEFA, BBC studios, La Liga, the Premier League, as well as a “a public joint statement made by seven major football right holders condemning beoutQ and requesting enforcement action by Saudi Arabia against beoutQ.”²⁰⁹

The anger of powerful football organizations throughout the globe, and the opinion of Saudi Arabia's actions from other member states was pointedly summarized in a statement from Brazil, in which it noted that it “fails to see how [Saudi Arabia's] proffered essential security interests, or any country's essential security interests for that matter, could be protected by allowing the operation of a copyright pirate whose broadcasts have spread beyond the respondent's borders and encompass not only the copyrights held by the claimant's nationals but by other countries' nationals as well, including Brazil's”.²¹⁰

There are three key takeaways from this decision. First, it is clear that the *Russia Trade in Transit* convincingly eliminated the self-judging interpretation of the security exception advanced by Russia and the United States. Second, it is clear that *Russia* provided an eminently workable framework for reviewing security exception claims.

Third, this case suggests that invocation of the security exception will likely be decided on the question of the fit between the essential security interests and the measures taken. This is to be expected, given the incredibly deferential standards that *Russia Trade* established for every other

²⁰⁹ *Saudi Arabia* at 123.

²¹⁰ *Id*

element. For example, when it comes to selecting the actions and articulating the security interests, panels will only require a minimally plausible explanation. And when it comes to determining whether an emergency in international relations exists, panels are likely to apply a very lax standard of review to determine if such an emergency actually exists.

However, the critical question is whether the measures taken are reasonably related to the security interest, and this is where panels in the future will most likely focus most of their attention. By granting deference to member states to articulate their security interest and take whatever measures they feel are necessary, the panel pays tribute to state sovereignty in terms of national security. At the same time, this approach limits the likelihood of this security exception turning into the world's biggest loophole by requiring a reasonable relationship between the measures taken and the claimed security interests.

United States – Certain Measures on Steel and Aluminum Products

The next panel decision to consider the invocation of the security exception involved the United States and a number of its tariffs on steel and aluminum products. The US Department of Commerce had conducted an investigation into the effect of imports of steel mill products on the national security of the United States,²¹¹ which report determined that steel was important to US national security because it was critical for defense and critical infrastructure.²¹² The report recommended that “due to the threat of steel imports to US national security, that the US President take immediate action by adjusting the level of imports through quotas or tariffs on steel imported into the United States.”²¹³ While the US has levied higher duties on steel imports from China before, this was the first time it was based on national security.²¹⁴

In response to this report, on 24 January 2020 the US president issued a proclamation providing increased duties of 25% on certain steel products and 10% on certain aluminum products.²¹⁵

²¹¹ WTO, *United States: Certain Measures on Steel and Aluminum Products* (9 December 2022) DS544

²¹² Notably, the US Department of Defense disagreed with this assertion in its own memo. See John Brinkley, “Trump’s National Security Tariffs Have Nothing to Do With National Security,” *Forbes* (12 March 2018) <https://www.forbes.com/sites/johnbrinkley/2018/03/12/trumps-national-security-tariffs-have-nothing-to-do-with-national-security/>

²¹³ *United States Measures on Steel* at 22

²¹⁴ Tom Miles, “China Partially Wins WTO Case Over Obama-Era U.S. Tariffs,” *Reuters* (21 March 2018), <https://www.reuters.com/article/business/china-partially-wins-wto-case-over-obama-era-u-s-tariffs-idUSKBN1GY03X/> China challenged U.S. anti-subsidy tariffs imposed on 22 Chinese products, including seamless pipe, steel cylinders, drill pipe, oil country tubular goods, wire strand, and aluminum extrusions.

²¹⁵ *United States Measures on Steel* at 41

Critically, certain countries were exempted from the additional duties, including Canada, Mexico, Australia, Argentina, Korea, Brazil, and the European Union. China challenged the additional duty rates before the WTO.

Taking a similar approach as Russia did in its case, the United States chose not to argue that the measures themselves were in violation of the WTO. Instead, the United States took the position that the panel lacked jurisdiction because the security exception was self-judging.²¹⁶

The parties' arguments were similar to those made in *Russia Trade in Transit*: on the US side, the argument was that the phrase "which it considers" modified the entire security exception, with the effect that the invoking member had free reign to determine whether the security exception was properly invoked. China, on the other hand, argued for the contrary interpretation under which the panel would determine whether the objective elements under the exception were met.

Notably, the panel here did not rely upon the *Russia Trade in Transit* decision. Instead, the panel undertook a lengthy grammatical analysis of the Security Exception to determine if the United States's interpretation was correct, diving deep into the rules of English grammar and the details of independent or prepositional phrases. Despite this analysis, the panel's most persuasive argument was borrowed from *Russia Trade in Transit*. There, Ukraine argued that the three subparagraphs would serve no purpose if the exception gave carte blanche to the invoking member. Similar again to the *Russian* panel, the panel also noted that the panel did not provide any special jurisdictional rules with respect to the security exception. Thus, the panel rejected the US self-judging approach and determined that it had jurisdiction to review the claim.²¹⁷

After finding it had jurisdiction to review the claim, the next inquiry was whether the elements of the Security Exception were fulfilled.

The panel did not outline whether it was following the *Russia Trade in Transit* approach. Instead, the panel stated that it would first assess whether the actions the US took were taken during an "emergency in international relations" based on an interpretation that was "in accordance with

²¹⁶ Klint W. Alexander, "The 2022 U.S. Steel/Aluminum Tariff Ruling: A Reckoning for the United States and the WTO Over the National Security Exception in WTO Law," *American University Law Review*, Vol. 72, 1093-1132 (2023)

²¹⁷ *Id.* at 1125

Article 3.2 of the DSU and customary rules of interpretation of public international law.”²¹⁸ In other words, the panel set out to determine the threshold question whether an emergency in international relations was present when the US took its measures.

Starting from the text of the Security Exception, the panel analyzed the dictionary definitions of “emergency in international relations” and “war,” and unsurprisingly determined that the provision was intended to apply only to severe situations. As the panel wrote, an “emergency in international relations” . . . must be, if not equally grave or severe, at least comparable in its gravity or severity to a ‘war’ in terms of its impact on international relations.”²¹⁹

The panel then turned to the application of that test—in other words, was the action of the US actually taken in response to an emergency in international relations? Or was the US simply providing a pretext for the imposition of higher steel tariffs?

The panel found that the measures of the US were *not* taken in response to an emergency in international relations, and accordingly ruled that the United States could not rely on the Security Exception in this case. This is because, in the panel’s opinion, the existence of a global excess capacity of steel is not in itself enough to constitute an emergency in international relations.²²⁰

This finding of the panel was based on two primary factors. First, although the US Department of Commerce had conducted an investigation into the domestic steel industry and found that tariffs were necessary to respond to steel imports, this legal analysis was attuned to US domestic law and was not designed to satisfy the elements of the Security Exception. Thus, the panel did not find the Department of Commerce report persuasive in establishing conditions severe enough to warrant the use of the security exception.²²¹

Second, the panel found—in a rather conclusory fashion—that the US had simply failed to prove in its arguments that the requisite state of emergency existed. In this area, the panel’s opinion was surprisingly light on legal argumentation. Rather than provide contrasting situations where a steel shortage would satisfy the security exception, the panel instead found that it was not satisfied in this situation here. Thus, readers of this panel opinion will not be left with a blueprint to

²¹⁸ *United States Measures on Steel* at 79

²¹⁹ *United States Measures on Steel* at 80

²²⁰ *Id.*

²²¹ Alexander, *supra* at 1126

establishing an emergency and international relations. Instead, they will be informed that a situation of global access in the steel industry is not enough to constitute an emergency for the purposes of the security exception.

The *Certain Measures on Steel and Aluminum* case follows the thread of Security Exception cases finding that the Security Exception is not self-judging, but without expressly relying on *Russian Trade in Transit* or any of its progeny. And like its predecessors, the panel in *Certain Measures* applied an objective test to determine whether the elements of the Security Exception were satisfied.

United States – Origin Marking Requirement

The final and most recent opinion on the Security Exception comes from *United States—Origin Marking Requirement*, decided in December 2022. This case stemmed from the 2019-2020 demonstrations in Hong Kong. In response to China’s involvement in the protests in Hong Kong, the US required that any items imported to the US from Hong Kong be marked as “Made in China.”²²² In response to the law, Hong Kong—referred to as “Hong Kong, China” by the panel—challenged the measure before the WTO, and the US responded with its well-worn Security Exception defense. Hong Kong’s main claim was under Article IX of the GATT, which regulates the use of markings on products to indicate their country of origin.²²³

Following a now familiar approach, the panel began by dispatching with the US argument that the panel lacked jurisdiction because the Security Exception is entirely self-judging. Starting at the chapeau of the Security Exception, the panel undertook a detailed grammatical analysis into the “which it considers” language and even analyzed the language in the French and Spanish versions of the text. Next, the panel considered the language in the context of the rules of interpretation found in the Vienna Convention, and even delved into the long negotiating history of the Security Exception.

The panel found, like all of the panels before it, that the Security Exception was not self-judging and that the panel had jurisdiction to consider the claim.²²⁴

²²² WTO, *United States: Origin Marking Requirement* (21 December 2022) DS597

²²³ Giorgio Sacerdoti, “Evolution of WTO Dispute Settlement System and its Current Crisis,” *The IUP Journal of International Relations*, Vol. 17, No. 2, 7-24, 21 (2023)

²²⁴ *Id*

The panel next turned to the merits of Hong Kong's claim, and found that the US's marking requirement was in violation of the WTO. The final question, then, was whether the Security Exception could be invoked here as an absolute defense to the challenge. Similar to the analysis in *Certain Measures on Steel and Aluminum*, the panel began with the threshold question of whether a "war" or "emergency in international relations" existed and was the motivating factor for the US's measures.²²⁵

Relying on the approach taken by the panel in *Russia Trade in Transit* in which the "ordinary meaning" of the term was given priority, the panel held that an emergency in international relations "refers to a state of affairs that occurs in relations between states or participants in international relations that is of the **utmost gravity**, in effect, a situation representing a breakdown or near-breakdown in those relations."²²⁶ The panel explained further that a spectrum of relations exist—on one side, the typical "friendly and peaceful" relationship between states, and on the other side, the "breakdown of relations" characterized by emergencies and war.²²⁷

What level of scrutiny should apply when a country claims that an emergency exists? The panel here outlined a clever approach, whereby the "further removed that a situation is from war or comparable threat to international peace and security, the more explanation a respondent would usually need to provide" about the severity of the situation.²²⁸ As an example the panel approvingly referred to *Russia Trade in Transit* and the *Saudi Arabia* case, cases in which the "war" and "emergency" provisions, respectively, were satisfied.²²⁹

Did the US establish an emergency here? No, found the panel. The US argued that the an emergency existed due to its concerns about freedom and democracy in Hong Kong, with Hong Kong arguing that no such emergency existed.

²²⁵ *Id*

²²⁶ *United States: Origin Marking Requirement* at 80 (emphasis added)

²²⁷ *Id* at 83

²²⁸ *Id*

²²⁹ For more discussion on the meaning of "emergency" see Julien Chaisse and Kehinde Folake Olaoye, "International Decisions, United States—Origin Marking Requirement," *American Society of International Law*, Vol. 117, No. 3, 488-493 (2023); see also Hitoshi Nasu, "US – Origin Marking Requirement: Did the WTO Panel Get the Balance Right between Trade Security and National Security?," *EJIL:Talk!*, Blog of the European Journal of International Law (25 January 2023) <https://www.ejiltalk.org/us-origin-marking-requirement-did-the-wto-panel-get-the-balance-right-between-trade-security-and-national-security/>

In its analysis, the panel was careful to articulate its analysis such that it did not focus on the underlying events in Hong Kong, but instead on “how [the panel viewed] their effect reflected in international relations.”²³⁰ The panel thus sought to walk a tightrope between two of the world’s greatest powers, with each taking opposing views on the status of Hong Kong and democracy writ large.

Notably, it has been argued that the US would have arguably been in a better position had it taken a more aggressive approach to Hong Kong, just as Russia had done in its own Security Exception case with Ukraine.²³¹

The panel concluded that, although the events in Hong Kong clearly troubled the US administration, it did not reach the level of an emergency because the US continued to cooperate with Hong Kong in a number of other areas. Unlike the situation in *Saudi Arabia* where there was a total breakdown in diplomatic relations, the US continued to cooperate with Hong Kong in bilateral treaties concerning taxation, parcel delivery, and air services. And clearly there was no war existing between Hong Kong and the US as existed between Ukraine and Russia.

Thus, the US was again denied the use of the Security Exception to justify measures that would otherwise violated the tenets of the WTO agreements.

Can the US Successfully Invoke the Security Exception to Defend its Semiconductor Measures?

After its nearly 70-year dormant period, the Security Exception has become a hot topic in WTO jurisprudence. From the *Russia Trade in Transit* to the *US Origin Marking* case, WTO panels have begun to develop a theory of the Security Exception which balances the strictures of the WTO system with the needs of member states to retain sovereignty in the field of national security.

Throughout the course of these cases, a few clear trends have emerged. First, all WTO panels to consider the Security Exception have rejected the all-or-nothing “self-judging” approach advanced by the US and Russia, under which the mere invocation of the Security Exception would insulate the member state’s actions from WTO panel review and give the state carte blanche to violate the

²³⁰ *United States: Origin Marking Requirement* at 86.

²³¹ Maruyama, *supra* at 8

WTO's requirements. This approach is unsurprising—the entire trade system of the WTO would clearly be undermined if member states could simply evade its requirements at will by claiming their trade measure was done in the interests of a vague “security” concern.

As a result, the US argument that the panel has no jurisdiction to hear the claim is nearly certain to fail yet again. The US interpretation of the Security Exception is so expansive as to render the WTO agreements useless, and the short history of the Security Exception illustrates that this concern is shared by the most powerful member states of the WTO as well as every panel to hear the issue. Moreover, it is clear that the US statements during the creation of the Security Exception are directly contrary to the modern US position on the provision. As a result, the US is highly unlikely to convince a panel that the Security Exception is self-judging.

Each panel to hear the self-judging argument after *Russia Trade in Transit* has essentially adopted that panel's approach, but has done so without officially relying on that case's precedential effect. Given the WTO's official lack of precedential decisions, panels are constrained from simply applying the *Russia Trade in Transit* approach, so they are likely to continue the grammatical analysis first outlined in *Russia* to the same conclusion.

The second trend coming out of this line of cases is the adoption of an objective test to determine if a “war” or “other emergency in international relations” exists. Again rejecting the approach advanced by the US, panels have roundly agreed that these factors demand an objective analysis, and that panels are the proper bodies to determine if they are satisfied.

The third trend coming from these cases is the panels' reluctance to wade into the core of the flaming-hot geopolitical context in which these cases arise to question the *why* underlying the states' actions. For example, in the *Russia Trade in Transit* case the panel was thrust into the middle of two countries now embroiled in a bitter and bloody war, but refused to take a stance regarding the propriety of Russia's annexation of Crimea. And similarly in *US Origin*, the panel was careful not to take either party's side in the fight over Hong Kong's status.

Given these trends and the short history of the Security Exception jurisprudence, how will the Chinese challenge to the US's semiconductor provisions fare?

Russia Trade in Transit kicked off the modern history of the Security Exception and offered a plausible 4-step approach to the Security Exception that each subsequent panel has more or less followed. The *Russia Trade in Transit* test asks:

- 1) whether the existence of a war or other emergency in international relations has been established in the sense of subparagraph (iii) to Article 73(b);
- 2) whether the relevant actions were taken in time of that war or other emergency in international relations;
- 3) whether the invoking Member has articulated its relevant essential security interests sufficiently to enable an assessment of whether there is any link between those actions and the protection of its essential security interests; and
- 4) whether the relevant actions are so remote from, or unrelated to, the emergency in international relations as to make it implausible that the invoking Member considers those actions to be necessary for the protection of its essential security interests arising out of the emergency.²³²

Thus, the first relevant question for the panel will be: has the US established a state of “emergency” in international relations?

For this critical threshold issue, the panel will certainly look to the domestic US rulemaking to discern the underlying intent behind the expanded restrictions on the Chinese semiconductor industry.

On that point, the US BIS justified its new rules on grounds that China is using advanced semiconductors to modernize its military, develop weapons of mass destruction, and develop surveillance tools that are being used “without regard to basic human rights to monitor, track, and surveil citizens, among other purposes.”²³³ The BIS claims these goals of the Chinese government

²³² *Russia: Measures Concerning Traffic in Transit supra*

²³³ U.S. Department of Commerce, “Implementation of Additional Export Controls” *supra* at 5

are “contrary to U.S. national security and foreign policy interests.”²³⁴ Therefore, the stated aim of the Expanded BIS Rules is to “limit [China’s] ability to obtain semiconductor manufacturing capabilities to produce ICs” for these uses contrary to US interests.²³⁵

Critically, the BIS did not claim anywhere in its justification for the rule change that the US was at war with China or that some “emergency” existed. Rather, the BIS’s core claim is that the US’s national security interests are at stake.

The Chinese argument will certainly be that a state’s national security interests, standing alone, are not enough to justify the use of the Security Exception—there must also be a war or emergency in international relations to justify the use of the exception. And China and the US are not at war. Nor has there been a dissolution of the many economic and consular relationships between the two states. Contrast this with the situation in *Saudi Arabia*, where the government of Saudi Arabia severed all diplomatic and consular ties with Qatar and even prevented Qatari nationals from accessing the Saudi Arabian courts.

For the US to get over this threshold issue, it must successfully argue that China’s semiconductor industry poses such an immediate, tangible threat to US national security as to render the situation an emergency. From the US perspective, the argument may be that nations should not have to wait until a war starts to take measures that deter the conflict from ever starting, and that the WTO should preserve state sovereignty (as contemplated by the Security Exception) as a tool of peace.

The core of the current low-temperature dispute between China and the US is Taiwan. Taiwan is of massive strategic importance to China because of its position in the South China Sea, and is doubly important because of its leading role in the semiconductor manufacturing value chain. If the Chinese invade Taiwan, they would take with it a huge share of the world’s semiconductor market. Given the strategic importance of semiconductors to modern warfare, this would clearly threaten US economic and military interests.

Thus, the US’s best formulation of the “emergency” may be that the Chinese development of advanced weapons systems increases the risk that the Chinese engage in a military takeover of

²³⁴ *Id*

²³⁵ *Id*

Taiwan, and this increased risk of war constitutes an emergency. This approach makes sense especially when one considers a historic example. Take for example the 1962 Cuban missile crisis, where the Soviets and the US had each placed nuclear missiles within striking range of the other, pushing the two nations to the brink of nuclear war.

In that case, there was clearly no state of war, but the situation was so close as to deem it an “emergency” in international relations. If the Soviets had challenged the US use of export controls to prevent the Soviets from constructing atomic weapons and the Security Exception was invoked in response, the response would likely be the same as it must be in this case—namely, another nation is amassing weaponry, which increases the chance of war, and this military expansion that threatens to explode into all-out war is in itself an “emergency.” Hence, the Security Exception is rightly invoked here with respect to the Chinese development of war weapons.

But from the Chinese perspective, the US is improperly expanding export controls beyond the framework envisioned by the body of weapons control treaties, and disguising an economic weapon as a tool of non-proliferation. And the argument that an emergency exists simply because China is expanding its military is absurd, as *every* nation is constantly working to upgrade its defensive capabilities. Allowing this argument to prevail would allow the Security Exception to serve as *carte blanche*, because any country could argue their national security is threatened by any other nation’s military. Moreover, the US export controls are not covering nuclear missiles, they are instead covering advanced semiconductors which have many uses other than military. The Chinese argument would essentially be that the US’s declaration of an emergency is overstated, and that the controls in any event are much too broad in scope to be justified by the Security Exception.

Given the above, it is hard to imagine that the US would overcome the threshold requirement that an emergency exists. Even assuming that threshold is overcome, the US would still need to establish the other three factors in the *Russia* analysis.

The 2nd element requires proof that the action was taken “in time of” that emergency. This begs the question—when did the emergency arise? Did it arise when China launched its Made in China

2025 policy? Or when it began production on supercomputer? When it reiterated to the US in talks that it would “never compromise” on Taiwan?²³⁶

The 3rd element requires the US to articulate the security interests it claims are endangered, and the 4th requires a nexus between the actions taken and the security interests at stake. But these elements are secondary to the first, threshold question regarding the existence of an emergency. That first issue frames the entire discussion, and without a breakdown in diplomatic relations or a tangible threat (like the massing of troops on a border), the panel is unlikely to allow the US to wield the Security Exception as a defense to the Chinese claims.

Looking Ahead: The Future Landscape of the Semiconductor Battle before the WTO

In order for the WTO system to resolve the US/China disputes and extract itself from the current quagmire it finds itself, two interconnected problems must be solved: the Security Exception’s justiciability question, and the status of the WTO appellate body. Scholars are nearly unanimous that the US self-judging position is a threat to the WTO system itself.²³⁷ Others argue the WTO is in an “existential crisis” owing to these interrelated problems.²³⁸ These authors agree that the US’s self-judging approach to the Security Exception is extreme and in opposition to the plain text of the Security Exception and the drafting history of the WTO. Critically, this is the consensus of the dispute settlement panels to date who have ruled on the issue. Thus, the question is not whether the US position is legally tenable—instead, the question is how to proceed in this new reality of the WTO system, where the Security Exception threatens to upend the entire system.

²³⁶ Kelly Ng, “China tells US it will ‘never compromise’ on Taiwan,” BBC (23 January 2024) <https://www.bbc.com/news/world-asia-china-67931596> accessed 7 November 2024

²³⁷ Simon Lester, Huan Zhu, “A Proposal for ‘Rebalancing’ to Deal with ‘National Security’ Trade Restrictions,” *Fordham International Law Journal* Vol. 42 1451, 1455; *see also* Maruyama *supra* at 1; *see also* Stephen Kho, Yujin McNamara, Sarah Kirwin, Brooke Davies, “The Conundrum of the Essential Security Exception: Can the WTO Resolve the GATT Article XXI Crisis and Save the Dispute Settlement Mechanism?,” Geneva Graduate Institute, Centre for Trade and Economic Integration, Working Paper (2023) <https://www.graduateinstitute.ch/library/publications-institute/conundrum-essential-security-exception-can-wto-resolve-gatt-article> accessed 11 November 2024; *see also e.g.* “Testing the limits of WTO security exceptions,” East Asia Forum (14 June 2023) <https://eastasiaforum.org/2023/06/14/testing-the-limits-of-security-exceptions/> accessed 11 November 2024

²³⁸ Kho et al. *supra* at 3

Possible Solutions to the Security Exception Challenge: The Non-Violation Approach

To Maruyama and Wolf, the current stalemate regarding the Security Exception can be solved by two different approaches. They stress a balance—implicitly recognized also by panels hearing these Security Exception cases—between overuse of the exception and member states’ protection of their essential security interests.

To them a “sweeping way to avoid the problem” would be to allow WTO members to opt out of dispute settlement when the case involves the invocation of the Security Exception.²³⁹ To balance this opting out, the member invoking the exception would likewise be prevented from challenging another parties’ invocation of the Security Exception.²⁴⁰ In other words, once a member state opened the door by invoking the Exception, it could no longer challenge another state’s use of the Exception.

But even the authors admit the weaknesses of this approach. It would effectively eliminate resort to the dispute settlement panel and would eliminate the “balance of concessions” that is the cornerstone of the WTO system.²⁴¹ They instead support a second solution through the “nonviolation nullification and impairment” doctrine.²⁴²

Under this “NVNI” approach, the invocation of the Security Exception would remain a non-justiciable claim, in line with the Russian and US approach to the clause. However, the Exception would no longer be a “get out of jail free” card for the invoking party. Instead, the party on the receiving end of the Security Exception would be free to retaliate by suspending “substantially equivalent concessions” in trade with the other party. While the authors posit that this approach would remove the dispute settlement panel from the equation, they nevertheless suggest that a panel be convened to review only one issue—namely, whether the whether the action “impairs a tariff concession or otherwise has a negative impact on imports or exports of others.”²⁴³ The panel would then rule on the amount of the damages, opening the door for the parties to agree on a measure of compensation in response to the measures. Finally, the authors claim such a setup could

²³⁹ Maruyama, *supra* at 18

²⁴⁰ *Id*

²⁴¹ *Id*

²⁴² *Id* at 19

²⁴³ *Id*

be reached on a de facto basis by member states, with a memorialization done through the vehicle of a National Security Multi-Party Interim Agreement.

This NVNI approach is rejected by Kho *et al.* as an untenable solution, based on the legal text of the DSU, which does not provide for such creativity.²⁴⁴ First, they argue that compensation under Article 22 of the DSU is a valid solution only when the violating party has failed to bring itself into compliance with a ruling. But here, compensation would be used to address a violation of the WTO, which should be the natural domain on the dispute settlement process.

Second, they argue that the compensation provision under Article 26 of the DSU is tailored to provide compensation when a party has *not* violated a WTO provision, and thus, Article 26 would be inappropriate to rely on when a party *has* violated a WTO provision but attempted to cleanse it by invoking the National Security Exception.²⁴⁵ Finally, they argue resort to Article 28 is equally insufficient, because it provides only a “narrow basis for a WTO member to modify its existing obligations.”²⁴⁶

However, countervailing arguments exist, namely, that the drafting history supports the use of the non-violation remedy to cover invocations of the Security Exception.²⁴⁷ Alford cites the negotiations of the drafting committee:

Such other Members could, [when the Security Exception is invoked] have the right to bring the matter before the Organization, *not on the ground that the measure taken was inconsistent with the Charter*, but on the ground that the measure so taken effectively nullified benefits accruing to the complaining Member.²⁴⁸

Thus there exists a critical distinction in the NVNI approach is to be used: even if the Security Exception is self-judging and panels cannot rule when it is invoked, panels can nevertheless find

²⁴⁴ Kho *et al.* *supra* at 38

²⁴⁵ Kho *et al.* *supra* at 38

²⁴⁶ *Id.* at 39

²⁴⁷ Alford, *supra* at 747

²⁴⁸ Alford, *supra* citing *Conference on Trade and Development*, Jan. 9, 1948, *Report of Working Party of Sub-Committee G of Committee VI on Chapter VIII*, at 2, E/Conf.2/C.6/W.30

that a benefit has been nullified or impaired because of the (non-justiciable) invocation of the Security Exception.²⁴⁹

Encouragingly, the US has recently shown its support in January 2023 for the NVNI approach in the context of its steel tariffs which were challenged before the dispute settlement body. There, the US Trade Representative Tai stated:

From the beginning of the trading system, it has been the U.S. view that the appropriate remedy where a Member is impacted by another Member's essential security measures is to seek a non-violation / nullification or impairment claim. The reality is we designed a WTO where rebalancing could take place without interfering with a Member's sovereign responsibilities in the area of national security.²⁵⁰

Thus, there exists hope that the member states could extract themselves from the deadlock caused by the US dedication to the self-judging interpretation of the Security Exception. The WTO could shift its focus in Security Exception cases to non-violation claims, away from the status quo of considering the invocation of the Security Exception under the violations doctrine. It appears that the US may be seeking an “authoritative interpretation” of the Security Exception, but this has not yet occurred.²⁵¹

Legal technicalities notwithstanding, the question is whether member states will support this shift, especially in the face of continued US intransigence on the next critical problem—the appointment of members to the appellate body.

²⁴⁹ See also Robert W. Staiger, “Will the National Security Exception Undermine the World Trading System?,” Institute for European Policymaking at Bocconi University, <https://iep.unibocconi.eu/publications/will-national-security-exception-undermine-world-trading-system> accessed 11 November 2024

²⁵⁰ Office of the United States Trade Representative, “Statements by the United States at the Meeting of the WTO Dispute Settlement Body,” (27 January 2023) <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2023/january/statements-united-states-meeting-wto-dispute-settlement-body> accessed 11 November 2024

²⁵¹ See e.g. Simon Lester, “National Security Disputes, Non-Violation Nullification or Impairment, and Authoritative Interpretations,” International Economic Law and Policy Blog (27 January 2023) <https://ielp.worldtradelaw.net/2023/01/national-security-disputes-non-violation-nullification-or-impairment-authoritative-interpretations.html> accessed 11 November 2024

The Appellate Body Problem

The US refusal to confirm members to appointment of the Appellate Body is practically inextricable from the above Security Exception problem. The US refuses to budge on the Appellate Body, unless and until it feels free of what it considers the unreasonable panel approach to the Security Exception. What is the path forward to prevent the current state of “appeals into the void?”

The US position is heavy on demands and light on details, but one scholar has summarized the US position for reform as consisting of three categories. These are: 1) limiting the scope of appellate review 2) providing more deference on trade remedies, and 3) giving more power to WTO Members to object to the reasoning in dispute settlement reports.²⁵²

The first reform, limiting the scope of appellate review, stems from the US position that the Appellate Body has been "overreaching," "gap-filling," and issuing "advisory opinions," or more simply, doing too much.²⁵³ To limit its function, the author proposes a culture shift in the Appellate Body, resulting in less second-guessing and rehashing of DSB decisions. Further, the scope of appellate decisions could be shortened by sticking to the 90-day limit for appellate body decisions, giving the appellate body less time to make law in lengthy decisions. More concretely, to mitigate against the implicit precedential effect of Appellate Body decisions, DSU Article 3.2 could be amended to state “Clarifications provided by panels and the Appellate Body can have persuasive value, but are of less authority than the interpretations adopted under Article IX:2 of the WTO Agreement.”²⁵⁴

The second reform, providing more deference on trade remedies, would target US complaints that it has been unable to use anti-dumping and countervailing duties in trade relationships. To enable the US to more freely use these remedies provided for in the WTO, the author would improve the language in the anti-dumping provision to provide more deference to the interpretations made by domestic agencies. This would result in greater flexibility for US and member state domestic

²⁵² Simon Lester, “WTO Dispute Settlement Misunderstandings: How to Bridge the Gap Between the United States and the Rest of the World,” International Economic Law and Policy Blog (19 April 2020) <https://ielp.worldtradelaw.net/2020/04/wto-dispute-settlement-misunderstandings-how-to-bridge-the-gap-between-the-united-states-and-the-res.html> accessed 11 November 2024

²⁵³ *Id*

²⁵⁴ *Id*

agencies to introduce anti-dumping provisions when necessary to protect domestic markets, and could be done by amending the existing language.

Finally, the third reform would address the dispute settlement process and the role of member states to oversee it and shape it.²⁵⁵ More specifically, it would enable member states to target those portions of an Appellate Body decision they disagreed with, triggering a process of discussion for an Article IX:2 interpretation. Notably, this process would not affect the enforceability of the Body's decision in a particular case. Instead, this reform would enable member states to trigger a legislative process for reform, if they were unhappy with a particular decision of an Appellate Body.

Conclusion

The semiconductor value chain is probably the most consequential modern value chain in terms of global geopolitical, economic, and military interests.

Semiconductors are products representative of the global trade system designed by the WTO—the value chain begins in wealthy, industrialized Western nations like the US and the Netherlands, where engineers rely on decades of institutional knowledge in research and design to develop ever-smaller and more efficient chip designs. To boost this critical phase of production, Western governments provide generous support through tax incentives, including through the US Chips Act and the European Chips Act.

After the US and EU-dominated design stage, the value chain moves to the middle segment dominated by Taiwan, where microchips are designed, manufactured, and packaged for shipment. Given the lesser relative technical expertise required for this stage, the middle segment was the first to see outsourcing to Asian countries. This outsourcing resulted in chip foundries in Taiwan having a commanding 54% share of the global foundry market.²⁵⁶

²⁵⁵ *Id*

²⁵⁶ Organisation for Economic Co-operation and Development, “Measuring distortions in international markets: The semiconductor value chain,” OECD Trade Policy Papers, No. 234, p. 11 (2019) <http://dx.doi.org/10.1787/8fe4491d-en>, accessed 11 November 2024

From there, the completed chips must be installed into finished electronics, and this stage is dominated by yet another player—China, with an estimated 75% of the world’s semiconductors being installed in China.²⁵⁷

Given the global reach of the semiconductor value chain, it seems that the WTO’s trade rules have been a smashing success for the semiconductor market. Through liberalized trade, the phases of semiconductor production have flowed to the places where production is most efficient (or, more bluntly, cheaper).

But after the rush of outsourcing that led to the current state of the market, the Chinese government was the first to recognize something wrong with the arrangement. Its “Made in China 2025” initiative signaled that China was no longer happy with being the factory of the world—instead, China wanted to jump into the upstream and middle phases of the semiconductor value chain. China implemented large-scale industrial policies or subsidies to tackle the challenge and modernize its semiconductor industry, hoping to no longer be reliant on Western R&D for its computerization.

This aim to disrupt the status quo was taken by the US as a direct challenge to its supremacy in the chip design stage and a threat to its national security. But this result was not altogether unexpected—as early as 2003, US Senator Joseph Lieberman wrote that “relying on integrated circuits fabricated outside the U.S. (e.g. in China, Taiwan and Singapore) is not an acceptable national security option.”²⁵⁸ That premonition was exactly the justification the US BIS used when rolling out new, strict export controls on China designed to starve its semiconductor industry of the most advanced semiconductor technology.

These new export controls were paired with the US’s own industrial policy on semiconductors as written in the CHIPS Act. The US took a two-pronged approach to the Chinese development of semiconductors: the first prong was punishing export controls on the sharing of advanced technology with China. The second prong was a raft of domestic subsidies designed to accelerate the development of next-generation chips in the US.

²⁵⁷ Dieter Ernst, “From Catching Up to Forging Ahead: China’s Policies for Semiconductors.” East West Center Special Study, Centre for International Governance Innovation (2016) accessed 13 November 2024

²⁵⁸ Andrew Batson, “Opposition emerges over China’s policies for semiconductors,” Asian Wall Street Journal (6 June 2003)

In contrast, the EU took half of the US approach—it subsidized its domestic chipmaking industry, but declined to threaten China with export controls, likely due to the intense economic pressure that the Chinese could put on the Europeans economically.

It seems that the US—as a chief architect of the WTO structure and a longtime advocate of liberalized international trade—recognized that the benefits of liberal trade have drawbacks when it comes to critical materials. The end of globalization is not happening, but a contraction of this interconnectedness is undoubtedly the mood of the post-pandemic world. Notably, the US has not taken an isolationist approach to the semiconductor market. It is not attempting to develop fully vertically-integrated semiconductor value chains in the US, but rather, the approach seems to be that the US is willing to share technology only with those partners that are not aligned with the world order envisioned by China, with Russia in its orbit.

The European approach is similar but without the focus on export controls. The European Chips Act focuses on strengthening domestic EU semiconductor production through investments and policies designed to spur investment on the European continent, with a similar concern about “building semiconductor international partnerships with like-minded countries.”²⁵⁹ Given the EU’s focus on domestic support rather than a clamping down on foreign technology sharing, the EU’s actions have not been challenged by China.

In response to this two-pronged American approach, the Chinese turned to the WTO dispute settlement process. The Chinese challenged only the export control regime of the US, ignoring the CHIPS Act and its subsidies for domestic production. China’s argument in the litigation is that the US export controls go beyond the existing international non-proliferation regime, and into the realm of trade controls. The subtext to the Chinese approach is that these international weapons conventions are *prima facie* violative of the WTO’s rules, but the new export controls here go above and beyond the existing regime.

And the Chinese appear to be correct in their assertions that the measures violate the WTO. The cornerstone provision of the WTO, the Most Favored Nation rule, holds that any benefit in trade must be equally afforded to all other member states. But the US has established a regime whereby

²⁵⁹ European Commission, “European Chips Act,” https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-chips-act_en accessed 13 November 2024

it permits the most advanced semiconductor technology to be shared only with its allies, and only China is prevented from accessing this technology.

The US response essentially admits in its silence on the subject that its export controls violate the WTO's rules. Instead, the US attempts to wield the Security Exception as a complete defense to violations of the WTO. The US argues that its security interests are deeply affected by Chinese involvement in the semiconductor industry, and that as a result, the US must take the export control measures to protect its national security interests.

This invocation of the Security Exception is now testing the limits of WTO jurisprudence. The first panel in the modern era to consider the Security Exception was the *Russia Trade in Transit* panel. There, the panel developed a 4-step test to determine if the Security Exception could be properly invoked as a defense.

The *Russia Trade in Transit* case is notable for two reasons. First, it was the first panel opinion to adopt an analytical framework to the Security Exception. Under that approach, which most panels subsequent have more or less adopted, the threshold question is whether a state of “war or other emergency” exists. This threshold question will likely be the determining factor in subsequent cases involving the Exception.

Second, the panel in *Russia* purposefully declined to take either party's side in the underlying territorial dispute, despite the fact that Russia quite clearly annexed the land of a sovereign country by force. After Russia's 2014 invasion of Crimea, Ukraine refused to enter into a Russian-backed trade agreement. In response, the Russians imposed restrictions on the transit of goods through its territory. Russia invoked the Security Exception, and to support its claim, it referred to the “state of war” created by Russia itself in annexing Crimea.

In other words, Russia annexed a sovereign nation's territory by force, and then relied on the state of war that it created to justify its use of trade restrictions on its trade enemy. The WTO panel effectively condoned this behavior, by permitting Russia's use of the Security Exception as a defense to Ukraine's WTO challenge.

This refusal to let the underlying facts color the dispute may be a necessity for WTO panels, a sort of defense mechanism to prevent the WTO system from being drug into the number of thorny territorial disputes bubbling up around the world. As Russia argued before its panel, the WTO was

not designed to settle political disputes, and the WTO panel approach thus far seems to endorse that position no matter the outcome.

In summary, the future of the WTO system will depend on the resolution of the Security Exception question, together with a resolution to the US blockage of the Appellate Body.

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Annex

Abstract (English)

Since its inception in 1995, the World Trade Organization (“WTO”) has facilitated increased trade throughout the world’s economies during a period of increasing globalization. Along with its facilitation role, the WTO has also worked to settle disputes between member states through its Dispute Settlement Body process. Through its reciprocal rules and its dispute settlement mechanism, the WTO has given a measure of order and consistency to trade relationships never before seen.

166 sovereign states have acceded to the WTO, an achievement partly attributable to critical carve outs in the WTO that disclaim authority over non-trade issues. The most critical of these today is the Security Exception. This exception prohibits the WTO from interfering with a state’s right to take any action “which it considers necessary for the protection of its essential security interests.”

On its face, the Security Exception is the ultimate loophole to the WTO’s rules. But the Exception was dormant until recently, when Russia and the United States separately invoked the Exception

to claim that their actions were not subject to review by a WTO panel because the Exception is “self-judging” and immune to judicial review.

Now, the United States has advanced this position as part of the escalating trade war between it and China, focused on advanced semiconductor technologies. To combat China’s advancing computing industry, the US took a two-prong approach: first, it created its own domestic semiconductor subsidy policy in the CHIPS Act, and second, it issued broad export controls with respect to China. China responded with a WTO challenge, which the US claims is “non-justiciable” because its national security is at stake.

This paper will discuss the background behind the US and China’s escalating trade war, and discuss the semiconductor global value chain and how China’s ambitions to expand their role therein led to the current trade war. It will then examine the US’s two-pronged approach to combat China in the semiconductor field, with a focus on US export controls and the CHIPS Act. Finally, it will examine China’s WTO challenge to the new US export controls, analyze the WTO’s Security Exception jurisprudence, and discuss the future of the WTO in the Security Exception era.

Abstract (Deutsch)

Seit ihrer Gründung im Jahr 1995 hat die Welthandelsorganisation („WTO“) in einer Zeit zunehmender Globalisierung den Handel in den Volkswirtschaften der Welt gefördert. Neben ihrer Vermittlerrolle hat die WTO auch daran gearbeitet, Streitigkeiten zwischen den Mitgliedsstaaten im Rahmen ihres Streitschlichtungsgremiums beizulegen. Durch ihre gegenseitigen Regeln und ihren Streitschlichtungsmechanismus hat die WTO den Handelsbeziehungen ein noch nie dagewesenes Maß an Ordnung und Konsistenz verliehen.

166 souveräne Staaten sind der WTO beigetreten, ein Erfolg, der teilweise auf wichtige Ausnahmen in der WTO zurückzuführen ist, die die Autorität in nicht handelsbezogenen Fragen ablehnen. Die wichtigste davon ist heute die Sicherheitsausnahme. Diese Ausnahme verbietet es der WTO, in das Recht eines Staates einzugreifen, Maßnahmen zu ergreifen, „die dieser zum Schutz seiner wesentlichen Sicherheitsinteressen für notwendig erachtet“.

Auf den ersten Blick ist die Sicherheitsausnahme die ultimative Lücke in den WTO-Regeln. Doch die Ausnahmeregelung war bis vor Kurzem inaktiv, als sich Russland und die USA unabhängig voneinander auf sie beriefen, um zu behaupten, dass ihre Handlungen nicht der Überprüfung durch ein WTO-Gremium unterliegen, da die Ausnahmeregelung „selbstbeurteilend“ und nicht juristisch überprüfbar sei.

Nun haben die USA diese Position im Rahmen des eskalierenden Handelskriegs zwischen ihnen und China, der sich auf fortschrittliche Halbleitertechnologien konzentriert, vertreten. Um Chinas aufstrebende Computerindustrie zu bekämpfen, verfolgten die USA einen zweigleisigen Ansatz: Erstens schufen sie mit dem CHIPS Act ihre eigene inländische Halbleitersubventionspolitik und zweitens erließen sie umfassende Exportkontrollen gegenüber China. China reagierte mit einer Klage bei der WTO, die nach Ansicht der USA „nicht justiziabel“ sei, da ihre nationale Sicherheit auf dem Spiel stehe.

In diesem Dokument werden die Hintergründe des eskalierenden Handelskriegs zwischen den USA und China erörtert und die globale Wertschöpfungskette für Halbleiter erörtert sowie die Frage, wie Chinas Ambitionen, seine Rolle darin auszubauen, zum aktuellen Handelskrieg geführt haben. Anschließend wird der zweigleisige Ansatz der USA im Kampf gegen China im Halbleitersektor untersucht, wobei der Schwerpunkt auf den US-Exportkontrollen und dem CHIPS

Act liegt. Abschließend wird Chinas WTO-Klage gegen die neuen US-Exportkontrollen untersucht, die Rechtsprechung der WTO zur Sicherheitsausnahme analysiert und die Zukunft der WTO im Zeitalter der Sicherheitsausnahme diskutiert.