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Intellectual Property Violations and China: Legal Remedies

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Intellectual Property Violations and China: Legal Remedies

Concerns that the government of the People’s Republic of China (China) fails to protect and enforce intellectual property (IP) rights, and thus harms U.S. IP rights holders, have been one of the key issues in U.S.-China relations for decades. These concerns extend both to actions of China’s government itself and state-affiliated entities, as well as to actions of Chinese persons and entities not affiliated with the Chinese government. The primary issues raised by the U.S. government and U.S. businesses have evolved over time, from an earlier focus on the adequacy of Chinese domestic IP protection and enforcement (e.g., to counter piracy and counterfeiting), to more recent concerns about cyber intrusions and strategic acquisitions.

During the Trump Administration, the U.S. Trade Representative (USTR) investigated China’s actions with respect to IP and concluded that a number of Chinese policies and practices violated Section 301 of the Trade Act of 1974. In response, the United States initiated a World Trade Organization (WTO) dispute against China and imposed tariffs on billions of dollars of Chinese imports. China responded by imposing tariffs on U.S. goods and challenging the U.S. tariffs at the WTO. In January 2020, the United States and China reached a deal known as the “Phase One Agreement” that addressed some of the trade and IP issues between the parties. However, major issues—such as coerced technology transfer—were not resolved by the Phase One Agreement. Although the parties anticipated further negotiations, the onset of the Coronavirus Disease 2019 (COVID-19) pandemic has increased tensions between the nations and stalled progress toward a Phase Two Agreement.

Violations of IP rights by Chinese persons and entities are not a monolithic phenomenon, and general terms like “IP theft” often obscure important distinctions that affect the legal options available to address IP violations. One such distinction is the type of IP at issue. Different varieties of IP—such as patents, copyrights, trademarks, or trade secrets—protect different types of intellectual creation, involve different procedures for obtaining rights, and grant the IP owner distinct rights that vary in scope and duration. A second important distinction is the type of IP violation at issue—that is, the particular policy, practice, or action that is alleged to undermine U.S. IP rights. Possible violations include a failure to provide adequate legal protection for IP, a failure to enforce existing IP laws, trade secret misappropriation (including via cyber intrusion), discriminatory IP licensing laws, coerced technology transfer as a condition of regulatory approval or market access, or bad-faith assertion of IP rights. The legal remedies available will depend on the type of violation, the type of IP, and where the violation occurred.

Existing U.S. legal remedies for IP violations can be grouped into two broad categories. First, there are remedies for *systemic violations*, which are usually initiated by the executive branch to address widespread trade or IP violations by foreign actors. The executive branch possesses a number of constitutional and statutory authorities to protect IP rights. These include enforcement provisions in international agreements and authority to negotiate such agreements. U.S. law also contains several statutory provisions that allow the executive branch to investigate IP violations that affect international trade and then impose different types of remedies, including import and export controls, suspension of trade benefits, imposition of tariffs, and regulation or prohibition of certain transactions.

Second, there are legal remedies for *individual violations*—that is, discrete IP violations by a particular person or entity. Several legal doctrines limit domestic legal remedies for violations involving foreign actors or activity, however. First, under the presumption against extraterritoriality, U.S. law generally does not reach activity that occurred outside of the United States unless a statute clearly indicates otherwise. Second, under the requirement of personal jurisdiction, U.S. courts may only adjudicate disputes involving a defendant who has a sufficient connection with the forum or who has submitted to the court’s power in some way. Presuming that U.S. law applies and any jurisdictional barriers can be overcome, possible remedies for individual violations include civil actions for infringement; import controls by the International Trade Commission and U.S. Customs and Border Protection agency; and criminal prosecutions for economic espionage, computer hacking, and, in some circumstances, IP infringement.

Moving forward, Congress may consider whether these existing legal options are sufficient to deter or remedy continued practices or future IP violations by Chinese entities.

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Intellectual property (IP) plays a critical role in the global economy by encouraging innovation, creativity, and the development of new and useful technologies, as well as facilitating international trade and investment.¹ IP laws generally aim to encourage individuals and businesses to invest time, effort, and money into developing new technologies and creative works by providing legal protections for different forms of intellectual creation.² As the U.S. economy has become increasingly knowledge-based and reliant on creativity and technological innovation as sources of competitive advantage, IP-intensive industries have become a significant and critical part of the U.S. economy.³

Concerns that the government of the People’s Republic of China (China) fails to protect and enforce IP rights, and thus harms U.S. IP rights holders, have been key issues in U.S.-China relations for decades.⁴ These concerns extend both to actions of China’s government itself and state-affiliated entities, as well as to actions of Chinese persons and entities unaffiliated with the Chinese government.

The primary concerns raised by the U.S. government and American businesses have evolved over time. In the 1990s, before China’s 2001 accession to the World Trade Organization (WTO), China’s failure to provide basic levels of legal protection for some forms of IP was a central concern.⁵ During China’s WTO accession process, its use of regulatory structures to coerce technology transfers from U.S. businesses to Chinese entities as a condition of doing business in China was another concern.⁶ In the early 2000s, China’s failure to adequately enforce its IP laws received significant attention, leading to a 2007 WTO dispute between the United States and China.⁷ Unauthorized cyber intrusions and trade secret misappropriation were—and remain—an area of concern.⁸

In recent years, the United States has increasingly focused on coercive technology transfers, strategic acquisitions, and cyber intrusions. On August 18, 2017, the U.S. Trade Representative (USTR) initiated an investigation under Section 301 of the Trade Act of 1974 (Section 301) into “whether acts, policies, and practices of the Government of China related to technology transfer,

¹ See generally DANIEL C.K. CHOW & EDWARD LEE, *INTERNATIONAL INTELLECTUAL PROPERTY* 1–17 (3d ed. 2018).

² See, e.g., *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480 (1974) (“The patent laws promote [technological progress] by offering a right of exclusion for a limited period as an incentive to inventors to risk the often enormous costs in terms of time, research, and development.”); *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (“The immediate effect of our copyright law is to secure a fair return for an ‘author’s’ creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good.”).

³ See generally U.S. PATENT & TRADEMARK OFF., *INTELLECTUAL PROPERTY AND THE U.S. ECONOMY: 2016 UPDATE* (2016), <https://www.uspto.gov/sites/default/files/documents/IPandtheUSEconomySept2016.pdf>; CRS Report RL34292, *Intellectual Property Rights and International Trade*, by Shayerah Ilias Akhtar, Ian F. Fergusson, and Liana Wong, at 6–9.

⁴ See CRS Report RL33536, *China-U.S. Trade Issues*, at 39–54 [hereinafter *CRS China-U.S. Trade Report*]. Enhancing IP protection and enforcement internationally is a long-standing and significant component of U.S. international trade policy as a general matter. See generally Ilias Akhtar et al., *supra* note 3.

⁵ See Donald P. Harris, *The Honeymoon is Over: The U.S.-China WTO Intellectual Property Complaint*, 32 *FORDHAM INT’L L.J.* 96, 106–08 (2008) (reviewing pre-WTO history of U.S.-China IP disputes).

⁶ See World Trade Organization, Report of the Working Party on the Accession of China, ¶¶ 48–49, WTO Doc. WT/MIN(01)/3 (Nov. 10, 2001).

⁷ See Requests for Consultations by the United States, *China—Measures Affecting the Protection and Enforcement of Intellectual Property Rights*, WTO Doc. WT/DS362/1 (Apr. 16, 2007).

⁸ See OFF. OF THE U.S. TRADE REPRESENTATIVE, *FINDINGS OF THE INVESTIGATION INTO CHINA’S ACTS, POLICIES, AND PRACTICE RELATED TO TECHNOLOGY TRANSFER, INTELLECTUAL PROPERTY, AND INNOVATION UNDER SECTION 301 OF THE TRADE ACT OF 1974* (2018), at 151–54, <https://ustr.gov/sites/default/files/Section%20301%20FINAL.PDF> [hereinafter *SECTION 301 INVESTIGATION REPORT*].

intellectual property, and innovation” were unreasonable or discriminatory, and burdened or restricted U.S. commerce.⁹

On March 22, 2018, the USTR concluded its investigation, finding that four Chinese policies and practices violated Section 301: (1) use of foreign ownership restrictions and administrative licensing requirements to pressure technology transfer from U.S. companies to Chinese entities; (2) IP licensing restrictions that discriminate against foreign entities; (3) systematic investment in or acquisition of U.S. companies to acquire targeted technologies; and (4) unauthorized cyber intrusions into U.S. networks to obtain IP and other confidential business information.¹⁰

In light of the USTR’s conclusions, the President issued a memorandum directing the USTR to consider three responses: (1) increased tariffs on goods imported into the United States from China; (2) initiation of a WTO dispute settlement process with respect to China’s discriminatory licensing practices; and (3) executive branch actions to address concerns about Chinese inbound investment and acquisition.¹¹ On March 26, 2018, the United States initiated a WTO dispute alleging that China’s discriminatory licensing practices violate its WTO commitments.¹² Beginning in July 2018 and continuing through 2019, the United States imposed tariff increases on Chinese products worth over \$200 billion in several stages.¹³ China responded by issuing retaliatory tariffs on U.S. goods worth over \$100 billion and filing a WTO dispute challenging the United States’ actions.¹⁴

⁹ Initiation of Section 301 Investigation, Hearing, and Request for Public Comments: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 82 Fed. Reg. 40,213 (Aug. 24, 2017). The investigation followed an August 14, 2017, memorandum from the President directing the USTR to determine whether to investigate these practices. *Id.* at 40,213.

¹⁰ SECTION 301 INVESTIGATION REPORT, *supra* note 8. For a summary of the USTR’s conclusions, see CRS Legal Sidebar LSB10109, *Tricks of the Trade: Section 301 Investigation of Chinese Intellectual Property Practices Concludes (Part II)*, by Brandon J. Murrill.

¹¹ Presidential Memorandum on the Actions by the United States Related to the Section 301 Investigation of China’s Laws, Policies, Practices, or Actions Related to Technology Transfer, Intellectual Property, and Innovation, 2019 DAILY COMP. PRES. DOC. 1 (Mar. 22, 2018), <https://www.whitehouse.gov/presidential-actions/presidential-memorandum-actions-united-states-related-section-301-investigation/>.

¹² See Request for Consultations by the United States, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/1 (Mar. 26, 2018); see *infra* notes 231–237 and accompanying text (summarizing the dispute and its current status).

To address concerns about inbound foreign investment, Congress passed the Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA), which the President signed into law on August 13, 2018. See Pub L. No. 11-232, tit. XVII, subtit. A, 132 Stat. 1636, 2174–2207 (2018). FIRRMA is intended to modernize the processes and authority of the Committee on Foreign Investment in the United States (CFIUS) to review the national security effects of certain transactions. *Id.* at 2175–76; Statement on Congressional Action on Legislation to Reduce the National Security Risks Posed by Certain Types of Foreign Investment, 2018 DAILY COMP. PRES. DOC. 1 (June 27, 2018), <https://www.whitehouse.gov/briefings-statements/statement-president-regarding-investment-restrictions/> (urging Congress to pass FIRRMA to address the foreign investment concerns raised in the Section 301 investigation).

¹³ See CRS In Focus IF10708, *Enforcing U.S. Trade Laws: Section 301 and China* [hereinafter *CRS Section 301 and China*]; CRS Report R45529, *Trump Administration Tariff Actions (Sections 201, 232, and 301): Frequently Asked Questions*, coordinated by Brock R. Williams, at 3.

¹⁴ See Williams et al., *supra* note 13, at 7; see also CRS Insight IN10971, *Escalating U.S. Tariffs: Affected Trade*, coordinated by Brock R. Williams; *CRS Section 301 and China*, *supra* note 13; CRS In Focus IF10708, *Enforcing U.S. Trade Laws: Section 301 and China*; CRS In Focus IF11085, *China’s Retaliatory Tariffs on U.S. Agricultural Products*; Request for Consultations by China, *United States—Tariff Measures on Certain Goods from China*, WTO Doc. WT/DS543/1 (Apr. 5, 2018). On September 15, 2020, a WTO panel issued a report finding that the United States violated several WTO obligations by imposing the Section 301 tariffs. Panel Report, *United States—Tariff Measures on Certain Goods from China*, WTO Doc. WT/DS543/R (Sept. 15, 2020).

On January 15, 2020, the United States and China signed a trade deal known as the “Phase One Agreement” intended to address issues relating to the Section 301 investigation and other trade concerns.¹⁵ The Phase One Agreement touches on several areas in China-U.S. trade relations, including agriculture, financial services, macroeconomic policy, currency exchange rates, and trade purchases.¹⁶ With respect to IP, China makes several commitments in the Phase One Agreement, agreeing to

- increase enforcement against trade secret misappropriation by expanding the scope of persons who may be sued for trade secret theft, providing broader preliminary and criminal penalties, and addressing unauthorized disclosures of trade secrets by Chinese regulatory authorities;¹⁷
- strengthen patent protections for pharmaceuticals by creating a mechanism for the early resolution of pharmaceutical patent disputes, and providing for patent term extensions and adjustments based on regulatory delays in the grant of patents or marketing approval for pharmaceutical products;¹⁸
- improve procedures to counter copyright infringement online and counterfeiting on major e-commerce platforms;¹⁹
- take effective enforcement actions against counterfeit medicines and other counterfeit goods with health and safety risks;²⁰ and
- provide for procedures to improve border enforcement actions against counterfeit goods, such as requirements that customs and judicial authorities generally destroy such goods.²¹

The Phase One Agreement did not resolve technology transfer issues—one of the central focuses of the Section 301 investigation—leaving the matter for future negotiations.²² The Phase One Agreement does contain general commitments by the parties not to “require or pressure” technology transfer, but it avoids details on implementing that commitment.²³

¹⁵ OFF. OF THE U.S. TRADE REPRESENTATIVE & U.S. DEP’T OF THE TREASURY, ECONOMIC TRADE AGREEMENT BETWEEN THE UNITED STATES OF AMERICA AND THE PEOPLE’S REPUBLIC OF CHINA: PHASE ONE, Jan. 15, 2020, https://ustr.gov/sites/default/files/files/agreements/phase%20one%20agreement/Economic_And_Trade_Agreement_Between_The_United_States_And_China_Text.pdf [hereinafter Phase One Agreement]. For a summary of the Phase One Agreement, see CRS Insight IN11208, *U.S. Signs Phase One Trade Deal with China*, by Karen M. Sutter. For an analysis of the legal basis for the President to enter into this agreement without congressional involvement, see CRS Legal Sidebar LSB10403, *The Legal Basis for the U.S.-China “Phase One” Agreement and Implications for Implementation*, by Nina M. Hart.

¹⁶ See Phase One Agreement, *supra* note 15, chs. 3–6.

¹⁷ *Id.* arts. 1.2–1.9.

¹⁸ *Id.* arts. 1.10–1.23.

¹⁹ *Id.* arts. 1.13–1.14.

²⁰ *Id.* arts. 1.18–1.19.

²¹ *Id.* arts. 1.20–1.22.

²² See David J. Lynch, *Trump Signs off on Deal to Ease China Trade War*, WASH. POST (Dec. 12, 2019), <https://www.washingtonpost.com/business/2019/12/12/trump-says-trade-deal-with-china-is-very-close-just-days-ahead-tariff-deadline/> (“[The] so-called ‘phase one’ agreement would leave the thorniest issues in the U.S.-China trade dispute to future negotiations[, including China’s] practice of forcing foreign companies to surrender technology secrets in return for access to the Chinese market . . .”).

²³ Phase One Agreement, *supra* note 15, arts. 2.1–2.4.

Observers have noted that many of the Phase One Agreement's IP provisions reflect changes or commitments that China had made before,²⁴ or are phrased at high levels of generality without specific timelines for implementation.²⁵ After the Phase One Agreement was reached, however, the United States and China agreed to attempt to deescalate their trade conflict. In February 2020, both sides agreed to delay imposition of the next round of proposed tariff increases: the United States agreed to reduce some tariffs it imposed in 2019, and China agreed to suspend some of its retaliatory tariffs.²⁶

Since the onset of the Coronavirus Disease 2019 (COVID-19) pandemic, a number of events and issues have increased tensions between the nations. This has led to a delay of the planned six-month review of the Phase One Agreement²⁷ as well as an apparent halt to further negotiations of a Phase Two Agreement.²⁸ Observers are uncertain whether the Phase One Agreement will prove lasting and whether a further agreement will emerge.²⁹ In the meantime, the United States continues to raise concerns about IP theft by Chinese entities, including recent criminal allegations of Chinese state-sponsored hacking of COVID-19 vaccine research.³⁰

This report seeks to place these developments into a broader legal context by reviewing the various legal options available to address IP violations by Chinese entities. First, it describes various forms that "IP theft" by Chinese entities may take, depending on the form of IP at issue (e.g., patents, copyrights, trademarks, or trade secrets) and the nature of the violation. These

²⁴ See Sutter, *supra* note 15 ("China's commitments on counterfeiting, patent and trademark, and pharmaceutical protections reflect domestic actions China already took and similar language from earlier commitments, according to former U.S. government negotiators.").

²⁵ See, e.g., Phase One Agreement, *supra* note 15, art. 1.34 ("Each party shall determine the appropriate method of implementing the provisions of this Agreement within its own system and practice."); Sutter, *supra* note 15 ("[The] IP commitments appear to be more open-ended and are not linked to corresponding changes required in existing Chinese laws, regulations, rules, practices and industrial policies."); Ningling Wang et al., *Phase 1 China Trade Deal: Patent Provisions*, FINNEGAN (Jan. 27, 2020), <https://www.finnegan.com/en/insights/blogs/prosecution-first/phase-1-us-china-trade-deal-patent-provisions.html> ("The value of [the Phase One Agreement's patent] provisions will not be known until more details are known in terms of how [they] will be implemented . . ."); Bill Donahue, *US-China Trade Deal Aims to Bolster IP Protection*, LAW360 (Jan. 15, 2020) ("While substantively ambitious, Wednesday's agreement is loose on time frames for Chinese action. The deal requires an 'action plan' within [thirty working days] but lacks any other hard deadlines.").

²⁶ Williams, *Escalating U.S. Tariffs*, *supra* note 14; Sutter, *supra* note 15; David Lawder et al., *What's in the US-China Phase 1 Trade Deal*, REUTERS (Jan. 15, 2020), <https://www.reuters.com/article/us-usa-trade-china-details-factbox/whats-in-the-us-china-phase-1-trade-deal-idUSKBN1ZE2IF>.

²⁷ Jenny Leonard, *U.S., China Postpone Weekend Talks on Trade Deal*, BLOOMBERG (Aug. 14, 2020), <https://www.bloomberg.com/news/articles/2020-08-14/u-s-china-postpone-weekend-talks-on-trade-deal?sref=iK6sClTL>.

²⁸ Grace Segers, *Trump Says He's "Not Interested" in Talking to China About Trade*, CBS NEWS (July 14, 2020), <https://www.cbsnews.com/news/trump-china-trade-deal-phase-2-not-interested-talking/>.

²⁹ *U.S.-China Trade Deal Is 'Fine,' Trump Advisor Kudlow Says*, BLOOMBERG (Aug. 12, 2020), <https://www.bloomberg.com/news/articles/2020-08-12/u-s-china-trade-deal-is-fine-trump-adviser-kudlow-says?sref=iK6sClTL>; Claire Reade, *Commentary: Trade May Still Be the Ballast in U.S.-China Relations—At Least for Now*, CSIS (Aug. 10, 2020), <https://www.csis.org/analysis/trade-may-still-be-ballast-us-china-relations-least-now>; Scott Lincicome, *Trump's China Trade Deal was Designed to Fail*, CATO INST. (June 26, 2020), <https://www.cato.org/publications/commentary/trumps-china-trade-deal-was-designed-fail>; Eamon Barrett, *'Unrealistically High:' Experts Doubt China Can Fulfill Its Targets in 'Phase One' of the U.S. Trade Deal*, FORTUNE (Jan. 16, 2020), <https://fortune.com/2020/01/16/us-china-trade-deal-details-purchases/>.

³⁰ Ellen Nakashima & Devlin Barrett, *U.S. Accuses China of Sponsoring Criminal Hackers Targeting Coronavirus Vaccine Research*, WASH. POST (July 21, 2020), https://www.washingtonpost.com/national-security/us-china-covid-19-vaccine-research/2020/07/21/8b6ca0c0-cb58-11ea-91f1-28aca4d833a0_story.html; see *infra* notes 499–501 and accompanying text.

distinctions are significant because the remedies available to the U.S. government and individual rights holders will depend on the nature and circumstances of the IP violations. Second, the report reviews the scope and requirements of the legal remedies available under U.S. and international laws. These remedies fall into two broad categories: (1) remedies for systemic IP violations, which are initiated by the U.S. executive branch to target widespread IP violations by foreign actors by relying on trade or international law; and (2) remedies for individual IP violations, which seek to redress discrete IP violations by particular entities by relying on domestic civil, administrative, and criminal processes.

Intellectual Property Violations and China

Although news reports and U.S. entities often accuse China of “stealing IP,”³¹ this general usage conflates both different types of IP and different types of IP violations. For example, in several reports,³² the USTR has found that Chinese corporations, individuals, and its government (collectively, Chinese entities), have, among other things,

- used legal and regulatory requirements, such as foreign ownership restrictions and administrative approval processes, to require or pressure technology transfer from U.S. companies seeking to do business in China;³³
- imposed discriminatory technology licensing restrictions that impair U.S. companies’ ability to negotiate fair, market-based terms when they seek to license IP or transfer technology to Chinese companies;³⁴
- conducted and supported unauthorized intrusions into U.S. computer networks to acquire valuable confidential business and technical information,³⁵ as well as misappropriating such confidential information through other means;³⁶
- manufactured, marketed, and exported counterfeit trademarked goods;³⁷ and
- permitted and facilitated online piracy of copyrighted music, television, movies, and other creative works.³⁸

³¹ See, e.g., Erik Sherman, *One in Five U.S. Companies Say China Has Stolen Their Intellectual Property*, FORTUNE, (Mar. 1, 2019), <https://fortune.com/2019/03/01/china-ip-theft/>; Grant Clark, *What Is Intellectual Property, and Does China Steal It?*, WASH. POST (Jan. 21, 2019), https://www.washingtonpost.com/business/what-is-intellectual-property-and-does-china-steal-it/2019/01/21/180c3a9e-1d64-11e9-a759-2b8541bbbe20_story.html; Robert Boxwell, *How China’s Rampant Intellectual Property Theft, Long Overlooked by U.S., Sparked Trade War*, SOUTH CHINA MORNING POST MAG. (Oct. 28, 2018), <https://www.scmp.com/magazines/post-magazine/long-reads/article/2170132/how-chinas-rampant-intellectual-property-theft>.

³² See, e.g., OFF. OF THE U.S. TRADE REPRESENTATIVE, 2019 SPECIAL 301 REPORT (2019), https://ustr.gov/sites/default/files/2019_Special_301_Report.pdf [hereinafter 2019 SPECIAL 301 REPORT]; SECTION 301 INVESTIGATION REPORT, *supra* note 8; OFF. OF THE U.S. TRADE REPRESENTATIVE, 2017 REPORT TO CONGRESS ON CHINA’S WTO COMPLIANCE (2018), <https://ustr.gov/sites/default/files/files/Press/Reports/China%202017%20WTO%20Report.pdf> [hereinafter 2017 CHINA WTO COMPLIANCE REPORT].

³³ SECTION 301 INVESTIGATION REPORT, *supra* note 8, at 19–43; 2019 SPECIAL 301 REPORT, *supra* note 32, at 17, 46–47.

³⁴ SECTION 301 INVESTIGATION REPORT, *supra* note 8, at 48–61.

³⁵ *Id.* at 153–76; 2019 SPECIAL 301 REPORT, *supra* note 32, at 18, 46.

³⁶ 2019 SPECIAL 301 REPORT, *supra* note 32, at 18, 40; 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 16–17, 115.

³⁷ 2019 SPECIAL 301 REPORT, *supra* note 32, at 24–26, 42–43; 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 116–17.

³⁸ 2019 SPECIAL 301 REPORT, *supra* note 32, at 21–22, 44; 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 18,

IP violations by Chinese entities are thus not a monolithic phenomenon, and general terms like “IP theft” often obscure important legal distinctions. Different actions by Chinese entities implicate distinct IP or trade laws, which affects the various legal remedies that may be available. To better understand these distinctions, this section presents a taxonomy of IP violations along two dimensions: (1) the particular type of IP at issue, and (2) the type of violation—that is, what is meant by “theft.” It also briefly notes a third distinction—the degree to which the IP violation is committed by the Chinese government or state-affiliated entities (or with their support), or instead by Chinese individuals or entities not affiliated with the Chinese government.

Types of Intellectual Property

IP law comprises a set of legal rights to exclude others from making, copying, misappropriating, selling, disclosing, or using certain intangible creations of the human mind.³⁹ There is no universally accepted definition of what qualifies as “intellectual property.” Sometimes, *IP* is used as an umbrella term to refer, at least primarily, to three distinct forms of legal protection: patents, copyrights, and trademarks.⁴⁰ Other times, *IP* is used more broadly to include related areas of law, including trade secrets, rights of publicity, misappropriation, and moral rights, as well as narrower legal regimes protecting plant varieties, industrial design, circuit design, geographical indications, and the like.⁴¹

Based on their primarily federal nature and commercial importance, this report focuses on four types of IP: patents, copyrights, trademarks, and trade secrets. Each of these forms of IP protects a different type of intellectual creation, involves different procedures for obtaining rights, and grants the IP owner distinct rights that vary in scope and duration. After a brief discussion of the purposes and rationales for IP, this section overviews these four major forms of IP protection.

Basis and Rationales for IP Rights

Federal IP laws are legally grounded in one of two constitutional provisions. First, the U.S. Constitution’s IP Clause provides Congress with the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”⁴² The IP Clause provides the constitutional basis for U.S. patent and copyright law.⁴³ Under the IP Clause, patents and copyrights are intended to

115–16.

³⁹ See *Intellectual Property*, BLACK’S LAW DICTIONARY (11th ed. 2019) (defining IP as a “category of intangible rights protecting commercially valuable products of the human intellect”).

⁴⁰ See, e.g., *id.* (“[IP] comprises primarily trademark, copyright, and patent rights, but also includes trade-secret rights, publicity rights, moral rights, and rights against unfair competition.”); JAMES BOYLE & JENNIFER JENKINS, *INTELLECTUAL PROPERTY: LAW & THE INFORMATION SOCIETY* ix (4th ed. 2018) (defining IP as “the set of private legal rights that allows individuals and corporations to control intangible creations and marks” and stating that trademarks, copyrights, and patents are “the three main forms of US federal intellectual property”).

⁴¹ See, e.g., TRIPS: Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 301 (1994) [hereinafter TRIPS] (defining IP for purposes of the Agreement as comprising patents, copyrights, trademarks, geographical indications, industrial design protections, trade secrets, and integrated circuit design protection); Rochelle C. Dreyfuss & Justine Pila, *Intellectual Property Law: An Anatomical Overview*, in *THE OXFORD HANDBOOK OF INTELLECTUAL PROPERTY LAW* 5–6 (Rochelle C. Dreyfuss & Justine Pila eds., 2018) (defining IP as “the area(s) of law concerned with the recognition and protection of exclusionary rights in” a number of categories of subject matter, including authorial works, inventions, plant varieties, signs of commercial origin, designs, and confidential information).

⁴² U.S. CONST. art. I, § 8, cl. 8.

⁴³ See generally *Copyrights and Patents: Origins and Scope of the Power*, in *CONSTITUTION OF THE UNITED STATES*:

encourage innovation and the spread of knowledge by providing incentives to create new creative works and generate useful technological inventions.⁴⁴

Other federal IP laws, covering subjects such as trademarks and trade secrets, are enacted under the Commerce Clause, which grants Congress authority “[t]o regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.”⁴⁵ These IP laws are less centrally concerned with promoting creative activity, but are an aspect of Congress’s power to regulate economic activity and establish rules for fair competition. For example, trademarks protect consumers and lower search costs by preventing businesses from misrepresenting the source of goods or services,⁴⁶ while trade secrets serve both to encourage innovation and to prevent unfair means of competition between businesses.⁴⁷

Patents

Any person who invents or discovers “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” may apply for a patent under U.S. law.⁴⁸ Patents may be granted for almost any type of technology made by humans, save for laws of nature, abstract ideas, and natural phenomena.⁴⁹ For example, innovations in pharmaceutical drugs, biotechnology, chemistry, computer hardware and software, electrical engineering, agriculture, mechanical engineering, and manufacturing processes may be patented.⁵⁰

To obtain a patent, the inventor must file a formal application with the U.S. Patent and Trademark Office (PTO).⁵¹ The process for obtaining a patent, called “patent prosecution,”⁵² is fairly demanding. The patent application must contain a written specification that describes the claimed invention with enough detail that a person skilled in the relevant technical field can make and use the invention.⁵³ During prosecution, a PTO patent examiner reviews the application to determine whether the claimed invention is (1) directed at patent-eligible subject matter, (2) useful, (3) new,

ANALYSIS AND INTERPRETATION, CONG. RSCH. SERV., https://constitution.congress.gov/browse/essay/artI_S8_C8_1_1/ (last visited Aug. 10, 2020).

⁴⁴ See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) (“[Copyrights and patents are] intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired.”).

⁴⁵ U.S. CONST. art I., § 8, cl. 3. Protection for trademarks and trade secrets may also be available under state laws.

⁴⁶ *Qualitex Co. v. Jacobson Prod. Co.*, 514 U.S. 159, 163–64 (1995) (“[T]rademark law, by preventing others from copying a source-identifying mark, reduces the customer’s costs of shopping and making purchasing decisions At the same time, the law helps assure a producer that it (and not an imitating competitor) will reap the financial, reputation-related rewards associated with a desirable product.” (citations and internal quotations omitted)).

⁴⁷ *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 481 (1974) (“The maintenance of standards of commercial ethics and the encouragement of invention are the broadly stated policies behind trade secret law.”).

⁴⁸ 35 U.S.C. § 101.

⁴⁹ See *Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 216–17 (2014); *Diamond v. Chakrabarty*, 447 U.S. 303, 309–10 (1980); see generally CRS Report R45918, *Patent-Eligible Subject Matter Reform in the 116th Congress*, by Kevin J. Hickey, at 10–20 (reviewing current law of patent-eligible subject matter).

⁵⁰ See *Patent Technology Centers Management*, U.S. PATENT & TRADEMARK OFF., <https://www.uspto.gov/patent/contact-patents/patent-technology-centers-management> (last visited Aug. 10, 2020) (listing technological divisions for PTO examiners).

⁵¹ 35 U.S.C. § 111.

⁵² See *General Information Concerning Patents*, U.S. PATENT & TRADEMARK OFF. (Oct. 2015), <https://www.uspto.gov/patents-getting-started/general-information-concerning-patents>.

⁵³ 35 U.S.C. § 112(a); *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1343–45 (Fed. Cir. 2010) (en banc).

(4) nonobvious, and (5) adequately disclosed and claimed in the patent application.⁵⁴ If the examiner finds these requirements met, the PTO will issue (i.e., grant) the patent.⁵⁵

If the PTO grants the patent, the patent holder has the exclusive right to make, use, sell, offer to sell, or import the invention in the United States until the patent expires.⁵⁶ Patents typically expire twenty years after the initial patent application is filed.⁵⁷ Any other person who makes, uses, sells, or imports the invention without the patent holder's permission is said to "infringe" the patent and is potentially legally liable.⁵⁸ To enforce the patent, the patent holder may sue alleged infringers in federal court to seek an injunction (i.e., a judicial order to cease infringing activity), damages, and other remedies.⁵⁹ Patents are presumed to be valid,⁶⁰ but accused infringers may defend against lawsuits by asserting, among other things, (1) noninfringement (i.e., their allegedly infringing actions were not covered by the patent), or (2) invalidity (i.e., the patent should not have issued because, for example, the claimed invention was not new).⁶¹

Copyrights

Copyright grants creators of "original works of authorship" a set of exclusive rights in their creative works.⁶² Forms of expression that are copyrightable include literary works (such as books and computer code); musical works and sound recordings; pictorial, graphic, and sculptural works; audiovisual works (such as movies and television); and architectural works.⁶³ The key requirements for a copyright are that the work is independently created, at least minimally creative, and fixed in some tangible form.⁶⁴ Copyright does not extend to ideas, processes, systems, discoveries, or methods of operation.⁶⁵

Copyright attaches once a work is created and fixed in a tangible medium of expression (e.g., recorded in a computer file or on a piece of paper).⁶⁶ In contrast to patents, the author of a copyrightable creative work need not apply with the government to obtain a copyright.⁶⁷ However, for U.S. works, copyright holders must register their copyrights with the U.S. Copyright Office before they can sue in federal court.⁶⁸ The registration process requires

⁵⁴ 35 U.S.C. §§ 101–103, 112.

⁵⁵ *Id.* § 131.

⁵⁶ *Id.* § 271(a).

⁵⁷ *Id.* § 154(a)(2).

⁵⁸ *Id.*

⁵⁹ *Id.* §§ 281, 283–285.

⁶⁰ *Id.* § 282(a); *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011).

⁶¹ 35 U.S.C. § 282(b).

⁶² 17 U.S.C. §§ 102(a), 106.

⁶³ *Id.* § 102(a)(1)–(8).

⁶⁴ *Id.* § 102(a); *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345–47 (1991).

⁶⁵ 17 U.S.C. § 102(b); *see also Baker v. Selden*, 101 U.S. 99, 102–04 (1880).

⁶⁶ *Id.* § 102(a).

⁶⁷ *Id.* §§ 102(a), 408(a).

⁶⁸ *Id.* § 411(a). Although a copyright holder may bring a claim in court even if the Copyright Office refuses to register the work, *see id.*, the Copyright Office must either register the work or refuse registration before the copyright holder can file suit. *Fourth Estate Pub. Benefit Corp. v. Wall-Street.com, LLC*, 139 S. Ct. 881, 886 (2019).

submitting an application, paying a fee, and sending a copy or copies of the work to the Copyright Office.⁶⁹

Copyright holders generally have the exclusive right to reproduce the work, publicly perform and display it, distribute it, and prepare derivative works from it.⁷⁰ Any person who takes one of those actions without the permission of the copyright owner is potentially legally liable for copyright infringement.⁷¹ For most works created today, copyright does not expire until seventy years after the death of the work's author.⁷² Once a copyright holder registers the copyright, she may sue infringers in federal court to seek injunctions, damages, and other legal remedies.⁷³ In addition to these civil remedies, certain willful copyright infringements may be criminal offenses.⁷⁴

The exclusive rights of a copyright holder are subject to many specific limitations and exceptions.⁷⁵ The most important limitation is the doctrine of fair use, which permits certain socially valuable uses that would otherwise be infringements (e.g., using portions of a copyrighted work in a criticism, parody, or educational instruction).⁷⁶ Courts consider a number of factors to evaluate whether a use is fair, such as (1) the purpose and character of the use; (2) the nature of the original work; (3) the substantiality of what was copied; (4) any market harm from the use; and (5) whether the use is “transformative,” that is, whether it adds new expression, has a different purpose, or alters the original work with new expression or meaning.⁷⁷

Trademarks

In general, any “word, name, symbol, or device” may be used as a trademark or service mark to identify a particular business's goods or services.⁷⁸ Familiar examples of trademarks include brand names and logos such as NIKE and its “swoosh” symbol.

The availability of trademark protection depends on the distinctiveness of the proposed mark.⁷⁹ Generic terms (i.e., a common descriptive name for a particular type of product⁸⁰) and deceptive terms (i.e., those that materially misrepresent the product⁸¹) may not be registered or protected as a trademark.⁸² Descriptive terms (i.e., those that convey information about the qualities of the product⁸³), surnames, and geographically descriptive marks generally cannot be registered or

⁶⁹ 17 U.S.C. §§ 407–410; U.S. COPYRIGHT OFFICE, CIRCULAR 2: COPYRIGHT REGISTRATION (2019), <https://www.copyright.gov/circs/circ02.pdf>.

⁷⁰ 17 U.S.C. § 106(1)–(6).

⁷¹ *Id.* §§ 106, 501(a).

⁷² *Id.* § 302(a). Copyright in works made for hire (which often have corporate authors) as well as anonymous or pseudonymous works last for 95 years after the work's publication or 125 years after its creation, whichever term is shorter. *Id.* § 302(c).

⁷³ *Id.* §§ 501–505.

⁷⁴ *Id.* § 506(a); 18 U.S.C. § 2319.

⁷⁵ *See* 17 U.S.C. §§ 108–122.

⁷⁶ *See id.* § 107; *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 575–78 (1994).

⁷⁷ 17 U.S.C. § 107(1)–(4); *Campbell*, 510 U.S. at 579.

⁷⁸ 5 U.S.C. § 1127 (defining “trademark” and “service mark”).

⁷⁹ *Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 768 (1992); *Abercrombie & Fitch Co. v. Hunting World, Inc.*, 537 F.2d 4, 9–11 (2d Cir. 1976) (Friendly, J.).

⁸⁰ *Park 'N Fly, Inc. v. Dollar Park & Fly, Inc.*, 469 U.S. 189, 194 (1985).

⁸¹ *In re Budge Mfg. Co., Inc.*, 857 F.2d 773, 775 (Fed. Cir. 1988).

⁸² 15 U.S.C. §§ 1052(a), 1052(e), 1064(3); *Two Pesos*, 505 U.S. at 768–69.

⁸³ *Park 'N Fly*, 469 U.S. at 194.

protected as a trademark unless such terms acquire an association by consumers with a particular source of a product: so-called “secondary meaning.”⁸⁴ For example, Coca-Cola (a drink originally made with coca leaves and cola nuts) might not have been initially protectable because its brand name was descriptive of the product. Yet, the mark subsequently became protectable when the public began to associate the mark with a particular producer.⁸⁵ Arbitrary terms (i.e., terms that in no way describe the goods or service⁸⁶) and merely suggestive terms are “inherently distinctive” and may be registered and protected as marks without a showing of secondary meaning.⁸⁷

Certain federal trademark rights are available based on actual use of (or a bona fide intent to use) a mark in commerce.⁸⁸ Because federal law does not generally preempt state laws protecting trademarks,⁸⁹ rights under applicable state trademark laws may be available as well, based either on use of the mark or state registration.⁹⁰

To obtain presumptive nationwide federal trademark rights, a business must first register the mark with the PTO.⁹¹ Along with the distinctiveness requirements discussed above, the PTO will only register marks that are not confusingly similar to marks that others have already registered.⁹² Each trademark registration is tied to the use of a mark with particular categories of goods or services (e.g., clothing, vehicles, or telecommunications services).⁹³ Thus, different owners may use an identical or similar mark for different types of products (e.g., Delta Airlines and Delta faucets), so long as this parallel use would not confuse consumers.⁹⁴

Owners of valid trademarks generally have the right to prevent other businesses or persons from using similar marks to identify their products if the use is likely to cause consumer confusion as to the product’s source.⁹⁵ Trademark owners may sue in federal or state court to obtain

⁸⁴ 15 U.S.C. § 1052(e)(1)–(2), (e)(4), (f); *Wal-Mart Stores, Inc. v. Samara Brothers, Inc.*, 529 U.S. 205, 210–11 (2000); *Two Pesos*, 505 U.S. at 769.

⁸⁵ See *Coca-Cola Co. v. Koke Co. of Am.*, 254 U.S. 143, 146–47 (1920).

⁸⁶ See 2 MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 11:11, *What Are Arbitrary Word Marks?* (5th ed. 2019).

⁸⁷ *Wal-Mart Stores*, 529 U.S. at 210–11; *Abercrombie & Fitch Co. v. Hunting World, Inc.*, 537 F.2d 4, 11 (2d Cir. 1976).

⁸⁸ See 15 U.S.C. §§ 1125(a), 1127; *Two Pesos*, 505 U.S. at 768.

⁸⁹ See *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 232 (1964); *Dorpan, S.L. v. Hotel Melia, Inc.*, 728 F.3d 55, 62 (1st Cir. 2013); BOYLE & JENKINS, *supra* note 40, at 106.

⁹⁰ See generally 3 MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION ch. 22, *State Protection and Registration of Marks* (5th ed. 2019); *State Trademark Information Links*, U.S. PATENT & TRADEMARK OFF., <https://www.uspto.gov/trademarks-getting-started/process-overview/state-trademark-information-links> (last visited Aug. 18, 2020).

⁹¹ See 15 U.S.C. §§ 1051, 1057(b).

⁹² *Id.* § 1052(d). Moreover, certain types of marks may not be registered pursuant to specific statutory exceptions, including (1) marks that falsely suggest a connection with persons or institutions; (2) the names of living persons without their consent; and (3) marks consisting of the U.S., state, or municipal flags. See *id.* § 1052(a)–(c). Federal law also purports to bar the registration of marks that contain “immoral, deceptive, or scandalous matter” or those that “may disparage” persons and institutions, but the Supreme Court has invalidated these provisions on First Amendment grounds. *Iancu v. Brunetti*, 139 S. Ct. 2294, 2297 (2019); *Matal v. Tam*, 137 S. Ct. 1744, 1751, (2017).

⁹³ 15 U.S.C. § 1051(a)(2); see 37 C.F.R. §§ 2.85(a), 6.1.

⁹⁴ 15 U.S.C. § 1052(d); BOYLE & JENKINS, *supra* note 40, at 104–05; Barton Beebe & Jeanne C. Fromer, *Are We Running Out of Trademarks? An Empirical Study of Trademark Depletion and Congestion*, 131 HARV. L. REV. 945, 952 & n.22 (2018).

⁹⁵ 15 U.S.C. §§ 1114(1), 1125(a); *KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.*, 543 U.S. 111, 117 (2004). In determining whether consumers are likely to be confused by two similar marks, courts consider a number of factors, such as (1) strength of the mark; (2) similarity of the marks; (3) proximity of the products; (4) evidence of actual confusion; (5) the defendant’s intent in selecting the mark; (6) the type of goods and sophistication of the

injunctions, damages, and other legal remedies.⁹⁶ In addition to civil remedies, intentional trafficking in goods or services using a counterfeited mark is a federal criminal offense.⁹⁷ If properly renewed and maintained, trademark rights may last indefinitely.⁹⁸

Trade Secrets

Trade secret law protects competitively valuable, confidential information. Trade secrets include “all forms and types of financial, business, scientific, technical, economic, or engineering information” where (1) the owner has taken reasonable measures to keep the information secret; and (2) the information derives actual or potential independent economic value from not being generally known or readily ascertainable to another person (usually, a business competitor).⁹⁹ Examples include secret recipes, formulas, financial information, source code, or manufacturing processes. Matters of public knowledge or information generally known in an industry may not be a trade secret.¹⁰⁰

Until recently, trade secret protection was mainly a matter of state law.¹⁰¹ In 2016, Congress passed the Defend Trade Secrets Act (DTSA), which created a federal civil remedy for trade secret misappropriation.¹⁰² The DTSA built upon the Economic Espionage Act of 1996, which criminalized economic espionage and certain thefts of trade secrets.¹⁰³ Under the DTSA, the misappropriation of a trade secret is a federal civil violation that may be remedied through a lawsuit by the trade secret’s owner.¹⁰⁴ Protection for trade secrets is also available under state laws, which are generally similar to federal requirements.¹⁰⁵

consumers; and (7) similarity of advertising or marketing. *See, e.g.*, *AMF, Inc. v. Sleekcraft Boats*, 599 F.2d 341, 348–49 (9th Cir. 1979); *Polaroid Corp. v. Polarad Elecs. Corp.*, 287 F.2d 492, 495 (2d Cir. 1961); *see generally* Barton Beebe, *An Empirical Study of the Multifactor Tests for Trademark Infringement*, 94 CAL. L. REV. 1581, 1587–90, 1591 tbl. 1 (2006) (summarizing the factors considered by different federal courts of appeals to determine the likelihood of consumer confusion in trademark cases).

⁹⁶ 15 U.S.C. §§ 1116–1117; 28 U.S.C. § 1338(a).

⁹⁷ *See* 18 U.S.C. § 2320(a). A “counterfeit mark” is a “spurious” mark that must be (1) identical to, or substantially indistinguishable from, a registered mark; (2) used in connection with the same good or services as the registered mark; and (3) likely to cause confusion, to cause mistake, or to deceive. *Id.* § 2320(h)(i)–(iv).

⁹⁸ 15 U.S.C. § 1058(a)–(b).

⁹⁹ 18 U.S.C. § 1839(3). Factors that courts may consider in determining whether information is a trade secret include (1) the extent to which the information is known outside of the business; (2) the extent to which the information is known by employees and others involved in the business; (3) the extent of measures taken by the owner to guard the secrecy of the information; (4) the value of the information to the owner and the owner’s competitors; (5) the amount of effort or money expended by the owner in developing the information; and (6) the ease or difficulty with which the information could be properly acquired or duplicated by others. *See* RESTATEMENT (1ST) OF TORTS § 757 cmt. b. (AM. LAW INST.1939).

¹⁰⁰ 18 U.S.C. § 1839(3)(B); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 475 (1974) (“The subject of a trade secret . . . must not be of public knowledge or of a general knowledge in the trade or business.”).

¹⁰¹ *See* BOYLE & JENKINS, *supra* note 40, at 769.

¹⁰² Pub. L. No. 114-153, § 2, 130 Stat. 376, 376–82 (2016) (codified at 18 U.S.C. §§ 1836(b)–(d), 1839).

¹⁰³ Pub. L. No. 104-294, tit. I, 110 Stat 3488, 3488–91 (1996) (codified as amended at 18 U.S.C. §§ 1831–1839).

¹⁰⁴ 18 U.S.C. § 1832(b)(1).

¹⁰⁵ Almost all the states have adopted the Uniform Trade Secrets Act in some form. *See* UNIF. TRADE SECRETS ACT (Unif. Law Comm’n 1985) [hereinafter UTSA]; 1 MILGRIM ON TRADE SECRETS § 1.01[2][c][i] (2019) (noting that forty-eight states have adopted UTSA, with local variations, as of 2018). The federal definitions of “trade secret,” “misappropriation,” and “improper means” generally follow the UTSA. 1 MILGRIM ON TRADE SECRETS § 1.01[5] (2019).

Owners of commercially valuable information need not formally apply with federal or state governments to obtain legal protection for an asserted trade secret. However, the owner must take “reasonable measures” to keep the information secret.¹⁰⁶ For example, an owner may restrict access to the information within the business, require confidentiality agreements of employees or any others who receive the information, or place the information on secure computer systems.¹⁰⁷ Whether the measures taken are reasonable depends on the factual circumstances and the nature of the information.¹⁰⁸

The owner of a valid trade secret may not legally prevent all acquisitions, uses, and disclosures of the information. Rather, federal and state law provide a remedy only when a trade secret is “misappropriated.”¹⁰⁹ There are two main forms of misappropriation. First, misappropriation occurs when an unauthorized person acquires a trade secret through “improper means,” such as theft, bribery, electronic espionage, or a breach of a duty to maintain secrecy (e.g., violation of a nondisclosure agreement).¹¹⁰ Acquiring a trade secret through lawful means, such as reverse engineering, or independently discovering the trade secret, is not a misappropriation.¹¹¹ Second, a person may not use or disclose a trade secret if that person knows or has reason to know that (1) knowledge of the trade secret derives from a person who used improper means to acquire the trade secret; (2) the trade secret was acquired under circumstances creating a duty to maintain secrecy; or (3) knowledge of the trade secret derives from a person owing a duty to maintain secrecy.¹¹²

Owners of trade secrets may sue in state or federal court to enjoin actual or threatened misappropriations and obtain monetary damages for losses caused by misappropriations.¹¹³ Civil seizures of property necessary to prevent the dissemination of a trade secret may be available in extraordinary circumstances.¹¹⁴ The EEA also criminalizes two forms of trade secret misappropriation: (1) economic espionage, which includes the unauthorized appropriation or transmission of a trade secret with the intent to benefit a foreign government;¹¹⁵ and (2) theft of a trade secret, which includes the unauthorized appropriation or transmission of a trade secret when the offender knows that the act will injure the owner of a trade secret for the economic benefit of another person.¹¹⁶

Overlap and Interactions Among Different Forms of IP

Table 1 summarizes the differences between patents, copyrights, trademarks, and trade secrets. Although this section has presented each form of IP separately because they are legally distinct, there is a degree of overlap in the subject matter that each form of IP protects. This can lead to situations in which an owner must choose between different forms of IP protection. For example,

¹⁰⁶ 18 U.S.C. § 1839(3)(A).

¹⁰⁷ See generally 1 MILGRIM ON TRADE SECRETS § 1.01[c][iii][D] (2019).

¹⁰⁸ *Id.*

¹⁰⁹ 18 U.S.C. § 1836(b)(1); UTSA §§ 2(a), 3(a).

¹¹⁰ 18 U.S.C. § 1839(5)(A), (6)(A). In addition, a person who used improper means to acquire a trade secret may not disclose or use the trade secret without authorization. *Id.* § 1839(5)(B)(i).

¹¹¹ *Id.* § 1839(6)(B).

¹¹² *Id.* § 1839(B)(ii)(I)–(III).

¹¹³ *Id.* § 1836(b)(3)(A)–(B).

¹¹⁴ *Id.* § 1836(b)(2).

¹¹⁵ *Id.* § 1831(a).

¹¹⁶ *Id.* § 1832(a).

the owner of a novel discovery may strategically decide whether to protect that information as a trade secret or instead seek a patent.¹¹⁷ While trade secret protection covers a broader range of information and potentially lasts longer than a patent, it provides narrower rights because it lacks any protection against independent discovery or reverse engineering by third parties.¹¹⁸ By applying for a patent, however, the owner gives up any claim to trade secret protection because issued patents and patent applications are publicly available.¹¹⁹

In other situations, an individual may be able to protect the same information or product by relying on multiple forms of IP protection. For example, computer code is eligible for copyright protection as a literary work, yet the owner may also choose to keep the code as a trade secret. Moreover, different aspects of a product may be protected by different types of IP rights, such as a patented pharmaceutical product with a trademarked brand name.

There is no general one-to-one correspondence between IP protection and a particular consumer product. For example, the various technologies within a typical smartphone (e.g., computer hardware and software, design, and networking) are protected by many thousands of different patents,¹²⁰ along with the copyrighted computer code of the operating system and various applications. Valuable pharmaceutical products are often protected by dozens of different patents relating to the active ingredient, formulations, administration, methods of treatment, or methods of manufacturing the drug.¹²¹

¹¹⁷ See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 485–92 (1974).

¹¹⁸ Compare 35 U.S.C. § 271(a) (patentee has the exclusive right to make, use, and sell the patented invention), with 18 U.S.C. § 1839(6) (permitting reverse engineering and independent derivation of trade secrets).

¹¹⁹ 35 U.S.C. §§ 10, 122(b), 153; 37 C.F.R. §§ 1.11(a), 1.211.

¹²⁰ Steve Lohr, *Apple-Samsung Patent Battle Shifts to Trial*, N.Y. TIMES (July 29, 2012), <https://www.nytimes.com/2012/07/30/technology/apple-samsung-trial-highlights-patent-wars.html>.

¹²¹ See CRS Report R45666, *Drug Pricing and Intellectual Property Law: A Legal Overview for the 116th Congress*, coordinated by Kevin J. Hickey, at 12–14.

Table I. Comparison of Each Form of Federal Intellectual Property Protection

	Patent	Copyright	Trademark	Trade Secret
Constitutional Basis	IP Clause (U.S. CONST. art. I, § 8, cl. 8)	IP Clause (U.S. CONST. art. I, § 8, cl. 8)	Commerce Clause (U.S. CONST. art. I, § 8, cl. 3)	Commerce Clause (U.S. CONST. art. I, § 8, cl. 3)
Statutory Basis	1952 Patent Act, as amended, 35 U.S.C. §§ 1–390	1976 Copyright Act, as amended, 17 U.S.C. §§ 101–1332	1946 Lanham Act, as amended, 15 U.S.C. §§ 1051–1141n	DTSA and Economic Espionage Act of 1996, 18 U.S.C. §§ 1831–1839
Initial Rights Holder	Inventor	Author	Business or person using mark to identify goods or services	Owner of commercially valuable, confidential information
Subject Matter	New and useful processes, machines, manufactures, or compositions of matter	Original works of authorship	Any word, name, symbol, or device used to identify goods or services	Financial, business, scientific, technical, economic, or engineering information
Subject Matter Examples	Pharmaceuticals, engineering, manufacturing processes	Books, musical works, movies, fine art, architecture, software	Brand names, logos, distinctive trade dress	Formulas, source code, prototypes, customer lists, financial information
Requirements for Protection	Novelty; nonobviousness; utility; first to file	Independent creation; minimal creativity; fixation	Use in commerce; registration (for presumptive nationwide rights)	Information derives economic value from not being generally known
Excluded From Protection	Laws of nature, natural phenomena, and abstract ideas	Any idea, procedure, process, system, method of operation, concept, principle, or discovery	Generic terms; deceptive terms; descriptive terms that lack secondary meaning	Information generally known, independently discovered, reverse engineered, or lawfully acquired
Process to Secure Rights	PTO patent application process (patent prosecution)	Create and fix the work (registration is required to sue)	PTO trademark registration process	Take reasonable measures to keep information secret
Exclusive Rights Granted	To make, use, offer to sell, sell, and import the patented invention	To reproduce, distribute, or publicly perform/display the work, and make derivative works	Prevent confusingly similar uses of the mark	Prevent others from misappropriating trade secret (e.g., acquisition through improper means)
Duration	20 years from date of application	Life of author plus 70 years	Potentially indefinite	Potentially indefinite
Infringement Test	Practice the claimed invention	Substantially similar to original	Likely to confuse consumers	Misappropriation
Main Defenses	Invalidity; noninfringement; inequitable conduct	Fair use; lack of substantial similarity	Fair use; nominative use; lack of confusion	Information was not a trade secret or was not misappropriated

Source: Congressional Research Service.

Forms of “IP Theft”

“IP theft” and “stealing IP” are colloquial terms, not legal concepts. Strictly speaking, most forms of IP (with the important exception of trade secrets) cannot be “stolen.” A patent, for example, is a publicly available legal document granting the patent holder certain exclusive rights; another person might *infringe* the patent (e.g., by making and selling the patented invention without permission), but infringers do not “steal” the patent. Nor does IP law necessarily preclude persons other than the IP owner from using or acquiring protected information without permission; third parties may lawfully reverse engineer a trade secret, for example, or make a fair use of a copyrighted work.¹²² Rather, the colloquial usage of “IP theft” usually seeks to capture concerns about varied laws, policies, and practices of—in the context of this report—the Chinese government and other Chinese entities related to IP and technology transfer, which harm U.S. IP rights holders.¹²³ This section describes several forms that these IP-related violations may take.

Under-Protection

One way in which a foreign nation might undermine IP rights is through a lack of substantive legal protections for IP available under that country’s domestic law. Under the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), all members of the WTO (including the United States and China) agree to certain minimum standards for IP protection and enforcement.¹²⁴ First, members agree to provide, under their domestic laws, a basic level of substantive protection for copyrights, trademarks, patents, trade secrets, and other forms of IP.¹²⁵ Second, members agree to ensure that certain minimum civil, criminal, and administrative procedures to enforce IP rights are available to permit effective action against infringements.¹²⁶ Members further agree to provide “national treatment,” a nondiscrimination principle under which each WTO member must treat nationals of other members no less favorably than they treat their own citizens with respect to IP rights.¹²⁷

TRIPS’s substantive provisions set forth required minimum levels of IP protection. For example, with respect to trademarks, members agree that “any sign . . . capable of distinguishing [the] goods or services” of a business shall be eligible for trademark registration, subject to limited exceptions.¹²⁸ Owners of valid registered trademarks must have the right to exclude others from “using in the course of trade identical or similar signs for goods or services [where] such use would result in a likelihood of confusion.”¹²⁹ Initial trademark registrations must last for at least

¹²² See 17 U.S.C. § 107; 18 U.S.C. § 1839(6)(B).

¹²³ See, e.g., SECTION 301 INVESTIGATION REPORT, *supra* note 8, at 4.

¹²⁴ See TRIPS, *supra* note 41; see generally Ilias Akhtar et al., *supra* note 3, at 15–17.

¹²⁵ TRIPS, *supra* note 41, pt. II. Geographical indications, industrial design, and integrated circuit design are the other forms of IP that must be protected by WTO members under TRIPS. *Id.* TRIPS explicitly incorporates by reference many of the provisions of earlier (and still in force) IP treaties, such as the Paris Convention for the Protection of Industrial Property, Mar. 20, 1883, revised at Stockholm July 14, 1967, 21 U.S.T. 1583, 828 U.N.T.S. 305, and the Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, revised at Paris July 24, 1971, 1161 U.N.T.S. 3. See, e.g., TRIPS, *supra* note 41, arts. 1–3, 9, 15–16, 39.

¹²⁶ TRIPS, *supra* note 41, pt. III.

¹²⁷ *Id.* arts. 1, 3. A similar but distinct nondiscrimination principle required by TRIPS is known as “most-favored nation treatment,” which generally requires that if a member extends to the nationals of one country any advantage relating to the availability, acquisition, scope, maintenance, and enforcement of IP, it must also extend that same privilege to the nationals of all other members. *Id.* art. 4.

¹²⁸ *Id.* art. 15.

¹²⁹ *Id.* arts. 16–17.

seven years, and must be renewable indefinitely.¹³⁰ If a WTO member were to, for example, provide a shorter initial term or a nonrenewable term of trademark registration, that nation would fail to meet the minimum substantive standards set forth in TRIPS.

Concerns about China failing to meet its WTO obligations with respect to IP are long-standing. TRIPS, which first went into effect in 1996, became applicable to China after its accession to the WTO in 2001.¹³¹ In 2007, the United States initiated a dispute against China before the WTO, alleging inadequacies in China's substantive IP laws and its enforcement of those laws.¹³² After the United States prevailed on several of its claims,¹³³ China agreed to implement the WTO's ruling in the dispute by March 2010.¹³⁴

U.S. stakeholders continue to lodge complaints about whether China's domestic laws meet TRIPS's substantive requirements,¹³⁵ while acknowledging progress by China in recent years.¹³⁶ Since 2005,¹³⁷ the USTR has placed China on the Priority Watch List, indicating "that particular problems exist in that country with respect to IP protection, enforcement, or market access for persons relying on IP."¹³⁸ Specifically, the USTR found that China has an "urgent need for fundamental structural changes to strengthen IP protection and enforcement, including as to trade secret theft, online piracy and counterfeiting, the high volume manufacture and export of counterfeit goods, and impediments to pharmaceutical innovation."¹³⁹ The USTR has also designated many online or physical markets based in China as "notorious markets"¹⁴⁰ that are "prominent and illustrative examples of online and physical marketplaces that reportedly engage in and facilitate substantial piracy and counterfeiting."¹⁴¹ In its most recent Special 301 Report,¹⁴² the USTR concluded that although China reorganized its IP protection and enforcement authorities and made progress in some areas, ultimately its actions "fell short of needed fundamental changes to the IP landscape in China."¹⁴³

¹³⁰ *Id.* art. 18.

¹³¹ See 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 2, 107.

¹³² Request for Consultations by the United States, *China—Measures Affecting the Protection and Enforcement of Intellectual Property Rights*, WTO Doc. WT/DS362/1 (Apr. 16, 2007).

¹³³ Panel Report, *China—Measures Affecting the Protection and Enforcement of Intellectual Property Rights*, WTO Doc. WT/DS362/R (adopted Jan. 26, 2009).

¹³⁴ Communication from China and the United States concerning Article 21.3(b) of the [WTO Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU)], *China—Measures Affecting the Protection and Enforcement of Intellectual Property Rights*, WTO Doc. WT/DS362/13 (July 3, 2009); see generally *CRS China-U.S. Trade Report*, *supra* note 4, at 53; Devon Spencer, *Not in It for the Long Run: China's Solution for Compliance with TRIPS Requires More Than a Nine-Month Campaign*, 19 U. MIAMI INT'L & COMP. L. REV. 197, 211–18 (2012).

¹³⁵ See generally 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 107–13.

¹³⁶ See, e.g., *CRS China-U.S. Trade Report*, *supra* note 4, at 40–41 (citing surveys of IP holders finding that, although many find the IP enforcement environment in China to be ineffective or inadequate, over 90% believed the IP environment in China had improved between 2009 and 2016).

¹³⁷ International Intellectual Property Alliance, *History of USTR's Special 301 Decisions Since 1989* (Feb. 7, 2019), <https://iipa.org/files/uploads/2019/02/2019SPEC301HISTORICALCHART.pdf>.

¹³⁸ 2019 SPECIAL 301 REPORT, *supra* note 32, at 8.

¹³⁹ *Id.* at 6.

¹⁴⁰ OFF. OF THE U.S. TRADE REPRESENTATIVE, 2018 OUT-OF-CYCLE REVIEW OF NOTORIOUS MARKETS 16–17, 22–23, (2019), https://ustr.gov/sites/default/files/2018_Notorious_Markets_List.pdf.

¹⁴¹ *Id.* at 2.

¹⁴² See discussion *infra* in "Section 301 of the Trade Act of 1974" (discussing Special 301 authority).

¹⁴³ 2019 SPECIAL 301 REPORT, *supra* note 32, at 41.

For example, as to the substantive level of IP protection afforded by Chinese law, the USTR has asserted that

- China fails to provide adequate patent protection for pharmaceutical products by imposing unduly restrictive and “opaque” patent examination procedures;¹⁴⁴
- China fails to impose adequate criminal liability for copyright infringement through high monetary thresholds and profit motive requirements;¹⁴⁵
- China’s trade secret law may exclude some types of proprietary information, and is limited to actions of commercial entities (rather than any legal person);¹⁴⁶ and
- China has failed to make clear that sports and other live broadcasts are eligible for copyright protection in China.¹⁴⁷

Such substantive legal shortcomings could conceivably be the basis of a WTO complaint based on TRIPS noncompliance,¹⁴⁸ or other remedies discussed below. Notably, the Phase One Agreement addresses some of these issues.¹⁴⁹

Infringement and Under-Enforcement

Together with its provisions for minimum levels of substantive IP protection, TRIPS also sets forth minimum standards for IP *enforcement* by WTO members.¹⁵⁰ Presuming that a nation’s IP laws meet TRIPS’s minimum substantive standards, IP rights may still be undermined if a nation does not adequately enforce those IP laws. For example, a nation may lack adequate institutions or procedures, such as an effective and fair court system, that are necessary to vindicate IP rights.

TRIPS requires that WTO members have enforcement procedures that “permit effective action” against infringements of IP rights.¹⁵¹ For example, members must make “fair and equitable” civil judicial procedures available to IP rights holders.¹⁵² These judicial authorities must have authority to grant effective and adequate relief, including injunctions and damages.¹⁵³ For counterfeit trademarked goods and pirated copyrighted goods, members must establish border control procedures through which rights holders may apply to customs authorities to block the importation of infringing goods.¹⁵⁴ For cases of willful trademark infringement or copyright piracy “on a commercial scale,” members must establish criminal procedures and penalties.¹⁵⁵

¹⁴⁴ 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 110–11; 2019 SPECIAL 301 REPORT, *supra* note 32, at 44–45.

¹⁴⁵ 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 108.

¹⁴⁶ *Id.* at 109; 2019 SPECIAL 301 REPORT, *supra* note 32, at 41–42.

¹⁴⁷ 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 108; 2019 SPECIAL 301 REPORT, *supra* note 32, at 45.

¹⁴⁸ See discussion *infra* in “TRIPS and WTO Disputes.”

¹⁴⁹ See *supra* notes 15–29 and accompanying text.

¹⁵⁰ TRIPS, *supra* note 41, pt. III.

¹⁵¹ *Id.* art. 41.1.

¹⁵² *Id.* arts. 41–42.

¹⁵³ *Id.* arts. 44–45.

¹⁵⁴ *Id.* arts. 51–60.

¹⁵⁵ *Id.* art. 61.

As with the substantive aspects of TRIPS, U.S. rights holders have long maintained that Chinese authorities fail to enforce existing IP laws adequately, or that China lacks effective procedures and institutions for rights holders to enforce their IP rights.¹⁵⁶ Two areas of continuing concern about China's IP enforcement environment are (1) the manufacture, sale, and export of counterfeit trademarked goods (counterfeiting); and (2) unauthorized copying, performance, and distribution of copyrighted works, particularly online (piracy).

As to trademark counterfeiting, a 2019 study of customs seizures by the Organization for Economic Co-operation and Development (OECD) and the EU Intellectual Property Office (EUIPO) found that China was the world's leading source of counterfeit goods.¹⁵⁷ Together with Hong Kong (through which exported Chinese merchandise often transships), China was the source of over 63% of counterfeited and pirated exports, representing \$322 billion in value.¹⁵⁸ The United States was the largest victim of these infringements, with nearly 25% of seized counterfeits affecting IP rights registered in the United States.¹⁵⁹ Looking just at seizures by U.S. authorities, China (together with Hong Kong) was the origin of 87% of the goods seized by U.S. Customs and Border Protection for IP violations in FY2018, representing \$1.2 billion in retail value.¹⁶⁰ Trademark counterfeiting by Chinese entities encompasses a vast array of goods, including apparel and footwear, toys, sporting goods, and other consumer products.¹⁶¹ On top of the harms that counterfeiting has on trademark holders, counterfeit goods may also create health and safety concerns, as in the case of counterfeit pharmaceuticals, food and beverages, semiconductors, and automotive parts.¹⁶²

Piracy of copyrighted works is a second area of long-standing concern for U.S. rights holders. The internet is an efficient vehicle enabling the unauthorized distribution of copyrighted movies, music, software, and television programs in China, as well as other nations.¹⁶³ The USTR reports that copyright piracy is "widespread" in China, particularly online.¹⁶⁴ For example, the Business Software Alliance's most recent study found that 66% of all software in China is unlicensed (that is, used without permission from the copyright holder), representing \$6.8 billion in commercial

¹⁵⁶ See generally *CRS China-U.S. Trade Report*, *supra* note 4, at 39–43.

¹⁵⁷ OECD & EUIPO, *TRENDS IN TRADE IN COUNTERFEIT AND PIRATED GOODS* 12, 27–28 (2019). OECD defines "counterfeit and pirated goods" broadly, *see id.* at 14, so its estimates include goods that violate patents, design rights, and copyrights, as well as trademarks. The study's list of the most affected industries (footwear, clothing, leather, watches, cosmetics), *id.* at 31, suggests that trademark infringements are a substantial component of these estimates.

¹⁵⁸ *Id.* at 46.

¹⁵⁹ *Id.* at 32–33.

¹⁶⁰ U.S. CUSTOMS & BORDER PROT., *INTELLECTUAL PROPERTY RIGHTS: FISCAL YEAR 2018 SEIZURE STATISTICS* 16, 24 (2019), https://www.cbp.gov/sites/default/files/assets/documents/2019-Aug/IPR_Annual-Report-FY-2018.pdf [hereinafter *FISCAL YEAR 2018 SEIZURE STATISTICS*]. These statistics aggregate seizures for both trademark and copyright infringement, *see id.* at 6, 13, but the top categories of products seized (apparel, footwear, watches, handbags), *id.* at 17, suggest that trademark infringements are a substantial component of these estimates.

¹⁶¹ 2019 SPECIAL 301 REPORT, *supra* note 32, at 24.

¹⁶² *Id.* at 24–25; 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 116–17.

¹⁶³ 2019 SPECIAL 301 REPORT, *supra* note 32, at 22; 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 18.

¹⁶⁴ 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 116.

value.¹⁶⁵ China is also a leading source and exporter of websites and software that facilitate copyright piracy.¹⁶⁶

Trade Secret Misappropriation and Cyber Intrusions

Improper acquisition and disclosure of trade secrets represents another way that Chinese entities and its government may harm U.S. IP rights holders. Because trade secret law generally requires a misappropriation to be actionable—such as acquisition of a trade secret through theft, bribery, breaches of contractual duties, or electronic espionage¹⁶⁷—this type of IP violation fits more naturally within a “theft” paradigm than other IP infringements.

Trade secret misappropriation by Chinese entities takes many forms. Perhaps the most direct means of improperly acquiring a trade secret is through unauthorized intrusion by Chinese entities into U.S. firms’ computer networks to obtain confidential business information.¹⁶⁸ The USTR has found that China’s government conducts or supports many of these cyber intrusions.¹⁶⁹ Several industries targeted by China—such as information technology, aerospace, and energy—match those identified as key areas in China’s state-led industrial policies.¹⁷⁰ According to the USTR, “[a]s the global economy has increased its dependence on information systems . . . cyber theft became one of China’s preferred methods of collecting commercial information because of its logistical advantages and plausible deniability.”¹⁷¹

Trade secret misappropriations by Chinese entities extend beyond hacking and cyber intrusions, however. In other situations, current or former employees of a business, such as locally hired engineers of U.S. entities doing business in China, may disclose trade secrets to Chinese authorities or competitors without authorization.¹⁷² Chinese entities also allegedly use means such as physical intrusions, bribery, fraud, breach of confidentiality agreements, or misrepresentation to acquire trade secrets.¹⁷³ For example, U.S. authorities have raised concerns about unauthorized disclosures to Chinese entities of confidential biomedical research proposals submitted to the National Institutes of Health, allegedly in violation of peer review confidentiality agreements.¹⁷⁴

Although trade secret misappropriation is itself a civil and potentially criminal violation under U.S. law,¹⁷⁵ other civil and criminal laws may be implicated as well, depending on the means used to acquire the trade secret. For example, as discussed below, unauthorized cyber intrusions may

¹⁶⁵ SOFTWARE ALL., SOFTWARE MANAGEMENT: SECURITY IMPERATIVE, BUSINESS OPPORTUNITY, BSA GLOBAL SOFTWARE SURVEY 7, 10, 12 (2018), https://gss.bsa.org/wp-content/uploads/2018/06/2018_BSA_GSS_Report_A4_en.pdf.

¹⁶⁶ 2019 SPECIAL 301 REPORT, *supra* note 32, at 44.

¹⁶⁷ 18 U.S.C. §§ 1836(b), 1839(5)–(6).

¹⁶⁸ SECTION 301 INVESTIGATION REPORT, *supra* note 8, at 153–76.

¹⁶⁹ *Id.* at 153.

¹⁷⁰ *See id.* at 11–13, 156.

¹⁷¹ *Id.* at 154.

¹⁷² *See* 2019 SPECIAL 301 REPORT, *supra* note 32, at 18; 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 115.

¹⁷³ *See* Keith Bradsher, *How China Obtains American Trade Secrets*, N.Y. TIMES (Jan. 15, 2020), <https://www.nytimes.com/2020/01/15/business/china-technology-transfer.html>; CRS *China-U.S. Trade Report*, *supra* note 4, at 42–43; 18 U.S.C. § 1839(5)–(6).

¹⁷⁴ *See* CRS Insight IN11207, *Foreign Interference in NIH Research: Policy Implications*, by Kavya Sekar; Gina Kolata, *Vast Dragnet Targets Theft of Biomedical Secrets for China*, N.Y. TIMES (Nov. 4, 2019), <https://www.nytimes.com/2019/11/04/health/china-nih-scientists.html>.

¹⁷⁵ *See* 18 U.S.C. §§ 1831–1832, 1836.

be a crime under the Computer Fraud and Abuse Act or other anti-hacking laws.¹⁷⁶ Similarly, obtaining trade secrets through unauthorized physical intrusions or bribery may violate various state or federal laws (e.g., burglary or fraud), depending on the circumstances. As discussed below, however, the ability of U.S. authorities to exercise jurisdiction over the person and violation represents a significant limitation on remedies for these crimes.¹⁷⁷

Traditional trade secret misappropriation does not reach all of the various means that Chinese entities use to obtain technology and other know-how from U.S. firms. Coercive technology transfer and regulatory extraction, discussed below,¹⁷⁸ may or may not be a trade secret violation depending on the circumstances. Strategic acquisition of U.S. firms by Chinese corporations to acquire technology is another means of acquisition that does not generally represent a trade secret violation, but still may raise national security or other legal concerns.¹⁷⁹

Coercive Technology Transfer

Acquisition of trade secrets and technology by Chinese entities may take somewhat subtler forms than outright misappropriations like cyber intrusions or physical theft. In its 2018 investigation report conducted under Section 301,¹⁸⁰ the USTR describes China's industrial policies and practices concerning IP and other technological know-how as an "unfair technology transfer regime."¹⁸¹ The USTR characterizes this "regime" of coerced technology transfer, applicable to U.S. and other foreign entities seeking to do business in China, as taking two main forms. First, China uses formal and informal foreign ownership restrictions to pressure transfer of technology to Chinese entities, effectively as a condition of foreign companies doing business in China.¹⁸² Second, China uses regulatory licensing requirements to force technology transfer in exchange for various administrative approvals needed to conduct business in China.¹⁸³

The first form of coercive technology transfer concerns Chinese foreign investment restrictions, such as requirements that foreign businesses seeking to enter the Chinese market form a joint venture (JV) with Chinese entities or state-owned enterprises. Under Chinese law, foreign companies in certain industries may not enter the Chinese market unless they partner with a Chinese company.¹⁸⁴ The Chinese JV partner or Chinese governmental entities may, informally or formally, require or pressure technology transfer from the foreign entity to the Chinese partner as a condition of concluding the partnership deal and obtaining access to the Chinese market.¹⁸⁵ Moreover, in some cases, the Chinese JV partner or its employees may have ties to the Chinese

¹⁷⁶ See discussion *infra* in "Computer Fraud and Abuse Act."

¹⁷⁷ See discussion *infra* in "Remedial Issues: Jurisdiction and Territoriality."

¹⁷⁸ See discussion *infra* in "Coercive Technology Transfer."

¹⁷⁹ See *CRS China-U.S. Trade Report, supra* note 4, at 28–29.

¹⁸⁰ See discussion *infra* in "Section 301 of the Trade Act of 1974."

¹⁸¹ SECTION 301 INVESTIGATION REPORT, *supra* note 8, at 19. The Report uses the term "technology" broadly to encompass not just information protected by patents, copyrights, trademarks, and trade secrets, but also "know-how" such as "production process, management techniques, expertise, and the knowledge of personnel" even if not legally protected as IP. *Id.* at 6.

¹⁸² *Id.* at 19.

¹⁸³ *Id.*

¹⁸⁴ *Id.* at 23–24. Depending on the industry, the Chinese party may be required to be the controlling shareholder. *Id.* at 24–29.

¹⁸⁵ *Id.* at 21–24.

partner's existing operations, which may compete with the JV operation.¹⁸⁶ In such a situation, the JV's technology or trade secrets may be misappropriated or leaked to the firm's Chinese competitors.¹⁸⁷

The second form of coerced technology transfer relates to administrative licensing and regulatory approvals required by China for companies to establish or expand operations in many industries, such as food, drugs, mining, or telecommunications.¹⁸⁸ In the abstract, there is nothing inherently improper about the government regulating industries for health, safety, or environmental reasons. However, the USTR has alleged that China leverages necessary regulatory approvals as a tool to force technology transfer.¹⁸⁹ For example, a company may disclose proprietary formulas and designs to regulatory authorities to receive marketing approval, only to find that this sensitive information is passed along to Chinese competitors.¹⁹⁰ In other cases, the "expert panel" to which companies submit sensitive technical information for regulatory approval consists not only of governmental officials, but also of representatives from Chinese industry or academia with a competitive interest in the technology.¹⁹¹

Discriminatory Restrictions on Contractual IP Licensing

Owners of most forms of IP can assign or license their rights to another person, just as tangible property may be sold or leased to another party.¹⁹² For example, ownership of a copyright may be transferred from one person to another by signed, written contract,¹⁹³ usually in exchange for compensation. The IP owner may also retain ownership and grant a *license* to another person, that is, either exclusive or nonexclusive permission to use the IP.¹⁹⁴ Thus, for example, a patent owner may grant permission to another person to use and sell the patented invention through a contract in exchange for money or other compensation (e.g., royalties), or a musician may sell or license the rights in his work to a record company or a music publisher.¹⁹⁵ Sale or licensure can be an important way for IP owners to make money from their creations, especially for smaller entities that may not have the resources to commercialize their IP themselves. If IP owners cannot freely license their works at market rates, this may diminish the IP's value.

In its Section 301 investigation report, the USTR found that Chinese laws, policies, and practices preclude foreign entities from fairly negotiating market-based terms when licensing technology to Chinese entities.¹⁹⁶ Under Chinese law, foreign entities negotiating technology transfers or

¹⁸⁶ *Id.* at 28.

¹⁸⁷ *Id.*

¹⁸⁸ *Id.* at 36–39.

¹⁸⁹ *Id.*

¹⁹⁰ *Id.* at 42–43

¹⁹¹ *Id.*

¹⁹² *See, e.g.*, 17 U.S.C. § 201(d) (copyrights); 35 U.S.C. § 261 (patents); *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002 (1984) (trade secrets). Trademarks may be assigned or licensed as well, but subject to limitations such as prohibitions on "naked licensing" and "assignments in gross." *See generally* 3 MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION ch. 18, *Assignment and Licensing of Trademarks* (5th ed. 2019). ¹⁹³ 17 U.S.C. § 204(a).

¹⁹³ 17 U.S.C. § 204(a).

¹⁹⁴ *See License*, BLACK'S LAW DICTIONARY (11th ed. 2019) (defining a license as "permission . . . to commit some act that would otherwise be unlawful").

¹⁹⁵ *See, e.g.*, *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 121–22 (2007) (patent license agreement); *Cohen v. Paramount Pictures Corp.*, 845 F.2d 851, 852 (9th Cir. 1988) (copyright license agreement).

¹⁹⁶ SECTION 301 INVESTIGATION REPORT, *supra* note 8, at 48–61.

licenses are subject to different contractual restrictions than comparable provisions applicable to Chinese entities.¹⁹⁷ For example, Chinese regulations mandate that, in a technology license, a foreign licensor cannot stop the licensee from making improvements to the technology, and the Chinese licensee must own any such improvements made to the licensed technology.¹⁹⁸ Thus, the licensor cannot preclude the licensee from altering the licensed technology and then seeking a patent on that improvement.¹⁹⁹ In the context of JVs with Chinese entities, Chinese regulations mandate that the contract be limited to a ten-year duration, but the Chinese entity must nonetheless be granted the rights to use the technology in perpetuity.²⁰⁰ The USTR alleges that these legally mandated licensing terms in effect put U.S. companies at a disadvantage relative to Chinese entities, decrease the value that U.S. companies can obtain from licenses, and limit foreign IP rights holders' ability to control future uses of licensed technologies.²⁰¹

As discussed in further detail below,²⁰² on March 26, 2018, the United States filed a complaint with the WTO over these discriminatory licensing practices, alleging that China (1) imposes mandatory adverse contract terms that discriminate against and are less favorable to imported foreign technology; and (2) denies foreign patent holders the ability to enforce their patent rights against a Chinese JV partner even after a technology transfer contract ends.²⁰³ The proceedings have been suspended since June 2019 at the request of the United States, although with brief periods of activity to ensure the WTO panel's authority does not lapse.²⁰⁴

Bad-Faith Assertion/Registration

Another form of harm to U.S. IP rights holders concerns the bad-faith *over-enforcement* of IP rights. In some ways, this issue is the inverse of concerns about under-enforcement of IP rights; instead of ignoring widespread infringement, the issue here relates to exploitation of the IP system using specious claims that harm the legitimate interests of IP rights holders and users.

For example, bad-faith trademark registrations in China are an area of "growing concern."²⁰⁵ Many U.S. brand owners have complained that third parties are registering large numbers of marks in China that are identical or similar to existing, well-known U.S. brands.²⁰⁶ This practice may harm the U.S. trademark holder in two ways. First, if the registrant uses the mark to establish a business in China passing off its goods as those of the U.S. brand, this may confuse Chinese consumers and harm U.S. rights holders in ways analogous to ordinary trademark infringement.²⁰⁷ Second, some bad-faith registrants have sought to "ransom" the mark to the U.S. rights holder, forcing U.S. trademark holders to purchase their "own" rights back to avoid damage to their

¹⁹⁷ *Id.* at 49–51.

¹⁹⁸ *Id.* at 49.

¹⁹⁹ *Id.*

²⁰⁰ *Id.* at 50.

²⁰¹ *Id.* at 51–54.

²⁰² See *infra* notes 231–237 and accompanying text.

²⁰³ Request for Consultations by the United States, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/1 (Mar. 26, 2018).

²⁰⁴ See Communication from the Panel, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/14 (June 18, 2020); Communication from the Panel, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/10 (June 14, 2019).

²⁰⁵ 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 110.

²⁰⁶ 2019 SPECIAL 301 REPORT, *supra* note 32, at 42.

²⁰⁷ *Id.*

brand.²⁰⁸ U.S. stakeholders do not view the existing trademark opposition process in China as adequate to address concerns about bad-faith registration.²⁰⁹

Bad-faith assertion issues may also occur within the U.S. IP system. Chinese applications for trademarks in the United States have surged recently, rising from 0.07% to 10.5% of all trademark registration applications between 1985 and 2017.²¹⁰ A recent empirical study found that nearly 67% of trademark applications originating from China in 2017 in the apparel category showed signs of being fraudulent because the registrants did not appear to intend to use the mark in commerce.²¹¹ Even so, fraudulent trademarks harm U.S. rights holders through trademark depletion (i.e., a decrease in the supply of available, effective trademarks) and “clutter” in the Principal Register, the primary U.S. trademark registry.²¹² While the motivation for these fraudulent trademark applications is unclear, some speculate it results from the cash incentives offered by Chinese provincial governments for the registration of trademarks,²¹³ and it may be intended to harm U.S. competitiveness.²¹⁴

State Sponsorship and IP Violations

IP violations also differ in terms of the actor who committed the alleged violation. In the context of this report, a potentially relevant distinction is whether the IP violation was committed or supported by the Chinese government or government-affiliated entities, or instead by private Chinese individuals or entities not affiliated with or supported by the Chinese government. The discussion above has generally used the term *Chinese entities* to include both governmental and nongovernmental actors, in part because the complex relationship between the private sector in

²⁰⁸ 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 110.

²⁰⁹ 2019 SPECIAL 301 REPORT, *supra* note 32, at 48.

²¹⁰ See *Fraudulent Trademarks: How They Undermine the Trademark System and Harm American Consumers and Businesses: Hearing Before the S. Subcomm. on Intellectual Property of the S. Comm. on the Judiciary*, 116th Cong. 17–18 (statement of Profs. Barton Beebe and Jeanne Fromer) (showing increase from 42 trademark applications originating from China in 1985 to 51,312 applications in 2017), <https://www.judiciary.senate.gov/imo/media/doc/Beebe%20Testimony.pdf> [hereinafter Beebe & Fromer Statement].

²¹¹ *Id.* at 18–20. Such fraudulent trademark applications relied on “specimens of use” that, for example, consisted of multiple, nearly identical images of the same consumer product digitally altered with a different brand name on the tag, or relied on a product image associated with another company. *Id.* at 19 (laying out indicia of fraudulent specimens of use); see also Jacob Gershman, *Flood of Trademark Applications From China Alarms U.S. Officials*, WALL ST. J. (May 5, 2018), <https://www.wsj.com/articles/flood-of-trademark-applications-fromchinaalarms-u-s-officials-1525521600>.

²¹² See Beebe & Fromer Statement, *supra* note 210, at 32–33.

²¹³ Gershman, *supra* note 211; *Trade Relations: Bringing in the Big Guns*, WORLD INTELL. PROP. REV. (Apr. 11, 2019), <https://www.worldipreview.com/contributed-article/trade-relations-sending-in-the-big-guns> (“As part of a national effort to drive growth and IP ownership, China’s provincial governments began paying citizens for each trademark registered in the US, in some cases paying \$790 for each US trademark application, according to reports.”).

²¹⁴ See *Fraudulent Trademarks: How They Undermine the Trademark System and Harm American Consumers and Businesses: Hearing Before the S. Subcomm. on Intellectual Property of the S. Comm. on the Judiciary*, 116th Cong. 8 (responses to questions for the record by Megan K. Bannigan), <https://www.judiciary.senate.gov/imo/media/doc/Bannigan%20Response%20QFRs.pdf> (“I cannot say concretely why China is doing this and can only assume it is to negatively impact the American economy and competitiveness, while bolstering the Chinese economy and competitiveness.”); Bruce Berman, *12-Fold Increase in China’s U.S. Trademark Apps; Many Are Said to Be Fraudulent and Improperly Filed*, IP CLOSEUP (Sept. 4, 2018), <https://ipcloseup.com/2018/09/04/12-fold-increase-in-chinas-u-s-trademark-apps-many-are-said-to-be-fraudulent-and-improperly-filed/> (overviewing debate over whether “China may be attempting to ‘disrupt’ the U.S. [trademark] system by flooding it with huge numbers of applications”).

China and the government can make these distinctions more difficult to draw than in other countries.²¹⁵

For some types of IP violations—such as a failure to provide adequate IP protection²¹⁶ or discriminatory IP licensing regulations²¹⁷—the actor at issue is necessarily a governmental entity, as the complaint concerns the legal provisions of Chinese domestic law. In most cases, however, the varieties of IP violations discussed above may be committed either by entities affiliated with the Chinese government, or by private entities acting without state sponsorship. For example, U.S. authorities have alleged that certain cyber intrusions are committed with the support of the Chinese government, but this is not necessarily true in every case.²¹⁸ With respect to IP infringements such as piracy or counterfeiting, the infringers may be primarily nongovernmental entities, although U.S. rights holders complain of a lack of effective enforcement by Chinese authorities.²¹⁹ In other cases, it may be unclear whether a particular IP violation is supported by the Chinese government.

Existing Legal Remedies

The legal remedies available for IP violations by Chinese entities depend on many factors, including the nature of the violation, the type of IP at issue, where the violation occurred, the availability of personal jurisdiction over the accused, and whether the violation is part of a larger pattern of IP violations.²²⁰ This section reviews some of the principal legal remedies available under current law. First, it reviews remedies to address systemic violations, which are usually initiated by the executive branch to address widespread IP violations by foreign actors. These remedies generally rely on the President’s authority over foreign affairs or Congress’s statutory delegation of its authority over trade to the executive branch. Second, this section reviews the civil, criminal, and administrative remedies available for individual IP violations—that is, discrete IP violations affecting a particular rights holder—such as infringement suits or import controls. This section does not address the policy considerations relevant to pursuing these various remedies.²²¹

Systemic Violations: Foreign Affairs and Trade Remedies

This section examines actions that the executive branch could initiate against China’s alleged violations of U.S. IP rights under international trade agreements, through the use of its constitutional authority over foreign affairs, and under domestic international trade statutes.

²¹⁵ SECTION 301 INVESTIGATION REPORT, *supra* note 8, at 25 (noting that the “complex relationship between China’s private sector and the government” is a “particular challenge”).

²¹⁶ *See* discussion *supra* in “Under-Protection.”

²¹⁷ *See* discussion *supra* in “Discriminatory Restrictions on Contractual IP Licensing.”

²¹⁸ *See* SECTION 301 INVESTIGATION REPORT, *supra* note 8, at 153; 2017 CHINA WTO COMPLIANCE REPORT, *supra* note 32, at 115.

²¹⁹ *See* discussion *supra* in “Infringement and Under-Enforcement.”

²²⁰ Although this report focuses on China, these legal remedies are not restricted to addressing IP violations by Chinese entities, but are available to address IP violations more generally.

²²¹ For more on these policy aspects, see Ilias Akhtar et al., *supra* note 3.

Although this section also examines remedies under some national security-related authorities,²²² it does not address potential remedies under U.S. sanctions laws.²²³

TRIPS and WTO Disputes

The United States could consider challenging China’s IP practices by bringing cases against China before a WTO dispute settlement panel. To initiate a WTO dispute, a complaining member requests consultations with the respondent member in an effort to settle the dispute.²²⁴ If these consultations fail, the member initiating a dispute may request the establishment of a dispute settlement panel composed of trade experts to determine whether a country has violated WTO rules.²²⁵ Prior to December 2019, if a WTO panel rendered an adverse decision against China, it would be expected to bring its practices in line with its WTO obligations, generally within a reasonable period of time, or face the possibility of paying compensation to the complaining member or being subject to countermeasures allowed under the rules.²²⁶ Such countermeasures could include the United States imposing higher duties on imports of selected products from China.²²⁷

As of December 11, 2019, the WTO’s Appellate Body—the entity that considers appeals from dispute settlement panel decisions—lost its quorum of three members necessary to decide such appeals.²²⁸ Accordingly, if a WTO member appeals a panel report, the Dispute Settlement Body (DSB) (i.e., the committee composed of all WTO members that oversees the dispute settlement mechanism) can no longer adopt panel reports in line with the WTO’s Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU).²²⁹ Unless WTO members agree to

²²² See, e.g., NAT’L COUNTERINTELLIGENCE & SEC. CTR., NATIONAL COUNTERINTELLIGENCE STRATEGY OF THE UNITED STATES OF AMERICA 2020–2022, at 1, 8 (2020), https://www.dni.gov/files/NCSC/documents/features/20200205-National_CI_Strategy_2020_2022.pdf [hereinafter COUNTERINTELLIGENCE STRATEGY REPORT] (listing as one of three primary goals the promotion of “American prosperity by protecting our economy from foreign adversaries who seek to steal our technology and intellectual property” and noting that “[t]he theft of our most sensitive technologies, research and intellectual property harms U.S. economic, technological, and military advantage in the world”).

²²³ This section also does not examine whether the use of such authorities against China would violate U.S. obligations under international agreements.

²²⁴ WTO Understanding on Rules and Procedures Governing the Settlement of Disputes arts. 3–6 [hereinafter DSU]. The texts of the DSU and other WTO agreements discussed in this report are available at https://www.wto.org/english/docs_e/legal_e/final_e.htm.

²²⁵ *Id.*

²²⁶ DSU, *supra* note 224, arts. 21–22. Prior to the Appellate Body’s loss of a quorum in December 2019, WTO members whose measures were deemed inconsistent with its WTO obligations and unjustified under one of the GATT exceptions were expected to implement the panel or Appellate Body’s report. *Id.* art. 21.3. That is, the defending member had to withdraw, modify, or replace its inconsistent measures. See *id.* If a disagreement arose as to whether the defending member had, in fact, implemented the report, a WTO panel could be convened to hear the dispute over compliance. *Id.* art. 21.5. The WTO Appellate Body also heard appeals of these compliance panel reports. *Id.* art. 17.1.

²²⁷ See *id.* art. 22.3. Prior to the Appellate Body’s loss of a quorum, when a defending Member failed to implement a panel or Appellate Body report within the established compliance period, the prevailing member could request that the defending member negotiate a compensation agreement. *Id.* art. 22.2. If such negotiations were not requested or if an agreement was not reached, the prevailing member could also request authorization to impose certain trade sanctions against the noncomplying member. *Id.* art. 22.2–22.3. Specifically, the WTO could authorize the prevailing member to suspend tariff concessions or other trade obligations that it otherwise owed the noncomplying member under a WTO agreement. *Id.*

²²⁸ Alan H. Price, Real WTO Reform Now Possible with Demise of Appellate Body, BLOOMBERG LAW (Dec. 20, 2019). For more on this issue, see CRS Legal Sidebar LSB10385, *The WTO’s Appellate Body Loses Its Quorum: Is This the Beginning of the End for the “Rules-Based Trading System”?*, by Brandon J. Murrill.

²²⁹ DSU, *supra* note 224, art. 16.

consider panel reports as final, the DSB can no longer oversee the losing member's implementation of a panel report or authorize the prevailing member to engage in trade retaliation if the losing member ignores the dispute panel's recommendations.²³⁰ Thus, even if the United States obtained a favorable ruling against China from a dispute panel, there are doubts as to whether the ruling would be enforceable under WTO procedures.

As an example, in March 2018, the United States initiated the WTO dispute process against China based on its laws and implementing measures for importing and exporting technology and for foreign JVs.²³¹ Specifically, the United States alleged that these Chinese laws and regulations were inconsistent with TRIPS's national treatment principle,²³² because they treated foreign IP rights holders less favorably than Chinese IP rights holders.²³³ The United States also alleged that Chinese regulations permitting a Chinese JV partner to continue using licensed technology even after a contract's expiration violate TRIPS article 28.1 because they deny the foreign patentee the "exclusive" right to her invention.²³⁴ In other words, these Chinese laws and regulations allegedly favor Chinese IP holders, while preventing U.S. IP rights holders from enforcing their valid IP rights. On June 14, 2019, at the request of the United States, the WTO panel handling the dispute suspended the proceedings.²³⁵ The suspension remains in effect at the request of the United States and with China's consent, although the panel resumed work for several brief periods between June 14, 2019, and June 8, 2020. The most recent request for a suspension was filed in June 2020.²³⁶ Under the DSU, a panel retains its authority so long as it has not been suspended for more than twelve months.²³⁷ The United States and China appear to interpret this rule as permitting suspensions to extend beyond a year overall if the panel has resumed work, even briefly, during that period.

WTO rules under the TRIPS Agreement are arguably inadequate for addressing China's IP violations because WTO members retain some flexibility with regard to implementation and enforcement. In addition, there can be difficulties in collecting sufficient evidence to support a WTO dispute. The executive branch's decision to impose tariffs under domestic law to address some of China's IP practices identified in the USTR's Section 301 Report may reflect this concern.²³⁸

²³⁰ Some U.S. trading partners have agreed to an interim appeal system that does not—at least yet—include the United States. *See In Davos, DG Azevêdo Hears Support—and Urgency—for WTO Reform*, WTO.ORG (Jan. 24, 2020), https://www.wto.org/english/news_e/news20_e/minis_24jan20_e.htm.

²³¹ Request for Consultations by the United States, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/1 (Mar. 26, 2018).

²³² TRIPS, *supra* note 41, art. 3; *see supra* note 127 and accompanying text.

²³³ Request for Consultations by the United States, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/1 (Mar. 26, 2018), at 2.

²³⁴ *Id.*

²³⁵ Communication from the Panel, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/10 (June 14, 2019).

²³⁶ Communication from the Panel, *China—Certain Measures Concerning the Protection of Intellectual Property Rights*, WTO Doc. WT/DS542/14 (June 18, 2020).

²³⁷ DSU, *supra* note 224, art. 12.12.

²³⁸ Memorandum of March 22, 2018, *Actions by the United States Related to the Section 301 Investigation of China's Laws, Policies, Practices, or Actions Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 13,099 (Mar. 27, 2018); *see also, e.g.*, Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28,710, 28,711 (June 20, 2018).

Diplomacy and International Agreements²³⁹

The President possesses constitutional authority over diplomacy and foreign affairs.²⁴⁰ This includes constitutional power to negotiate international agreements²⁴¹ and non-legally binding international pacts.²⁴² The executive branch may use this authority to negotiate more extensive protections for U.S. IP than is currently offered by TRIPS. Such protections may be contained within a comprehensive bilateral free-trade agreement or as part of a multilateral agreement among several countries.²⁴³ To the extent that international engagement with China may result in international pacts that are not legally binding, the President historically has claimed the power to conclude such pacts without congressional authorization.²⁴⁴ If a negotiation produces a binding international agreement, however, Congress's role varies depending on the final agreement's form (i.e., whether it is an Article II treaty that requires the Senate's advice and consent, a congressional-executive agreement that requires congressional approval, or a sole executive agreement for which the President claims constitutional authority to conclude without Congress).²⁴⁵

The executive branch has used this constitutional authority, in conjunction with statutory authority under Section 301,²⁴⁶ to negotiate certain “structural reforms” to China’s IP practices to protect U.S. IP rights holders as part of the Phase One Agreement.²⁴⁷ As explained by the USTR, the Phase One Agreement was designed, in part, to address the issues identified during the Section 301 investigation, and thus relied partly on statutory authority to enter into binding agreements with a country “that commits it to eliminate or phase out the act, policy or practice in question.”²⁴⁸ Issues not addressed by the Section 301 investigation (e.g., market access for agriculture and purchase requirements) may have relied instead on the President’s authority over foreign affairs. Unlike a number of other Section 301 agreements, the Phase One Agreement does not include a binding obligation on the parties to remove tariffs or other countermeasures

²³⁹ Steve Mulligan, CRS Legislative Attorney, contributed to this section.

²⁴⁰ While recognizing that the Constitution divides the foreign affairs power between Congress and the Executive, *Zivotofsky v. Kerry*, 576 U.S. 1, 16 (2015) (“In foreign affairs, as in the domestic realm, the Constitution ‘enjoins upon its branches separateness but interdependence, autonomy but reciprocity.’” (quoting *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 635 (1952) (Jackson, J., concurring))), the Supreme Court has stated that the President possesses the “vast share” of foreign relations authority. *Am. Ins. Ass’n v. Garamendi*, 539 U.S. 396, 414 (2003) (quoting *Youngstown Sheet & Tube Co.*, 343 U.S. at 610–11 (Frankfurter, J., concurring)).

²⁴¹ See *Zivotofsky*, 576 U.S. at 13 (“The President has the sole power to negotiate treaties . . .”); CONG. RSCH. SERV., TREATIES AND OTHER INTERNATIONAL AGREEMENTS: THE ROLE OF THE UNITED STATES SENATE, S. REP. NO. 106-97, at 96–97 (2001) (discussing negotiations of treaties and other international agreements).

²⁴² See CRS Report RL32528, *International Law and Agreements: Their Effect upon U.S. Law*, by Stephen P. Mulligan, at 12–15 (discussing authority to negotiate and complete nonlegal pacts). The President also possesses specific statutory authority over certain trade agreements, discussed in more detail below. See discussion *infra* in “Section 301 of the Trade Act of 1974.”

²⁴³ Currently, the WTO and the World Intellectual Property Organization (WIPO) represent the primary fora for global cooperation on protecting IP. WIPO is a “self-funding agency of the United Nations, with 192 member states.” See TRIPS, *supra* note 41; *Inside WIPO*, WORLD INTELL. PROP. ORG., <https://wipo.int/about-wipo/en/> (last visited Aug. 18, 2020).

²⁴⁴ See Mulligan, *supra* note 242, at 12–15.

²⁴⁵ For a discussion of the forms of international agreements and the role of Congress, see *id.* at 2–15.

²⁴⁶ See discussion *infra* in “Section 301 of the Trade Act of 1974.”

²⁴⁷ *Hearing on U.S.-China Trade Before the H. Comm. on Ways and Means*, 116th Cong. 22 (2019) (statement of Robert E. Lighthizer, U.S. Trade Rep.) (“The President is using his power under Section 301, which has been delegated. And it is an executive agreement which the Constitution gives the President the right to enter into.”).

²⁴⁸ 19 U.S.C. § 2411(c).

imposed during the trade dispute. Moreover, the Phase One Agreement is somewhat unusual in that it addresses a dispute outside the context of the WTO; by contrast, other recent uses of this Section 301 negotiating authority have sought to resolve long-standing WTO disputes.²⁴⁹ As discussed above, the increased tensions between the United States and China have led to more uncertainty as to whether the Phase One Agreement will be fully implemented (or terminated) and whether the contemplated Phase Two Agreement may ever be negotiated.

Section 301 of the Trade Act of 1974

To address China's IP practices, the executive might also consider using authority under domestic trade statutes. As noted, one broad authority that might be used is known as "Section 301." The statutory framework governing "Section 301" investigations is based in Sections 301 through 310 of the Trade Act of 1974, as amended.²⁵⁰ This framework is one of the principal means by which the United States enforces U.S. rights under trade agreements and addresses "unfair" trade barriers to U.S. exports.²⁵¹

Investigations can be initiated as a result of a petition filed by an interested party with the USTR or by the agency itself.²⁵² If the USTR initiates an investigation under Section 301, then Section 303 requires that, on the date of initiation, the USTR must "request consultations with the foreign country concerned" to reach a settlement within a set time frame.²⁵³ Section 303 also requires the USTR to determine whether the Section 301 investigation "involves a trade agreement" and, if so, must then follow the formal dispute settlement process under that agreement should consultations with the other country fail.²⁵⁴ If the USTR makes an affirmative determination of "unfair" barriers to U.S. trade, it generally must implement the action it determines to take, subject to any specific direction of the President, no later than thirty days after the date of the affirmative determination.²⁵⁵

²⁴⁹ See Hart, *supra* note 15.

²⁵⁰ 19 U.S.C. §§ 2411–2420. This memorandum does not discuss all of the procedures the USTR must follow under Section 301. See generally CRS Legal Sidebar LSB10108, *Tricks of the Trade: Section 301 Investigation of Chinese Intellectual Property Practices Concludes (Part I)*, by Brandon J. Murrill (discussing the executive branch's use of Section 301 against China and the procedures that the USTR follows when conducting a Section 301 investigation).

²⁵¹ For a discussion of the policy considerations in Section 301 investigations and the history of their use with regard to China specifically, see *CRS Section 301 and China*, *supra* note 13. For a discussion of the policy considerations related to the Trump Administration's tariff actions under Section 301, see Williams et al., *supra* note 13. For an overview of Section 301 and policy considerations, see CRS In Focus IF11346, *Section 301 of the Trade Act of 1974*, by Andres B. Schwarzenberg.

²⁵² 19 U.S.C. § 2412.

²⁵³ *Id.* § 2413.

²⁵⁴ *Id.*

²⁵⁵ *Id.* § 2415(a). Under certain circumstances, the agency may temporarily delay action. See *id.* Section 301 provides that the action taken "to eliminate an act, policy, or practice shall be devised so as to affect goods or services of the foreign country in an amount that is equivalent in value to the burden or restriction being imposed by that country on United States commerce." *Id.* § 2411(a)(3). Section 301 defines two types of executive action—mandatory or discretionary—that can result from Section 301 investigations. Under Section 301(a)—the "mandatory action" provision—the USTR *must* take action as specified by the statute, subject to certain exceptions, if he determines that

- "the rights of the United States under any trade agreement are being denied," or
- "an act, policy, or practice of a foreign country . . . violates, or is inconsistent with, the provisions of, or otherwise denies benefits to the United States under, any trade agreement," or
- "an act, policy, or practice of a foreign country . . . is unjustifiable" (defined to mean conduct that "is in violation of, or inconsistent with, the international legal rights of the United States") "and burdens or restricts United

The statute authorizes the USTR to, among other things,²⁵⁶

- suspend, withdraw, or prevent the application of certain benefits of trade concessions in a trade agreement with the country under investigation;²⁵⁷
- impose duties or other import restrictions on goods or fees or restrictions on services;²⁵⁸

States commerce.”

Id. § 2411(a), (d)(4)(A). The provision further states that in order to enforce U.S. rights under a trade agreement or obtain the elimination of certain unfair practices, “[a]ctions may be taken that are within the power of the President with respect to trade in any goods or services, or with respect to any other area of pertinent relations with the foreign country.” *Id.* § 2411(a)(1)(B)(ii) (emphasis added). Thus, the mandatory action provision generally applies in the context of a trade agreement provision, or when a foreign country’s conduct violates or is inconsistent with international legal rights (which likely are the product of such a trade agreement).

By contrast, under Section 301(b)—the “discretionary action” provision—the USTR *may* take certain actions enumerated in the statute if he determines that “an act, policy, or practice of a foreign country is unreasonable or discriminatory and burdens or restricts United States commerce, and . . . action by the United States is appropriate.” *Id.* § 2411(b). The statute specifies that conduct “is unreasonable if the act, policy, or practice, while not necessarily in violation of, or inconsistent with, the international legal rights of the United States, is otherwise unfair and inequitable.” *Id.* § 2411(d)(3)(A). Thus, the discretionary action provision can operate outside of the context of a trade agreement or established “international legal rights.” Conduct is discriminatory under the statute when “any act, policy, and practice . . . denies national or most-favored-nation treatment to United States goods, services, or investment.” *Id.* § 2411(d)(5). “Most-favored-nation treatment” is a commitment on the part of trading partners to treat another country’s goods no less favorably than the goods of other trade agreement countries.

²⁵⁶ Section 301(a)(1)(B) states that the USTR shall take authorized actions

subject to the specific direction, if any, of the President regarding any such action, and shall take all other appropriate and feasible action within the power of the President that the President may direct the USTR to take under this subsection, to enforce such rights or to obtain the elimination of such act, policy, or practice. Actions may be taken that are within the power of the President with respect to trade in any goods or services, or with respect to any other area of pertinent relations with the foreign country.

Id. § 2411(a)(1)(B).

²⁵⁷ This report does not examine the President’s authority to withdraw from free trade agreements altogether. For more on this issue, see CRS Report R45557, *The President’s Authority to Withdraw the United States from the North American Free Trade Agreement (NAFTA) Without Further Congressional Action*, by Brandon J. Murrill.

²⁵⁸ There are other international trade-related statutory authorities not discussed in this section that appear to provide the President with broad authority to regulate international commerce. For example, Section 338 of the Tariff Act of 1930 authorizes the President to, among other things, impose duties on imports from a foreign country that

- (1) Imposes, directly or indirectly, upon the disposition in or transportation in transit through or reexportation from such country of any article wholly or in part the growth or product of the United States any unreasonable charge, exaction, regulation, or limitation which is not equally enforced upon the like articles of every foreign country; or
- (2) Discriminates in fact against the commerce of the United States, directly or indirectly, by law or administrative regulation or practice, by or in respect to any customs, tonnage, or port duty, fee, charge, exaction, classification, regulation, condition, restriction, or prohibition, in such manner as to place the commerce of the United States at a disadvantage compared with the commerce of any foreign country.

19 U.S.C. § 1338.

As another example, Section 103(a) of the 2015 Bipartisan Congressional Trade Priorities and Accountability Act (Pub. L. No. 114-26) authorizes the President to enter into limited trade agreements with foreign countries before July 1, 2021, in order to promote U.S. trade by obtaining the reciprocal reduction or removal of tariff barriers “or other import restrictions,” provided the President follows certain procedural requirements and adheres to certain limitations on the exercise of this authority. *Id.* § 4202(a). The executive branch might also consider using authorities specifically related to tariffs and quantitative restrictions on agricultural imports. *See, e.g., id.* §§ 3601 (tariff-rate quotas), 3602 (special agricultural safeguards).

- revoke, suspend, or limit, in accordance with trade preference laws, certain trade preferences that provide duty-free treatment to goods, regardless of whether it affects goods or services in an amount equivalent to the burden imposed by that country on U.S. commerce; and
- enter into binding agreements that commit the offending country to eliminate or phase out the act, policy, or practice in question; eliminate the burden or restriction on U.S. commerce from such conduct; or compensate the United States with trade benefits.²⁵⁹

After the statute was enacted in 1974, the United States conducted numerous Section 301 investigations to enforce its trade rights, with some of the most significant cases brought against China in the early 1990s.²⁶⁰ Following the establishment in 1995 of the WTO's dispute settlement procedures under the DSU, however, the United States began to rely primarily on the WTO dispute settlement process to enforce its trade rights.²⁶¹ With the exception of the Trump Administration's unilateral tariffs imposed on Chinese imports, which a WTO panel ruled to violate U.S. WTO commitments,²⁶² the Section 301 investigations initiated after 1995 either resulted in a WTO dispute settlement case; were used to enforce the outcomes of a previously decided WTO dispute; or were not further pursued by the USTR.²⁶³

The Trump Administration has already imposed Section 301 tariffs on billions of dollars in Chinese imports to address China's alleged IP violations.²⁶⁴ However, Section 301 might provide a variety of additional options for the United States to act directly or indirectly against China if the USTR determines that China's practices meet the statutory criteria for taking such action. Section 301 provides that the USTR may take action against "any goods or economic sector (A) on a nondiscriminatory basis or solely against the foreign country [in violation], and (B) without regard to whether or not such goods or economic sector were involved in the act, policy, or practice that is the subject of such action."²⁶⁵ Accordingly, Section 301 might seemingly be used to restrict imports of China products or services into the United States or to restrict imports of goods and services of other countries or companies to pressure them not to do business with China.²⁶⁶

An additional provision, known as "Special 301," requires the USTR to issue an annual report identifying foreign countries that are "priority foreign countries" because they deny effective protection of U.S. IP rights²⁶⁷ or they deny fair and equitable market access to U.S. persons who

²⁵⁹ *Id.* § 2411(c).

²⁶⁰ See *CRS Section 301 and China*, *supra* note 13.

²⁶¹ Bruce Hirsch, *Taking Matters into Your Own Hands—Section 301 of the Trade Act of 1974*, HINRICH FOUND. (Aug. 3, 2017), <https://tradevistas.org/taking-matters-hands-section-301-trade-act-1974/>.

²⁶² See *id.*; Panel Report, *United States—Tariff Measures on Certain Goods from China*, WTO Doc. WT/DS543/R (Sept. 15, 2020).

²⁶³ Williams et al., *supra* note 13, at 9.

²⁶⁴ For more on these tariffs, see CRS In Focus IF11346, *Section 301 of the Trade Act of 1974*, by Andres B. Schwarzenberg.

²⁶⁵ 19 U.S.C. § 2411(c).

²⁶⁶ Section 301 includes within its definition of "services" the "transfers of information," raising the possibility that USTR might restrict data flows to Chinese companies that enable them to provide goods or services. See *id.* § 2411(d)(1).

²⁶⁷ Regardless of whether it is in compliance with TRIPS, a "foreign country denies adequate and effective protection of intellectual property rights if the foreign country denies adequate and effective means under the laws of the foreign country for persons who are not citizens or nationals of such foreign country to secure, exercise, and enforce rights

rely upon IP protection.²⁶⁸ If these countries are not entering into good faith negotiations or otherwise making significant progress in negotiations to protect IP effectively, then the USTR must develop an action plan with respect to a country that has remained on the list for at least one year.²⁶⁹ The President may take “appropriate action” with respect to a foreign country that fails to meet action plan benchmarks.²⁷⁰

Export Controls²⁷¹

The U.S. government may also regulate the transfer of U.S.-based IP to Chinese entities through the use of the export control regime.²⁷² The Export Controls Act of 2018 (ECA)²⁷³ provides the President with certain powers to control the export of, among other things, certain U.S. dual-use goods and technology.²⁷⁴ Specifically, it requires the executive branch to develop a list of controlled items and a list of foreign entities and end-users that cannot receive certain U.S. exports without a license because they are deemed “threat[s] to the national security and foreign policy of the United States.”²⁷⁵ The U.S. Department of Commerce’s Bureau of Industry and Security (BIS) maintains a list, known as the “Entity List,” of individuals and entities that are subject to license requirements for the export of specific items.²⁷⁶ The concept of “export” is broad and includes the transfer of technology or data to a foreign national within a U.S. territory.²⁷⁷ Thus, the U.S. government could seek to prevent theft of U.S. IP rights by regulating transfers of technology or data embodying U.S. IP rights to Chinese individuals or entities, even if such transfers occur within the boundaries of the United States.

The U.S. government could also use export controls to pressure China to cease violating U.S. IP rights by denying critical components to Chinese companies. The United States has added many Chinese companies and their non-U.S. affiliates to the Entity List since 2019. For example, in final rules issued in May and August 2019, BIS added Huawei Technologies Co., Ltd. (Huawei) and 114 non-U.S. affiliates of Huawei to the Entity List.²⁷⁸ Because some Chinese companies

relating to patents, process patents, registered trademarks, copyrights, trade secrets, and mask works.” *Id.* § 2242(d)(2).

²⁶⁸ Regardless of whether it is in compliance with TRIPS, “[a] foreign country denies fair and equitable market access if the foreign country effectively denies access to a market for a product protected by a copyright or related right, patent, trademark, mask work, trade secret, or plant breeder’s right, through the use of laws, procedures, practices, or regulations” that violate international law or agreements to which the United States and the foreign country are party, or “constitute discriminatory nontariff trade barriers.” *Id.* § 2242(d)(3). The Special 301 Report also identifies countries on additional administratively created categories, such as the “Priority Watch List” countries—a category that includes China. See 2019 SPECIAL 301 REPORT, *supra* note 32, at 6.

²⁶⁹ 19 U.S.C. § 2242(g).

²⁷⁰ *Id.*

²⁷¹ Steve Mulligan, CRS Legislative Attorney, contributed to this section of the report.

²⁷² See David S. Bloch, *Intellectual Property Implications of Export Control Laws*, BLOOMBERG LAW (2011), <https://www.winston.com/images/content/7/6/767.pdf> (“Through the export control regime, the Government regulates what U.S.-based IP can be conveyed to foreign parties, and how.”).

²⁷³ 50 U.S.C. §§ 4801–4826.

²⁷⁴ *Id.* § 4812. For detailed background on the Export Controls Act and its authority, see CRS Report R41916, *The U.S. Export Control System and the Export Control Reform Initiative*, by Ian F. Fergusson and Paul K. Kerr.

²⁷⁵ 50 U.S.C. § 4813(a)(1)–(2).

²⁷⁶ See 15 C.F.R. app. supp. no. 4. to pt. 744.

²⁷⁷ 15 C.F.R. § 734.13.

²⁷⁸ Addition of Entities to the Entity List, 84 Fed. Reg. 22,961 (May 21, 2019) (codified at 15 U.S.C. pt. 744); Addition of Entities to the Entity List and Revision of Entities on the Entity List, 84 Fed. Reg. 43,493 (Aug. 21, 2019) (codified at 15 U.S.C. pt. 744). However, BIS has maintained certain limited exemptions for some exports to these entities. See,

(e.g., telecommunications companies) depend on certain U.S. products, such as microchips, for their supply chain, denial of exports of U.S. products can severely affect their business.²⁷⁹

Section 232 of the Trade Expansion Act of 1962

Section 232 of the Trade Expansion Act of 1962 authorizes the President to “adjust the imports” of “articles” and their derivatives to address threats to national security.²⁸⁰ The statute’s use of the term “articles” suggests that it is aimed at addressing imports of products (e.g., machinery or DVDs containing counterfeit software or patent-infringing hardware).²⁸¹ Although Section 232 addresses imports of articles that threaten national security, the U.S. government has noted the close relationship between foreign theft of U.S. IP rights and national security.²⁸² For example, the 2020 National Counterintelligence Strategy notes that “[t]he theft of our most sensitive technologies, research and intellectual property harms U.S. economic, technological, and military advantage in the world.”²⁸³ Because Section 232 defines the concept of “national security” broadly to include economic effects, the executive could likely use this authority to restrict or prohibit imports of IP-infringing goods from China or to pressure other countries to cease doing business with China.²⁸⁴

The President’s authority under Section 232 is triggered if the Department of Commerce conducts an investigation and concludes that the articles are “being imported into the United States in such quantities or under such circumstances as to threaten to impair the national security.”²⁸⁵ The “adjustment” of imports might take the form of tariffs, quotas, tariff-rate quotas, import licenses, embargos, or other restrictions for a duration that the President determines is appropriate²⁸⁶—or the negotiation of trade agreements that limit or restrict the import into, or export from, the United States of the article at issue.²⁸⁷

e.g., Press Release, U.S. Dep’t of Commerce, *U.S. Department of Commerce Extends Huawei Temporary General License* (Nov. 18, 2019), <https://www.commerce.gov/news/press-releases/2019/11/us-department-commerce-extends-huawei-temporary-general-license>.

²⁷⁹ In November 2018, Huawei released a list of core suppliers, and thirty-three of ninety-two suppliers were U.S. companies. Yuan Yang & Lucy Hornby, *China Raises Alarm over Its Dependency on Foreign Chips*, FIN. TIMES (July 18, 2018), <https://www.ft.com/content/410306d8-8ae0-11e8-bf9e-8771d5404543> (“China relies on imported semiconductors to build the hardware—including phones, telecoms gear and computers—that account for almost one-third of its exports . . .”).

²⁸⁰ 19 U.S.C. § 1862. For a comprehensive overview of Section 232, see CRS Report R45249, *Section 232 Investigations: Overview and Issues for Congress*, coordinated by Rachel F. Fefer.

²⁸¹ *Article*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/article> (defining “article” as “a member of a class of things, especially: an item of goods”) (last visited Aug. 18, 2020).

²⁸² See, e.g., COUNTERINTELLIGENCE STRATEGY REPORT, *supra* note 222, at 1, 8 (listing as one of three primary goals, the promotion of “American prosperity by protecting our economy from foreign adversaries who seek to steal our technology and intellectual property” and noting that “[t]he theft of our most sensitive technologies, research and intellectual property harms U.S. economic, technological, and military advantage in the world”).

²⁸³ *Id.* at 8.

²⁸⁴ 19 U.S.C. § 1862(d).

²⁸⁵ *Id.* § 1862(c)(1).

²⁸⁶ *Fed. Energy Admin. v. Algonquin SNG, Inc.*, 426 U.S. 548, 561 (1976).

²⁸⁷ 19 U.S.C. § 1862(c)(3)(A).

The statute provides that the Department of Commerce and the President shall consider a wide variety of factors when determining whether imports threaten national security and how to adjust them if necessary.²⁸⁸ It characterizes national security concerns broadly, stating the following:

In the administration of this section, the Secretary [of Commerce] and the President shall further recognize the close relation of the economic welfare of the Nation to our national security, and shall take into consideration the impact of foreign competition on the economic welfare of individual domestic industries; and any substantial unemployment, decrease in revenues of government, loss of skills or investment, or other serious effects resulting from the displacement of any domestic products by excessive imports shall be considered, without excluding other factors, in determining whether such weakening of our internal economy may impair the national security.²⁸⁹

Prior to the Trump Administration's use of Section 232, there was relatively little case law interpreting the scope of the President's authority under Section 232, although a 1976 Supreme Court case upheld Section 232 as a constitutional delegation of authority to the President.²⁹⁰ The U.S. Court of Appeals for the Federal Circuit (Federal Circuit) has relied upon and reaffirmed this precedent in recent litigation²⁹¹ challenging President Trump's 2018 proclamations imposing tariffs on certain steel and aluminum.²⁹²

Further case law from the U.S. Court of International Trade (CIT) suggests some limits to the scope of the President's authority under Section 232. For instance, in *Transpacific Steel LLC v. United States*, a U.S. company that imports steel products from various countries, including Turkey, sought a refund of the allegedly excess Section 232 duties it paid on imports of Turkish steel.²⁹³ The CIT held that the President's power to impose tariffs under Section 232(b), while broad, is not unlimited.²⁹⁴ Specifically, the court decided that the President must closely adhere to the statute's procedural requirements when exercising such authority.²⁹⁵ The court also

²⁸⁸ These factors include

domestic production needed for projected national defense requirements, the capacity of domestic industries to meet such requirements, existing and anticipated availabilities of the human resources, products, raw materials, and other supplies and services essential to the national defense, the requirements of growth of such industries and such supplies and services including the investment, exploration, and development necessary to assure such growth, and the importation of goods in terms of their quantities, availabilities, character, and use as those affect such industries and the capacity of the United States to meet national security requirements.

Id. § 1862(d).

²⁸⁹ *Id.*

²⁹⁰ *Algonquin SNG*, 426 U.S. at 561.

²⁹¹ *Am. Inst. for Int'l Steel, Inc. v. United States*, 806 F. App'x 982 (Fed. Cir. 2020), *cert. denied*, No. 19-1177, 2020 WL 3405872 (mem.) (U.S. June 22, 2020).

²⁹² Proclamation 9704 of March 8, 2018: Adjusting Imports of Aluminum Into the United States, 83 Fed. Reg. 11,619 (Mar. 15, 2018); Proclamation 9705 of March 8, 2018: Adjusting Imports of Steel Into the United States, 83 Fed. Reg. 11,625 (Mar. 15, 2018). The Department of Commerce has also developed a process whereby individuals or organizations can file requests for exclusions from the tariffs. The exclusion process might also be used as a form of leverage over companies or countries. For more on the Section 232 process, the historical use of this authority, and the exclusion process, see CRS Report R45249, *Section 232 Investigations: Overview and Issues for Congress*, coordinated by Rachel F. Fefer.

²⁹³ *Transpacific Steel LLC v. United States*, No. 19-00009, 2020 WL 3979838, at *1 (Ct. Int'l Trade July 14, 2020); *see also* *Transpacific Steel LLC v. United States*, 415 F. Supp. 3d 1267 (Ct. of Int'l Trade 2019) (prior decision denying the United States' motion to dismiss the complaint because the court found the constitutional and statutory allegations were plausible).

²⁹⁴ *Transpacific Steel*, 2020 WL 3979838, at *1.

²⁹⁵ *Id.* at *3-4.

determined that the executive violated constitutional guarantees of equal protection protected by the Fifth Amendment's Due Process Clause when imposing, without a rational basis, the additional steel tariffs only on imports from Turkey.²⁹⁶ This decision indicates that courts may scrutinize whether the executive branch has followed the proper procedures, including meeting statutory deadlines, when exercising Section 232 authority.

Provided proper statutory procedures are followed and the imposition of tariffs comports with constitutional requirements, Section 232 might be used to restrict additional imports of Chinese products, among others, that infringe U.S. IP rights and thereby threaten national security (e.g., products with IP-infringing hardware that might be used to carry out cyberattacks in the United States). A finding under Section 232 that certain imports threaten national security does not itself necessarily implicate a specific country, such as China, as the responsible actor; rather, the focus of Section 232 investigations is whether domestic vulnerabilities indicate that the volume or type of imports pose risks to national security.

Section 201 of the Trade Act of 1974

Sections 201 through 204 of the Trade Act of 1974 (Section 201) authorize the President to impose temporary tariffs, import restrictions, and other similar measures (known as “safeguards”) following an investigation by the independent U.S. International Trade Commission (ITC) if it reaches an affirmative determination of injury or the threat thereof to a domestic industry.²⁹⁷ The President must impose such measures to protect a domestic industry from significant increases in imports of products comparable to those produced by the domestic industry.²⁹⁸ For these safeguard measures, the President decides on the amount and, to an extent, the form of relief; no finding of an unfair trade practice is required.²⁹⁹

Using this authority, the executive could consider imposing safeguard duties, provided the statutory procedures and prerequisites for action are satisfied (i.e., there is a surge of IP-infringing Chinese products, such as counterfeit software or patent-infringing hardware, that injure or threaten to injure a particular U.S. industry). In general, a decision to impose safeguard duties would not necessarily indicate that China itself is involved in creating the surge or aware of the IP-infringing nature of the products for several reasons: (1) the investigations are global in nature, and (2) import surges can be caused by factors other than state-sponsored practices that affect trade patterns. Nonetheless, if there was a surge of IP-infringing imports into the United States, an investigation may encompass products whose IP-infringing elements are known to the Chinese government.

²⁹⁶ *Id.* at *6–8.

²⁹⁷ 19 U.S.C. §§ 2251–2254. For background and policy considerations, see CRS In Focus IF10786, *Safeguards: Section 201 of the Trade Act of 1974*, by Vivian C. Jones.

²⁹⁸ 19 U.S.C. §§ 2251–2254. Generally, measures may be imposed on products from all countries (except in certain cases in which an international agreement provides otherwise) or products from those countries responsible for a surge in imports. *Id.* The President may impose provisional relief in certain circumstances with respect to certain products, including perishable agricultural products. *See generally id.* § 2252(d). Under Section 406 of the Trade Act of 1974, which bears some similarities to Section 201, the ITC is responsible for investigating, “with respect to imports of an article which is the product of a Communist country, whether market disruption exists with respect to an article produced by a domestic industry” and the President can act to provide relief. *Id.* § 2436.

²⁹⁹ *Id.* § 2253.

The International Emergency Economic Powers Act³⁰⁰

The International Emergency Economic Powers Act (IEEPA)³⁰¹ grants the President power to regulate a broad range of economic transactions when the President declares that a national emergency exists pursuant to the provisions of the National Emergencies Act.³⁰² The President might rely on IEEPA to block exports to, or imports from, entities believed to engage in IP violations if he declared that IP theft created a national emergency (e.g., because of its threat to U.S. economic and national security interests).³⁰³ Upon a national emergency declaration, the President may (subject to certain exceptions described below) investigate, regulate, or prohibit foreign exchange transactions, transfers of credit involving foreign nationals or foreign countries, and the importation or exportation of currency and securities involving persons or property subject to U.S. jurisdiction.³⁰⁴ IEEPA also allows the President to take certain specified action relating to property in which a foreign country or person has an interest, including blocking property or specific interests in property; prohibiting U.S. persons from entering into transactions involving frozen assets or blocked property; and regulating transactions involving frozen assets and blocked property.³⁰⁵

Nonetheless, IEEPA is not boundless. The President cannot use IEEPA to regulate transactions involving certain communications that do not involve a transfer of anything of value; informational materials; or transactions incident to travel.³⁰⁶ IEEPA also is limited jurisdictionally to transactions involving U.S. persons or property subject to the jurisdiction of the United States.³⁰⁷ It does not permit the President to “confiscate” (i.e., take title to) property unless that property is owned by a person, nation, or entity that has planned, authorized, aided, or engaged in hostilities or attacks against the United States.³⁰⁸ And while IEEPA permits economic sanctions, it does not require the President to impose or maintain them, nor does it place any congressional review process on the executive’s decision to lift IEEPA-based sanctions.³⁰⁹

The President used this authority on August 6, 2020, to issue executive orders to prohibit certain transactions involving the mobile applications TikTok and WeChat. These executive orders build on a prior executive order addressing vulnerabilities in information and communications technology and services. In May 2019, the President issued an executive order declaring a national emergency due to “vulnerabilities in information and communications technology and services, which store and communicate vast amounts of sensitive information,” including personal information “to commit malicious cyber-enabled actions, including economic and industrial espionage against the United States.”³¹⁰ The President also determined that “unrestricted acquisition or use” of such technology and services that was “designed, developed, manufactured, or supplied by persons owned by, controlled by, or subject to the jurisdiction or

³⁰⁰ Steve Mulligan, CRS Legislative Attorney, contributed to this section of the report.

³⁰¹ See 50 U.S.C. § 1702. For additional analysis of IEEPA, see CRS Report R45618, *The International Emergency Economic Powers Act: Origins, Evolution, and Use*, coordinated by Christopher A. Casey.

³⁰² Pub. L. No. 94-412, 90 Stat. 1255 (1976) (codified as amended at 50 U.S.C. §§ 1601–1651).

³⁰³ 50 U.S.C. § 1702(a)(1)(B).

³⁰⁴ *Id.* § 1702(a)(1)(A).

³⁰⁵ *Id.* § 1702(a)(1)(B).

³⁰⁶ *See id.* § 1702(b).

³⁰⁷ *See id.* § 1702(a)(1).

³⁰⁸ *See id.* § 1702(c).

³⁰⁹ *See id.* § 1701(a)(1) (providing that the President “may” prescribe sanctions in response to a national emergency).

³¹⁰ Exec. Order No. 13,873, 84 Fed. Reg. 22,689 (May 15, 2019).

direction of foreign adversaries” could allow such adversaries to “create and exploit vulnerabilities,” thereby also qualifying as “an unusual and extraordinary threat to the national security, foreign policy, and economy of the United States” under IEEPA.³¹¹ “Foreign adversary” is defined as “any foreign government or foreign non-government person engaged in a long-term pattern or serious instances of conduct significantly adverse to the national security of the United States or security and safety of United States persons.”³¹²

Based on these previous determinations, the President’s August 6, 2020, executive orders found that “additional steps must be taken to deal with the national emergency” due to the alleged threats posed by TikTok and WeChat.³¹³ In particular, the President found that China “continues to threaten the national security, foreign policy, and economy of the United States” and that TikTok and WeChat present risks based on how much information they collect from users.³¹⁴ This information “threatens to allow the Chinese Communist Party access to Americans’ personal and proprietary information,” which could allow China to track federal employees, build files of personal information for blackmail, and carry out “corporate espionage.”³¹⁵ To implement the orders, the Secretary of Commerce must develop a list of prohibited transactions between individuals subject to the jurisdiction of the United States and ByteDance Ltd. and Tencent Holdings (the parent companies of TikTok and WeChat, respectively) and their subsidiaries.³¹⁶ The Secretary must identify these prohibited types of transactions within forty-five days after August 6, 2020.³¹⁷ As of the time of writing, these transactions have not been identified, although experts speculate that these could include removing the apps from online stores run by U.S. companies or prohibiting financial institutions from supporting transactions conducted on the apps or via their parent companies.³¹⁸

As these executive orders suggest, at least part of the concern about TikTok and WeChat involves economic espionage, potentially including IP. China appears to view these orders as related to the broader U.S.-China trade disputes and negotiations, even reportedly seeking to discuss them during the currently postponed review of the Phase One Agreement.³¹⁹ In addition to these executive orders invoking IEEPA, on August 14, 2020, President Trump issued an executive order ordering ByteDance to divest from Musical.ly, a company that ByteDance acquired in 2017, within ninety days, finding that the acquisition threatened national security insofar as Musical.ly’s acts occurred in interstate commerce in the United States.³²⁰ This order relied on statutory authority that the President may use to prohibit or limit foreign investment in the United States

³¹¹ *Id.*

³¹² *Id.*

³¹³ Exec. Order No. 13,942, 85 Fed. Reg. 48,637, 48,637 (Aug. 6, 2020); Exec. Order No. 13,943, 85 Fed. Reg. 48,641, 48,641 (Aug. 6, 2020).

³¹⁴ The executive orders appear to find that China qualifies as a “foreign adversary” under the May 2019 executive order, although this is not made explicit.

³¹⁵ Exec. Order No. 13,942, 85 Fed. Reg. at 48,637; Exec. Order No. 13,943, 85 Fed. Reg. at 48,641.

³¹⁶ Exec. Order No. 13,942, 85 Fed. Reg. at 48,638; Exec. Order No. 13,943, 85 Fed. Reg. at 48,641–42.

³¹⁷ Exec. Order No. 13,942, 85 Fed. Reg. at 48,638; Exec. Order No. 13,943, 85 Fed. Reg. at 48,642.

³¹⁸ Alex Lawson, *Confusion Prevails over Extent of Trump’s TikTok ‘Ban,’* LAW360 (Aug. 10, 2020), <https://www.law360.com/articles/1299421>; Martin Chorzempa, *Trump’s Ban on WeChat and TikTok Lacks Clarity and Will Not Solve Our Data Security Problems*, PETERSON INST. FOR INT’L ECON. (Aug. 7, 2020), <https://www.piie.com/blogs/realtime-economic-issues-watch/trumps-ban-wechat-and-tiktok-lacks-clarity-and-will-not-solve>.

³¹⁹ *China to Bring up WeChat, TikTok in Next U.S. Trade Talks*, BLOOMBERG (Aug. 12, 2020), <https://www.bloomberg.com/news/articles/2020-08-12/china-to-bring-up-wechat-tiktok-in-upcoming-u-s-trade-talks>.

³²⁰ Exec. Order of Aug. 14, 2020, 85 Fed. Reg. 51,297 (Aug. 19, 2020).

that threatens national security,³²¹ and determined the order was necessary because other laws, including IEEPA, could not adequately address the national security risks.³²² This final order does not address WeChat and, insofar as U.S. entities may continue transactions with TikTok until the Secretary of Commerce identifies which transactions are prohibited, the President's August 6, 2020, executive orders remain in effect.³²³ Both TikTok and WeChat have filed lawsuits against the Administration, seeking to enjoin the effects of the executive orders on constitutional grounds.³²⁴

Individual Violations: Civil, Criminal, and Administrative Remedies

The preceding section focused on legal remedies initiated by the President based on executive authority over foreign affairs or delegations of congressional power over trade to the executive branch, primarily to address systemic IP violations by foreign actors. By contrast, this section focuses on legal remedies available to IP rights holders under U.S. law to address individual IP violations, including civil, criminal, and administrative processes.

Remedial Issues: Jurisdiction and Territoriality

A threshold question in all litigation, including litigation aimed at remediating IP theft, is whether a court has the power to adjudicate the underlying allegations. In particular, the court must have power over both the conduct and parties involved. In a case involving alleged IP theft, each of these requirements can present challenges for a U.S. IP owner. For example, it may be difficult for an owner of U.S. IP to pursue a domestic remedy for IP theft when the offending conduct is performed by a foreign entity or occurs abroad (although it may be possible to pursue remedies in the foreign jurisdiction itself). Two such challenges faced by IP owners that limit the opportunity for U.S.-based remediation of IP theft—territoriality and personal jurisdiction—are described below.³²⁵

Activity Outside the United States and the Principle of Territoriality

Congress has the power “to enforce its laws beyond the territorial boundaries of the United States.”³²⁶ Nevertheless, “[i]t is a longstanding principle of American law ‘that legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial

³²¹ 50 U.S.C. § 4565.

³²² Exec. Order of Aug. 14, 2020, 85 Fed. Reg. at 51,297.

³²³ Some commentators have suggested that perhaps the most immediate effect of President Trump's August 14, 2020, executive order may be to increase pressure on ByteDance to find a U.S.-based (or non-Chinese) buyer. *See, e.g.,* Evan Semones, *Trump Hits TikTok's Owner Again by Ordering Sale of U.S. Operations*, POLITICO (Aug. 14, 2020), <https://www.politico.com/news/2020/08/14/trump-tiktok-us-operations-sale-395720>.

³²⁴ *Ryan v. Trump et al.*, Case No. 20-cv-05948 (N.D. Cal.); *TikTok Inc. et al. v. U.S. Dep't of Commerce et al.*, Case No. 20-cv-07672 (C.D. Cal.); *In Re: U.S. WeChat Users Alliance et al.*, Case No. 20-cv-05910 (N.D. Cal.).

³²⁵ In addition, foreign states, such as China, may be entitled to sovereign immunity from civil suits, subject to certain exceptions. 28 U.S.C. §§ 1604–1607; *Verlinden B.V. v. Cent. Bank of Nigeria*, 461 U.S. 480, 488–89 (1983). For purposes of sovereign immunity, a “foreign state” includes “a political subdivision of a foreign state or an agency or instrumentality of a foreign state.” 28 U.S.C. § 1603(a)–(b). Suits against officials of a foreign state are not barred by sovereign immunity under statute, but may be barred under common law or if the foreign state is the real party in interest. *Samantar v. Yousuf*, 560 U.S. 305, 324–25 (2010).

³²⁶ *EOAC v. Arabian Am. Oil Co.*, 499 U.S. 244, 248 (1991) (“Both parties concede, as they must, that Congress has the authority to enforce its laws beyond the territorial boundaries of the United States.”).

jurisdiction of the United States.”³²⁷ According to the Supreme Court, this principle “serves to protect against unintended clashes between our laws and those of other nations which could result in international discord.”³²⁸ Consistent with this principle, U.S. IP laws generally reach only conduct that occurs within the United States. For example, “the Copyright Act is considered to have no extraterritorial reach.”³²⁹ Similarly, “purely extraterritorial conduct cannot constitute direct infringement of a U.S. patent.”³³⁰ Thus, if the underlying acts of infringement occurred purely outside of the United States, it may be difficult to remedy those acts in a U.S. court.

There are exceptions to the generally territorial reach of U.S. IP law, however. For example, a trademark owner may sue for extraterritorial infringement where (1) the violations “create some effect on American foreign commerce”; (2) the effect is “sufficiently great to present a cognizable injury to the plaintiffs”; and (3) the link to American foreign commerce is “sufficiently strong in relation to those of other nations to justify an assertion of foreign authority.”³³¹ Where copyright infringement occurs domestically and enables foreign infringement, the copyright owner may be able to recover damages and the infringer’s extraterritorial profits.³³²

Similarly, various types of indirect patent infringement involve extraterritorial acts. For example, “where a foreign party, with the requisite knowledge and intent, employs extraterritorial means to actively induce acts of direct [patent] infringement that occur within the United States, such conduct is not categorically exempt from redress” as an act of indirect patent infringement.³³³ Moreover, a person may infringe a patent by, without authority (1) supplying or causing to be supplied in or from the United States “all or a substantial portion” of the uncombined components of a patented invention “in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States”;³³⁴ (2) supplying in or from the United States any component of a patented invention “especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use,” with knowledge that the component “is so made or adapted,” and intending that the component will be combined outside of the United States in a manner that would infringe if it occurred

³²⁷ *Id.* (quoting *Foley Bros., Inc. v. Filardo*, 336 U.S. 281, 285 (1949)).

³²⁸ *Id.*

³²⁹ *Tire Eng’g & Distrib., LLC v. Shandong Linglong Rubber Co.*, 682 F.3d 292, 306 (4th Cir. 2012); *see also, e.g., Allarcom Pay Television, Ltd. v. Gen. Instrument Corp.*, 69 F.3d 381, 387 (9th Cir. 1995) (“[F]ederal copyright law does not apply to extraterritorial acts of infringement.”); *accord Geophysical Serv., Inc. v. TG S-NOPEC Geophysical Co.*, 850 F.3d 785, 799–800 (5th Cir. 2017) (“Where a copyright plaintiff claims contributory infringement predicated on direct infringement that occurred entirely extraterritorially, the plaintiff has stated no claim.”).

³³⁰ *Merial Ltd. v. Cipla Ltd.*, 681 F.3d 1283, 1302 (Fed. Cir. 2012) (citing 35 U.S.C. § 271(a)); *see also* 35 U.S.C. § 271(a) (“[W]hoever without authority makes, uses, offers to sell, or sells any patented invention, *within the United States*, or imports *into the United States* any patented invention during the term of the patent therefore, infringes the patent.” (emphasis added)).

³³¹ *Trader Joe’s Co. v. Hallatt*, 835 F.3d 960, 969 (9th Cir. 2016) (quoting *Love v. Associated Newspapers, Ltd.*, 611 F.3d 601, 613 (9th Cir. 2010)). Trademark owners may establish an impact on U.S. commerce by alleging, for example, “that infringing goods, though sold initially in a foreign country, flowed into American domestic markets.” *Id.*

³³² *See, e.g., L.A. News Serv. v. Reuters Television Int’l (USA) Ltd.*, 340 F.3d 926, 927–32 (9th Cir. 2003).

³³³ *Merial*, 681 F.3d at 1302–03. Indirect infringement is described in more detail below. *See* discussion *infra* in “Patent, Copyright, or Trademark Infringement.”

³³⁴ 35 U.S.C. § 271(f)(1).

within the United States;³³⁵ or (3) importing, offering to sell, selling, or using a product within the United States that is made by a process patented in the United States.³³⁶

Personal Jurisdiction

To adjudicate a dispute, a court must also have power over the particular parties involved, a requirement referred to as “personal jurisdiction.”³³⁷ Under current U.S. law, the primary focus when determining whether a court has personal jurisdiction over a party is the party’s relationship to the forum where the lawsuit is taking place.³³⁸ Because the plaintiff consents to jurisdiction in a forum by filing a lawsuit there,³³⁹ the analysis most often centers on whether a particular court has personal jurisdiction over the defendant. A court has personal jurisdiction over a defendant if (1) the defendant has sufficient “minimum contacts” with the forum where the court is located;³⁴⁰ and (2) the exercise of jurisdiction over the defendant would “comport with ‘fair play and substantial justice.’”³⁴¹ If the cause of action is under state law, then the defendant’s minimum contacts must be with the forum state;³⁴² if the cause of action is under federal law and there is no state where the defendant is subject to personal jurisdiction, then the contacts may be with the United States as a whole.³⁴³

There are two types of personal jurisdiction: general jurisdiction and specific jurisdiction.³⁴⁴ Under general jurisdiction, a defendant’s contacts with a forum are so pervasive that the defendant is essentially at home there.³⁴⁵ For an individual, it is the forum where they live; for a corporation, it is any place where “the corporation is fairly regarded as at home.”³⁴⁶ “A court with general jurisdiction may hear *any* claim against that defendant, even if all the incidents underlying the claim occurred in a different” forum.³⁴⁷

Specific jurisdiction, however, relies on the conduct that underlies the lawsuit.³⁴⁸ For a court to exercise specific jurisdiction, the lawsuit must arise from the defendant’s contacts with the forum.³⁴⁹ Although it is necessary that the defendant’s “suit-related conduct . . . create a

³³⁵ *Id.* § 271(f)(2).

³³⁶ *Id.* § 271(g).

³³⁷ *See, e.g.,* Robert M. Bloom & Janine A. Hanrahan, *Back to the Future: The Revival of Pennoyer In Personal Jurisdiction Doctrine and the Demise of International Shoe*, 56 SAN DIEGO L. REV. 581, 582 (2019).

³³⁸ *Bristol-Myers Squibb Co. v. Superior Court of Cal.*, 137 S. Ct. 1773, 1779 (2017).

³³⁹ *United States v. Swiss Am. Bank, Ltd.*, 191 F.3d 30, 35–36 (1999) (“Because a plaintiff ordinarily consents to a court’s jurisdiction by filing suit, disputes over personal jurisdiction typically feature the forum court’s relationship to one or more defendants.”); *see also* *Phillips Petroleum Co. v. Shutts*, 472 U.S. 797, 811–12 (1985) (“Any plaintiff may consent to jurisdiction.”).

³⁴⁰ *Int’l Shoe Co. v. Washington*, 326 U.S. 310, 316 (1945).

³⁴¹ *Burger King Corp. v. Rudzewicz*, 471 U.S. 462, 476 (1985) (quoting *Int’l Shoe*, 326 U.S. at 320).

³⁴² *See, e.g., Int’l Shoe*, 326 U.S. at 316.

³⁴³ *See, e.g.,* *Argentina v. Weltover, Inc.*, 504 U.S. 607, 619–20 (1992); *Plixer Int’l, Inc. v. Scrutinizer GmbH*, 905 F.3d 1, 6–7 (1st Cir. 2018); *Synthes (U.S.A.) v. G.M. Dos Reis Jr. Ind. Com de Equip. Medico*, 563 F.3d 1285, 1293–94 (Fed. Cir. 2009); A. Benjamin Spencer, *The Territorial Reach of the Federal Courts*, 71 FLA. L. REV. 979, 994–97 (2019) (collecting cases); *see also* FED. R. CIV. P. 4(k)(2).

³⁴⁴ *Bristol-Myers Squibb Co. v. Superior Court*, 137 S. Ct. 1773, 1779–80 (2017).

³⁴⁵ *Id.* at 1780.

³⁴⁶ *Goodyear Dunlop Tires Operations, S.A. v. Brown*, 564 U.S. 915, 924 (2011).

³⁴⁷ *Bristol-Myers Squibb*, 137 S. Ct. at 1780 (emphasis in original).

³⁴⁸ *Id.*

³⁴⁹ *Id.*

substantial connection with the forum,” a connection alone is insufficient.³⁵⁰ The connection “must arise out of contacts that the ‘defendant *himself*’ creates with the forum,” rather than contacts that the plaintiff has with the forum.³⁵¹ Moreover, the contacts must be with the forum itself, rather than “persons who reside” in that forum.³⁵² That the plaintiffs suffered an injury as a result of the defendant’s conduct while in the forum is insufficient. “The proper question is not where the plaintiff experienced a particular injury or effect but whether the defendant’s conduct connects him to the forum in a meaningful way.”³⁵³ In other words, extraterritorial acts may not necessarily give rise to specific jurisdiction in the United States, even if those actions injure an IP owner in the United States.

The case of *Parker v. Winwood* is illustrative.³⁵⁴ There, the plaintiffs sued for copyright infringement in the U.S. District Court for the Middle District of Tennessee, alleging that the defendants had stolen the bass line from one of the plaintiffs’ songs by using it in a song that the defendants released throughout the United States and United Kingdom.³⁵⁵ One of the defendants moved to dismiss the suit on the basis of lack of personal jurisdiction, arguing that he was a British citizen who “had never lived or worked in the United States; that he had never been to Tennessee; and that he had never done business, had a mailing address, or had a bank account in Tennessee, either.”³⁵⁶ The plaintiffs responded that the court nevertheless had personal jurisdiction because that defendant had “purposely infringed [the plaintiffs’] copyright and therefore willfully harmed Tennessee residents,” and that the defendant had contracted with a record company “to distribute his infringing song, which made its way to Tennessee.”³⁵⁷

The district court granted the motion to dismiss as to that defendant, holding that there was no personal jurisdiction over him in Tennessee, and the U.S. Court of Appeals for the Sixth Circuit affirmed.³⁵⁸ On the plaintiffs’ first argument (i.e., that the defendant had willfully harmed Tennessee residents), the court reasoned that the mere fact that the plaintiffs were harmed in Tennessee was insufficient, as the alleged infringement occurred in England; thus, the infringement did not connect the defendant to Tennessee, only to Tennessee residents.³⁵⁹ On the second argument (i.e., that the song was distributed throughout the United States, including in Tennessee), the court concluded that nationwide distribution was insufficient where there was no evidence that the defendant had “specifically directed” the allegedly infringing song’s distribution into Tennessee.³⁶⁰ Accordingly, the court determined that the district court did not have personal jurisdiction over that defendant.³⁶¹

³⁵⁰ *Walden v. Fiore*, 571 U.S. 277, 284 (2014).

³⁵¹ *Id.* (quoting *Burger King Corp. v. Rudzewicz*, 471 U.S. 462, 475 (1985)).

³⁵² *Id.* at 285.

³⁵³ *Id.* at 290.

³⁵⁴ 938 F.3d 833 (6th Cir. 2019).

³⁵⁵ *Id.* at 835–36.

³⁵⁶ *Id.* at 836.

³⁵⁷ *Id.*

³⁵⁸ *Id.* at 835.

³⁵⁹ *Id.* at 839–40.

³⁶⁰ *Id.* at 841.

³⁶¹ *Id.* Another court has similarly held that distribution of an e-newsletter to at least seventy companies throughout the United States did not allow an exercise of personal jurisdiction over a defendant accused of copyright infringement. *Axiom Foods, Inc. v. Acerchem Int’l, Inc.*, 874 F.3d 1064, 1071–72 (9th Cir. 2017).

Consistent with the principle that the conduct must be specifically directed at a forum, even selling an infringing product within a state (or within the United States) may not suffice to give rise to personal jurisdiction. The Supreme Court has not clearly articulated the circumstances under which introducing products into the “stream of commerce” gives rise to personal jurisdiction; it has at least twice addressed that question, but with no majority opinion.³⁶²

In the most recent plurality opinion, Justice Kennedy opined that “[t]he principal inquiry” in stream-of-commerce cases should be “whether the defendant’s activities manifest an intention to submit to the power of a sovereign.”³⁶³ Justice Kennedy’s opinion rejected the notion that “considerations of fairness and foreseeability” should play any role in the analysis, as those considerations were “inconsistent with the premises of lawful judicial power.”³⁶⁴ In Justice Kennedy’s view, “it is the defendant’s actions, not his expectations, that empower a State’s courts to subject him to judgment.”³⁶⁵ Justice Breyer took a broader view, opining that if a defendant “purposefully” benefited from conducting activity in the forum, or sold products “with the expectation that they will be purchased” in the forum, that would suffice to confer personal jurisdiction—but that neither requirement was met in that particular case.³⁶⁶ Thus, the Supreme Court held that New Jersey did not have jurisdiction over a British manufacturer of scrap-metal machines where the manufacturer sold its machines to a distributor who then sold the machines in New Jersey; the manufacturer targeted the United States, but not specifically New Jersey, for sales.³⁶⁷

Civil Actions

If the court has jurisdiction over an entity, one of the primary methods of IP enforcement is for the IP owner to bring a civil action in a U.S. district court (or a state court for certain trademark or trade secret claims).

Patent, Copyright, or Trademark Infringement

Actions involving patents, copyrights, or trademarks generally involve allegations that an entity has infringed the IP at issue. Because the actions are generally similar, although different in some particulars, actions alleging infringement of these three types of IP will be addressed together. The evidence required to prove infringement depends on the type of IP that a rights holder alleges has been infringed.

Direct infringement occurs when the defendant personally takes the actions that infringe a patent, copyright, or trademark. For patents, this occurs when a person makes, uses, offers to sell, sells,

³⁶² *J. McIntyre Mach., Ltd. v. Nicastro*, 564 U.S. 873 (2011); *Asahi Metal Indus. Co., Ltd. v. Superior Court of Cal.*, 480 U.S. 102 (1987).

³⁶³ *J. McIntyre Mach.*, 564 U.S. at 882 (Kennedy, J., plurality).

³⁶⁴ *Id.* at 882–83.

³⁶⁵ *Id.* at 883.

³⁶⁶ *Id.* at 889 (Breyer, J., concurring in the judgment) (quoting *World-Wide Volkswagen Corp. v. Woodson*, 444 U.S. 286, 297–98 (1980)).

³⁶⁷ *Id.* at 887–88. As an example of the type of conduct that would suffice to confer personal jurisdiction in the patent context, the Federal Circuit has held that sending of a cease-and-desist letter to a company in California, along with licensing of a U.S. patent in the United States, sufficed to meet the requirements for personal jurisdiction. *Genetic Veterinary Scis., Inc. v. LABOKLIN GmbH & Co. KG*, 933 F.3d 1302, 1310–11 (Fed. Cir. 2019). *But see* *Maxchief Inv. Ltd. v. Wok & Pan, Ind., Inc.*, 909 F.3d 1134, 1138–39 (Fed. Cir. 2018) (concluding that simply sending infringement notice letters to company’s lawyer in Tennessee was insufficient to confer personal jurisdiction in Tennessee).

or imports the patented invention without authorization.³⁶⁸ For copyrights, direct infringement occurs when an entity violates any of the statutory rights enumerated by Congress,³⁶⁹ for example, if the entity makes an unauthorized reproduction of a copyrighted work, makes a derivative work, or distributes copies of the work for sale to the public.³⁷⁰ For trademarks, direct infringement occurs when an entity uses or makes a counterfeit, copy, or imitation of the mark in commerce in a manner that is likely to cause confusion, mistake, or deception.³⁷¹

Indirect infringement, a second form of infringement, occurs when an entity does not itself directly infringe the IP, but instead encourages or contributes to another's infringing acts. For patents, an entity is liable for indirect infringement when it "actively induces infringement of a patent" by knowingly aiding and abetting another's direct infringement.³⁷² An entity induces infringement when it knows of the relevant patent and that the acts it induced constitute patent infringement.³⁷³ An entity is also liable for indirect patent infringement if it contributes to patent infringement by selling or importing a material component of a patented article or method, knowing that the article was especially made or adapted for infringement and does not have substantial noninfringing use.³⁷⁴

An entity may indirectly infringe a copyright as well. One form of indirect copyright infringement is *vicarious infringement*, where the entity "has the right and ability to supervise the infringing activity and also has a direct financial interest in such activities."³⁷⁵ Another form of indirect copyright infringement is *contributory infringement*, where an entity with knowledge of infringing activity "induces, causes or materially contributes to the infringing conduct of another."³⁷⁶ The Supreme Court has held that a defendant induces copyright infringement when it "distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement."³⁷⁷ The court clarified that "mere knowledge of infringing potential or of actual infringing uses would not be enough . . . to subject a distributor to liability."³⁷⁸ Instead, inducement liability is premised "on purposeful, culpable expression and conduct."³⁷⁹

³⁶⁸ 35 U.S.C. § 271(a).

³⁶⁹ 17 U.S.C. § 501(a) ("Anyone who violates any of the exclusive rights of the copyright owner as provided by sections 106 through 122 or of the author as provided in section 106A(a), or who imports copies or phonorecords into the United States in violation of section 602, is an infringer of the copyright or right of the author . . .").

³⁷⁰ *Id.* § 106.

³⁷¹ 15 U.S.C. §§ 1114(1), 1125(a).

³⁷² 35 U.S.C. § 271(b); *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (en banc); *see also* *Glob.-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 765–65 (2011).

³⁷³ *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926 (2015). This can occur, for example, when a company sells a product that infringes a patented method when used, thereby causing the company's customers to infringe directly, but does not use the product (and the patented method) itself. *See, e.g., In re Bill of Lading Transmission & Processing Sys. Patent Litig.*, 681 F.3d 1323, 1341–42 (Fed. Cir. 2012).

³⁷⁴ 35 U.S.C. § 271(c).

³⁷⁵ *See, e.g., Sony Corp. of Am. v. Univ. City Studios, Inc.*, 464 U.S. 417, 434–42 (1984); *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 261–64 (9th Cir. 1996).

³⁷⁶ *Fonovisa*, 76 F.3d at 264 (quoting *Gershwin Pub'g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971)).

³⁷⁷ *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 936–37 (2005).

³⁷⁸ *Id.* at 937.

³⁷⁹ *Id.*

An entity may also indirectly infringe a trademark. Vicarious trademark infringement requires a showing that “the defendant and the infringer have an actual or apparent partnership, have authority to bind one another in transactions, or exercise joint ownership or control over the infringing product.”³⁸⁰ A defendant is liable for contributory trademark infringement if it “intentionally induces another to infringe a trademark, or if it continues to supply its product to one whom it knows or has reason to know is engaging in trademark infringement.”³⁸¹

Chinese companies have been found liable for infringing IP in the United States. For example, in 2018, a Texas jury found that the Chinese technology company Huawei had willfully infringed five patents owned by PanOptics Patent Management LLC relating to wireless and video-coding technology, and awarded \$10.6 million in damages.³⁸² The judge later increased the award to \$13.2 million based on the jury’s finding that the infringement was willful.³⁸³ In 2019, the court ordered Huawei to pay PanOptics’s attorney’s fees due to Huawei’s litigation conduct.³⁸⁴

Similarly, in 2010, a Virginia jury found that a family of Chinese corporations had committed copyright infringement by conspiring to steal a U.S. corporation’s tire blueprints, reprinting the blueprints without authorization, and using the blueprints to manufacture tires nearly identical to the U.S. corporation’s products.³⁸⁵ The jury awarded \$26 million in damages, which was affirmed on appeal.³⁸⁶ Notably, one of the defendants’ primary arguments on appeal (which the court rejected) was that they did not have sufficient contacts with Virginia for the court to exercise personal jurisdiction.³⁸⁷

Trade Secret Misappropriation

Whereas the owner of a patent, copyright, or trademark may sue an entity for infringement (i.e., unauthorized use of IP), the owner of a trade secret may sue for misappropriation.³⁸⁸ A defendant misappropriates a trade secret by acquiring a trade secret by improper means or disclosing a trade secret that was acquired by improper means.³⁸⁹

Chinese companies have been found liable for misappropriation of U.S. trade secrets. For example, in 2018, a California jury found that the Chinese company Elec-Tech International had stolen trade secrets from lighting company Lumileds LLC.³⁹⁰ The jury found that while a former employee was still employed at Lumileds, Elec-Tech’s chairman had paid him to steal trade

³⁸⁰ See, e.g., *Grubbs v. Sheakley Grp., Inc.*, 807 F.3d 785, 793 (6th Cir. 2015).

³⁸¹ *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844, 854 (1982).

³⁸² Jack Queen, *Huawei Owes Fees for ‘Rank Gamesmanship’ in Patent Loss*, LAW360 (Nov. 15, 2019), <https://www.law360.com/articles/1220427>.

³⁸³ *Id.*

³⁸⁴ *Id.*

³⁸⁵ *Tire Eng’g & Distrib., LLC v. Shandong Linglong Rubber Co.*, 682 F.3d 292, 298, 308 (4th Cir. 2012). This was part of a larger alleged scheme to steal the blueprints, “produce infringing tires, and sell them to entities that had formerly purchased products from” the U.S. corporation. *Id.*

³⁸⁶ *Id.* at 298.

³⁸⁷ *Id.* at 300–06.

³⁸⁸ See generally 18 U.S.C. § 1836. In addition to civil suits, there may also be criminal penalties. See discussion *infra* in “Economic Espionage and Criminal Trade Secret Misappropriation.”

³⁸⁹ 18 U.S.C. § 1839(5) (defining “misappropriation”); *id.* § 1839(6) (defining “improper means”).

³⁹⁰ RJ Vogt, *LED Co. Wins \$66M In Trade Secrets Row With Chinese Rival*, LAW360 (Aug. 13, 2018), <https://www.law360.com/articles/1072949/led-co-wins-66m-in-trade-secrets-row-with-chinese-rival>.

secrets.³⁹¹ The employee “copied thousands of files containing trade secrets and other information onto a portable storage device and then moved to China” where Elec-Tech began using the stolen trade secrets in its products.³⁹² The jury awarded Lumileds \$66 million in compensation.³⁹³

Preliminary Remedies

In general, remedies are awarded only after a tribunal adjudicates the merits of the case. In certain circumstances, however, an IP owner may be able to receive some relief even before the merits are fully adjudicated.

An IP owner who succeeds on the merits may obtain an *injunction*—a court order preventing further infringement by the defendant—under certain circumstances. At the beginning of the case, an IP holder may also request that the court enter a *preliminary injunction*, barring the defendant from infringement while the case is ongoing.³⁹⁴ To obtain a preliminary injunction, an IP owner must establish (1) that he is “likely to succeed on the merits”; (2) that he is “likely to suffer irreparable harm in the absence of preliminary relief”; (3) “that the balance of the equities tips in his favor”; and (4) “that an injunction is in the public interest.”³⁹⁵ If the IP owner succeeds on the merits, the preliminary injunction is generally converted into a permanent injunction barring further infringement after the trial.³⁹⁶ It is possible that the IP owner will not succeed on the merits. To guard against any harm to the defendant resulting from a preliminary injunction, the court will require the IP owner to give “security in an amount that the court considers proper to pay the costs and damages sustained by any party found to have been wrongfully enjoined.”³⁹⁷

Generally, a court issues a preliminary injunction after a hearing in which the IP owner and the defendant present arguments and the court evaluates evidence.³⁹⁸ Sometimes, however, infringement will be so damaging that an IP owner will suffer irreparable harm before it could reasonably receive a preliminary injunction. In those circumstances, the IP owner may request a *temporary restraining order* (TRO). To receive a TRO, the IP owner must establish “that immediate and irreparable injury, loss, or damage will result” if the TRO is not granted.³⁹⁹

If the IP at issue is a trade secret, the court may, without providing notice to the defendant and “only in extraordinary circumstances,” order “the seizure of property necessary to prevent the propagation or dissemination of the trade secret that is the subject of the action.”⁴⁰⁰ Before ordering seizure, however, the court must find

³⁹¹ *Id.*

³⁹² *Id.*

³⁹³ *Id.*

³⁹⁴ *See, e.g., Commodores Entm’t Corp. v. McClary*, 879 F.3d 1114, 1125 (11th Cir. 2018).

³⁹⁵ *adidas Am., Inc. v. Skechers USA, Inc.*, 890 F.3d 747, 753 (9th Cir. 2018) (quoting *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008)) (trademark); *see also Disney Enters., Inc. v. VidAngel, Inc.*, 869 F.3d 848, 856 (9th Cir. 2017) (copyright); *Mylan Institutional LLC v. Aurobindo Pharma Ltd.*, 857 F.3d 858, 865 (Fed. Cir. 2017) (patent).

³⁹⁶ *See, e.g., Commodores*, 879 F.3d at 1121, 1127.

³⁹⁷ FED. R. CIV. P. 65(c).

³⁹⁸ *See, e.g., Tinnus Enters., LLC v. Telebrands Corp.*, 846 F.3d 1190, 1197 (Fed. Cir. 2017); *see also* FED. R. CIV. P. 65(a)(1) (“The court may issue a preliminary injunction only on notice to the adverse party.”).

³⁹⁹ FED. R. CIV. P. 65(b)(1)(A).

⁴⁰⁰ 18 U.S.C. § 1836(b)(2)(A)(i).

1. other forms of relief “would be inadequate” because the holder of the property would evade or not obey the order;⁴⁰¹
2. “an immediate and irreparable injury will occur” absent the seizure;⁴⁰²
3. the harm to the IP owner outweighs the harm to the holder of the property, and substantially outweighs the harm to any third parties;⁴⁰³
4. the IP owner is likely to succeed in showing that the information at issue is a trade secret that the person against whom seizure would be ordered misappropriated or conspired to misappropriate by improper means;⁴⁰⁴
5. the person against whom seizure would be ordered has actual possession of the trade secret and any property seized;⁴⁰⁵
6. the IP owner “describes with reasonable particularity the matter to be seized and, to the extent reasonable under the circumstances, identifies the location where the matter is to be seized”;⁴⁰⁶
7. the person against whom seizure would be ordered or those assisting that person “would destroy, move, hide, or otherwise make such matter inaccessible to the court,” if the IP owner “were to proceed on notice to such person”;⁴⁰⁷ and
8. the IP owner “has not publicized the requested seizure.”⁴⁰⁸

If an IP owner cannot meet the requirements for a preliminary remedy, then he or she must wait for adjudication of the case on the merits before receiving a remedy.

Post-Adjudication Remedies

If a court finds that an entity has infringed IP, two remedies are generally available: money damages and permanent injunctions. Generally, damages awards require an infringer to pay money to the rights owner to compensate for infringement. If a patent is infringed, for example, then “the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.”⁴⁰⁹ If a patent owner can prove that it lost profits due to the infringement, it can recover those lost profits instead.⁴¹⁰ If the infringement was willful, the court may triple the damages award.⁴¹¹

For copyright infringement, the owner may recover either its “actual damages and any additional profits of the infringer” or “statutory damages.”⁴¹² Under the first option, the “actual damages” are any damages actually suffered by the copyright owner, and the “profits” are “any profits of

⁴⁰¹ *Id.* § 1836(b)(2)(A)(ii)(I).

⁴⁰² *Id.* § 1836(b)(2)(A)(ii)(II).

⁴⁰³ *Id.* § 1836(b)(2)(A)(ii)(III).

⁴⁰⁴ *Id.* § 1836(b)(2)(A)(ii)(IV).

⁴⁰⁵ *Id.* § 1836(b)(2)(A)(ii)(V).

⁴⁰⁶ *Id.* § 1836(b)(2)(A)(ii)(VI).

⁴⁰⁷ *Id.* § 1836(b)(2)(A)(ii)(VII).

⁴⁰⁸ *Id.* § 1836(b)(2)(A)(ii)(VIII).

⁴⁰⁹ 35 U.S.C. § 284.

⁴¹⁰ *See, e.g.,* Mentor Graphics Corp. v. EVE-USA, Inc., 851 F.3d 1275, 1283–90 (Fed. Cir. 2017).

⁴¹¹ 35 U.S.C. § 284.

⁴¹² 17 U.S.C. § 504(a).

the infringer that are attributable to the infringement and not taken into account in computing the actual damages.”⁴¹³ Under the statutory damages provision, the copyright owner is entitled to between \$750 and \$30,000 per infringed work “as the court considers just.”⁴¹⁴

For trademark infringement, the owner may recover the defendant’s profits, any damages suffered by the trademark owner, and the costs of the suit.⁴¹⁵ If the suit involves the intentional use of a counterfeit mark, then the trademark owner is entitled to triple the greater of defendant’s profits and the trademark owner’s damages.⁴¹⁶ In a case involving a counterfeit mark, the trademark owner may instead elect statutory damages from \$1,000 to \$200,000 per counterfeit mark per type of goods or services sold.⁴¹⁷ If the court finds that use of the counterfeit mark was willful, it may award up to \$2,000,000 per counterfeit mark per type of goods or services sold.⁴¹⁸

If a trade secret owner proves misappropriation, the court may award (1) damages for any actual loss suffered by the trade secret owner by the misappropriation, as well as any unjust enrichment received by the defendant;⁴¹⁹ *or* (2) a reasonable royalty for the defendant’s unauthorized disclosure or use.⁴²⁰ If the trade secret was misappropriated “willfully and maliciously,” the court may award “exemplary damages” of up to two times the amount of the other damages.⁴²¹

A successful IP owner may also obtain an injunction, for example, barring sales of products found to infringe,⁴²² or, in the case of trade secrets, “any actual or threatened misappropriation.”⁴²³ To be eligible for an injunction, a rights owner must establish that (1) the injury from infringement was irreparable; (2) remedies such as money damages are inadequate to compensate for the injury; (3) a balancing of the hardships between the rights owner and the infringer counsels toward granting an injunction; *and* (4) the public interest would not be disserved by an injunction.⁴²⁴ For copyrights, the court may also impound all copies infringing a copyright and all articles used to make such copies during the pendency of a suit; it may also order those infringing copies and articles destroyed at the conclusion of the suit.⁴²⁵ For trademarks, the court may order the seizure and/or destruction of infringing and counterfeit articles in some circumstances.⁴²⁶

⁴¹³ *Id.* § 504(b).

⁴¹⁴ *Id.* § 504(c)(1). The amount of statutory damages can be reduced to “not less than \$200” if the infringer proves that it “was not aware and had no reason to believe that his or her acts constituted an infringement.” *Id.* § 504(c)(2). The statutory damages may be reduced in certain other circumstances as well. *Id.* Statutory damages may be increased to \$150,000 if the copyright owner proves that the infringement was willful. *Id.* § 504(c)(1).

⁴¹⁵ 15 U.S.C. § 1117(a). The Supreme Court recently held that willful trademark infringement is not a prerequisite to an award of an infringer’s profits. *Romag Fasteners Inc. v. Fossil Inc.*, 140 S. Ct. 1492, 1497 (2020).

⁴¹⁶ 15 U.S.C. § 1117(b).

⁴¹⁷ *Id.* § 1117(c)(1).

⁴¹⁸ *Id.* § 1117(c)(2).

⁴¹⁹ *Id.* § 1836(b)(3)(B)(i).

⁴²⁰ *Id.* § 1836(b)(3)(B)(ii).

⁴²¹ *Id.* § 1836(b)(3)(C).

⁴²² 35 U.S.C. § 283; 17 U.S.C. § 502; 15 U.S.C. § 1116.

⁴²³ 15 U.S.C. § 1836(b)(3)(A). In extraordinary circumstances, the court may order the seizure of property necessary to prevent the disclosure of a trade secret. *See id.* § 1836(b)(2); *supra* notes 400–408 and accompanying text.

⁴²⁴ *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006) (patent); *TD Bank N.A. v. Hill*, 928 F.3d 259, 278 (3d Cir. 2019) (copyright); *La Quinta Worldwide LLC v. Q.R.T.M., S.A. de C.V.*, 762 F.3d 867, 879–80 (9th Cir. 2014) (trademark).

⁴²⁵ 17 U.S.C. § 503.

⁴²⁶ 15 U.S.C. §§ 1116(d), 1118.

Import Controls

In addition to private actions, the U.S. government, in coordination with U.S. IP rights holders, has several methods for preventing infringing products from entering the United States.

The International Trade Commission and Section 337 Investigations

The ITC administers a number of statutes concerning international trade, including investigations relating to tariffs, treaties, imports, and competition of foreign industries with U.S. industries.⁴²⁷ The ITC also administers Section 337 of the Tariff Act of 1930 (Section 337), which allows it to “investigate and issue decisions on unfair methods of competition and unfair acts in the importation and/or sale of imported articles.”⁴²⁸ Section 337 establishes that the importation into, or sale within the United States of articles that infringe a valid U.S. patent, copyright, or trademark are unlawful actions the ITC may address.⁴²⁹ Although Section 337 investigations are not limited to behavior arising from IP, in recent years many such investigations “have focused on either patent, unregistered trademark, or trade secret claims.”⁴³⁰

Section 337 investigations are somewhat similar to civil infringement actions in district court, with some important differences. Unlike infringement actions in district court, where the court primarily adjudicates disputes between the parties, in Section 337 investigations the ITC itself investigates whether there were unfair methods of competition or unfair acts in importation.⁴³¹ Thus, an investigative attorney from the ITC’s Office of Unfair Import Investigations participates as a party in the process to represent the public interest, along with the complainant and respondent.⁴³² Section 337 proceedings also differ from district court litigation in that the ITC’s jurisdiction arises from the imported products targeted by the complaint, rather than any party associated with the products.⁴³³ Thus, there may be fewer of the jurisdictional concerns described above.⁴³⁴

Section 337 investigations are based on a complaint filed by a private party.⁴³⁵ First, the ITC performs a pre-institution investigation to determine whether the complaint provides an adequate basis for a full investigation.⁴³⁶ If the ITC determines that the complaint establishes such a basis,

⁴²⁷ See 35 U.S.C. § 1332.

⁴²⁸ William P. Atkins & Justin A. Pan, *An Updated Primer on Procedures and Rules in 337 Investigations at the U.S. International Trade Commission*, 18 U. BALT. INTELL. PROP. L.J. 105 (2010).

⁴²⁹ 19 U.S.C. § 1337(a)(1)(B)–(E).

⁴³⁰ Atkins & Pan, *supra* note 428, at 107 (“The majority of Section 337 investigations have focused on either patent, unregistered trademark, or trade secret claims, in part because these types of rights are not subject to recordation with the U.S. Customs Service.”). Most recent cases have involved allegations of patent infringement, but the ITC has also adjudicated cases involving alleged trademark infringement or dilution, trade dress misappropriation and infringement, false designation of origin, copyright infringement, or misappropriation of trade secrets, among others. *Id.* at 108–09 (collecting cases).

⁴³¹ 19 U.S.C. § 1337(b); 19 C.F.R. §§ 210.9–210.10.

⁴³² Atkins & Pan, *supra* note 428, at 116; *see also* 19 C.F.R. § 210.3.

⁴³³ Atkins & Pan, *supra* note 428, at 119; *see also* 19 U.S.C. § 1337(a) (targeting conduct “in the importation of articles”).

⁴³⁴ *See* discussion *supra* in “Remedial Issues: Jurisdiction and Territoriality.”

⁴³⁵ Atkins & Pan, *supra* note 428, at 112; 19 C.F.R. § 210.8. Other interested parties may join the action as co-complainants. *See* Stephen E. Kabakoff & Andrew G. Strickland, *Leveraging Standing and Domestic Industry Activities of Third Parties in Patent-Based ITC Investigations*, 26 INTELL. PROP. & TECH. L.J. 25, 27 (2014).

⁴³⁶ Atkins & Pan, *supra* note 428, at 112; 19 C.F.R. § 210.9.

then the full investigation begins.⁴³⁷ An administrative law judge (ALJ) oversees the full investigation, which is similar to district court litigation in that it includes discovery, motions practice, and an ultimate hearing on whether there has been a violation.⁴³⁸ Following this process, the ALJ is to issue an initial determination whether a violation of Section 337 has been shown; that determination may be reviewed by the ITC commissioners, and the commissioners' determination may be appealed to the Federal Circuit.⁴³⁹

To be entitled to relief, the party who files the Section 337 complaint "must show that a U.S. industry that is dedicated to exploitation of the asserted IP rights either exists or is in the process of being established."⁴⁴⁰ To establish the existence of a domestic industry, a complaint must meet both the "technical" and the "economic" elements.⁴⁴¹ The technical element requires that the complainant be performing activities based in the United States that exploit the particular IP rights asserted by the complainant.⁴⁴² The economic element requires either significant investment in plant and equipment, significant employment of labor or capital, or substantial investment in exploitation of the particular right, such as engineering, research and development, or licensing.⁴⁴³

If a Section 337 violation is established, there are a number of possible remedies, including (1) a general exclusion order, which forbids importation of products regardless of the source; (2) a limited exclusion order, which forbids importation of those products by specific companies designated in the complaint; (3) cease-and-desist orders that enjoin activities by U.S. entities; (4) temporary exclusion or cease-and-desist orders during the pendency of the investigation; and (5) consent orders, where the parties agree to an outcome, similar to a settlement in litigation.⁴⁴⁴ The President may disapprove any exclusion or cease-and-desist order within sixty days of issuance; if he does not, then the order goes into effect.⁴⁴⁵ Notably, monetary damages are not available through the ITC proceedings.⁴⁴⁶

The ITC has issued orders excluding Chinese products that infringe U.S. IP. For example, in 2007 the ITC granted Zippo Manufacturing Company an order excluding lighters manufactured by several Chinese companies that infringed Zippo's trademarked design.⁴⁴⁷ Similarly, in 2012, the ITC issued general exclusion orders blocking the importation of products that infringed certain Louis Vuitton trademarks.⁴⁴⁸ In 2019, the ITC issued a general exclusion order barring certain

⁴³⁷ Atkins & Pan, *supra* note 428, at 113; 19 U.S.C. § 1337(b).

⁴³⁸ Atkins & Pan, *supra* note 428, at 113–15.

⁴³⁹ *Id.*

⁴⁴⁰ *Id.* at 120 (citing 19 U.S.C. § 1337(a)(2)).

⁴⁴¹ *Id.* at 121; *see, e.g.,* InterDigital Commc'ns, LLC v. ITC, 707 F.3d 1295, 1298 (Fed. Cir. 2013).

⁴⁴² Atkins & Pan, *supra* note 428, at 121.

⁴⁴³ *Id.* at 122 (citing 19 U.S.C. § 1337(a)(3)).

⁴⁴⁴ *Id.* at 129–33.

⁴⁴⁵ *Id.* at 135 (citing 19 U.S.C. § 1337(j)). Such disapprovals are reportedly rare. *Id.*

⁴⁴⁶ *Id.* at 129.

⁴⁴⁷ Certain Lighters, Inv. No. 337-TA-575, 2007 WL 9683834 (July 18, 2007) (General Exclusion Order); Certain Lighters, Inv. No. 337-TA-575, 2007 WL 963194 (Feb. 21, 2007) (Initial Determination); *Zippo Wins Order to Block Import of Knock-Off Lighters*, THE STAR (July 19, 2007), https://www.thestar.com/business/2007/07/19/zippo_wins_order_to_block_import_of_knockoff_lighters.html.

⁴⁴⁸ Certain Handbags, Luggage, Accessories, & Packaging, Inv. No. 337-TA-754, 2012 WL 13046731 (May 30, 2012) (Final Determination & Exclusion Order); Certain Handbags, Luggage, Accessories, & Packaging, Inv. No. 337-TA-754, 2012 WL 864789 (Mar. 5, 2012) (Initial Determination); Carl C. Charneski & Tiffany W. Shimada, *Does Louis Vuitton's Recent Victory at the US International Trade Commission Mark That Tribunal as a Viable Alternative to*

Chinese companies from importing particular products that can be used to mount phones on vehicles on the basis that those products infringed various U.S. patents.⁴⁴⁹

U.S. Customs and Border Protection Seizures

In addition to its other enforcement duties, U.S. Customs and Border Protection (CBP) helps to protect the rights of U.S. IP owners by seizing counterfeited or pirated goods at the border.⁴⁵⁰ Under 19 U.S.C. § 1595a(c)(2)(C), “merchandise which is introduced or attempted to be introduced into the United States . . . may be seized and forfeited if . . . it is merchandise or packaging in which copyright, trademark, or trade name violations are involved.”⁴⁵¹ In FY2018, CBP seized 33,810 infringing items.⁴⁵² If the seized goods had been genuine, the total estimated manufacturer’s suggested retail price (MSRP) of the goods was nearly \$1.4 billion.⁴⁵³ The vast majority of seized goods originated from either mainland China or Hong Kong (46% and 41%, respectively, for a total of 87%).⁴⁵⁴ Goods seized from China and Hong Kong also accounted for 85% of the total MSRP of seized products (54% and 31%, respectively) in FY2018.⁴⁵⁵ This was an increase from the 78% combined total percentage of MSRP in 2017; the percentage from mainland China alone increased from 46% in FY2017 to 54% in FY2018.⁴⁵⁶

Holders of trademarks and copyrights can assist CBP by recording a registered trademark or copyright with CBP, along with a supporting image.⁴⁵⁷ Providing this information helps CBP personnel determine whether a particular good may be infringing IP.⁴⁵⁸ Rights owners can also file e-Allegations notifying CBP of potentially infringing shipments or conduct.⁴⁵⁹ Some rights owners create product identification guides that they provide to CBP or devise product training sessions for CBP personnel to assist with infringement determinations.⁴⁶⁰

District Court?, WORLD TRADEMARK REV. (Dec. 2012 /Jan. 2013), <https://www.worldtrademarkreview.com/enforcement-and-litigation/does-louis-vuittons-recent-victory-us-international-trade-commission>.

⁴⁴⁹ Certain Mounting Apparatuses for Holding Portable Elec. Devices & Components Thereof, Inv. No. 337-TA-1086, 2019 WL 2897808 (June 24, 2019) (General Exclusion Order); Dani Kass, *ITC Blocks Counterfeit Phone Mounting Device Imports*, LAW360 (June 20, 2019), <https://www.law360.com/articles/1171169/itc-blocks-counterfeit-phone-mounting-device-imports>.

⁴⁵⁰ U.S. CUSTOMS & BORDER PROT., INTELLECTUAL PROPERTY RIGHTS ENFORCEMENT 4 (Jan. 2017), https://www.cbp.gov/sites/default/files/assets/documents/2017-Jan/ipr_guide.pdf.

⁴⁵¹ 19 U.S.C. § 1595a(c)(2)(C); *see also* U.S. CUSTOMS & BORDER PROT., CUSTOMS DIRECTIVE NO. 2310-010A: DETENTION AND SEIZURE AUTHORITY FOR COPYRIGHT AND TRADEMARK VIOLATIONS 3 (Dec. 2002), https://www.cbp.gov/sites/default/files/documents/2310-010a_3.pdf (citing 19 U.S.C. § 1595a(c)(2)(C) as authority for seizure). Legislation has also been proposed that would allow CBP to seize goods that infringe a design patent. *See* Counterfeit Goods Seizure Act of 2019, S. 2987, 116th Cong. (2019).

⁴⁵² FISCAL YEAR 2018 SEIZURE STATISTICS, *supra* note 160, at 6.

⁴⁵³ *Id.*

⁴⁵⁴ *Id.* at 16.

⁴⁵⁵ *Id.* at 24.

⁴⁵⁶ *Id.* at 24–25.

⁴⁵⁷ INTELLECTUAL PROPERTY RIGHTS ENFORCEMENT, *supra* note 450, at 6; *see also* *Intellectual Property Rights e-Recordation*, U.S. CUSTOMS & BORDER PROT., <https://iprr.cbp.gov/> (last visited Aug. 18, 2020).

⁴⁵⁸ INTELLECTUAL PROPERTY RIGHTS ENFORCEMENT, *supra* note 450, at 6.

⁴⁵⁹ *Id.* at 7; *see also* *e-Allegations*, U.S. CUSTOMS & BORDER PROT., <https://eallegations.cbp.gov/Home/Index2> (last visited Aug. 18, 2020).

⁴⁶⁰ INTELLECTUAL PROPERTY RIGHTS ENFORCEMENT, *supra* note 450, at 8–9.

CBP also enforces ITC exclusion orders, including those issued as a result of Section 337 investigations.⁴⁶¹ In FY2018, CBP seized 172 shipments and excluded 31 shipments.⁴⁶² The estimated MSRP of the seized goods was \$968,803.⁴⁶³

Criminal Prosecutions

In addition to civil actions, in some circumstances IP violations implicate U.S. criminal laws.⁴⁶⁴ The following is not necessarily an exhaustive list of possibly applicable criminal statutes; instead, it is a representative list of the statutes and penalties that may be applicable, depending on the circumstances of a particular theft.

Criminal Copyright and Trademark Infringement

A copyright infringement may be criminally prosecuted if it is willful and committed (1) “for the purposes of commercial advantage or private financial gain”;⁴⁶⁵ (2) “by the reproduction or distribution” of one or more copies of one or more copyrighted works with a total retail value of more than \$1,000 during a 180-day period;⁴⁶⁶ or (3) by distributing a copyrighted work “being prepared for commercial distribution,” which the distributor knew or should have known was intended for commercial distribution, “by making it available on a computer network accessible to members of the public.”⁴⁶⁷ Depending on the particular circumstances of the case, individuals and organizations who violate these provisions are subject to a fine (up to \$250,000 for individuals and \$500,000 for organizations), imprisonment of up to ten years, forfeiture of any property used to commit or facilitate the offense, and restitution to the victim.⁴⁶⁸

In addition to infringement itself, in certain circumstances it may be a criminal offense to traffic in counterfeit labeling relating to a copyrighted work. Specifically, a person may be criminally prosecuted if they knowingly traffic in a counterfeit or illicit label affixed to, enclosing, or accompanying a copyrighted work, or traffic in counterfeit documentation or packaging.⁴⁶⁹ Violators are subject to a fine of up to \$250,000 for individuals and \$500,000 for organizations and/or imprisonment of up to five years.⁴⁷⁰

Some copyright holders attempt to protect recordings of their works (for example, DVDs) by using technology such as digital rights management (DRM). Circumventing those systems may result in criminal liability. Specifically, it is a criminal offense to “willfully and for purposes of commercial advantage or private financial gain”⁴⁷¹ either (1) descramble, decrypt, or otherwise “avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of

⁴⁶¹ FISCAL YEAR 2018 SEIZURE STATISTICS, *supra* note 160, at 32.

⁴⁶² *Id.*

⁴⁶³ *Id.*

⁴⁶⁴ See, e.g., Sean Lavin et al., *Intellectual Property Crimes*, 56 AM. CRIM. L. REV. 1101 (2019); CRS Report RL34109, *Intellectual Property Rights Violations: Federal Civil Remedies and Criminal Penalties Related to Copyrights, Trademarks, Patents, and Trade Secrets*.

⁴⁶⁵ 17 U.S.C. § 506(a)(1)(A).

⁴⁶⁶ *Id.* § 506(a)(1)(B).

⁴⁶⁷ *Id.* § 506(a)(1)(C).

⁴⁶⁸ 18 U.S.C. §§ 2319, 2323.

⁴⁶⁹ *Id.* § 2318.

⁴⁷⁰ *Id.*

⁴⁷¹ 17 U.S.C. § 1204 (criminalizing certain violations of 17 U.S.C. §§ 1201 and 1202).

the copyright owner” that effectively controls access to a copyrighted work;⁴⁷² (2) manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof that is primarily designed or produced for the purpose of circumventing copyright protection measures;⁴⁷³ or (3) knowingly and with the intent to induce, enable, facilitate, or conceal infringement, provide, distribute, or import for distribution false copyright management information.⁴⁷⁴ Penalties for a first offense include a fine up to \$500,000 and imprisonment for not more than five years; those penalties increase to up to \$1,000,000 and ten years’ imprisonment for any subsequent offense.⁴⁷⁵

Trademark infringement may also be criminal in certain circumstances. In particular, it is a criminal offense to intentionally traffic or attempt to traffic in (1) goods and services and knowingly use a counterfeit mark on or in connection with those goods or services; (2) labels or other similar packaging, “knowing that a counterfeit mark has been applied thereto, the use of which is likely to cause confusion, to cause mistake, or to deceive”; (3) “goods or services knowing that such good or service is a counterfeit military good or service the use, malfunction, or failure of which is likely to cause serious bodily injury or death, the disclosure of classified information, impairment of combat operations, or other significant harm to a combat operation, a member of the Armed Forces, or to national security”; or (4) a drug when one knowingly uses a counterfeit mark in connection with the drug.⁴⁷⁶

Depending on the circumstances of the offense, the maximum penalties range from fines of \$2 million to \$5 million and up to life in prison for an individual, or \$5 million to \$15 million for an organization.⁴⁷⁷ The offender is also subject to forfeiture of any property used to commit or facilitate the offense and restitution to the victim.⁴⁷⁸

China has been a source of counterfeit goods for which individuals have been prosecuted for criminal trademark infringement. For example, in 2010, a Virginia jury convicted two individuals of criminal trademark infringement.⁴⁷⁹ The government argued at trial that the defendants “operated a massive international manufacturing, import and wholesale counterfeit goods business” by importing infringing products from China.⁴⁸⁰ The government’s investigation

⁴⁷² *Id.* § 1201.

⁴⁷³ *Id.*

⁴⁷⁴ *Id.* § 1202. Section 1202(c) defines “copyright management information” as certain types of information conveyed in connection with copies of a work including, for example, the work’s title, the name (or other identifying information) of the work’s author, the copyright owner, and terms and condition for use, among others.

⁴⁷⁵ *Id.* § 1204.

⁴⁷⁶ 18 U.S.C. § 2320(a).

⁴⁷⁷ Specifically, the maximum penalties are generally a fine of \$2 million for an individual (\$5 million for an organization) and/or imprisonment of up to ten years for a first offense. *Id.* § 2320(b). For a second or subsequent offense, or an offense that involves the knowing or reckless causation of or attempt to cause serious bodily injury, the penalties increase to up to \$5 million for an individual and \$15 million for an organization, and/or imprisonment for up to twenty years. *Id.* Where an individual knowingly or recklessly causes death from the offense, she may be fined up to \$5 million and/or imprisoned for life; and an organization may be fined up to \$15 million. *Id.*

⁴⁷⁸ *Id.* §§ 2320(b), 2323.

⁴⁷⁹ Press Release, U.S. Dep’t of Justice, Jury Convicts Two New York Importers in One of the Largest Counterfeit Goods Prosecutions in U.S. History (June 11, 2010), <https://www.justice.gov/opa/pr/jury-convicts-two-new-york-importers-one-largest-counterfeit-goods-prosecutions-us-history>.

⁴⁸⁰ *Id.*

uncovered that the defendants “imported over 300,000 counterfeit luxury handbags and wallets into the United States from [China] in the names of different companies.”⁴⁸¹

Economic Espionage and Criminal Trade Secret Misappropriation

Several statutes criminalize the theft of trade secrets under certain circumstances. For example, it is a criminal offense to commit “economic espionage.”⁴⁸² This crime requires the government to prove that a person, “intending or knowing that the offense will benefit any foreign government, foreign instrumentality, or foreign agent, knowingly” (1) stole, or without authorization appropriated, took, carried away, or concealed, or by fraud, artifice, or deception obtained a trade secret;⁴⁸³ (2) without authorization copied, duplicated, sketched, drew, photographed, downloaded, uploaded, altered, destroyed, photocopied, replicated, transmitted, delivered, sent, mailed, communicated, or conveyed a trade secret;⁴⁸⁴ (3) received, bought, or possessed a trade secret, knowing that it has “been stolen or appropriated, obtained, or converted without authorization”;⁴⁸⁵ or (4) attempted to commit or conspired to commit any of those acts.⁴⁸⁶

A violator of these provisions will be fined not more than \$5,000,000 and/or imprisoned for up to 15 years.⁴⁸⁷ An organization that violates these provisions will be fined not more than the greater of \$10 million and three times the value of the stolen trade secret to the organization.⁴⁸⁸

Certain thefts of trade secrets are criminal as well as civil offenses. Thus, it is a criminal offense for anyone, “with the intent to convert a trade secret, that is related to a product or service used or intended for use in interstate or foreign commerce, to the economic benefit of anyone other than the owner thereof,” and who also intends or knows that the offense will injure any owner of the trade secret, to knowingly (1) steal, or without authorization appropriate, take, carry away, or conceal, or by fraud, artifice, or deception obtain such information;⁴⁸⁹ (2) without authorization copy, duplicate, sketch, draw, photograph, download, upload, alter, destroy, photocopy, replicate, transmit, deliver, send, mail communicate, or convey such information;⁴⁹⁰ (3) receive, buy, or possess such information, knowing that it was “stolen or appropriated, obtained, or converted without authorization”;⁴⁹¹ or (4) attempt or conspire to commit any of those acts.⁴⁹² Anyone who violates these provisions will be fined and/or imprisoned for up to 10 years.⁴⁹³ Any organization that violates these provisions will be fined not more than the greater of \$10 million or three times the value of the stolen trade secret to the organization.⁴⁹⁴

⁴⁸¹ *Id.*

⁴⁸² 18 U.S.C. § 1831.

⁴⁸³ *Id.* § 1831(a)(1).

⁴⁸⁴ *Id.* § 1831(a)(2).

⁴⁸⁵ *Id.* § 1831(a)(3).

⁴⁸⁶ *Id.* §§ 1831(a)(4)–(5).

⁴⁸⁷ *Id.* § 1831(a).

⁴⁸⁸ *Id.* § 1831(b).

⁴⁸⁹ *Id.* § 1832(a)(1).

⁴⁹⁰ *Id.* § 1832(a)(2).

⁴⁹¹ *Id.* § 1832(a)(3).

⁴⁹² *Id.* § 1832(a)(5).

⁴⁹³ *Id.* § 1832(a).

⁴⁹⁴ *Id.* § 1832(b).

Individuals associated with the Chinese government have been indicted under these provisions. In 2014, the U.S. Department of Justice (DOJ) announced that “five Chinese military hackers” had been indicted for economic espionage and criminal trade secret theft.⁴⁹⁵ The indictment alleged that “the defendants conspired to hack into American entities, to maintain unauthorized access to their computers and to steal information from those entities that would be useful to their competitors in China, including state-owned enterprises.”⁴⁹⁶ According to DOJ, the indictment alleged that in some cases “the conspirators stole trade secrets that would have been particularly beneficial to Chinese companies at the time they were stolen.” In other cases, the conspirators “stole sensitive, internal communications that would provide a competitor, or an adversary in litigation, with insight into the strategy and vulnerabilities of the American entity.”⁴⁹⁷ In announcing the indictment, DOJ noted that the defendants were known members of the Chinese military.⁴⁹⁸

Recently, DOJ also announced indictments against two Chinese individuals who allegedly “probed for vulnerabilities in computer networks of companies developing COVID-19 vaccines, testing technology, and treatments.”⁴⁹⁹ Those intrusions were allegedly part of “a hacking campaign lasting more than ten years to the present,” targeting companies “with high technology industries” in eleven countries.⁵⁰⁰ The indictment charged the alleged hackers with conspiracy to commit theft of trade secrets and conspiracy to commit computer fraud, among other charges.⁵⁰¹

Computer Fraud and Abuse Act

IP violations involving cyber intrusions may violate the Criminal Fraud and Abuse Act (CFAA),⁵⁰² which criminalizes intentionally accessing a computer “without authorization or exceed[ing] authorized access,” and thereby obtaining information contained in a financial record, information from “any department or agency of the United States,” or “information from any protected computer.”⁵⁰³ The CFAA also criminalizes unauthorized access or exceeding authorized access to a protected computer “knowingly and with intent to defraud,” which results

⁴⁹⁵ Indictment, *United States v. Wang Dong et al.*, No. 14-cr-118 (W.D. Pa. May 1, 2014); Press Release, U.S. Dep’t of Justice, U.S. Charges Five Chinese Military Hackers for Cyber Espionage Against U.S. Corporations and a Labor Organization for Commercial Advantage (May 19, 2014), <https://www.justice.gov/opa/pr/us-charges-five-chinese-military-hackers-cyber-espionage-against-us-corporations-and-labor>. The defendants were also charged with violations of the Computer Fraud and Abuse Act. *See id.*; *see also* discussion *infra* in “Computer Fraud and Abuse Act.”

⁴⁹⁶ *See* U.S. Charges Five Chinese Military Hackers, *supra* note 495.

⁴⁹⁷ *Id.*

⁴⁹⁸ *Id.* (quoting statement of then-U.S. Atty. Gen. Eric Holder).

⁴⁹⁹ Indictment, *United States v. Li Xiaoyu et al.*, No. 4:20-cr-6019, at 1 (E.D. Wash. July 7, 2020); Press Release, U.S. Dep’t of Justice, Two Chinese Hackers Working with the Ministry of State Security Charged with Global Computer Intrusion Campaign Targeting Intellectual Property and Confidential Business Information, Including COVID-19 Research (July 21, 2020), <https://www.justice.gov/opa/pr/two-chinese-hackers-working-ministry-state-security-charged-global-computer-intrusion>.

⁵⁰⁰ Two Chinese Hackers Working with the Ministry of State Security, *supra* note 499.

⁵⁰¹ *Id.*; *see also* *Li Xiaoyu*, No. 4:20-cr-6019, at 1.

⁵⁰² 18 U.S.C. § 1030.

⁵⁰³ *Id.* § 1030(a)(2). The statute defines a “protected computer” as a computer that is (1) exclusively for the use of a financial institution or the U.S. government, or if not exclusivity for such use then used by or for a financial institution or the government and the offending conduct “affects that use” by the financial institution or the government; or (2) a computer “used in or affecting interstate or foreign commerce or communication, including a computer located outside the United States that is used in a manner that affects interstate or foreign commerce or communication of the United States.” *Id.* § 1030(e)(2).

in furthering the intended fraud and obtainment of anything of value.⁵⁰⁴ Finally, the CFAA criminalizes causing damage as a result of accessing a protected computer without authorization.⁵⁰⁵

Depending on the particular actions that lead to conviction, violating the CFAA carries a penalty of a fine and/or up to twenty years in prison.⁵⁰⁶ The court must also order that the violator forfeit any interest in personal property used to commit or facilitate the violation, as well as any property derived from the violation.⁵⁰⁷ Any person who “suffers damage or loss” from a violation of the CFAA may pursue a civil action against the violator and obtain compensatory damages, an injunction, and/or other relief.⁵⁰⁸

These provisions have been used to target Chinese hacking attempts in the United States. In 2017, DOJ announced that three Chinese nationals had been indicted under the CFAA for hacking U.S. corporations for private advantage.⁵⁰⁹ The indictment alleged that “the defendants conspired to hack into private corporate entities in order to maintain unauthorized access to, and steal sensitive internal documents and communications from, those entities’ computers.”⁵¹⁰ The indictment alleged that the Chinese nationals stole trade secrets, emails, and usernames and passwords for authorized users, among other information.⁵¹¹

Conclusion

There are numerous ways in which the Chinese government and other Chinese entities have allegedly misappropriated, infringed, undermined, failed to enforce, or otherwise violated IP rights. Both IP rights holders and U.S. authorities, depending on the nature of the violations, may pursue a variety of existing legal remedies. Moving forward, Congress may choose to consider whether these existing legal options are sufficient to deter or remedy continued practices or future IP violations.

⁵⁰⁴ *Id.* § 1030(a)(4). Such conduct is not an offense if “the thing obtained consists only of the use of the computer and the value of such use is not more than \$5,000 in any 1-year period.” *Id.*

⁵⁰⁵ *Id.* § 1030(a)(5). The CFAA criminalizes other acts, less likely to be implicated by IP theft, as well. *See, e.g., id.* § 1030(a)(1) (disclosure of national security or foreign relations information to others after accessing a computer without authorization or exceeding authorized access); *id.* § 1030(a)(3) (accessing a nonpublic computer of a department or agency of the United States); *id.* § 1030(a)(6) (trafficking in passwords or similar information that may be used to access a computer without authorization); *id.* § 1030(a)(7) (transmitting, with intent to extort money or a thing of value, any threat to damage a protected computer, obtain or impair the confidentiality of information from a protected computer without authorization or in excess of authorized access, or demand money or a thing of value in relation to damage to a protected computer).

⁵⁰⁶ *Id.* § 1030(c).

⁵⁰⁷ *Id.* § 1030(i)–(j).

⁵⁰⁸ *Id.* § 1030(g).

⁵⁰⁹ Indictment, *United States v. Wu Yingzhuo et al.*, No. 17-cr-247 (W.D. Pa. Sept. 13, 2017); Press Release, U.S. Dep’t of Justice, U.S. Charges Three Chinese Hackers Who Work at Internet Security Firm for Hacking Three Corporations for Commercial Advantage (Nov. 27, 2017), <https://www.justice.gov/opa/pr/us-charges-three-chinese-hackers-who-work-internet-security-firm-hacking-three-corporations>.

⁵¹⁰ *Id.*

⁵¹¹ *Id.*

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