ARTICLE

WHAT COUNTS AS EXTRATERRITORIAL IN PATENT LAW?

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INTRODUCTION

There is no question that Congress can regulate activity outside of the United States.[1] This maxim, though, refers to Congress's ability to do so, not the wisdom of doing so. In other words, even though Congress *can* regulate foreign activity, whether it *should* is a different question. Through regulation of foreign activity, Congress risks interfering with a distinct sovereign's prerogatives.[2] The challenge for the courts then, is to determine when Congress *does* intend to regulate foreign activity.[3] To address this concern, the courts have long embraced a presumption against extraterritoriality (the "presumption") that, absent a fairly clear Congressional indication otherwise, Congress does not intend to regulate foreign conduct.[4]

Recent Supreme Court treatment of the presumption has manifested a two-step analysis for assessing the extraterritorial reach of a statute.[5] At step one, a court asks whether Congress has acted in a manner which rebuts the presumption.[6] Step one is, in essence, an act of statutory interpretation: a court must determine "whether the statute [at issue] gives a clear, affirmative indication that it applies extraterritorially."[7] Notably, the step one assessment does not depend on the conduct at issue in the case, meaning that it can have

[1] *See, e.g.*, EEOC. v. Arabian Am. Oil Co. (*Aramco*), 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.").

[2] *See id*. (noting the potential for "unintended clashes between our laws and those of other nations which could result in international discord.").

[3] *See id*. ("It is our task to determine whether Congress intended the protections of Title VII to apply to United States citizens employed by American employers outside of the United States."). *See also* RJR Nabisco, Inc. v. European Cmty., 136 S. Ct. 2090, 2096 (2016) ("We are asked to decide whether RICO applies extraterritorially—that is, to events occurring and injuries suffered outside the United States."); Morrison v. Nat'l Australia Bank Ltd., 561 U.S. 247, 250–51 (2010) ("We decide whether § 10(b) of the Securities Exchange Act of 1934 provides a cause of action to foreign plaintiffs suing foreign and American defendants for misconduct in connection with securities traded on foreign exchanges.").

[4] Foley Bros. v. Filardo, 336 U.S. 281, 285 (1949) ("The canon of construction which teaches that legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States."); United States v. Palmer, 16 U.S. 610, 635 (1818) ("To decide otherwise, would be to determine that the war prosecuted by one of the parties was unlawful, and would be to arrange the nation to which the court belongs against that party. This would transcend the limits prescribed to the judicial department."); *Morrison*, 561 U.S. at 255 (citing *Aramco*, 499 U.S. at 248) (noting the "longstanding principle" of extraterritoriality). *See also* Curtis A. Bradley, *Territorial Intellectual Property Rights in an Age of Globalism*, 37 VA. J. INT'L L. 505, 511 (1997) ("The presumption against extraterritoriality has been applied by U.S. courts since early in the nation's history.").

[5] *See RJR Nabisco*, 136 S. Ct. at 2101. *See also* WesternGeco LLC v. ION Geophysical Corp., 138 S. Ct. 2129, 2136 (2018).

[6] *RJR Nabisco*, 136 S. Ct. at 2101.

[7] *Id*. at 2093-94.

precedential consequences that extend well beyond any particular case.[8] Step two, in contrast, is conduct-focused.[9] It asks whether the focus of the statute at issue would concern domestic conduct when applied to the case's factual posture, without regard to the presumption.[10] If the conduct related to the statute's focus is domestic, then it's application would not be "extraterritorial."[11] Instead, the case merely reflects a domestic application of the statute, notwithstanding some conduct that occurred outside of the United States. By its nature, step two depends on the facts of a given case.

The Supreme Court has engaged with the presumption significantly in the patent law context.[12] One might wonder why the Court has focused on patent law, an area that one commentator has dubbed the "most explicitly territorial" of the various forms of intellectual property protection.[13] Patent law would seem an odd vehicle for addressing concerns of extraterritoriality. The traditional conception of patent law's limited territorial reach makes sense at a certain level. Patents are creatures of national law, and valid patents grant the rights-holder exclusive rights within the issuing country.[14] In contrast to authors in the

[8] Timothy R. Holbrook, *Extraterritoriality and Proximate Cause after* WesternGeco, 21 YALE J. L. & TECH. 189, 201 (2019). *See also WesternGeco*, 138 S. Ct. at 2136 ("WesternGeco argues that the presumption against extraterritoriality should never apply to statutes, such as § 284, that merely provide a general damages remedy for conduct that Congress has declared unlawful. Resolving that question could implicate many other statutes besides the Patent Act.").

[9] *See RJR Nabisco*, 136 S. Ct. at 2101.

[10] *Id*.

[11] *Id*.

[12] *See* WesternGeco LLC v. ION Geophysical Corp., 138 S. Ct. 2129, 2136-39 (2018); Microsoft Corp. v. AT & T Corp., 550 U.S. 437, 454-56 (2007). Although the Court did not rely on the presumption in interpreting 35 U.S.C. § 271(f) in *Life Techs. Corp. v. Promega Corp.*, such omission was rather conspicuous given the attention the presumption received in the briefing and at oral argument. *Compare* Life Techs. Corp. v. Promega Corp., 137 S. Ct. 734 (2017), *with* Brief for the United States as Amicus Curiae Supporting Petitioners at 28-29, Life Techs. Corp. v. Promega Corp., 137 S. Ct. 734 (2017) (No. 14-1538). *See also* Sue Ann Ganske, *Samsung v. Apple, Life Technologies v. Promega, SCA Hygeine Products v. First Quality Baby Products, TC Heartland v. Kraft, Impression Products v. Lexmark, and Sandoz v. Amgen: The U.S. Supreme Court Decides Six Patent Cases in 2016-17*, 17 J. MARSHALL REV. INTELL. PROP. L. 162, 173 (2017) ("Finally, no mention in the opinion occurred for the presumption against extraterritoriality, although it was brought up at oral argument."); Timothy R. Holbrook, *Boundaries, Extraterritoriality, and Patent Infringement Damages*, 92 NOTRE DAME L. REV. 1745, 1758–59 (2017); G. Edward Powell III, *Commodity Supply and Extraterritorial Patent Infringement in Life Technologies v. Promega*, 12 DUKE J. CONST. L. & PUB. POL'Y SIDEBAR 163, 168 (2017).

[13] Donald S. Chisum, Comment, *Normative and Empirical Territoriality in Intellectual Property: Lessons from Patent Law*, 37 VA. J. INT'L L. 603, 605 (1997).

[14] International protocols exist to streamline the process for obtaining patents across the globe, but even those processes, such as those found within the Patent Cooperation Treaty, African Regional Intellectual Property Organization (ARIPO), the European Patent Office

copyright context, inventors must affirmatively seek patent protection from each country in which they want protection.[15] Exclusionary rights stemming from U.S. patents are generally limited to activities "within the United States."[16]

Even though the Patent Act contains strict territorial limits, U.S. patent law has long deviated from a rule of strict territoriality. On many dimensions, U.S. patent law takes into account activities occurring outside of the United States.[17] For example, when assessing the novelty and non-obviousness of inventions claimed in U.S. patent applications and patents, courts have long turned to patents and printed publications in foreign countries.[18] Courts also use the foreign prosecution histories of related patents to interpret U.S. patents.[19] The significant amendments to the Patent Act in 1994 were made in the interest of international harmonization pursuant to the Agreement on Trade Related Aspects of Intellectual Property agreement (TRIPS), meaning that international considerations drove much of the domestic law reform.[20]

The U.S. patent system, therefore, has considerable international flavor to it. Yet, the courts' uses of foreign activities are not treated consistently with respect to the presumption.[21] Uses of foreign publications and acts are treated as fundamentally different from finding a party liable for patent infringement based

(EPO), Organisation Africaine de la Propriété Intellectuelle (OAPI), and the Eurasian Patent Organization, result in national patents. *See, e.g.,* Patent Cooperation Treaty, June 19, 1970 28 U.S.T. 7645. At present, there is no true trans-national patent. *See* Microsoft Inc. v. Motorola, Inc, 696 F.3d 872, 878 n.3 (9th Cir. 2012) (quoting Convention on the Grant of European Patents art. 2, Oct. 5, 1973 13 I.L.M. 276 ("If the EPO grants a European patent, the grant does not result in a single, transnational patent.").

[15] *See* Lexmark Int'l, Inc. v. Impression Prods., Inc., 816 F.3d 721, 762 (2016).

[16] *See* 35 U.S.C. § 271(a) (2012); *see also* Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1538 (2017) (Ginsburg, J., concurring in part and dissenting in part) ("Patent law is territorial. When an inventor receives a U.S. patent, that patent provides no protection abroad."); Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 531 (1972) ("Our patent system makes no claim to extraterritorial effect.").

[17] *See generally* Timothy R. Holbrook, *Territoriality Waning? Patent Infringement for Offering in the United States to Sell an Invention Abroad*, 37 U.C. DAVIS L. REV. 701 (2004) (cataloging various international considerations in U.S. patent law).

[18] *See* I.C.E. Corp. v. Armco Steel Corp., 250 F. Supp. 738, 740 n.6 (S.D.N.Y. 1966) (citing Patent Act of 1836, Ch. 357, 5 Stat. 117 § 7 (July 4, 1836)) (declining patent protection if the invention "had been patented or described in any printed publication in this or any foreign country").

[19] *See, e.g.,* Tanabe Seiyaku Co. v. U.S. Int'l Trade Comm'n, 109 F.3d 726, 733 (Fed. Cir. 1997); Caterpillar Tractor Co. v. Berco, S.P.A., 714 F.2d 1110, 1116 (Fed. Cir. 1983).

[20] *See* Rotec Indus., Inc. v. Mitsubishi Corp., 215 F.3d. 1246, 1251-52 (2000).

[21] For example, at no point has discussion of the Patent Act provisions amended in 1994 triggered the presumption against extraterritoriality. *See* Lexmark Int'l, Inc. v. Impression Prods., Inc., 816 F.3d 721, 765 (2016) ("[W]hen Congress implemented the international agreement through the 1994 legislation, . . . the accompanying Statement of Administrative Action . . . stated that '[t]he Agreement TTT does not affect U.S. law or practice relating to parallel importation of products protected by intellectual property rights.'").

on acts outside of the United States, with only the latter triggering concerns about the presumption. The territorial principle is treated asymmetrically, with foreign publications and acts impacting the validity and enforceability not deemed extraterritorial, whereas foreign acts in assessing infringement and liability are. Courts have silently embraced this dichotomy, however, without pausing to consider whether it is appropriate.

This Article breaks this silence and interrogates this bifurcation in the treatment of the U.S. territoriality principle in the patent law context. Section I divides the use of foreign activity into two broad categories: those that implicate the validity or enforceability of a U.S. patent and those that entail liability or attendant remedies for patent infringement. The former generally have not generated concerns of extraterritoriality, while the latter have. Section II then challenges whether the first category is truly unconcerned with extraterritoriality. It offers various perspectives on what should constitute extraterritorial regulation of activity and dissects whether these acts should be extraterritorial as a matter of law. The Article then concludes.

I. THE EXTRATERRITORIAL ASPECTS OF PATENT VALIDITY, ENFORCEABILITY, INFRINGEMENT, AND REMEDIES

As a general matter, one can sort the territorial limits of U.S. patents — and derogations therefrom — into two broad categories. The first category includes those activities that impact U.S. patent holders' ability to enforce their patent rights. While these acts can render the patent either invalid or unenforceable, courts generally have not deemed these activities "extraterritorial" so as to implicate the presumption against extraterritoriality.[22] The second includes those activities which infringe a U.S. patent and subject an infringer to penalties that flow from it, such as injunctive relief and monetary damages. In contrast to the first category, courts have viewed acts in this second category as implicating the presumption against extraterritoriality. This section explores these two categories.

A. Foreign Acts Involving the Validity and Enforceability of U.S. Patents

A variety of activities that arise outside of the United States will impact U.S. patent holders' abilities to enforce their patent rights. Many foreign activities qualify as prior art for determining the validity of U.S. patents. Some of these forms of prior art have a long history in patent law, while others are relatively new, having been introduced into patent law through the America Invents Act (AIA). Additionally, under recent Supreme Court precedent, acts outside of the United States can exhaust a U.S. patent, precluding the owner from enforcing the patent within the United States. This subsection explains these various

[22] *See* Bradley, *supra* note 4, at 523 (explaining that "the cause of an infringement may emanate from outside the . . . [U.S. but] so long as the defendant infringes the patent in the United States . . . the recoverable damages may include the profits received by the defendant from *foreign* sales of the invention.").

activities and how they impact U.S. patent holders' abilities to enforce their patents within the United States.

1. Patents, Printed Publications, and the Recent Removal of Territorial Limits on Sales Activities and Public Uses

Prior art is the set of materials that the USPTO and courts use to determine whether an invention claimed in a patent satisfies the criteria of novelty and non-obviousness.[23] Some forms of prior art are written documents, and the disclosure of the claimed invention comes in the form of a written description. Examples of such prior art include prior patents and printed publications.[24] The patent system has long included foreign publications as prior art in this context. The Patent Act of 1836 provided that patents and printed publications "in this or a foreign country" could be used to examine the patent application.[25] This use of foreign material continued in the 1952 Patent Act[26] and on through to the contemporary AIA.[27] These provisions can create issues of whether a foreign form of intellectual property protection qualifies as "patented" in the United States.[28] Such disputes require courts to interrogate the nature, but not the validity, of the foreign intellectual property right.[29]

In contrast, historically tangible acts involving a patented invention had to take place within the United States to qualify as prior art. While the Patent Acts of 1790 and 1793 did not contain such restrictions,[30] the Patent Act of 1836

[23] *See generally* 35 U.S.C. §§ 102, 103 (2012).

[24] 35 U.S.C. § 102(a)(1) (2012).

[25] Patent Act of 1836, Ch. 357, 5 Stat. 117 § 7 (July 4, 1836) (declining patent protection if the invention "had been patented or described in any printed publication in this or any foreign country").

[26] 35 U.S.C. § 102(b) (2011); Kirk M. Hartung, *Prior Art: The Undefined Key to Section 103 of the 1952 Patent Act*, 32 DRAKE L. REV. 703, 706-07 (1982).

[27] Ryan Levy & Spencer Green, *Pharmaceuticals and Biopiracy: How the America Invents Act May Reduce the Misappropriation of Traditional Medicine*, 23 U. MIAMI BUS. L. REV. 401, 401-02 (2015).

[28] *See, e.g., In re* Carlson, 983 F.2d 1032, 1037-38 (Fed. Cir. 1992), *rev'd on reh'g* (Feb. 1, 1993) (holding German "Geschmacksmuster qualifies as a foreign patent").

[29] *Id*. at 1036.

[30] Margo A. Bagley, *Patently Unconstitutional: The Geographical Limitation on Prior Art in A Small World*, 87 MINN. L. REV. 679, 696-97 (2003). *See also* Shaw v. Cooper, 32 U.S. 292, 319 (1833) (relying on activities in England to invalidate patent pursuant to the act of 1793).

contained explicit geographic limitations,[31] as did the 1952 Patent Act.[32] These geographic restrictions appear to serve as a *de facto* reasonableness limitation for those seeking to invalidate a patent. As opposed to easily locating a public writing (*e.g.*, a patent or printed publication), uncovering an inventor's or third party's foreign activities would seem a rather difficult task for technologists or lawyers seeking to assess whether their inventions are patentable.[33] Imagine trying to find a single use of the invention in the countryside of rural France!

This is no longer the case. The AIA eliminated territorial limits on tangible acts. Presently, to serve as a prior art, sales activity and public uses can occur anywhere in the world.[34] The Supreme Court has further complicated this expansion of prior art. In *Helsinn Healthcare S.A. v. Teva Pharmaceuticals USA, Inc.,* the Court held that "a commercial sale to a third party who is required to keep the invention confidential may place the invention 'on sale' under the AIA."[35] Thus, secret, extraterritorial, commercial activity can qualify as prior art, invalidating a patent, even if the public is unaware of the nature of the invention.[36]

As a result, extraterritorial "real world" activity, and not just written disclosures in patents and printed publications, now qualifies as prior art sufficient to invalidate a U.S. patent.[37] Thus, conduct in foreign locales can impact the rights of a U.S. patent applicant or holder. Courts have yet to address the impact that the removal of territorial limits on such prior art might have on the presumption against extraterritoriality. Nevertheless, they seemingly would not view this shift as implicating the presumption, much in the same way that written prior art did not trigger extraterritorial concerns.[38] Minimally, if one wanted to engage with the presumption, it would seemingly be rebutted at step

[31] R. CARL MOY, MOY'S WALKER ON PATENTS § 1:19 (4th ed. 2017) ("[The Patent Act of 1836] also required that the concept of novelty be so-called 'local' in nature, meaning that the patentability of inventions would be judged against the body of knowledge held in the United States locally, rather than anywhere in the world.").

[32] 35 U.S.C. § 102(a) (2012) ("known or used by others *in this country*") (emphasis added); *id*. at § 102(b) ("in public use or on sale *in this country*") (emphasis added); *see also generally* Bagley, *supra* note 30.

[33] Though one could argue that finding a single PhD thesis indexed in a single German library would also be rather difficult, this did count as a printed publication. *In re* Hall, 781 F.2d 897, 897, 899-900 (Fed. Cir. 1986).

[34] Examination Guidelines for Implementing the First Inventor To File Provisions of the Leahy-Smith America Invents Act, 78 Fed. Reg. 11059, 11075 (Feb. 14, 2013) (to be codified at 37 C.F.R. pt. 1).

[35] 139 S. Ct. 628, 630 (2019).

[36] *But see* Timothy R. Holbrook, *Patent Prior Art and Possession*, 60 WM. & MARY L. REV. 123, 158 (2018) (discussing need for public accessibility under a possession-based theory of prior art).

[37] *Id.* at 149-50.

[38] *See* Timothy R. Holbrook, *Should Foreign Patent Law Matter?*, 34 CAMPBELL L. REV. 581, 586-87 (2012).

one as the AIA makes clear Congress's intent to include these foreign activities within the scope of the prior art.[39] Yet, the history of prior art provisions demonstrates that the courts did not even seem to view the presumption as relevant.[40]

2. Removal of Territorial Limits on Patent Exhaustion

The on-sale bar destroys an invention's patentability when pre-issuance commercial acts occur before the relevant qualifying date, generally the invention date, one year prior to the filing date, or the filling date, depending on the relevant statute.[41] These real-world acts impact the ability of U.S. patent holders to enforce their rights because one cannot be liable for infringing invalid claims of a patent.[42] Post-issuance sales can also impact the exclusive rights attendant to patent ownership. If a patent owner sells an embodiment of a patented invention,[43] that sale exhausts the owner's rights to that embodiment.[44] The concept of exhaustion — also called the "first sale" doctrine — transcends patent law. Both copyright[45] and trademark law have similar doctrines.[46]

The theory underlying exhaustion is as follows: intellectual property ("IP") rights-holders have been fully compensated for their good — be it an invention, a copyrighted work, or a trademarked item — and thus their rights and interest

[39] Paul Morgan, *The Ambiguity in Section 102(a)(1) of the Leahy-Smith America Invents Act*, PATENTLY-O PATENT L. J. 29, 34 (2011).

[40] *See supra* notes 30-32 and accompanying text.

[41] Timothy R. Holbrook, *Patent Disclosures and Time*, 69 VAND. L. REV. 1460, 1466 (2016). Under the 1952 Patent Act the relevant date is the filing date or "critical date." *Id.* at 1465. Under the AIA the relevant date is (with some exceptions) the filing date. 35 U.S.C. §§ 102(a)(1)-(b) (2012). The exceptions apply to applicant activity. Applicant sales activity does not qualify as prior art unless it occurred more than one year prior to the filing date, creating a grace period for the applicant. § 102(b)(1)(A). Third party sales activity does not qualify if, within the one-year grace period, the applicant disclosed the invention in some form. § 102(b)(1)(B).

[42] *See* Holbrook, *supra* note 41, at 1466; *see also* § 102(a)(1)(A) - (B).

[43] Herbert Hovenkamp, *Reasonable Patent Exhaustion*, 35 YALE J. ON REG. 513, 514 (2018) ("The patent first sale, or 'exhaustion,' rule applies not to patents themselves but rather to the sale of patented 'things.'").

[44] Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1529 (2017); Bowman v. Monsanto Co., 569 U.S. 278, 280 (2013); Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 625 (2008).

[45] Kirtsaeng v. John Wiley & Sons, Inc., 568 U.S. 519, 523 (2013); Quality King Distributors, Inc. v. L'anza Research Int'l, Inc., 523 U.S. 135, 139-40 (1998); Bobbs-Merrill Co. v. Straus, 210 U.S. 339, 350 (1908); *see also* 17 U.S.C. § 109(a) (2012).

[46] Prestonettes, Inc., v. Coty, 264 U.S. 359, 368 (1924); Davidoff & CIE, S.A. v. PLD Int'l Corp., 263 F.3d 1297, 1301 (11th Cir. 2001); Sebastian Int'l, Inc. v. Longs Drug Stores Corp., 53 F.3d 1073, 1075 (9th Cir. 1995).

in the item end.[47] In compensating the former rights-holder for the item in question, the purchasing party terminated the seller's IP rights as to the item and are freed of any lingering restraints on its' alienability, allowing the purchaser to freely transfer the item.[48] It is because of exhaustion that used book markets, for example, can exist.[49] Importantly, exhaustion affords purchasers the right to use and sell the particular embodiments of the inventions they purchase; *however,* it does not permit purchasers to reconstruct or make inventions anew.[50] Thus in the patent context, exhaustion might arise where a seller alleges that a purchaser infringed the patent rights by impermissibly reconstructing the invention, as opposed to permissibly repairing the device.[51]

The exhaustion doctrine is "longstanding" in patent jurisprudence,[52] both in the United States and abroad,[53] and can vary in geographic scope. Domestic exhaustion is limited to sales within the country in which the patent holder holds

[47] Natalie J. Tanner, *Understanding the Disparity in Availability of Prescription Drugs in the United States: Compromise May Be the Answer*, 2 IND. HEALTH L. REV. 267, 284 (2005) ("The courts have justified this doctrine by stressing that the patent purpose is accomplished once the patent holder has received the benefit of the initial sale of the patented article.").

[48] *See* Herbert J. Hovenkamp, *Post-Sale Restraints and Competitive Harm: The First Sale Doctrine in Perspective*, N.Y.U. ANN. SURV. OF AM. L., 101, 111 (2011).

[49] Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889, 894 (2011).

[50] Bowman v. Monsanto Co., 569 U.S. 278, 280 (2013) ("Under the doctrine of patent exhaustion, the authorized sale of a patented article gives the purchaser, or any subsequent owner, a right to use or resell that article. Such a sale, however, does not allow the purchaser to make new copies of the patented invention."); Jazz Photo Corp. v. Int'l Trade Comm'n, 264 F.3d 1094, 1102 (Fed. Cir. 2001), *abrogated on other grounds by* Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523 (2017) ("The fact that an article is patented gives the purchaser neither more nor less rights of use and disposition. However, the rights of ownership do not include the right to construct an essentially new article on the template of the original, for the right to make the article remains with the patentee.").

[51] *See, e.g.,* Sandvik Aktiebolag v. E.J. Co., 121 F.3d 669, 672 (Fed. Cir. 1997); *Jazz Photo*, 264 F.3d at 1102 (Fed. Cir. 2001).

[52] Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 625 (2008); *see also* Boesch v. Graff, 133 U.S. 697, 702-03, (1890) (quoting Adams v. Burke, 84 U.S. 453, 456 (1873) ("That is to say, the patentee or his assignee having in the act of sale received all the royalty or consideration which he claims for the use of his invention in that particular machine or instrument, it is open to the use of the purchaser without further restriction on account of the monopoly of the patentees."); Bloomer v. McQuewan, 55 U.S. (14 How.) 539,549 (1852)) ("And the machine passes to the hands of the purchaser it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of congress.")).

[53] *See* Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 6, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS Agreement] ("For the purposes of dispute settlement under this Agreement, subject to the provisions of Articles 3 and 4 nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights.").

a patent; a sale outside of the United States, for example, would not exhaust a U.S. patent under a domestic exhaustion regime.[54] International exhaustion embraces the view that a sale anywhere in the world exhausts a domestic patent right, so sales outside of the United States *would* exhaust a U.S. patent.[55] Other permutations, including regional exhaustion,[56] can also exist. TRIPS Article 6, the "agreement to disagree," reflects the myriad approaches available and explicitly eschews the embrace of any particular form of exhaustion applying to all IP rights.[57]

Given the doctrine's historic entrenchment, it is somewhat surprising that its territorial limits have only recently been sorted out in the U.S. The main question in determining exhaustion's territorial limits is whether an American patent owner's authorized, extraterritorial sale of an invention's embodiment would exhaust the owner's patent rights within the U.S.[58] In 2001 the Federal Circuit embraced a domestic exhaustion regime in *Jazz Photo Corp. v. International Trade Commission*, a case where an accused infringer purchased patented single-use, disposable cameras overseas, refurbished them, and later imported and sold them in the United States.[59] The Federal Circuit concluded that such foreign sales did not exhaust the patentee's rights, explaining: "United States patent rights are not exhausted by products of foreign provenance. To invoke the protection of the first sale doctrine, the authorized first sale must have occurred under the United States patent."[60]

Somewhat shockingly, that is the extent of the court's reasoning. The Federal Circuit relied upon an 1890 Supreme Court decision, *Boesch v. Graff*.[61] The problem with relying on that case, as commentators have noted, is that *Boesch* is inapposite to the question of international exhaustion.[62] Rather than

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[54] *International Exhaustion and Parallel Importation*, WORLD INTELL. PROP. ORG., https://www.wipo.int/sme/en/ip_business/export/international_exhaustion.htm [https://perma.cc/363Z-49U2].

[55] *Id*.

[56] *Id*.

[57] TRIPS Agreement, *supra* note 53, at art. 6. *See also* Vincent Chiappetta, *The Desirability of Agreeing to Disagree: The WTO, Trips, International IPR Exhaustion and a Few Other Things*, 21 MICH. J. INT'L L. 333, 339 (2000).

[58] *See* Kristin L. Yohannan & Douglas A. Behrens, *A Study of Patent Exhaustion: AIPLA's Amicus Brief in Lexmark International, Inc. v. Impression Products, Inc.*, 44 AIPLA Q. J. 209, 227 (2016).

[59] Jazz Photo Corp. v. Int'l Trade Comm'n, 264 F.3d 1094, 1101, 1105 (Fed. Cir. 2001), *abrogated on other grounds by* Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523 (2017).

[60] *Id.* at 1105.

[61] *See id.* (citing Boesch v. Graff, 133 U.S. 697, 701-03 (1890)).

[62] Jodi LeBolt, *Sales Gone Wrong: Implications of* Kirtsaeng *for the Federal Circuit's Stance on International Exhaustion*, 24 FED. CIRCUIT B.J. 131, 138 (2014) ("The *Jazz Photo* court derived its 'no international patent exhaustion' doctrine from *Boesch*. *Boesch* concerned a somewhat unusual factual scenario, and produced a holding that can be interpreted narrowly,

purchasing the invention from the patent owner, the accused infringer in *Boesch* purchased it in Germany from a third-party who was immune from liability under German prior user rights.[63] That purchaser then imported the invention into the United States.[64] The Supreme Court held that there was infringement of the U.S. patent under these circumstances, noting:

> The right which Hecht had to make and sell the burners in Germany was allowed him under the laws of that country, and purchasers from him could not be thereby authorized to sell the articles in the United States in defiance of the rights of patentees under a United States patent. A prior foreign patent operates under our law to limit the duration of the subsequent patent here, but that is all. The sale of articles in the United States under a United States patent cannot be controlled by foreign laws.[65]

The scenario, therefore, was not one of patent exhaustion, where the U.S. patent holder authorized the foreign sale. While *Boesch* can be seen as supporting a territorial approach to exhaustion, it is generally inapposite to the question of whether the United States has an international or domestic exhaustion regime. That the Federal Circuit chose to hang its hat on *Boesch* for its summary embrace of a domestic exhaustion regime is thus surprising and troubling.

Subsequently, in *Fuji Photo Film Co., Ltd. v. Jazz Photo Corp.*[66] the court offered a more complete explanation for its territorial rule:

> This court does not construe the "solely foreign provenance" language or the *Boesch* citation to dictate a narrow application of the exhaustion principle. Specifically, this court does not read *Boesch* or the above language to limit the exhaustion principle to unauthorized sales. Jazz therefore does not escape application of the exhaustion principle because

as many commentators argue it should be, or broadly, as the Federal Circuit chose to do."). Harold C. Wegner, *Post*-Quanta, *Post-Sale Patentee Controls*, 7 J. MARSHALL REV. INTELL. PROP. L. 682, 698 (2008) ("*Boesch* has nothing to do with patent exhaustion because there was no patent right, German or otherwise, that was exercised.").

[63] Prior user rights preclude infringement liability for the purchase or use of an infringing device before the patent issued. Even though post-issuance uses of the same device would infringe, prior user rights afford a safe harbor for such uses. *See* Greg R. Vetter, *Are Prior User Rights Good for Software?*, 23 TEX. INTELL. PROP. L.J. 251, 252–53 (2015); *see also Boesch*, 133 U.S. at 701 (quoting Patentgesetz [Imperial Patent Act], May 25, 1877, RGBL, 12 Off. Gaz. 183 (Ger.)) (explaining that prior user rights in the case arose under German patent law, which "provided that . . . 'the patent does not affect persons who, at the time of the patentee's application, have already commenced to make use of the invention in the country, or made the preparations requisite for such us.'"). The United States embraced more robust prior user rights under the AIA. *See* 35 U.S.C. § 273 (2012).

[64] *Id.* at 702 ("The exact question presented is whether a dealer residing in the United States can purchase in another country articles patented there, from a person authorized to sell them, and import them to and sell them in the United States, without the license or consent of the owners of the United States patent.").

[65] *Id.* at 703.

[66] 394 F.3d 1368 (Fed. Cir. 2005).

> Fuji or its licensees authorized the international first sales of these LFFPs. The patentee's authorization of an international first sale does not affect exhaustion of that patentee's rights in the United States. Moreover, the "solely foreign provenance" language does not negate the exhaustion doctrine when either the patentee or its licensee sells the patented article abroad.[67]

Notwithstanding *Jazz Photo*'s thin reasoning and reliance on questionable precedent, other, non-judicial sources suggest that the United States system was one of domestic exhaustion. Specifically, the United States advocated for domestic exhaustion in its various international trade negotiations.[68] Thus, while TRIPS is silent on the matter, the United States had been negotiating to require domestic exhaustion in its various bilateral "TRIPS plus" agreements.[69] The Federal Circuit's decision in *Jazz Photo*, therefore, was not out of step with policymakers in the United States.[70]

The Supreme Court's subsequent decision in *Quanta Computer, Inc. v. LG Electronics., Inc.* would lead many courts and commenters to reconsider the Federal Circuit's jurisprudence on exhaustion, including the domestic exhaustion rule embraced in *Jazz Photo*.[71] The record in *Quanta* suggested that some sales of computers incorporating the relevant chips took place "in the U.S. and around the world…."[72] The Court also recognized that aspects of this case arose outside of the United States.[73] As such, by finding patent exhaustion based on the sales of the chips, arguably the Supreme Court silently embraced an international exhaustion regime. Nevertheless, of the three key holdings in *Quanta*, none expressly spoke to the exhaustion doctrine's territorial limits.[74]

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[67] Fuji Photo Film Co. v. Jazz Photo Corp., 394 F.3d 1368, 1376 (Fed. Cir. 2005).

[68] *See* Sarah R. Wasserman Rajec, *Free Trade in Patented Goods: International Exhaustion for Patents*, 29 BERKELEY TECH. L.J. 317, 354-56 (2014).

[69] *Id.* at 355. *See also, e.g.,* Lexmark Int'l, Inc. v. Impression Prod., Inc., 816 F.3d 721, 765–66 (Fed. Cir. 2016), rev'd and remanded, 137 S. Ct. 1523, 198 L. Ed. 2d 1 (2017) (discussing various treaties embracing domestic exhaustion).

[70] *But see* Quality King Distributors, Inc. v. L'anza Research Int'l, Inc., 523 U.S. 152, 153-54 (1998) ("Equally irrelevant is the fact that the Executive Branch of the Government has entered into at least five international trade agreements that are apparently intended to protect domestic copyright owners from the unauthorized importation of copies of their works sold in those five countries. . . . . Even though they are of course consistent with the position taken by the Solicitor General in this litigation, they shed no light on the proper interpretation of a statute that was enacted in 1976.").

[71] *See* 553 U.S. 617, 636-38 (2008).

[72] Brief of Petitioner at 3, Quanta Computer, Inc. v. LG Electronics, Inc., 553 U.S. 617 (2008) (No. 06-937), 2007 WL 3276505, at *3.

[73] *Quanta*, 553 U.S. at 632 n.6 ("Whether outside the country or functioning as replacement parts, the Intel Products would still be *practicing* the patent, even if not infringing it.").

[74] *Id*. The Court held that (1) exhaustion doctrine applied to method claims, (2) exhaustion can be triggered by the sale of something that substantially embodies the invention (even if it

Some, therefore, felt that *Quanta* left *Jazz Photo* and its progeny untouched.[75] Others believed that *Quanta* implicitly overruled *Jazz Photo*.[76] For a time, the Federal Circuit was not among those courts. A mere two years after the decision in *Quanta*, the Federal Circuit expressly addressed "whether *Quanta* . . . eliminated the territoriality requirement for patent exhaustion announced in *Jazz Photo*" in *Fujifilm Corp. v. Benun*.[77] There, the court held that *Quanta* "did not eliminate the first sale rule's territoriality requirement" because the case "did not involve foreign sales."[78]

This adherence to a domestic exhaustion regime contrasts sharply with the evolution of the first sale doctrine in copyright. *Quality King Distributors, Inc. v. L'anza Research Int'l, Inc.*[79] involved a somewhat odd, if not entirely unique, fact pattern that implicated copyright's first sale doctrine.[80] In *Quality King*, the copyright owner sold various hair care products, which bore copyrighted labels, to foreign distributors in the United States.[81] The products were sent abroad and re-imported into the United States — resulting in a "round trip" fact pattern.[82] The Supreme Court concluded that copyright exhaustion applied and, therefore,

is not the complete invention); and (3) the sales by the licensee in the case triggered exhaustion notwithstanding some contractual restrictions. *Id.* at 621.

[75] *See* Shubha Ghosh, *Carte Blanche,* Quanta*, and Competition Policy*, 34 J. CORP. L. 1209, 1235 (2009).

[76] LG Elecs., Inc. v. Hitachi, Ltd., 655 F. Supp. 2d 1036, 1047 (N.D. Cal. 2009) ("The Court therefore concludes that Quanta's holding—that exhaustion is triggered by the authorized sale of an article that substantially embodies a patent—applies to authorized foreign sales as well as authorized sales in the United States."); San Disk Corp. v. Round Rock Research LLC, 2014 U.S. Dist. LEXIS 81290, at *10 n.2 (N.D. Cal. June 13, 2014) (citing LG Elecs., 655 F. Supp. 2d at 1046) ("The *LG Electronics* decision concluded that the first two *Jazz Photo* cases were simply no longer good law in light of *Quanta*."). *See* Fujifilm Corp. v. Benun, 605 F.3d 1366, 1371 (Fed. Cir. 2010) ("Defendants assert that *Quanta* created a rule of 'strict exhaustion,' that the Court's failure to recite the territoriality requirement eliminated it."). *See also* Caitlin O'Connell, *The End of Patent Extraterritoriality? The Reconciliation of the Patent and Copyright First Sale Doctrine*, 23 GEO. MASON L. REV. 229, 241 (2015); John R. Schroeder, *Should Foreign Sales Exhaust U.S. Patent Rights Post* Quanta*?*, 55 ST. LOUIS U. L.J. 713,714 (2011); Sarah R. Wasserman Rajec, *supra* note 68, at 344-45.

[77] 605 F.3d 1366, 1370 (Fed. Cir. 2010).

[78] *Id*. at 1371.

[79] *See* 523 U.S. 135 (1998).

[80] *See id*. at 140-41.

[81] *Id*. at 138-39.

[82] *Id*. at 154 (Ginsburg, J., concurring) ("This case involves a 'round trip' journey, travel of the copies in question from the United States to places abroad, then back again.").

there was no infringement.[83] Due to the round-trip nature of the facts, however, the Court's decision technically did not address international exhaustion.[84]

The issue of domestic versus international copyright exhaustion appeared to present itself cleanly to the Court a decade after *Quality King* in *Omega S.A. v. Costco Wholesale Corp*., which involved foreign sales of watches that were later imported into the United States.[85] The answer to that question would remain unanswered for a bit longer. Justice Kagan was recused due to her work on *Omega* while she was the Solicitor General, and the Court was equally divided, resulting in affirmance of the Ninth Circuit's judgment that utilized domestic exhaustion.[86]

Five years later, in *Kirtsaeng v. John Wiley & Sons, Inc*., the Supreme Court squarely addressed the territorial rule for copyright.[87] The copyright owner John Wiley alleged that, in reselling in the United States lower-priced textbooks that Supap Kirtsaeng's family and friends had purchased in Thailand and shipped to him in the United States, Kirtsaeng had committed copyright infringement.[88] The Supreme Court concluded that the authorized sales of the books in Thailand by John Wiley exhausted the U.S. copyright, so there was no infringement.[89] Thus, *Quality King*'s "round trip" scenario was no longer a necessary element of copyright exhaustion; *Kirtsaeng* stood for the proposition that authorized sales of a copyrighted work anywhere in the world will effect exhaustion of the copyright.[90] In other words, the Supreme Court adopted an international exhaustion regime for copyright law, in contrast to the Federal Circuit's embrace of domestic exhaustion in the patent context.

After *Kirtsaeng*, of course, it was unclear whether patent law's domestic exhaustion regime would survive. While the Supreme Court did not rely on patent precedent in deciding *Kirtsaeng*, the Court often bounces the two regimes against each other given their "historic kinship."[91] Moreover, on the day it issued

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[83] *See id*. at 152-54.

[84] *Id.* at 154 (Ginsburg, J., concurring) ("I join the Court's opinion recognizing that we do not today resolve cases in which the allegedly infringing imports were manufactured abroad.").

[85] *See* 541 F.3d 982, 983-84 (9th Cir. 2008).

[86] Costco Wholesale Corp. v. Omega, S.A., 562 U.S. 40, 41 (2010).

[87] *See* Kirtsaeng v. John Wiley & Sons, Inc., 568 U.S. 519, 523-25 (2013). Interestingly, one Justice's vote changed by the time *Kirtsaeng* came to the Court, because the decision in *Kirtsaeng* was 6-3, not 5-4 as would have been expected after *Omega* was affirmed by an equally divided court. *Compare id.*, *with Omega*, 562 U.S. at 41.

[88] *Kirtsaeng*, 568 U.S. at 527.

[89] *Id.* at 530.

[90] *See id.*

[91] Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 439 (1984). *See also* Lexmark Int'l, Inc. v. Ink Techs. Printer Supplies, LLC, 9 F. Supp. 3d 830, 835 (S.D. Ohio 2014), *aff'd sub nom.* Lexmark Int'l, Inc. v. Impression Prod., Inc., 816 F.3d 721 (Fed. Cir. 2016), *rev'd and remanded*, 137 S. Ct. 1523, 198 L. Ed. 2d 1 (2017) ("nowhere in Kirtsaeng is there any express mention or consideration of patents, the patent exhaustion doctrine, or

two orders granting certiorari, vacating the judgements, and remanding a number of cases (a grant, vacate and remand order, or GVR) in light of *Kirtsaeng*,[92] it failed to GVR *Ninestar v. International Trade Commission.*[93] The petition in *Ninestar* specifically asked "[w]hether the initial authorized sale outside the United States of a patented item terminates all patent rights to that item."[94] One might think that if the Court viewed patent and copyright exhaustion as related, then it would have been appropriate to GVR *Ninestar* as well.[95] Others, however, quickly spoke of the imminent demise of patent law's domestic exhaustion regime in light of *Kirtsaeng*.[96] And those prognosticators were to be proven correct.[97]

Reading the proverbial tea leaves, the Federal Circuit tried to head off Supreme Court review by taking the issue up *en banc* and offering a lengthy defense of domestic exhaustion.[98] Among other arguments, the Federal Circuit distinguished *Kirtsaeng* on a variety of bases: the failure of *Kirtsaeng* to engage with the Court's patent exhaustion cases; the differing exclusive rights afforded under copyright and patent law; and the differences between the relevant statutes.[99] In justifying domestic exhaustion, the court looked to the exclusive rights afforded by patents, which are territorially limited and implicate only U.S. markets.[100] The "reward" alluded to in exhaustion doctrine, therefore, "is the reward from sales in American markets, not from sales in foreign markets."[101] Interestingly, the Federal Circuit drew on Supreme Court cases involving

patent exhaustion's territoriality requirement."); Timothy R. Holbrook, *Explaining the Supreme Court's Interest in Patent Law*, 3 IP THEORY 62, 70 (2013) (noting that the Court "likes to use the doctrines in the regimes to inform the other, particularly in the context of patent and copyright law, given their 'historic kinship.'").

[92] Kumar v. Pearson Educ., Inc., 568 U.S. 1247, 1247 (2013); Liu v. Pearson Educ., Inc., 568 U.S. 1247, 1247 (2013).

[93] *See* Ninestar Tech. Co. v. Int'l Trade Comm'n, 133 S. Ct. 1656, 1657 (2013) (denying writ of certiorari).

[94] Petition for Writ of Certiorari, Ninestar Technology Co., Ltd. v. International Trade Com'n, 2012 WL 5388797 (U.S. Nov. 12, 2012) (No. 12-552).

[95] *See* John F. Duffy and Richard Hynes, *Statutory Domain and the Commercial Law of Intellectual Property*, 102 VA. L. REV. 1, 48 (2016) ("Surprisingly, six days after Kirtsaeng was decided, the Court refused to review a Federal Circuit patent decision—*Ninestar v. ITC*—that applied circuit precedent rejecting international exhaustion in patent law.").

[96] LeBolt, *supra* note 62, at 133-35; Wasserman Rajec, *supra* note 68, at 360. *But see* Duffy and Hynes, *supra* note 95, at 52-53 (arguing for distinct approach to patent law).

[97] *See Lexmark Int'l*, 816 at 764-65, 774.

[98] Lexmark Int'l, Inc. v. Impression Prods., Inc., 816 F.3d 721, 756 (Fed. Cir. 2016) (en banc), *rev'd and remanded*, 137 S. Ct. 1523 (2017). Both the Federal Circuit and Supreme Court took up a second issue – the impact of conditional sales on exhaustion – an issue not germane to this paper. *Impression Prods.*, 137 S. Ct. at 1531; *Lexmark*, 816 F.3d at 726.

[99] *Lexmark*, 816 F.3d at 756-60.

[100] *Id.* at 760.

[101] *Id.* at 761.

extraterritoriality in the infringement context to discuss the territoriality principle at stake.[102]

All the Federal Circuit's heavy lifting was for naught, however. The Supreme Court ultimately embraced international exhaustion for patent law just as it did for copyright law.[103] With virtually no engagement with the Federal Circuit's exegesis on exhaustion, the Court turned to *Kirtsaeng* and noted "[a]pplying patent exhaustion to foreign sales is just as straightforward."[104] The Court made this move by drawing on the "antipathy toward restraints on alienation," as it did in *Kirtsaeng*.[105] The Court found the territorial limits of patents inapposite in rejecting a domestic exhaustion approach.[106] The Court thus harmonized patent and copyright law, embracing international exhaustion for both.

B. Foreign Acts Triggering Liability and Remedies Based on U.S. Patents.

In contrast to activities that impact the validity or enforceability of a U.S. patent, acts occurring outside of the United States that trigger patent infringement liability within the United States have generally been viewed as implicating the presumption against extraterritoriality. While the Patent Act has some provisions that expressly contemplate regulation of some activity outside of the United States,[107] the Federal Circuit has afforded extraterritorial protection to other provisions, even in the face of clear territorial statutory limits.[108] Additionally, in a global market place, remedies for acts of domestic infringement can have implications in foreign markets and jurisdictions. This section explores the state of the law for these acts.

1. Infringement of US Patents Involving Activities Outside of the United States

Patents are creatures of national law and generally only afford rights within the country that has granted the exclusive rights.[109] Nevertheless, even this strict territorial aspect of patents is somewhat porous. For example, the TRIPS Agreement — which contemplates national patent rights — provides some protection for patented processes in transnational settings.[110]

The basic infringement provision in the Patent Act is 35 U.S.C. § 271(a), which defines infringement as the unauthorized making, using, offering to sell or selling the patented invention "within the United States" or importing the

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[102] *Id.* at 764-65.

[103] *Impression Prod., Inc. v. Lexmark Int'l, Inc.*, 137 S. Ct. 1523, 1535 (2017).

[104] *Id.* at 1536.

[105] *Id.*

[106] *Id.* at 1536-37.

[107] *See* 35 U.S.C. § 271(f) & (g) (regulating exports and imports of unpatented products made abroad by patented process, respectively).

[108] *See* Holbrook, *supra* note 12, at 1762-66 (cataloging examples).

[109] *See supra* notes 13-16 and accompanying text.

[110] *See* TRIPs Agreement art. 28(1)(b).

invention "into the United States."[111] Even with clear textual limits on territoriality, the courts have afforded extraterritorial reach to this provision, particularly for infringing uses and offers to sell the invention.

The U.S. Court of Claims, one of the predecessor courts to the Federal Circuit,[112] first provided extraterritorial protection to U.S. patents in the context of a patented system operating across national boundaries. In *Decca Ltd. v. United States*, a patent owner charged the United States government with infringement of its patent covering a radio navigation system.[113] Parts of the allegedly infringing system were located outside of the United States (in Norway), but the system was controlled within the United States.[114] The *Decca* court found that, in using the system within the United States, the U.S. government infringed the patent:

> Of its very nature the system cannot be confined to one country, but we do not think it is without any territoriality merely because it operates in more than one country, and at sea. Its home territory is, we think, where the broadcast stations are, but if they are in more than one country, the location of the whole for purposes of the United States Patent Law is where the 'master' station or stations are, which is in the United States of America, and where all the stations are monitored, presently Washington, D.C. . . . We do not think that the necessarily scattered and changing position of receivers, with those actually functioning for the most part at sea, in or over the territory of no sovereign, have any necessary connection with the location of the Omega system for purposes of the United States Patent Laws. It is located in the United States. . . . This view does not claim an extraterritorial effect for United States Patent Laws. . . . Neither is there a probable conflict with the patent laws of other counties.[115]

The court emphasized that use of the system turned on the location of control and beneficial use, as well as the fact that liability did not raise the specter of potential conflicts of law with other sovereigns.[116]

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[111] 35 U.S.C. § 271(a) (2012).

[112] *See* South Corp. v. United States, 690 F.2d 1368, 1369 (Fed. Cir. 1982) (en banc) ("We hold that the holdings of our predecessor courts, the United States Court of Claims and the United States Court of Customs and Patent Appeals,… shall be binding as precedent in this court.").

[113] 544 F.2d 1070, 1075 (Ct. Cl. 1976).

[114] *Id*. at 1081.

[115] *Id*. at 1074 (citations omitted).

[116] *See id*. Technically, § 271(a) does not govern infringement by the United States government; instead, such claims are brought under 28 U.S.C. § 1498(a), as a form eminent domain. 28 U.S.C. § 1498(a) (2012) ("Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture."). This

In *NTP, Inc. v. Research in Motion Ltd.*,[117] the court drew on *Decca* to create a dichotomous approach to the territorial limits of uses of patented systems and methods. *NTP* addressed whether the then-dominant Blackberry® infringed a United States patent even though one part of the system at issue — the relay — was in Canada.[118] Relying on *Decca* as precedent, the Court concluded that, because users within the United States controlled and received the benefit of the system, there was an infringing use within the United States.[119] The court, however, held that the method claims at issue were not infringed because one of the system's steps was performed in Canada, rather than within the United States.[120] The court's atextual analysis of § 271(a) retained the broad application of *Decca* to patented systems but limited the extraterritorial reach of method patents.[121]

Infringing uses are not the only aspects of § 271(a) that receive some level of extraterritorial protection. The Federal Circuit has held that offers to sell the invention within the United States are infringing even when the offer itself was made outside the United States.[122] In *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc.,* the court considered whether a U.S. company's offer to sell a product to another U.S. company, "for delivery and use within the U.S. constitutes an offer to sell within the U.S. under § 271(a),"

provision is a waiver of sovereign immunity and is, therefore, strictly construed. Stroughter v. United States, 89 Fed. Cl. 755, 761 (2009). As a form of eminent domain, a patent holder can only receive monetary damages from the government; injunctive relief is not allowed. Motorola, Inc. v. United States, 729 F.2d 765, 768 n.3 (Fed. Cir. 1984). Although there are differences between § 1498(a) and other aspects of the Patent Act, *see Motorola*, 729 F.2d at 768 n.3 (listing differences between patent infringement against the government versus other entities), the courts generally interpret § 1498(a) similarly to § 271. *See, e.g.,* Zoltek Corp. v. United States, 672 F.3d 1309, 1327 (Fed. Cir. 2012) (en banc) ("under § 1498(a) the Government has waived its sovereign immunity for direct infringement, which extends not only to acts previously recognized as being defined by § 271(a) but also acts covered under § 271(g) due to unlawful use or manufacture."). *But see* Decca Ltd. v. United States, 640 F.2d 1156, 1170 (Ct. Cl. 1980) ("Hence, we hold that 35 U.S.C. §§ 271(b) and (c) are not incorporated by implication in section 1498."). Thus, the Court of Claims interpretation of § 1498(a) ultimately did inform the Federal Circuit's subsequent interpretation of § 271(a).

[117] 418 F.3d 1282 (Fed. Cir. 2005).

[118] *Id.* at 1313.

[119] *Id*. at 1317 ("The use of a claimed system under section 271(a) is the place at which the system as a whole is put into service, i.e., the place where control of the system is exercised and beneficial use of the system obtained.").

[120] *Id*. at 1318 ("We therefore hold that a process cannot be used 'within' the United States as required by section 271(a) unless each of the steps is performed within this country.").

[121] Timothy R. Holbrook, *Method Patent Exceptionalism*, 102 IOWA L. REV. 1001, 1044 (2017) ("Regardless of which approach a court were to take—using the beneficial use and control test, or using a strict territorial approach—it is clear that the Federal Circuit created a rule that treats method claims exceptionally with little textual or policy justification.").

[122] Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc., 617 F.3d 1296, 1309 (Fed. Cir. 2010).

even when made in Norway.[123] In concluding that it was, the court reasoned that the location of the contemplated sale, and not the location of the offer, controlled whether there was infringement within the United States.[124] The court reached the same conclusion for infringing sales of the invention.[125] The Federal Circuit subsequently utilized this reasoning to close the door on offers made in the United States to sell an invention abroad, concluding that such acts are not infringing.[126]

The acts of direct infringement under § 271(a) contrast with the forms of indirect infringement found in §§ 271(b) and (c). These indirect infringement

[123] *Id*. at 1309.

[124] *Id*. (holding "the location of the contemplated sale controls whether there is an offer to sell within the United States"). The court could have offered a narrower holding, focusing not only on the location of the contemplated sale but also on the status of the contracting parties as United States citizens. Timothy R. Holbrook, *Territoriality and Tangibility After* Transocean, 61 EMORY L.J. 1087, 1118 (2012) ("The court was therefore aware of the issues surrounding citizenship: the facts involved two U.S. citizens, which, when compared to the facts in *Bulova*, suggests that the extraterritorial enforcement of the patent may not be as troubling.") (referencing Steele v. Bulova Watch Co., 344 U.S. 280 (1952)). It is undisputed that Congress can regulate the acts of citizens abroad, which can create different dynamics in terms of extraterritoriality. *Cf.* McBee v. Delica Co., 417 F.3d 107, 118, 121 (1st Cir. 2005) (finding jurisdiction when the infringer is a U.S. citizen, regardless of the effect on commerce, and, when the infringer is a noncitizen, there is a substantial effect on U.S. commerce, with conflicts and comity concerns acting as mere jurisprudential considerations).

[125] *Transocean*, 617 F.3d at 1310 ("As with the offer to sell, we hold that a contract between two U.S. companies for the sale of the patented invention with delivery and performance in the U.S. constitutes a sale under § 271(a) as a matter of law."). Interestingly, the device ultimately delivered under the contract did not infringe the patent, although the schematics may have disclosed an infringing device. *Id.* The court allowed the case to proceed, basing infringement on the schematics alone. *Id*. at 1311 ("Transocean argues that these schematics show sale of the patented invention. This is a genuine issue of material fact sufficient to withstand summary judgment.").

[126] Halo Elecs., Inc. v. Pulse Elecs., Inc., 831 F.3d 1369, 1380 (Fed. Cir. 2016) ("We adopt the reasoning of *Transocean* and conclude here that Pulse did not directly infringe the Halo patents under the 'offer to sell' provision by offering to sell in the United States the products at issue, because the locations of the contemplated sales were outside the United States."); *see also* California Inst. of Tech. v. Broadcom Limited, No. CV 16-3714-GW (AGRx), 2017 WL 6940509 at *4-*5 (C.D. Cal. Oct. 6, 2017) (denying discovery on worldwide revenue because sales were outside United States and stating that "[t]he sales at issue are the sales for which the spreadsheets indicate a foreign entity submitted a purchase order to a Broadcom foreign affiliate, and delivery was made to an entity outside the United States."); Largan Precision Co, Ltd v. Genius Elec. Optical Co., 86 F. Supp. 3d 1105, 1113 (N.D. Cal. 2015) (finding no infringement where ultimate sale was outside United states); Ziptronix, Inc. v. Omnivision Techs., Inc., 71 F. Supp. 3d 1090, 1097 (N.D. Cal. 2014) ("Even if the Court accepts Ziptronix's position that the TSMC entities and OmniVision negotiated and executed contracts for the sale of the accused wafers in the United States, the contracts contemplated delivery and performance abroad. Thus, under *Transocean*, the accused wafers are not sold 'within the United States.'").

provisions are contingent on predicate acts of direct infringement, particularly those under § 271(a).[127] Under § 271(b), a person can be liable if they actively induce patent infringement.[128] In contrast, contributory infringement under 35 U.S.C. § 271(c) triggers liability when a party supplies a component that has no purpose other than to be used in an infringing device.[129] Unlike § 271(c), section 271(b) contains no express territorial restrictions.[130] The Federal Circuit has held that acts of inducement arising outside of the United States can trigger liability for inducing patent infringement. In *Merial Ltd. v. Cipla Ltd.* the Federal Circuit reasoned that in the context of a contempt holding:

> Section 271(b) therefore does not, on its face, foreclose liability for extraterritorial acts that actively induce an act of direct infringement that occurs within the United States, and Appellants cite no authority to that effect. We therefore decline to read the statute as being so limited.[131]

The *Merial* court, therefore, affirmed the contempt holding based on acts which occurred in India.[132] Of course, § 271(b) is territorially limited because there must be an act of direct infringement, which itself is generally territorially limited, at least as to § 271(a).[133]

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[127] Limelight Networks, Inc. v. Akamai Techs., Inc., 572 U.S. 915, 922 (2014) ("[W]here there has been no direct infringement, there can be no inducement of infringement under § 271(b)."); In re Bill of Lading Transmission & Processing Sys. Patent Litig., 681 F.3d 1323, 1333 (Fed. Cir. 2012) (quoting Linear Tech. Corp. v. Impala Linear Corp., 379 F.3d 1311, 1326 (Fed.Cir.2004)) ("It is axiomatic that '[t]here can be no inducement or contributory infringement without an underlying act of direct infringement.'").

[128] 35 U.S.C. § 271(b) (2012).

[129] 35 U.S.C. § 271(c) (2012).

[130] *See* § 271(b). Previously § 271(c) did not contain a territorial restriction, but, in 1994, Congress changed the language of § 271(c) to limit it to acts within the United States. Chisum, *supra* note 13, at 615. There is no clear reason why Congress changed § 271(c) and not (b). *Id.* at 615-16 ("There appears to be no policy reason for restricting section 271(c) in this fashion. The change may have been a grammatical indiscretion. . . . Further, section 271(b) on active inducement remains unchanged as to geographic scope….").

[131] Merial Ltd. v. Cipla Ltd., 681 F.3d 1283, 1302 (Fed. Cir. 2012); *see also* Enplas Display Device Corp. v. Seoul Semiconductor Co., Ltd., 909 F.3d 398, 408 (Fed. Cir. 2018) ("Unlike direct infringement under 35 U.S.C. § 271(a), which must occur in the United States, liability for induced infringement under § 271(b) can be imposed based on extraterritorial acts, provided that the patentee proves the defendant possessed the requisite knowledge and specific intent to induce direct infringement in the United States.").

[132] *Merial*, 681 F.3d at 1302-04.

[133] Timothy R. Holbrook, *The Potential Extraterritorial Consequences of* Akamai, 26 EMORY INT'L L. REV. 499, 506 (2012) ("As a result, parties can be liable for inducing infringement if their affirmative acts occurred outside of the United States, so long as the acts of infringement themselves occurred within the United States, as required by § 271(a). That territorial limitation on active inducement has its roots in § 271(a), not § 271(b).") (footnote omitted).

Courts afforded extraterritorial reach to these provisions by either considering the unique facts of given cases or through implication by the omission of any territorial limits in the statute. Congress, however, has expressly afforded extraterritorial protection under § 271 for various forms of exports as well as under certain imports and sales.[134] Section 271(f) creates a form of infringement based on exportation, which necessarily implicates foreign markets. It defines infringement as the supplying of "all or a substantial portion of the components"[135] of an invention or of a single component with no substantial non-infringing uses, so long as the infringer intends those components to be assembled into the patented invention outside of the United States.[136] Sections 271(f)(1) and (2) are parallel to sections 271(b) and (c) in that (f)(1) requires active inducement of the combination[137] and (f)(2) tracks the contributory infringement language.[138] Although § 271(f) is a direct infringement provision, it does contain knowledge requirements akin to those in §§ 271(b) and (c)'s indirect infringement provisions.[139] Perhaps because this provision helps a U.S. patent owner leverage its exclusive rights into foreign markets, it has garnered considerable Supreme Court attention in recent years, with the Court taking three cases since its October 2006 term.[140]

Congress, in adherence with our TRIPS obligations, also afforded extraterritorial protection for patented processes.[141] Section 271(g) defines as infringement importation into, sales, offers to sell, or uses within, the United

[134] Microsoft Corp. v. AT & T Corp., 550 U.S. 437, 441 (2007) ("It is the general rule under United States patent law that no infringement occurs when a patented product is made and sold in another country. There is an exception. Section 271(f) of the Patent Act….").

[135] The Supreme Court held that the "substantial portion" language requires a quantitative, rather than a qualitative, assessment and that a single component cannot constitute a "substantial portion." Life Techs. Corp. v. Promega Corp., 137 S. Ct. 734, 736-37 (2017).

[136] 35 U.S.C. § 271(f)(1) & (2).

[137] Promega Corp. v. Life Techs. Corp., 773 F.3d 1338, 1351 (Fed. Cir. 2014), *rev'd and remanded on other grounds*, 137 S. Ct. 734, 737, 741 (2017). Unlike § 271(b), a party can induce itself to infringe under § 271(f)(1). *See id.* at 1351-52 ("We first address whether "to actively induce the combination" requires involvement of a third party or merely the specific intent to cause the combination of the components of a patented invention outside the United States. We conclude that no third party is required.").

[138] *See* 35 U.S.C. § 271(f)(2) (2012) ("Whoever . . . supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in that invention . . . knowing that such component is so made or adapted . . . shall be liable as an infringer.").

[139] *See* Promega Corp., 773 F.3d at 1356 (noting the requirement of "knowledge and intent to combine").

[140] S*ee generally* WesternGeco LLC v. ION Geophysical Corp., 138 S. Ct. 2129 (2018); Life Techs. Corp. v. Promega Corp., 137 S. Ct. 734 (2017); Microsoft Corp. v. AT & T Corp., 550 U.S. 437 (2007).

[141] Holbrook, *supra* note 121, at 1015.

States of a product made by a patented process.[142] As the statute is not territorially limited to uses of the patented process within the United States, use of the process outside of the United States is infringing, so long as the product is imported, used, or sold in the U.S.[143] The Federal Circuit's interpretation of this provision has oscillated in terms of its scope and the resulting extraterritorial reach.[144]

2. Patent Remedies Tied to Acts Outside of the United States

Liability, of course, is only half the battle in patent infringement. Remedies can have extraterritorial consequences as well, such as injunctions that reach into foreign jurisdictions or damages that accrue for acts outside of the United States. This section reviews the state of the law for the extraterritorial reach of patent remedies under US law.

a. Injunctive Relief

Given the rights to exclude attendant to patent grants, injunctive relief is a key remedy available for infringement.[145] Injunctions generally regulate behavior directly, limiting what the infringing party can do.[146] Courts can use their power to grant injunctions to regulate foreign behavior.[147] Of course, as the Federal Circuit has recognized, such power should be exercised carefully as it would

[142] 35 U.S.C. § 271(g) (2012).

[143] *See id.* Attendant to this provision is a host of burden shifting for proof that the patented process was used. *See* 35 U.S.C. § 295; *see also* Holbrook, *supra* note 121, at 1017-18. For a discussion of the extraterritorial scope afforded this provision, see Timothy R. Holbrook, *Extraterritoriality in U.S. Patent Law*, 49 WM. & MARY L. REV. 2119, 2139-41 (2008).

[144] *See* NTP, Inc. v. Research In Motion, Ltd., 418 F.3d 1282, 1323-24 (Fed. Cir. 2005) (finding that an email into the U.S. is not a product of patented process); Bayer AG v. Housey Pharm., Inc., 340 F.3d 1367, 1377 (Fed. Cir. 2003) (reducing extraterritorial reach by limiting a product to "a physical article that was 'manufactured'" so that "the production of information is not covered."); Holbrook, *supra* note 143, at 2139-41.

[145] *See* Harold C. Wegner, *Injunctive Relief: A Charming Betsy Boomerang*, 4 NW. J. TECH. & INTELL. PROP. 156, 156 (2006).

[146] *See* Haksoo Ko, *Facilitating Negotiation for Licensing Standard-Essential Patents in the Shadow of Injunctive Relief Possibilities*, 22 TEX. INTELL. PROP. L.J. 209, 210 (2014).

[147] *See generally* S. Nathan Park, *Equity Extraterritoriality*, 28 DUKE J. OF COMP. & INT'L LAW 99 (2017); Marketa Trimble, *The Territorial Discrepancy between Intellectual Property Rights Infringement Claims and Remedies*, 23 LEWIS & CLARK L. REV. (forthcoming 2019).

directly regulate conduct in foreign countries.[148] Nevertheless, courts have in fact granted such injunctions.[149]

b. Damages

The award of damages for activities arising outside the United States garners considerable contemporary salience.[150] While the Federal Circuit has decided a trilogy of cases in which it adopted a strict territorial limit on patent damages,[151] the Supreme Court's recent decision in *WesternGeco LLC v. ION Geophysical Corp*[152] — in which it greenlit an award of damages for foreign activity — has rendered this prohibition the subject of some debate.

[148] Int'l Rectifier Corp. v. Samsung Elecs. Co., 361 F.3d 1355, 1360 (Fed. Cir. 2004) ("It is undisputed that Samsung's actions did not take place within the United States. Therefore, under the language of the Permanent Injunction, as well as patent law precedent, Samsung's actions do not violate the injunction.") (internal citations omitted); Johns Hopkins Univ. v. CellPro, Inc., 152 F.3d 1342, 1366–67 (Fed. Cir. 1998) ("An injunction … can reach extraterritorial activities such as those at issue here, even if these activities do not themselves constitute infringement. It is necessary however that the injunction prevent infringement of a United States patent."); Spindelfabrik Suessen-Schurr v. Schubert & Salzer Maschinenfabrik Aktiengesellschaft, 903 F.2d 1568, 1577–78 (Fed. Cir. 1990) ("Schubert argues that because its Spincomat machines are all manufactured in Germany, the injunction impermissibly extends the reach of American patent law beyond the boundaries of the United States by applying its prohibitions to those machines. . . . These provisions are a reasonable and permissible endeavor to prevent infringement in the United States and not a prohibited extra-territorial application of American patent law. They were well within the district court's authority.").

[149] Merial Ltd. v. Cipla Ltd., 681 F.3d 1283, 1304 (Fed. Cir. 2012). Technically, *Merial* involved an action for contempt for violation of an injunction; thus, while confirming the extraterritorial reach of § 271(b), it also demonstrates the extraterritorial reach of injunctions. *See id.* ("Accordingly, we understand the district court's conclusion that 'Cipla caused an infringing product to be sold in the United States, in direct violation of the Court's March 6, 2008 Order,' to mean that Cipla violated the injunction's prohibition against any act that induces infringement of the ′329 patent. We affirm it as such.") (citations omitted).

[150] Damages can also be enhanced if the infringement was willful, and foreign acts can inform the willfulness determination. Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc., No. CV 04-1371-LPS, 2017 WL 6206382, at *11 (D. Del. Dec. 8, 2017) ("Fairchild's extraterritorial conduct is relevant to willfulness because it enabled Fairchild to manufacture a product that subjected it to liability under U.S. patent law.").

[151] WesternGeco L.L.C. v. ION Geophysical Corp., 837 F.3d 1358, 1361 (Fed. Cir. 2016), *rev'd* 138 S. Ct. 2129 (2018); Carnegie Mellon Univ. v. Marvell Tech. Grp, Ltd., 807 F.3d 1283, 1311 (Fed. Cir. 2015); Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc., 711 F.3d 1348, 1372 (Fed. Cir. 2013); *see generally* Bernard Chao, *Patent Law's Domestic Sales Trap*, 93 DENV. L. REV. ONLINE 87 (2016); Bernard Chao, *Patent Imperialism*, 109 NW. U.L. REV. ONLINE 77 (2014); Sapna Kumer, *Patent Damages Without Borders*, 25 TEXAS INTELL. PROP. L.J. 73 (2017).

[152] 138 S. Ct. 2129, 2134 (2018).

In *WesternGeco* the Supreme Court addressed whether, in a case of § 271(f)(1) infringement, lost foreign profits were available under § 284 of the Patent Act.[153] In analyzing the issue, the Court applied the *RJR Nabisco* two-step framework.[154] Although the Court skipped step one,[155] it concluded that such profits were appropriate under step two[156] — *i.e.*, the step at which a court assesses "whether the case involves a domestic application of the statute."[157] Here, the Supreme Court turned to the statute at issue, § 284, and concluded its focus was "infringement."[158] Infringement, consequently, depends on § 271(f)(2),[159] the focus of which the Court determined was the supplying of components from the United States.[160] As supplying components are domestic acts, "[t]he conduct in [*WesternGeco*] that [wa]s relevant to that focus clearly occurred in the United States, as it was ION's domestic act of supplying the components that infringed WesternGeco's patents."[161] The Court thus rejected the Federal Circuit's territorial limit and held that the damages for lost foreign profits were available.[162]

The effects of the *WesternGeco* decision have already caused some legal tumult. The District Court for the District of Delaware has since concluded that *WesternGeco* implicitly overruled the Federal Circuit's 2013 decision in *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*[163] Whether *WesternGeco* did implicitly overrule *Power Integrations* is debatable (and I believe it did not).[164] The Federal Circuit has accepted *Power Integrations* on an interlocutory basis to determine *WesternGeco*'s impact.[165]

There are broader issues about the presumption and its relation to remedial statutes that the Court declined to decide. Specifically, the Court avoided addressing the issue of whether "the presumption against extraterritoriality

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[153] *Id*.

[154] *Id*. at 2136.

[155] *Id.* ("We resolve this case at step two. While 'it will usually be preferable' to begin with step one, courts have the discretion to begin at step two 'in appropriate cases.'") (internal citations omitted).

[156] *Id.* at 2138.

[157] *Id.* at 2132; *supra* notes 9-11 and accompanying text.

[158] *WesternGeco*, 138 S. Ct. at 2137 ("We conclude that 'the infringement' is the focus of this statute.").

[159] *Id*. at 2137 ("To determine the focus of § 284 in a given case, we must look to the type of infringement that occurred. We thus turn to § 271(f)(2).").

[160] *Id*. at 2138

[161] *Id.*

[162] *See id.*

[163] Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc., No. CV 04-1371 -LPS, 2018 WL 4804685, at *2 (D. Del. Oct. 4, 2018).

[164] *See* Holbrook, *supra* note 12, at 1779-83; *see* Andrew C. Michaels, *Implicit Overruling and Foreign Lost Profits*, 25 B.U. J. SCI. & TECH. L. (forthcoming 2019).

[165] Power Integrations, Inc. v. Fairchild Semiconductor Int'l, No. 19-1247, slip op. 2 (Fed. Cir. Dec. 3, 2018).

should never apply to statutes, such as § 284, that merely provide a general damages remedy for conduct that Congress has declared unlawful"[166] because addressing that question "could implicate many other statutes besides the Patent Act."[167] Nevertheless, the Court made clear that the award of damages for patent infringement does implicate issues of extraterritoriality.

II. WHICH OF THESE ACTIVITIES SHOULD BE DEEMED EXTRATERRITORIAL, TRIGGERING THE PRESUMPTION?

The review of patent doctrines involving foreign activity above reveals that, at present, considerations of what acts are extraterritorial — at least with respect to the application of the presumption — depend on the consequences thereof. Acts outside of the United States that impact a patent's validity or enforceability generally do not trigger concerns of extraterritoriality.[168] In contrast, acts that trigger liability or are the subject of remedial provisions are regarded as regulatory conduct that implicates the presumption against extraterritoriality.[169]

The question addressed in this section is whether such bifurcation makes sense. In other words, should those foreign acts that result in the invalidation or unenforceability of a patent also be deemed extraterritorial and subject to the presumption? This section explores the bases underlying the presumption and elaborates on how even this first bucket of activity could be viewed as extraterritorial. The section concludes by exploring the "so what" question — if we took seriously that these acts are extraterritorial, how might the presumption impact the development of the prior art and exhaustion doctrines?

A. Justifications for the Presumption Against Extraterritoriality

The presumption against extraterritoriality does not rest on a singular justification. Instead, courts and commentators have articulated a variety of policies in support of it. Professor Curtis Bradley has noted that there are "at least five justifications for the presumption: international law, international comity, choice-of-law principles, likely congressional intent, and separation-of-powers considerations."[170] As to international law, courts are concerned with violating customary international law and other potential obligations.[171] Courts

[166] WesternGeco LLC v. ION Geophysical Corp., 138 S. Ct. 2129, 2136 (2018).

[167] *Id.*; *see also* Holbrook, *supra* note 8, at 11-13 (discussing issues avoided by Supreme Court by declining to address step one).

[168] *See supra* note 22 and accompanying text.

[169] *See supra* Part I.B.

[170] Bradley, *supra* note 4, at 513–14.

[171] *Id*. at 514; *see, e.g.,* Morrison v. Nat'l Australia Bank Ltd., 561 U.S. 247, 267 (2010) (identifying concern of whether "under established principles of international law Congress had the power to" regulate foreign securities exchanges.); United States v. Palmer, 16 U.S. 610, 635 (1818) ("[I]f the government remains neutral, and recognizes the existence of a civil war, its courts cannot consider as criminal those acts of hostility which war authorizes, and which the new government may direct against its enemy.").

expressly mention concerns of comity, [172] conflict of laws, and choice of law,[173] even if at times the Supreme Court has minimized the importance of such justifications.[174] Congressional intent also serves to justify the presumption in that a clear Congressional statement of intent in a statute can rebut the presumption.[175] The courts have also expressed an additional justification, institutional competence, because these issues are political in nature and should be left to the branches of government that engage with international affairs.[176]

How these policies are implicated, though, depends on the contestable question of how one defines extraterritorial conduct.[177] At its most general, one can think of extraterritoriality as "the application of one country's laws to events

[172] RJR Nabisco, Inc. v. European Cmty., 136 S. Ct. 2090, 2111, 2115 (2016) (Ginsburg, J., concurring-in-part and dissenting in part) ("Invoking the presumption against extraterritoriality as a bar to any private suit for injuries to business or property abroad, this case suggests, might spark, rather than quell, international strife. Making such litigation available to domestic but not foreign plaintiffs is hardly solicitous of international comity or respectful of foreign interests."); Morrison v. Nat'l Australia Bank Ltd., 561 U.S. 247, 269 (2010) ("They all complain of the interference with foreign securities regulation that application of § 10(b) abroad would produce."); *Aramco*, 499 U.S. 244, 265 (1991) (Marshall, J., dissenting) ("The strictness of the *McCulloch* and *Benz* presumption permits the Court to avoid, if possible, the separation-of-powers and international-comity questions associated with construing a statute to displace the domestic law of another nation.").

[173] *See, e.g.,* Mujica v. AirScan Inc., 771 F.3d 580, 599-600 (9th Cir. 2014) (discussing whether a true conflict is required for application of international comity); *see also* Hartford Fire Ins. Co. v. California, 509 U.S. 764, 798 (1993) (addressing "whether 'there is in fact a true conflict between domestic and foreign law.'").

[174] *Morrison*, 561 U.S. at 255 ("The canon or presumption applies regardless of whether there is a risk of conflict between the American statute and a foreign law.").

[175] *See RJR Nabisco*, 136 S. Ct. at 2100 ("Absent clearly expressed congressional intent to the contrary, federal laws will be construed to have only domestic application."); *Aramco*, 499 U.S. at 249 (1991) ("We conclude that petitioners' evidence, while not totally lacking in probative value, falls short of demonstrating the affirmative congressional intent required to extend the protections of Title VII beyond our territorial borders.").

[176] *See, e.g.*, Kiobel v. Royal Dutch Petroleum Co., 569 U.S. 108, 116 (2013) ("Indeed, the danger of unwarranted judicial interference in the conduct of foreign policy is magnified in the context of the ATS, because the question is not what Congress has done but instead what courts may do."); United States v. Palmer, 16 U.S. 610, 635 (1818) ("To decide otherwise, would be to determine that the war prosecuted by one of the parties was unlawful, and would be to arrange the nation to which the court belongs against that party. This would transcend the limits prescribed to the judicial department."). *See also* Bradley, *supra* note 4, at 516 ("In several decisions applying the presumption, the Supreme Court has expressed the view that the determination of whether and how to apply federal legislation to conduct abroad raises difficult and sensitive policy questions that tend to fall outside both the institutional competence and constitutional prerogatives of the judiciary.").

[177] William S. Dodge, *Understanding the Presumption Against Extraterritoriality*, 16 BERKELEY J. INT'L L. 85, 87 (1998) ("The first step in answering these questions is to define the word 'extraterritorial.'").

occurring outside that country's borders."[178] One can also think of two dimensions to this issue: where the conduct occurred and where the impact of the conduct is felt.[179] Finding liability for acts in foreign countries creates concerns as to sovereignty and conflict of laws. Acts in the United States that have effects outside of the US could be viewed as less problematic and perhaps a more indirect form of regulation. Given these dimensions, Professor William S. Dodge has noted three possible lenses through which one can view the presumption:

> First the presumption might mean that acts of Congress should apply only to *conduct* that occurs within the United States, unless a contrary intent appears, regardless of whether that conduct causes effects in the United States. . . . Second, the presumption might mean that acts of Congress apply only to conduct that causes *effects* within the United States, unless a contrary intent appears, regardless of where that conduct occurs. . . . Third, the presumption might mean that acts of Congress apply to conduct occurring within *or* having an effect within the United States, unless a contrary intent appears.[180]

This Article does not answer that question. Instead, it acknowledges that both of these dimensions are present in the Federal Circuit's doctrines regarding extraterritoriality. For example, *Transocean* reflects the second approach, where the effect is in the United States regardless of where the acts arise.[181] After *Transocean*, the court could have embraced the third category, where both offers made in the United States to sell abroad and offers anywhere to sell in the United States are implicated.[182] The court, of course, rejected that the former is infringing in *Halo*.[183] Nevertheless, the court's cases map onto the below Matrix 1 regarding the loci of acts and effects.

Matrix 1		
	Effects in the US	**Effects outside of the US**
Acts in the US	Not extraterritorial	Focus analysis (*WesternGeco*). *But see Halo Elecs., Inc. v. Pulse Elecs.; Power Integrations, Inc. v. Fairchild Semiconductor*

[178] Jane C. Ginsburg, *Extraterritoriality and Multiterritoriality in Copyright Infringement*, 37 VA. J. INT'L L. 587, 588 (1997).

[179] Dodge, *supra* note 177, at 87 ("For regulatory purposes, one may distinguish between the conduct of an activity and the effects of an activity.").

[180] *Id*. at 88-89.

[181] Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc., 617 F.3d 1296, 1309 (Fed. Cir. 2010).

[182] *Holbrook*, *supra* note 124, at 1040-41.

[183] Halo Elecs., Inc. v. Pulse Elecs., Inc., 831 F.3d 1369, 1380 (Fed. Cir. 2016).

		Int'l, Inc..
Acts outside of the US	*NTP; Transocean; Merial*	Regulation of citizens?

The top left quadrant of Matrix 1 covers the situation where both the act and effect is in the U.S. An example of this quadrant would be using the entirety of the invention within the United States. This quadrant does not implicate extraterritorial concerns as all aspects are domestic. The bottom right quadrant – acts and effects outside of the United States – reflect an entirely extraterritorial application of U.S. law. While Congress could regulate such behavior, a court would rarely view activities and effects in this quadrant to be legitimate exercise of Congressional power absent a clear statement. One exception, though, is the regulation of U.S. citizens overseas, regardless of the impact within the United States.[184] But even citizenship may not be sufficient to rebut the presumption.[185]

The other two quadrants – upper right and lower left – are scenarios involving transnational aspects of infringement, with either the act or effect within the U.S. These two quadrants show that, at a minimum, the Federal Circuit's case law does not map onto a consistent vision of extraterritoriality. But it does reflect ways of viewing the various aspects of extraterritoriality dynamics at play in those cases that have been viewed as implicating the presumption against extraterritoriality. As the following section explores, some of the activities in the first class of activities — those invalidating or rendering patents unenforceable — also map onto this matrix.

B. Should Prior Art Activities and Exhaustion Be Deemed "Extraterritorial"?

Matrix 1 maps out how the Federal Circuit has treated the classic examples of extraterritorial conduct, demonstrating the inconsistency in the Federal Circuit's approach to the issue.[186] There is no doubt, though, that the courts view all of these various issues as implicating concerns of extraterritoriality. Courts generally have not treated the first category of acts – those impacting validity or enforceability – as implicating the same concerns, even if aspects of those doctrines are rooted in the territoriality principle.

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[184] *See, e.g.,* McBee v. Delica Co., 417 F.3d 107, 121 (1st Cir. 2005) (allowing extraterritorial application of trademark law over a defendant is an American citizen, regardless of effect in the U.S.).

[185] *See, e.g., Aramco*, 499 U.S. at 246–47 ("These cases present the issue whether Title VII applies extraterritorially to regulate the employment practices of United States employers who employ United States citizens abroad. The United States Court of Appeals for the Fifth Circuit held that it does not, and we agree with that conclusion.").

[186] *See, e.g.*, *Transocean Offshore*, 617 F.3d at 1309; *Halo Elecs*., 831 F.3d at 1380 (arguing that the location of the contemplated sale controls whether there is an offer to sell within the United States and detailing two opposite situations).

However, the courts have not truly interrogated why prior art and exhaustion are not concerned with the extraterritorial reach of patent law. In other words, why don't the activities in the first category — those impacting the ability of a patent holder to enforce a patent domestically — implicate the presumption against extraterritoriality and its underlying policies? Placing prior art activities and exhaustion into the above matrix (as illustrated below in Matrix 2) shows that they could be deemed extraterritorial because they are foreign acts with effects in the United States.

Matrix 2		
	Effects in the US	**Effects outside of the US**
Acts in the US		
Acts outside of the US	*On-sale/Public Use; Exhaustion*	

One could take the view that effects in the United States are different in this context. The impact of these foreign activities is the loss of rights in the United States and not liability. Nevertheless, these doctrines could result in patent applicants and holders modifying their behaviors in foreign jurisdictions.[187] The effect on activity is more indirect, but this could nevertheless be deemed a form of conduct regulation in foreign jurisdictions, conduct that ultimately could be deemed laudable in that jurisdiction. Other countries may want the disclosures of inventions to help facilitate innovation within their borders. Sales of the invention in other countries benefit their populations. If U.S. patent applicants modify their behaviors to reduce such activity, it will work to the detriment of other countries.

1. Prior Art Uses and Sales May Implicate Foreign Activities and Laws

Whether § 102(a) of the AIA should trigger the presumption could be answered very simplistically: Congress's removal of geographic limits demonstrates its clear intent at step one of the *RJR Nabisco* framework. That is true — and also overly simplistic. As commentators have explained, it is unclear what role the presumption may yet have, even if step one has been satisfied.[188] In other words, is it "anything goes" for a statute's extraterritorial reach, or does the presumption still act as a tool of construction to afford a statute a narrow interpretation in a manner akin to *Microsoft v. AT&T*?[189]

Nevertheless, a more robust consideration of § 102(a) demonstrates that this provision could have extraterritorial consequences, albeit more indirect than the extraterritorial consequences of the liability-triggering provisions. The various forms of printed prior art — *i.e.*, patents and printed publications —are generally

[187] *See* Holbrook, *supra* note 8, at 8 n.39.

[188] *See e.g.*, Dodge, *supra* note 177, at 87-99.

[189] Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 456 (2007). ("[The presumption] remains instructive in determining the *extent* of the statutory exemption.").

less concerning, as they do not implicate "on the ground" behaviors that we typically view as triggering concerns of the extraterritorial application of U.S. law.[190] Moreover, these provisions have long been in place, and other countries have similar systems.[191]

Prior art for public uses of an invention and for placing the invention on-sale, however, are more complicated. The term "public use" is rather nuanced in patent parlance, with acts that most people would consider non-public qualifying as prior art.[192] Such acts by an inventor around the world can now be invalidating,[193] which may result in the cession of innovation and activities in various countries that could otherwise benefit the public. This would delay such activity, rather than the invention never being made available.[194] All told, the public benefit in these countries would be delayed as a result of a U.S. law.

Of course, such acts may also be invalidating within a given country as well.[195] Therefore, the impact of removing territorial limits may be narrower. Nevertheless, patent applicants could modify their activity in foreign countries to avoid potential public use issues, which would effectively amount to U.S. law affecting an indirect, extra-jurisdictional form of behavioral regulation. Inventors may decline to demonstrate their inventions in other countries at conferences, reducing spread of information regarding the invention. Applicants could also require non-disclosure agreements or take other steps to maintain the secrecy of the invention. Applicants might delay entering a market to avoid potential bars. Importantly, all of these concerns are new under the AIA with the expansion of prior art to include foreign activities.

The situation for on-sale activity is even more complicated. Because these proposed or completed transactions could take place outside of the United States, the law of another country would generally govern the agreements

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[190] *See supra* notes 38-39 and accompanying text.

[191] *See supra* notes 30-32 and accompanying text.

[192] Egbert v. Lippmann, 104 U.S. 333, 336 (1881); *see also id.* at 339 (Miller, J., dissenting) ("If the little steep spring inserted in a single pair of corsets, and used by only one woman, covered by her outer-clothing, and in a position always withheld from public observation, is a public use of that piece of steel, I am at a loss to know the line between a private and a public use.").

[193] *See* Timothy R. Holbrook, *Possession in Patent Law*, 59 S.M.U. L. REV. 123, 155-56 (2006) (discussing activities by a patent applicant that may constitute prior art.).

[194] *See id.* at 158 ("A strict application of this possession principle may lead to a narrower claim scope, which may allow competitors to more easily design around the claim, reducing ex ante incentives to innovate.").

[195] *See, e.g., Patents Act 1990*, ch 1, s 7(1)(a) (Austl.) (novelty assessed by "prior art information . . . made publicly available in a single document or through doing a single act"); Convention on the Grant of European Patents art. 54(2), Oct. 5, 1973, 1065 U.N.T.S. 199 ("The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application.").

themselves.[196] If the assessment of whether the invention was on-sale for patentability purposes relies solely on U.S. law, the result would be the classic extraterritorial situation of applying U.S. law over foreign activities. The same conduct that might not qualify as an offer to sell in the relevant country may be viewed as on-sale for patentability purposes in the United States.

One option would be for courts to apply the law of the country in which the commercial activity arises. This choice of law would eliminate any potential conflicts, but such an approach seems highly unlikely. The Federal Circuit previously rejected the analogous, domestic circumstance in determining whether state law should govern whether activity qualifies as an invalidating offer to sell. The Federal Circuit expressly eschewed such reliance on state law.[197] In *Group One, Ltd. v. Hallmark Cards*, *Inc.*, the Federal Circuit rejected the district court's use of Missouri law to determine whether the invention was on sale — noting "the importance of having a uniform national rule."[198] As the court reasoned:

> To hold otherwise would potentially mean that a patent could be invalid in one state, when the patentee's actions amounted to an offer under the laws of that state, and valid in a second state, when the same actions did not amount to an offer under the laws of that second state. Such a result is clearly incompatible with a uniform national patent system.[199]

In lieu of applying any particular state law, the court instead chose to assess whether the invention was on-sale based on "the law of contracts as generally understood."[200] In so doing, the court implicitly embraced the creation of federal common law regarding what constitutes an offer to sell.[201]

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[196] *See* Thomas J. Drago & Alan F. Zoccolillo, *Be Explicit: Drafting Choice of Law Clauses in International Sale of Goods Contracts*, METROPOLITAN CORP. COUNS. (May 2002), https://www.cisg.law.pace.edu/cisg/biblio/zoccolillo1.html [https://perma.cc/9LBJ-KZ3X].

[197] Group One Ltd. v. Hallmark Cards, Inc., 254 F.3d 1041, 1047 (Fed. Cir. 2001) ("[W]e hold that the question of whether an invention is the subject of a commercial offer for sale is a matter of Federal Circuit law, to be analyzed under the law of contracts as generally understood.").

[198] *Id.* ("[T]he court erred in applying the law of Missouri to the question.").

[199] *Id.*

[200] *Id.* at 1048.

[201] For how this development can act as a policy lever, see generally Lucas S. Osborn, *The Leaky Common Law: An Offer to Sell As A Policy Tool in Patent Law and Beyond*, 53 SANTA CLARA L. REV. 143, 176 (2013). Any mention of federal common law of course brings to mind *Erie R.R Co. v. Tompkins*, which rejected any federal common law. 304 U.S. 64, 78 (1938). The Court in *Erie* rejected the doctrine established in *Swift v. Tyson*, in which the Court viewed law as transcendental law and not that of a single country. *See id*. at 79-80; *see also* Swift v. Tyson, 41 U.S. 1, 19 (1842) (noting law was "not the law of a single country only, but of the commercial world."). Thus, courts pre-*Erie* and under *Swift* would consider none of this to be extraterritorial at all. My thanks for Professor Paul R. Gugliuzza for bringing this aspect of doctrine to my attention.

The court is likely to extend this reasoning to the international context. Using the law of another country to assess whether an invention is on sale would necessarily disrupt the uniform standard that the *Group One* court valorized. The situation at the international level, however, differs considerably from that of our domestic, federal system. While states are sovereigns within the United States, they are still subordinate to federal law.[202] That is not the case at the international level. If the Federal Circuit refuses to apply the law of the country in which the commercial activity arises, it will be applying the law of the United States on acts in a co-equal sovereign. Such interference often triggers concerns of extraterritoriality.[203] Indeed, actors in the foreign country may be unaware of whether their commercial behavior is violating U.S. patent law if there are significant substantive differences. What may be considered an offer in the United States may not be one in a different country, yet the applicant would stand to lose her patent.[204] Consequently, the on-sale bar now does pose interesting issues of extraterritoriality in ways that courts will have to confront, at least potentially in terms of choice of law issues. Moreover, it could alter the way in which patent applicants engage commercially in foreign jurisdictions, as well as the timing thereof.

Of course, the indirect regulatory effects generally would only apply to the would-be patent applicants' activities. They might modify their behavior in foreign jurisdictions to avoid creating prior art, and/or file patent applications more quickly. This logic would not likewise apply to the context of third-party public use or sales activity. Because the consequence of such foreign activity would flow to an unrelated party, third parties likely would not modify their behavior as a result of these new forms of prior art.

Instead, the removal of geographic limits on third-party prior art creates a number of notice problems for inventors. Many of these acts are not readily apparent to patent applicants, and it is unrealistic to expect inventors to monitor global public uses. Additionally, as the Supreme Court has made clear, offers to sell the patented invention need not disclose the invention itself to qualify as prior art.[205] As such, for third party prior art, the removal of the territorial limits

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[202] U.S. CONST. art. VI, cl. 2; Maryland v. Louisiana, 451 U.S. 724, 746-47 (1981).

[203] *See*, *e.g.*, WesternGeco LLC v. ION Geophysical Corp., 138 S. Ct. 2129, 2135, 2139 (2018) (rejecting the rule that 35 U.S.C. §271(f) damages must be limited to domestic sales).

[204] Timothy R. Holbrook, *Liability for the "Threat of A Sale": Assessing Patent Infringement for Offering to Sell an Invention and Implications for the on-Sale Patentability Bar and Other Forms of Infringement*, 43 SANTA CLARA L. REV. 751, 784-88 (2003) (discussing differences of "offer to sell" among the United States, Canada, and the United Kingdom).

[205] Helsinn Healthcare S.A. v. Teva Pharm. USA, Inc., 139 S. Ct. 628, 633 (2019) ("[O]ur precedents suggest that a sale or offer of sale need not make an invention available to the public [for the on-sale bar to apply]."). *But see* Holbrook, *supra* note 124, at 1114 ("[T]he *Transocean* rule could create a broad swath of prior art that is essentially unknowable to parties in the United States.").

on prior art has created a sweeping category of prior art that is virtually unknowable to patent applicants.

2. International Exhaustion Could Create Far More Changes in Foreign Conduct

Whereas the on-sale bar can involve foreign conduct by both the inventor and third parties, patent exhaustion is only implicated by the patent holder's commercial activity. For patent exhaustion to be relevant, the US patent holder must be selling the invention in a particular jurisdiction. Under a regime of domestic exhaustion, patent holders could use the territorial principles of patent law to price discriminate geographically.[206] With international exhaustion, however, such discrimination is not possible. As such, patent holders are likely to adjust their conduct in various markets to help mitigate concerns with gray market goods.[207]

Unlike prior art, the evolution of exhaustion doctrine entailed discussions of the territoriality principle, even if the courts did not formally engage with the presumption. The Supreme Court in *Boesch v. Graff*, while not technically addressing a classic scenario of international exhaustion, recognized the territorial nature of patents.[208] In the context of copyright law, Justice Ginsburg, dissenting in *Kirtsaeng*, tied her views to prohibitions on the extraterritorial reach of copyright law.[209] The majority at the Supreme Court in *Lexmark* recognized the territorial principle but did not wrestle with the presumption in any significant way.[210] The Federal Circuit likewise, in adopting a domestic exhaustion regime, tied its reasoning to concerns of extraterritoriality.[211] Commentators have also made the link between exhaustion and territoriality.[212]

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[206] *See* Wasserman Rajec, *supra* note 68, at 362; *but see* Kirtsaeng v. John Wiley & Sons, Inc., 568 U.S. 519, 552 (2013) ("Wiley and the dissent claim that a nongeographical interpretation will make it difficult, perhaps impossible, for publishers (and other copyright holders) to divide foreign and domestic markets. We concede that is so.").

[207] Daniel J. Hemel & Lisa Larrimore Ouellette, *Trade and Tradeoffs: The Case of International Patent Exhaustion*, 116 COLUM. L. REV. SIDEBAR 17, 20 (2016) ("A mandatory exhaustion rule, however, would yield much more dramatic distributive consequences than a shift to the United States' exhaustion-by-default position.").

[208] Boesch v. Graff, 133 U.S. 697, 703 (1890) ("A prior foreign patent operates under our law to limit the duration of the subsequent patent here, but that is all. The sale of articles in the United States under a United States patent cannot be controlled by foreign laws.").

[209] *Kirtsaeng*, 568 U.S. at 562 (2013) (Ginsburg, J., dissenting) ("The Copyright Act, it has been observed time and again, does not apply extraterritorially.").

[210] Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1536-37 (2017).

[211] Lexmark Int'l, Inc. v. Impression Prods., Inc., 816 F.3d 721, 764-65, 774 (Fed. Cir. 2016) (en banc), *rev'd and remanded*, 137 S. Ct. 1523 (2017).

[212] Caitlin O'Connell, *The End of Patent Extraterritoriality? The Reconciliation of the Patent and Copyright First Sale Doctrine*, 23 GEO. MASON L. REV. 229, 231 (2015); John A. Rothchild, *Exhausting Extraterritoriality*, 51 SANTA CLARA L. REV. 1187, 1211-12 (2011).

One potential impact from the Court's adoption of an international regime is that prices in foreign countries may change.[213] Indeed, it is likely that prices in foreign markets will rise, making the patented invention unavailable to certain people.[214] It is also possible that patent holders would simply pull the invention from certain foreign markets, making the invention unavailable to that population.[215] The patentee could also introduce country-specific variations of inventions that might create barriers for any gray markets.[216] There is no doubt, however, that the adoption of an international exhaustion regime results in patent holders modifying their behaviors in foreign countries, resulting in the indirect regulation of conduct in those countries.

Additionally, patent exhaustion faces the same choice of law issue as the on-sale bar. Is exhaustion to be assessed by U.S. commercial law or the law of the country in which the sale took place? The Supreme Court in both *Kirtsaeng* and *Lexmark* took as a given that the work or invention had been sold.[217] At no point did they engage with the law of the foreign jurisdiction to assess the nature of the sale. Particularly where the sale may contain conditions, foreign law may treat the transaction as less than a sale.[218] Whether there has been a sale may vary depending on the law of the relevant country. Yet, the Supreme Court's embrace of international exhaustion ignores the potential concerns for a choice of law and the possibility of a conflict emerging between the law of the United States and the law of the country in which the transaction took place.

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In all of these scenarios, for both prior art and exhaustion, U.S doctrine could effect change in patentee behaviors in foreign locations. As a result, these

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[213] Kirtsaeng v. John Wiley & Sons, Inc., 568 U.S. 519, 557-58 (2013) (Ginsburg, J., dissenting) ("[A copyright owners'] ability to engage in such price discrimination, however, is undermined if arbitrageurs are permitted to import copies from low-price regions and sell them in high-price regions. The question in this case is whether the unauthorized importation of foreign-made copies constitutes copyright infringement under U.S. law."); Hemel & Ouellette, *supra* note 207, at 18 ("This Essay explains why the adoption of a rule of international patent exhaustion would likely lower prices of patented goods in the United States and raise prices abroad.").

[214] *See* Hemel & Ouellette, *supra* note 207, at 18, 22-23.

[215] *Supra* note 207, at 24 n.29; *cf.* Marketa Trimble, *Copyright and Geoblocking: The Consequences of Eliminating Geoblocking*, 25 B.U. J. SCI & TECH. L (forthcoming 2019) (discussing the consequences of a form of jurisdictionally-based consumer alienation, geoblocking, in the context of copyright law).

[216] Chrisopher A. Mohr, *Gray Market Goods and Copyright Law: An End Run around K-Mart v. Cartier*, 45 CATH. U. L. REV. 561, 579-83 (1996) (discussing the "material difference" standard, which attempts to shield consumers from gray markets).

[217] *See* Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1529 (2017); Kirtsaeng v. John Wiley & Sons, Inc., 568 U.S. 519, 524-25 (2013).

[218] *See* Drago and Zoccolillo, *supra* note 196, https://www.cisg.law.pace.edu/cisg/biblio/zoccolillo1.html [https://perma.cc/9LBJ-KZ3X] (discussing the exclusion of certain types of sales from the scope of the CISG).

doctrines indirectly regulate activities in foreign countries. Yet at no point have the courts truly contemplated whether the presumption against extraterritoriality should be used in assessing the applicability and scope of these doctrines. As the above Matrix 2 demonstrates, all of these scenarios involve foreign acts with impacts in the United States. They also potentially involve complex choice of law issues which the courts have not recognized. Thus, the first category of activity — those impacting patent validity and enforceability — could be viewed more readily as the extraterritorial application of U.S. law than courts have appreciated.

C. If These Activities are Properly Considered Extraterritorial, What Would the Consequences Be?

If one accepts that the rules surrounding prior art and exhaustion are extraterritorial in nature, then the "so what" question remains. What doctrinal change would such recognition work? Minimally, it would demand the application of the *RJR Nabisco* two-step framework.

As to prior art, step one of the framework likely answers the question: in removing territorial limits, Congress expressed its clear intent that public uses and sales activity outside of the United States qualify as prior art. Of course, that conclusion highlights the ambiguity remaining around step one. If the presumption is rebutted, is it "anything goes," or should a court nevertheless use the presumption to further inform its analysis of the statute?[219] It would seem appropriate to consider how to construe the statute or for a court to consider some form of comity analysis in assessing the statute's interpretation, even if the presumption is rebutted.[220] In the context of prior art, courts could consider the law in which the activity arose. It could be the patent law in such jurisdiction, and a U.S. court would determine whether the activity would qualify as prior art under the law of that jurisdiction. For on-sale activity, the court could look either to the country's patent laws or to its commercial law to determine whether the activities should qualify as prior art. Consideration of either would offer greater guidance to parties operating in the foreign jurisdiction as to why their activities constituted prior art and would minimize potential conflicts with foreign law.

Another dynamic could also arise. Courts could consider the foreign activities of the inventor herself differently than those of third parties. In this regard, patent applicants are likely to modify their behavior to avoid creating prior art, generating the concerns of indirect extraterritorial regulation of activities in

[219] Maggie Gardner, *RJR Nabisco and the Runaway Canon*, 102 VA. L. REV. ONLINE 134, 145 (2016) ("The Court suggested in *Microsoft Corp. v. AT&T Corp.* that the presumption against extraterritoriality continues to apply even when a statute is explicitly extraterritorial.").

[220] *Id*. at 139 ("The next step should have been to consider whether this extraterritorial statute was nonetheless subject to other limits, whether on its own terms or due to other comity-based doctrines."); *see also* Holbrook, *supra* note 143, at 1119-20 (arguing for express consideration of foreign patent law by courts).

foreign countries. Third parties, however, will likely not modify their behavior simply because their acts may invalidate some stranger's U.S. patent. Consequently, there may be reasons to treat applicant and third-party activities differently.[221] This approach would replicate the dichotomous treatment of prior art generated by applicants and inventors.

As for patent exhaustion, had the Supreme Court actually deemed this area of law to truly be extraterritorial, then the outcome may have been different. The presumption generally attaches to interpretations of acts of Congress. That could have come into play in *Kirtsaeng* because Congress codified the first sale doctrine in 17 U.S.C. §109(a), although the Court recognized the doctrine had developed originally through common law.[222] Nevertheless, the Court was interpreting a statute, the traditional context for a court to consider the presumption.

The Supreme Court thought it an easy leap to apply the same reasoning regarding restrictions on alienation to the patent context, but there are significant differences in terms of territoriality. Obtaining patents in a variety of countries is expensive and difficult, unlike the near instantaneous grant of global copyright protection once a work is placed in a fixed tangible medium of expression.[223] Most importantly, though, is that Congress never codified patent exhaustion doctrine — it is still a creature of common law.[224] If one believes that institutional competence underlies the presumption to some extent, then the Court should be even more concerned with triggering an extraterritorial result absent any action by Congress or the Executive. Courts may not have a good sense of international political considerations.[225] Yet, here, the Court adopted a rule with fairly significant consequences for acts outside of the United States. Fealty to the presumption likely would have resulted in the adoption of a domestic exhaustion regime, leaving it to Congress to make the change.

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[221] *See* Holbrook, *supra* note 36, at 164-75 (discussing the implications of "inventor-specific prior art" and the "possession theory").

[222] 17 U.S.C. § 109(a) (2012); Kirtsaeng v. John Wiley & Sons, Inc., 568 U.S. 519, 530 (2013).

[223] *See* Jorge L. Contreras, *Extraterritoriality and the Global Race to the Bottom in Standardized Product Licensing*, 25 B.U. J. SCI. & TECH. L. (forthcoming 2019) (manuscript at 17, on file with B.U. J. Sci. & Tech. L.) (noting that large Standard Essential Patent holders can hold numerous patents so as to ensure protection in multiple jurisdictions); Martin Tartre, *Useful or Useless?: A Modern Perspective on the Protectability of Useful Articles in Domestic & Foreign Copyright Law*, 45 AIPLA Q.J. 467, 471 (2017) ("Essentially, applying for and defending a design patent is often expensive and time consuming, but obtaining a copyright is practically free.").

[224] Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1536 (2017).

[225] Steven Breyer, *America's Courts Can't Ignore the World*, ATLANTIC (Oct. 2018), https://theatlantic.com/magazine/archive/2018/10/stephen-breyer-supreme-court-world/568360 [https://perma.cc/E6UX-G7MY].

CONCLUSION

The courts inconsistently applied the presumption against extraterritoriality, and the Supreme Court's recent string of cases on that topic reflect an effort to enhance and clarify the doctrine. Nevertheless, at least in the patent context, the courts have not carefully considered whether certain activities actually should be viewed as extraterritorial. The Federal Circuit and Supreme Court have deemed liability triggering acts, as well as the reach of damages and injunctions, as extraterritorial. As this Article demonstrates, however, there are other doctrines that implicate activities and laws in foreign jurisdictions. Admittedly the prior art and exhaustion doctrines seek to regulate foreign activity more indirectly than liability provisions. But there is no denying that these areas of patent law could be viewed as creating extraterritorial consequences. The courts simply have not interrogated whether these doctrines should be subject to the presumption. This Article suggests it is time to reconsider this omission and truly engage with the extraterritorial issues presented by prior art and patent exhaustion.