2019

Worldwide FRAND Licensing Standard

Garry A. Gabison

Queen Mary University of London, Centre for Commercial Law Studies, g.gabison@qmul.ac.uk

Follow this and additional works at: <https://digitalcommons.wcl.american.edu/aubl>

Part of the [Antitrust and Trade Regulation Commons](#), [Intellectual Property Law Commons](#), and the [International Law Commons](#)

Recommended Citation

Gabison, Garry A. "Worldwide FRAND Licensing Standard," American University Business Law Review, Vol. 8, No. 2 (2019) .

Available at: <https://digitalcommons.wcl.american.edu/aubl/vol8/iss2/2>

This Article is brought to you for free and open access by the Washington College of Law Journals & Law Reviews at Digital Commons @ American University Washington College of Law. It has been accepted for inclusion in American University Business Law Review by an authorized editor of Digital Commons @ American University Washington College of Law. For more information, please contact kclay@wcl.american.edu.

WORLDWIDE FRAND LICENSING STANDARD

GARRY A. GABISON*

Worldwide licenses linked to the standard-setting process are being challenged on antitrust and jurisdictional grounds. While, so far, most courts have batted away these challenges, some courts have not recognized their validity. If worldwide licenses were to not be enforced globally, then the patent exhaustion doctrine could further eat into the patent holders' returns. Raising cost of enforcement linked to local licenses and lower returns linked to patent exhaustion would disincentivize standard-setting participants. These worldwide licenses are essential to the standard system and must be protected as such: the standard-setting organizations, antitrust authorities, and courts have a part to play to ensure the standards survive these attacks.

I. Introduction	140
II. The Threats to FRAND Worldwide Licenses	145
A. Bundling & Antitrust	145
B. Jurisdictional Reach	149
III. Global Supply Chains and Movement of Patented Goods.....	154
A. The Patent Exhaustion Doctrine	154
1. Patent exhaustion limits national and international ability to stop arbitrage	155
2. Patent exhaustion limits the rent seeking ability associated with method patents.....	159
B. Global Movement of SEP Implementing Goods.....	162
IV. Contracts and Policies Re-enforcement.....	165
A. FRAND Commitments	165
B. Bundling & Patent Families	167
C. Worldwide License & Patent Exhaustion	169

* JD-PhD, Lecturer of Law, Economics & Regulations, Queen Mary University of London, Centre for Commercial Law Studies. The first draft of this paper was written while visiting the Georgia Institute of Technology School of Public Policy. I would like to thank Nikolaus Thumm for our conversations and the seminar participants at the Technische Universität München for our lively discussion.

V. Conclusion	170
---------------------	-----

I. INTRODUCTION

Over the last ten years, the number of standards, standard-associated patents, and patent litigation has steadily increased in the United States (“U.S.”).¹ Recently, these litigations have challenged various aspects of licenses associated with standards.²

Standard Setting Organizations (“SSOs”)³ have often set broad licensing terms.⁴ SSOs created patent declaration to avoid patent ambush.⁵ Patent holders declare in letters of assurance to SSOs which of their patents qualify as essential,⁶ which can be defined as patents without a workaround.⁷

1. See, e.g., Justus Baron & Tim Pohlmann, *Mapping Standards to Patents Using Declarations of Standard-Essential Patents*, J. ECON. & MGMT. STRATEGY (forthcoming) (manuscript figs. 1 & 6) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3119145## (illustrating the increase in the number of standard essential patents, associated patents and associated lawsuits over the last two decades); TIM POHLMANN & KNUT BLIND, IPLYTICS GMBH, LANDSCAPING STUDY ON STANDARD ESSENTIAL PATENTS (SEPs), 23–24 fig.14 (2016), <https://ec.europa.eu/docsroom/documents/20741/attachments/1/translations/en/renditions/native> (describing the number of standard essential patent associated lawsuits in the U.S.).

2. See, e.g., Garry A. Gabison, *A Two-Dimensional Approach to Non-Discriminatory Terms in FRAND Licensing Agreements*, 24 B.U.J. SCI. & TECH. L. 100, 102–04 (2018) (discussing the case law challenging the discriminatory aspect of standards).

3. Andrew Updegrove, *The Essential Guide to Standards Chapter 6*, CONSORTIUMINFO.ORG (2007), https://www.consortiuminfo.org/essentialguide/forming_2.php (indicating that some standards develop through a cooperative enterprise in SSOs also referred to in the literature as Standard Developing Organizations (“SDOs”)).

4. See, e.g., Michael A. Cusumano et al., *Strategic Maneuvering and Mass-Market Dynamics: The Triumph of VHS over Beta*, 66 BUS. HIST. REV. 51, 65–66, 75–76 (1992) (describing how VHS won the market and came out as the de facto standard for the videocassette standard following an intense competitive process with Betamax, with a focus on the SSO set standards created through cooperation from various entities). Companies can create a de facto standard by winning the market. Standards discussed in this paper, however, focus on the SSO set standards created through cooperation from various entities.

5. See, e.g., *Rambus Inc. v. FTC*, 522 F.3d 456, 461, 466–67 (D.C. Cir. 2008) (discussing Rambus’ tactics of not disclosing that it held standard essential patents — tactics later branded as “patent ambush” — and holding that such tactics did not amount to an attempt to monopolize because Rambus’s deceptive conduct aimed at increasing prices and not monopolizing).

6. See *infra* note 11.

7. ETSI RULES OF PROCEDURE § 15.6 (EUR. TELECOMM. STANDARDS INST. 2018), <http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf> (“‘ESSENTIAL’ as applied to IPR means that it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time

Inventors declare essential patents covering the same or similarly technical content from different jurisdictions. These patents form a patent family covered by the same declaration.⁸ As such, these families can lead to similar litigations in different jurisdictions.

Besides declarations, SSOs also require that standard participants commit to licensing their standard essential patents (“SEPs”) on Fair, Reasonable, and Non-Discriminatory (“FRAND”) terms.⁹ SSOs created FRAND licenses in an attempt to circumvent patent hold-up and royalty stacking, while encouraging widespread adoption of their standards.¹⁰ FRAND terms attempt to decrease the bargaining inequality post-standard adoption.¹¹ Part of the FRAND commitment is that SEP holders offer worldwide licenses.¹²

However, not all SEP implementers are willing participants. Some commit holdout, which is also known as reverse holdup. Holdout occurs when a standard implementer uses FRAND commitment against the patent holder to negotiate a small license fee.¹³ Part of this bargaining strategy

of standardization, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a STANDARD can only be implemented by technical solutions, all of which are infringements of IPRs, all such IPRs shall be considered ESSENTIAL.”).

8. ORG. FOR ECON. COOPERATION & DEV., OECD PATENT STATISTICS MANUAL 71 (2009), <http://dx.doi.org/10.1787/9789264056442-en>.

9. Gabison, *supra* note 2, at 102–04 (discussing the meaning of FRAND terms).

10. *See, e.g.,* Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1209 (Fed. Cir. 2014) (“To help alleviate these potential concerns [of patent hold-up and royalty stacking], SDOs often seek assurances from patent owners before publishing the standard. IEEE, for example, asks SEP owners to pledge that they will grant licenses to an unrestricted number of applicants on ‘reasonable, and nondiscriminatory’ (‘RAND’) terms.”).

11. *See, e.g.,* Apple, Inc. v. Motorola, Inc., 869 F. Supp. 2d 901, 913 (N.D. Ill. 2012) (“[O]nce a patent becomes essential to a standard, the patentee’s bargaining power surges because a prospective licensee has no alternative to licensing the patent; he is at the patentee’s mercy. The purpose of the FRAND requirements . . . is to confine the patentee’s royalty demand to the value conferred by the patent itself as distinct from the additional value — the hold-up value — conferred by the patent’s being designated as standard-essential.”).

12. *See, e.g.,* Letter of Assurance for Essential Patent Claims, IEEE STANDARDS ASS’N, <https://development.standards.ieee.org/myproject/public//mytools/mob/loa.pdf> (last visited Mar. 10, 2019) (illustrating a letter of assurance template where the signatory promises to “make available a license for Essential Patent Claims under Reasonable Rate to an unrestricted number of Applicants on a *worldwide basis* with other reasonable terms and conditions that are demonstrably free of unfair discrimination” or can declare that it refuses to grant FRAND licenses) (emphasis added)).

13. *See, e.g.,* Anne Layne-Farrar, *Moving Past the SEP RAND Obsession: Some Thoughts on the Economic Implications of Unilateral Commitments and the Complexities of Patent Licensing*, 21 GEO. MASON L. REV. 1093, 1098 (2014).

relies on leveraging litigation costs against the patent holder — who promised to license his product regardless — to lower the patent holder's negotiation threat value.

Some SEP implementers have attempted to use the same technique by attacking the validity of FRAND worldwide licensing promise. These attacks have occurred all over the globe. For example, in the U.S., in *InterDigital Communications, Inc. v. ZTE Corp.*,¹⁴ InterDigital owned SEP related to different wireless standards.¹⁵ InterDigital made multiple license offers for “a worldwide license, while ZTE wanted the license to be limited to sales in the United States.”¹⁶ Similarly, InterDigital made a similar claim against Nokia, but Nokia made a U.S.-only counter-offer.¹⁷ In Germany, this issue arose in *Pioneer v Acer*.¹⁸ Pioneer held patents linked to the DVD standards and sued Acer alleging infringement of its SEPs.¹⁹ Pioneer and Acer attempted to negotiate a license: Pioneer offered a worldwide license, while Acer counter-offered with a license limited to Germany.²⁰

SSOs create standards to increase interoperability, which thereby increases the value of standards to society.²¹ Interoperability comes in many flavors: interoperability between manufacturers, between equipment and service providers, and between countries.²² With current global supply chains, worldwide licenses contribute to all three.

Worldwide licenses offer multiple efficiencies. First, worldwide licenses increase negotiation efficiency because they avoid another holdout

14. No. 1: 13-cv-00009-RGA, 2014 WL 2206218, at *2 (D. Del. May 28, 2014).

15. *Id.*

16. *Id.*

17. *Id.*

18. Landgericht Mannheim [LG] [Mannheim Regional Court] Jan. 8, 2016, 7 O 96/14 (¶ 2) (Ger.), *aff'd*, Oberlandesgericht [OLG] [Higher Regional Court] May 5, 2017, 6 U 55/16 (Ger.); *Pioneer v. Acer*, 4iPCouncil, <https://caselaw.4ipcouncil.com/german-court-decisions/lg-mannheim-1/pioneer-v-acer-lg-mannheim> (last visited Mar. 10, 2019).

19. 7 O 96/14 (¶¶ 9, 17).

20. 6 U 55/16 (¶¶ 6–8).

21. U.S. DEP'T OF JUSTICE & U.S. PATENT & TRADEMARK OFFICE, POLICY STATEMENT ON REMEDIES FOR STANDARDS-ESSENTIAL PATENTS SUBJECT TO VOLUNTARY F/RAND COMMITMENTS 2–3 (2013) <https://www.justice.gov/atr/page/file/1118381/download> (“Voluntary consensus standards serve the public interest in a variety of ways, from helping protect public health and safety to promoting efficient resource allocation and production by facilitating interoperability among complementary products. Interoperability standards have paved the way for moving many important innovations into the marketplace, including the complex communications networks and sophisticated mobile computing devices that are hallmarks of the modern age.”).

22. *See id.* at 3–4.

opportunity.²³ Licensors and licensees negotiate over many terms. Having one fewer term to negotiate makes negotiation less costly. FRAND aims to grant patent implementers more bargaining power than they have post-standard adoption to avoid hold-up. Excluding negotiations over territory leaves fewer opportunity for licensees to hold-out on a given term.²⁴ SEP holders and willing licensees need only negotiate one license for a whole patent family instead of multiple licenses for each jurisdiction where the willing licensees plan to operate.²⁵ This paper argues that only worldwide licenses should be considered FRAND.

Second, besides negotiation, worldwide licenses ease the contract enforcement, accounting, and monitoring costs.²⁶ With worldwide negotiation, licensees need only discuss how many units were sold worldwide.²⁷ This information is usually available for large, publicly traded multinationals.²⁸ Licensees need not itemize by country because doing so can be difficult or time consuming, and can inadvertently disclose sensitive information about production. Furthermore, licensors need not monitor the movement of licensed/unlicensed good across jurisdictions.

Having multiple national licenses decreases efficiency. FRAND terms

23. See *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1334 (Fed. Cir. 2014).

24. See *id.* at 1333 (Rader, C.J., dissenting-in-part) (“Market analysts will no doubt observe that a ‘hold out’ (i.e., an unwilling licensee of an SEP seeking to avoid a license based on the value that the technological advance contributed to the prior art) is equally as likely and disruptive as a ‘hold up’ (i.e., an SEP owner demanding unjustified royalties based solely on value contributed by the standardization).”).

25. *Contra id.* at 1323 (stating that Motorola had many different licenses).

26. See Anne Layne-Farrar & Koren W. Wong-Ervin, *Methodologies for Calculating FRAND Damages: an Economic and Comparative Analysis of the Case Law from China, the European Union, India, and the United States*, 8 JINDAL GLOBAL L. REV. 127, 151 (2017) (noting that licensing on the grounds that . . . a patentee “not only has a ‘legitimate interest to settle all acts of use’ by a single license agreement rather than on a patent-by-patent basis around the world but would ‘incur high costs,’ ‘including transaction and monitoring costs.’”).

27. The parties often negotiate licenses royalty as a function of the pricing of the embodying product. During these negotiations, they also devise what is the embodying product. Licenses can take many forms. See *Commonwealth Sci. & Indus. Research Org. v. Cisco Systems, Inc.*, 809 F.3d 1295, 1301–02 (Fed. Cir. 2015) (stating in the facts that the parties negotiated different royalty rate starting with a royalty rate of the value of the final product and a flat rate); *id.* at 1302 (discusses that the general rule is to base damages as a function of the price of the smallest saleable patent-practicing unit but “if a party can prove that the patented invention drives demand for the accused end product, it can rely on the end product’s entire market value as the royalty base”). Courts usually use the smallest saleable patent-practicing unit, but in some cases, they opt to use entire market value rule.

28. See Jorge L. Contreras, *Global Rate-Setting: A Solution for Standards-Essential Patents?*, 94 WASH. L. REV. (forthcoming 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3253954.

attempt to guarantee a sufficiently high return for standard creators to incentivize their participation and a sufficiently low price for standard implementers to incentivize their participations.²⁹ Forcing patent holders to negotiate jurisdiction-specific licenses increases transactions costs. This increase would either decrease the returns to the patent holders³⁰ or the patent holders would need to pass on the added cost to licensees. In *Unwired Planet v. Huawei Technologies*,³¹ Justice Birrs found that an SEP holder must be compensated for the inconvenience of having to negotiate a state-by-state license.³² He suggested that the United Kingdom (“UK”) licensing rate be doubled for the inconvenience of having to renegotiate other licensing agreements abroad.³³

Finally, worldwide licenses provide efficiencies for downstream suppliers and customers. In some jurisdictions, like the U.S., end users can be sued for patent infringement.³⁴ With worldwide licenses, parts and products can move across jurisdictions. Downstream customers can ship and sell their equipment worldwide without having to worry about infringing on any patents and facing a suit. “[N]ot only is international movement foreseeable, it is intended because as it is the point of [a standard compliant product].”³⁵

This article discusses worldwide licenses as an industry standard and the attacks on the industry standard. First, section two discusses the threats to worldwide FRAND licensing agreements: antitrust and personal jurisdiction. So far, courts in the European Union (“EU”) and U.S. have affirmed that only worldwide licenses were FRAND licenses. They have rebuffed antitrust challenges by failing to find an anticompetitive effect and jurisdictional challenges by asserting that patents could still be challenged abroad. Second, section three discusses the global movement of patented goods. The patent exhaustion doctrine has traditionally dealt with the movement of goods to the U.S. However, this doctrine may be inadequate

29. FREDRIK ERIXON & MATTHIAS BAUER, EUROPEAN CTR. FOR INT’L POLITICAL ECON., STANDARD ESSENTIAL PATENTS AND THE QUEST FOR FASTER DIFFUSION OF TECHNOLOGY 2–3 (2017), <https://ecipe.org/wp-content/uploads/2017/10/Standard-Essential-Patents-and-the-Quest-for-Faster-Diffusion-of-Technology.pdf>.

30. *Unwired Planet Int’l, Ltd. v. Huawei Tech. Co.* [2017] EWHC (Pat) 711, [92] (Eng.) (stating that decreasing returns can raise problems: if the standard creators were not sufficiently remunerated, then they might decide not to participate in the standard setting process).

31. *Id.*

32. *Id.*

33. *Id.* [602].

34. See Gaia Bernstein, *The End User’s Predicament: User Standing in Patent Litigation*, 96 B.U. L. REV. 1929, 1973 (2016) (discussing end-user litigations).

35. *Unwired Planet Int’l, Ltd.* [2017] EWHC (Pat) 711, [617].

to deal with FRAND licenses where terms were set by a foreign court. Finally, section four suggests how some of these concerns can easily be addressed by SSOs, Antitrust authorities, and the Supreme Court.

II. THE THREATS TO FRAND WORLDWIDE LICENSES

Worldwide licenses offer efficiencies that help both licensors and licensees save on negotiation, monitoring, and enforcement. However, technology implementers have a lot to gain in requesting local licenses instead of global licenses. They can leverage the cost of litigation against licensor because a patent holder “cannot practically sue separately around the world.”³⁶ To leverage these litigation costs, SEP implementers have raised two arguments against worldwide licenses: an antitrust argument and a personal jurisdiction argument. This section investigates these two arguments.

A. Bundling & Antitrust

Standards have a complicated relationship with antitrust. For the most part, SSO participants are either competitors or vertical collaborators.³⁷ Competitors can cooperate on technical aspects of standard,³⁸ but they cannot discuss most licensing aspects (e.g. pricing) without violating antitrust laws.³⁹ To preempt antitrust liability, SSOs consult with the Justice Department to ensure they are not violating antitrust laws when implementing new policies.⁴⁰ The efficiency gains (e.g., interoperability and

36. *Id.* [561].

37. ELI GREENBAUM, FORGETTING FRAND: THE WIPO MODEL SUBMISSION AGREEMENTS 87 (2015), https://www.wipo.int/export/sites/www/amc/en/docs/frand_2015.pdf.

38. See, e.g., Ruben Schellinghouth, *Standard-Setting From a Competition Law Perspective*, COMPETITION POL’Y NEWSL., (European Commission) 2011, at 3 (2011), http://ec.europa.eu/competition/publications/cpn/2011_1_1_en.pdf (discussing the development of standards and their implementations).

39. See, e.g., *United States v. Trenton Potteries Co.*, 273 U.S. 392, 396 (1927) (holding that price fixing between competitors is per se illegal).

40. SSOs often seek an assurance from the antitrust authority that they will not face antitrust liability when they change their policies. See, e.g., Letter from Renata B. Hesse, Acting Assistant Attorney General, U.S. Dep’t of Justice, Antitrust Div., to Michael A. Lindsay, DORSEY & WHITNEY LLP (Feb. 2, 2015), <http://www.justice.gov/file/338591/download> (addressing the Institute of Electrical and Electronics Engineers (“IEEE”) after it sought the approval of the Department of Justice (“DOJ”) when the IEEE tried to implement a new policy where participants could not use injunctive relief while enforcing their patent); see also Letter from Thomas O. Barnett, Assistant Attorney General, U.S. Dep’t of Justice, Antitrust Div., to Michael A. Lindsay, DORSEY & WHITNEY LLP (Apr. 30, 2007), <http://www.justice.gov/atr/public/busreview/222978.pdf> (discussing and authorizing the implementation of a new policy that gives the option to

network effects⁴¹) from coordinating are weighed against the associated negatives (e.g., decreased competition).

Worldwide licenses have elicited a similar balancing act. The UK High Court of Justice faced this issue in *Unwired Planet v. Huawei Technologies*.⁴² Unwired held a portfolio of 225 SEPs that covered three standards and forty-two jurisdictions.⁴³ Unwired insisted on a worldwide license, whereas Huawei wanted a UK-only license.⁴⁴ Justice Birss argued that “[licensor and licensee acting reasonably and on a willing basis] would regard country by country licensing as madness. A worldwide license would be far more efficient.”⁴⁵

Faced with this efficiency argument, Huawei challenged worldwide licenses by making an antitrust argument. It argued that the worldwide license was a form of an unlawful bundling/tying arrangement.⁴⁶ Justice Birss applied the tying rule developed in *Microsoft Corp.*⁴⁷ The rule states that to find an unlawful tying arrangement, the plaintiff must show that (1) the defendant has market power in tying good; (2) the tying and tied goods are separate products; (3) the tying and tied goods are sold separately; and that (4) the tying arrangement restricts competition.⁴⁸ The High Court assumed dominance in the tying good, finding that the patents were separate products and that Unwired chose to sell them together; however, the Court did not find sufficient evidence that a worldwide license foreclosed competition.⁴⁹

IEEE members to publicly commit and disclose their most restrictive licensing terms but the DOJ also warns IEEE that it will investigate if this policy is used to price fix); Letter from Thomas O. Barnett, Assistant Attorney General, U.S. Dep’t of Justice, Antitrust Div., to Robert A. Skitol, DRINKER, BIDDLE & REATH LLP (Oct. 30, 2006), <http://www.justice.gov/atr/public/busreview/219380.pdf> (discussing and approving the implementation of a new policy requiring VMEbus International Trade Association members, an SSO, to disclose their most restrictive licensing terms but warning that such policy will be investigated if used for collusive purposes).

41. Jorge L. Contreras, *A Market Reliance Theory or FRAND Commitments and Other Patent Pledges*, 2 UTAH L. REV. 479, 480 (2015) (discussing the benefits associated with standards).

42. *Unwired Planet Int’l, Ltd. v. Huawei Tech. Co.* [2017] EWHC (Pat) 711 [2] (Eng.).

43. *Id.* at Annex1.

44. *Id.* [524].

45. *Id.* [543]–[44].

46. *Id.* [545].

47. *Microsoft Corp v. Comm’n of European Cmtys.* [2007] E.C.R. 3619 ¶¶ 15–16.

48. *Id.*

49. *Id.* ¶¶ 545–550.

On appeal,⁵⁰ the Court of Appeal affirmed the High Court's decision that "only a global license would be FRAND."⁵¹ Looking at the efficiency issue, the Court of Appeal wrote that, about efficient negotiation and enforcement support,⁵² "a global license between a SEP owner and an implementer may be FRAND. Indeed, on the face of it, it is very hard to see how a contrary view could be justified."⁵³

The U.S. perspective mirrors this argument. In 2017, the U.S. Department of Justice ("DOJ") and the Federal Trade Commission ("FTC") published their latest Antitrust Guidelines for the Licensing of Intellectual Property (hereinafter "Antitrust Guidelines").⁵⁴ The Antitrust Guidelines consider a wide range of licensing-related antitrust issues, including bundling intellectual property.⁵⁵ The Antitrust Guidelines state that:

Package licensing — the licensing of multiple items of intellectual property in a single license or in a group of related licenses — may be a form of tying arrangement if the licensing of one intellectual property right is conditioned upon the acceptance of a license of another, separate intellectual property right.⁵⁶

According to this definition, licensing patent families together into a worldwide license could qualify as a tying arrangement.⁵⁷

The Antitrust Authorities would then need to assess whether the tying arrangement is unlawful based on three criteria: "(1) the seller has market power in the tying product, (2) the arrangement has an adverse effect on competition in the relevant market for the tying product or the tied product, and (3) efficiency justifications for the arrangement do not outweigh the anticompetitive effects."⁵⁸

First, "[t]he Agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner."⁵⁹ Standards can grant the patent holder market power if a critical mass adopts those standards. But, even in the standard-setting context, a generalization cannot

50. *Unwired Planet Int'l, Ltd. v. Huawei Tech. Co.* [2018] EWCA Civ. 2344 (Eng.).

51. *Id.* [129].

52. *Id.* [55]–[56].

53. *Id.* [56].

54. U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY (2017), <https://www.justice.gov/atr/IPguidelines/download>.

55. *Id.* at 26.

56. *Id.* at 29.

57. *See also infra* Section IV.B.

58. *Id.* at 28–29 (citing *United States v. Microsoft Corp.*, 253 F.3d 34, 95–96 (D.C. Cir. 2001)).

59. *Id.* at 29.

be made about market power because some standards have substitutes. For example, Code Division Multiple Access (“CDMA”) and Global System for Mobiles (“GSM”) are multiple access technologies developed in the late 1980s and early 1990s.⁶⁰ GSM was developed by the European Telecommunications Standards Institute (“ETSI”), an SSO, whereas CDMA was developed by Qualcomm as a proprietary standard and later adopted as a standard by the Telecommunications Industry Association, an SSO.⁶¹ They were substitutes in the early mobile phone market network.⁶²

Second, at worst, worldwide licenses have no effect on competition. At best, they increase competition. Worldwide licenses increase competition because products embodying standards can move across borders without the manufacturers having to obtain new licenses.⁶³ A manufacturer would face one less barrier to export its products and thus would be incentivized to export more of its products — thereby competing with local manufacturers.

Third, worldwide licenses have substantial efficiency consideration. They exploit economies of scope because they bundle similar patents necessary in different jurisdictions.⁶⁴ A licensee who only wants a local license would not be negatively affected: if the licensee does not sell products in a country where it does not want a license, then the extra coverage has no impact.⁶⁵ If the licensee changes its mind and decides to export to a country where it does not want a license, then it avoids an additional negotiation or litigation.⁶⁶

The DOJ and FTC would not likely challenge global licenses. While the U.S. courts need not follow the same Guidelines, the Guidelines are based on U.S. case precedents and hint that these worldwide licenses would not be invalidated on antitrust grounds.⁶⁷ In *U.S. Philips Corp. v. International*

60. Sascha Segan, *CDMA vs. GSM: What's the Difference?*, PC MAG UK (Nov. 19 2018, 5:05 PM), <https://uk.pcmag.com/news-analysis/11593/cdma-vs-gsm-whats-the-difference>.

61. *Id.*

62. *Id.*

63. See *Saint Lawrence Commc'ns LLC v. Motorola Mobility LLC*, No. 2:15-CV-351-JRG, 2018 WL 915125, at *9 (E.D. Tex. Feb. 15, 2018) (holding that the plaintiff's pursuit of worldwide licenses achieves many procompetitive efficiencies, and is not patent misuse).

64. *Id.* (“For example, seeking a worldwide license helps both parties avoid the extraordinary transaction costs of litigating or licensing a global patent portfolio on a country-by-country or patent-by-patent basis.”).

65. *Cf. Texas Instruments, Inc. v. Hyundai Elecs. Indus., Co.*, 49 F. Supp. 2d 893, 901 (E.D. Tex. 1999) (holding that worldwide licenses were necessary in defendant's market because it was a worldwide market, and thus did not have the luxury of selling in one country).

66. *Id.* at 914 (stating that worldwide licenses help large companies avoid country-by-country litigation).

67. See U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, *supra* note 54, at 1 (“By

Trade Commission,⁶⁸ Philips bundled essential and nonessential patents in a licensing package.⁶⁹ The U.S. International Trade Commission (“ITC”) ruled that the patent bundle was unenforceable because it was a patent misuse likened to an unlawful tying arrangement.⁷⁰ The Federal Circuit recognized that package licenses ensure access and have cost-saving virtues.⁷¹ The Federal Circuit stepped away from a per se rule and pointed out that the ITC analysis failed to address a number of issues from cost savings to temporal technological changes.⁷² The Federal Circuit did not discuss the worldwide license aspect of the case; nonetheless, it stated that:

If a patentholder has a package of patents, all of which are necessary to enable a licensee to practice particular technology, it is well established that the patentee may lawfully insist on licensing the patents as a package and may refuse to license them individually, since the group of patents could not reasonably be viewed as distinct products.⁷³

This statement provides support to the lawfulness of global licenses because patents in one family may not be distinct products, as they protect the performance of a similar function. Therefore, if the antitrust tying argument against worldwide license was made, it seems unlikely that a U.S. court would rule in favor of said argument.

B. Jurisdictional Reach

SEP implementers have used personal jurisdiction (or the lack thereof) to attack worldwide licenses and limit the court’s reach to national licenses.⁷⁴ This section discusses whether courts should impose jurisdictional limits on FRAND licenses.

This argument was raised in a number of cases across the globe. In the United Kingdom (“UK”), Huawei made this civil procedure argument to the High Court.⁷⁵ Huawei argued that a UK court does not have jurisdiction to enforce a license in other countries.⁷⁶ Justice Birss had agreed with

stating their general policy, the Agencies hope to assist those who need to predict whether the Agencies will challenge a practice as anticompetitive.”).

68. U.S. Philips Corp. v. Int’l Trade Comm’n, 424 F.3d 1179, 1193–97 (Fed. Cir. 2005).

69. *Id.* at 1182.

70. *Id.* at 1183.

71. *Id.* at 1193.

72. *Id.* at 1193–97.

73. *Id.* at 1196.

74. Microsoft Corp. v. Motorola, Inc., 795 F.3d 1024, 1031 (9th Cir. 2015).

75. Unwired Planet Int’l, Ltd. v. Huawei Tech. Co. [2017] EWHC (Pat) 711, [711] (Eng.).

76. *Id.* [553]–[54].

Huawei's approach in the past.⁷⁷ Faced with the question anew, he concluded that even if Huawei agrees to a worldwide license, it can still challenge the patent validity where it wants.⁷⁸

The Court of Appeal agreed with his reasoning.⁷⁹ The Court looked at the treatment from different jurisdictions, including the European Commission, Germany, the U.S., China, and Japan.⁸⁰ The Court rejected that "the [worldwide licensing] approach adopted by [Justice] Birss in these proceedings loses sight of the territorial nature of patent proceedings and does not accord with the approach taken in other jurisdictions."⁸¹ The Court of Appeal also rejected that this approach would render foreign suits moot or "usurped the right of foreign courts"⁸² because global licensing does not foreclose the ability to challenge a patent validity in a different jurisdiction.⁸³ The Court of Appeal rejected Huawei's argument that global licenses would undermine negotiations or public policy or competition law.⁸⁴

In the U.S., the Ninth Circuit was faced with a cross-jurisdiction injunction between U.S. and German patent holders in *Microsoft Corp. v. Motorola, Inc.*⁸⁵ Motorola owned SEPs related to a video-coding standard and to a Wi-Fi standard.⁸⁶ Motorola encumbered its SEP with RAND commitments.⁸⁷ After unsuccessful licensing negotiations, Microsoft sued Motorola for a breach of its duty of good faith and fair dealing during the negotiation based on a third party beneficiary theory.⁸⁸ In turn, Motorola sued Microsoft in other fora, including Germany, over the video-coding standard.⁸⁹ In the U.S. suit, Microsoft sought to stop Motorola's German injunction.⁹⁰ Microsoft succeeded in obtaining the injunction to block Motorola's injunction in a

77. *Id.* [558].

78. *Id.* [567].

79. *Unwired Planet Int'l, Ltd. v. Huawei Tech. Co.* [2018] EWCA Civ. 2344 (Eng.).

80. *Id.* [59]–[73].

81. *Id.* [74].

82. *Id.* [81].

83. *Id.* [88].

84. *Id.* [95]–[99].

85. *Microsoft Corp. v. Motorola, Inc.*, 795 F.3d 1024, 1024 (9th Cir. 2015).

86. *See id.* at 1031–32 (stating the two SEPs at issue are a video-coding patent and a Wi-Fi patent).

87. *Id.* at 1031 (showing that reasonable, and nondiscriminatory (RAND) and fair, reasonable, and nondiscriminatory (FRAND) have been used interchangeably); *Apple, Inc. v. Motorola, Inc.*, 869 F. Supp. 2d 901, 911–12 (N.D. Ill. 2012); Anne Layne-Farrar, *supra* note 13, at 1098 (stating that "Fair" was added in an attempt to address issues of holdout).

88. *Microsoft Corp.*, 795 F.3d. at 1032.

89. *Id.*

90. *Id.* at 1033.

U.S. District Court.⁹¹ Microsoft was also awarded damages linked to the cost of defending the German case and the relocation of its distribution center.⁹²

In *Microsoft Corp. v. Motorola, Inc.*, Judge Robart evaluated whether to grant the anti-suit injunction.⁹³ He first considered the “[e]ffect of the U.S. Action on the German Action.”⁹⁴ He found that the case involved the same parties and because the original license offer was on a worldwide basis — including the European Patents involved in the German suit — the U.S. action would be dispositive of the German litigation.⁹⁵ Second, he considered whether the injunction would “[f]rustrate a Policy of the Forum Issuing the Injunction” and found that having two suits would raise the issue of inconsistent judgment and “the timing of the filing of the German Action raises concerns of forum shopping and duplicative and vexatious litigation.”⁹⁶ Lastly, he considered “[w]hether the impact on comity would be tolerable” and found that the impact would not be intolerable because of the later timing of the German suit and because the German action involved the same private U.S. corporations, the U.S. court had a strong interest in the claims.⁹⁷

The Ninth Circuit affirmed.⁹⁸ In SEP licensing agreements, SEP holders bundle their family into a single worldwide license as general practice.⁹⁹ The Ninth Circuit recognized this practice and that the two parties were negotiating a worldwide licensing agreement.¹⁰⁰ The Ninth Circuit viewed the German litigation as a sign of bad faith dealing.¹⁰¹ The U.S. court was willing to meddle with the German court’s decision to grant an injunction because of the worldwide nature of the licensing negotiation.¹⁰²

Judge Berzon of the Ninth Circuit found that a federal district court could enjoin proceeding with an action in a foreign court.¹⁰³ He echoed and

91. *Id.* at 1055.

92. *Id.* at 1033.

93. *Microsoft Corp. v. Motorola, Inc.*, 871 F. Supp. 2d 1089, 1100 (W.D. Wash. 2012).

94. *Id.* at 1098–1100.

95. *Id.*

96. *Id.* at 1100.

97. *Id.* at 1101–02.

98. *Microsoft Corp. v. Motorola, Inc.*, 795 F.3d 1024, 1057 (9th Cir. 2015).

99. *Id.* at 1030–31.

100. *Id.* at 1032 n.4.

101. *Id.* at 1055.

102. *Id.*

103. *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 875 (9th Cir. 2012).

affirmed Judge Robart's findings.¹⁰⁴ Particularly, he found that the FRAND issue is a contractual issue (instead of a patent issue) and the original promise was of a worldwide license, which encompassed both the U.S. and EU patents.¹⁰⁵ Much like in the UK *Huawei* case, the Ninth Circuit signaled that worldwide licenses were part of the FRAND commitment.

Much like in the UK *Huawei* case, Ninth Circuit recognized that the parties could still litigate the validity or infringement finding in a foreign court.¹⁰⁶ “[The Ninth Circuit] cannot say that the district court’s limited antisuit injunction to protect its ability to reach that final resolution enacts any intolerable incursion into Germany’s sovereignty.”¹⁰⁷

This willingness to intervene across jurisdictions has become more pervasive in the SEP context because of the worldwide aspect of the FRAND contractual promises. But this willingness has limits. *Apple Inc. v. Qualcomm Inc.*¹⁰⁸ involved a similar request for an anti-suit injunction. Qualcomm held a number of SEPs linked to wireless standards, and Apple had implemented these standards in its phones.¹⁰⁹ Apple filed a suit against Qualcomm for breach of contract claims, patent claims, and antitrust claims.¹¹⁰ Qualcomm filed contract-based counterclaims.¹¹¹ Subsequently, Apple filed a suit in the U.K., Japan, China, and Taiwan.¹¹² Qualcomm moved to have the foreign suits enjoined.¹¹³

The District Court differentiated the *Apple v. Qualcomm* case from the *Microsoft v. Motorola* case on multiple bases.¹¹⁴ First, the court found that the parties were differently situated: in *Motorola* the SEP holder was the one suing abroad, whereas in *Qualcomm* the SEP implementer was the one suing abroad.¹¹⁵ Second, the court found that the Apple suits were not about the

104. *Id.* at 889.

105. *Id.* at 883–85.

106. *Id.* at 883.

107. *Id.* at 889.

108. Order Denying Anti-Suit Injunction at 2, *Apple Inc. v. Qualcomm Inc.*, No. 3:17-cv-00108-GPC-MDD (ECF No. 92-1) (S.D. Cal. Sept. 7, 2017).

109. *Id.* at 2–3.

110. *Id.* at 5–6.

111. *Id.* at 5.

112. *Id.* at 8–10.

113. *Id.* at 10.

114. *See id.* at 17–20.

115. *See id.* at 18–20 (“The *Microsoft* court concluded that the U.S. and foreign actions were functionally the same because Motorola’s contractual commitment to the standard-setting organization effectively mooted any right Motorola had to bring an action for infringement in a foreign court. The same cannot be said of Apple’s U.S. and foreign actions. Apple has made no binding commitment that limits where it can bring a lawsuit, under what laws, or how it can enforce its third-party beneficiary rights under

licensing agreement but about Qualcomm's business methods: Apple suits were based on anti-competitive claims and patent exhaustion.¹¹⁶ Therefore, the resolution of the U.S. suit would not resolve the other suits.¹¹⁷

The court found that the facts of the case did not warrant an anti-suit injunction. The court found that the cases filed by Apple in other jurisdictions were not vexatious or oppressive and inconsistent and they did not justify granting an injunction because Apple did not ask the court for a worldwide relief.¹¹⁸ Finally, the court found that other countries had their own interest enforcing their antitrust laws.¹¹⁹ In fact, China, Japan, and Korea had already penalized Qualcomm for its anticompetitive business methods.¹²⁰ As such, these and other countries like the EU had their own interest in enforcing their own antitrust laws.¹²¹ As such, the District Court rejected the request for injunction.¹²² The *Qualcomm* case shows the multifaceted issues intertwined with FRAND cases (i.e., antitrust, contract, and intellectual property).

China has a different approach to FRAND licensing. In *Huawei v. InterDigital*,¹²³ the Guangdong High People's Court did not seem willing to enforce worldwide licenses and instead enforced only a Chinese license.¹²⁴ In the case, Huawei claimed that InterDigital violated antimonopoly laws and its FRAND commitment by charging Huawei higher licensing fees than Apple and Samsung.¹²⁵ China did not recognize the negotiations that took

ETSI. As a baseline matter, therefore, Apple is free to exercise its rights in the United Kingdom, China, Taiwan, and Japan under those countries' law.").

116. See *id.* at 20–21 (favoring Apple's argument that "even the global FRAND issue will not dispose of the foreign actions because Apple's foreign suits have challenged the validity and exhaustion of Qualcomm's foreign patents, under foreign patent law, and have additionally challenged Qualcomm's licensing practices under foreign competition and anti-trust laws.").

117. *Id.* at 22 ("Qualcomm has failed to demonstrate that . . . an adjudication on the merits here would dispose of the claims abroad.").

118. *Id.* at 23–26.

119. *Id.* at 30–34.

120. *Id.*

121. *Id.*

122. *Id.* at 2.

123. Yue Gao Fa Min San Zhong Zi No. 305 (粤高法民三终字第305号) [Huawei Tech. Co., Ltd. v. InterDigital Corp.], <http://en.anjielaw.com/downloadRepository/084d342a-0bc7-4592-a796-52e9b9f140ce.pdf> (Guangdong Province High People's Ct. 2013) (China); see also D. Daniel Sokol & Wentong Zheng, *FRAND (and Industrial Policy) in China*, in *CAMBRIDGE HANDBOOK OF TECHNICAL STANDARDIZATION LAW: ANTITRUST AND PATENTS* 315–17 (Jorge L. Contreras ed., 2017).

124. See Sokol & Zheng, *supra* note 123, at 315–17.

125. See *id.* (stating that the Guangdong Province High People's Court of China affirmed the lower court decision).

place abroad.¹²⁶ In that respect, China took a more limited approach and distinguished itself from the rest of the world about FRAND worldwide licenses.

While most courts have enforced worldwide licenses, this approach is not universal. The next section discusses in more details the third efficiency of having worldwide licenses: the unencumbered movement of patented goods.

III. GLOBAL SUPPLY CHAINS AND MOVEMENT OF PATENTED GOODS

Willful negotiations of worldwide licenses create a number of efficiencies. First, participants need only negotiate once. Second, patented goods can move easily through the stream of commerce. This last efficiency can also be garnered thanks to the patent exhaustion doctrine. This section discusses in more details why worldwide licenses may not be as necessary to reach some of its efficiencies.

A. The Patent Exhaustion Doctrine

Even before the introduction of global supply chains and standards, courts worried about the free movement of patent implementing goods. To deal with that issue, the U.S. Supreme Court created the patent exhaustion doctrine.¹²⁷

In *Bloomer v. McQuewan*,¹²⁸ Woodworth owned a patent and assigned its right to Wilson, who then licensed the right to Bloomer to make and sell machines embodying the patented invention in Pittsburg.¹²⁹ McQuewan licensed the right to make and use machines embodying the same patents.¹³⁰ In the meantime, Congress extended the length of patents, and Bloomer sued McQuewan for infringement by claiming that the original agreement ended with the original patent length.¹³¹ The Court ruled that “[t]he inventor might

126. In the meantime, Huawei and InterDigital were also tangled in arbitration in France and litigations in the U.S. *InterDigital Commc’n, Inc. v. Huawei Inv. & Holding Co.*, 166 F. Supp. 3d 463, 467–68, 470–74 (S.D.N.Y. 2016) (discussing the arbitration between InterDigital and Huawei in France).

127. This doctrine has a long history. Chief Justice Roberts traces its origin as far as back as 1628 England. *Impression Products v. Lexmark International*, 137 S. Ct. 1523, 1532 (2017) (stating that Lord Coke wrote that “if an owner restricts the resale or use of an item after selling it, that restriction ‘is void, because . . . it is against Trade and Traffique, and bargaining and contracting between man and man.’”); *see also* *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U.S. 617, 625 (2008) (quoting *Bloomer v. McQuewan*, 68 U.S. 539, 549 (1864)) (tracing the U.S. Supreme Court first mention as far back as 1853 in *Bloomer v. McQuewan*).

128. *Bloomer v. McQuewan*, 55 U.S. 539, 549–550 (1853).

129. *Id.* at 548.

130. *Id.*

131. *Id.* at 549.

lawfully sell [a machine] to him And when 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.”¹³² This ruling created the patent exhaustion doctrine. In this ruling, the Supreme Court attempted to balance the interest of the inventors and machine purchasers.¹³³ While the issue has evolved over the years, the Supreme Court reaffirmed its commitment to the patent exhaustion doctrine continuously.¹³⁴ The Supreme Court saw that the patent holders cannot not use patent law to extend their rights over patent good purchasers beyond their contractual agreements.¹³⁵ The next two subsections discuss how the U.S. Supreme Court has addressed the patent exhaustion doctrine in the context of (1) global movement of goods and (2) modern functional patents.

1. Patent exhaustion limits national and international ability to stop arbitrage

Since *Bloomer v. McQuewan*, the Supreme Court has also ruled on patent exhaustion cases linked to import-export between national and international jurisdictions.

First, the Supreme Court addressed the national movement of goods between national territorial divisions devised by the patent holders. Much like other rights, the Supreme Court consistently found that patent rights did not grant its holder rights to decrease the movement of patented goods lawfully purchased, once put in the stream of commerce.

132. *Id.*

133. *Id.* at 552–54.

134. See *Bos. Store of Chi. v. Am. Graphophone Co.*, 246 U.S. 8, 20-22 (1918) (holding that a patent holder could not use its patent right to enforce a resale price maintenance); *Wade v. Metcalf*, 129 U.S. 202, 205 (1889) (holding that if an inventor and its partners made a machine, then, after the partnership dissolved, the non-inventor partner could continue using the patented machine without infringing because the patent right were exhausted); *Birdsell v. Shaliol*, 112 U.S. 485, 489 (1884) (holding infringement damages did not exhaust the patent rights); see also *Dr. Miles Med. Co. v. John D. Park & Sons, Co.*, 220 U.S. 373, 408 (1911) (making resale price maintenance per se illegal); *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 907 (2007) (reversing *Dr. Miles Med. Co. v. John D. Park & Sons, Co.*).

135. But see *Bowman v. Monsanto Co.*, 569 U.S. 278, 280-288 (2013) (holding a patent on a genetically modified soybean seed was not exhausted by the first purchase of the seed and the planting of the seed was literal reproduction or copying); *id.* (departing from its patent exhaustion doctrine). The Supreme Court asserted that the patent exhaustion limitation raised in this case was limited to the fact at hand and should not be read to apply to all self-replicating technology. *Id.* at 289. Besides its application to seeds or reproducing genetically modified organisms, the implications of *Bowman v. Monsanto* remain unknown.

In *Adams v. Burke*,¹³⁶ the Supreme Court repeated this principle when faced with a patent holder attempting to enforce a territorial restriction. In this case, a licensee sold a patented coffin lid, but the coffin was used outside the licensee's territory.¹³⁷ The licensee from the territory where the coffin was imported sued the coffin purchaser.¹³⁸ The Court found that once purchased, the purchaser could move the good beyond the licensee's territory without infringing on the patent.¹³⁹

Justice Bradley dissented and pointed out that the patent exhaustion doctrine granted the licensee more power than negotiated: since its purchasers could take the good outside its territory, a licensee could target consumers outside its territory.¹⁴⁰

The Supreme Court re-addressed the issue of patent exhaustion and territorial restriction in *Hobbie v. Jennison*.¹⁴¹ In this case, a patent holder had licensed his patent for pipes to multiple entities.¹⁴² In doing so, the patent holder divided the territory and gave an exclusive right to each licensee within a geographical region.¹⁴³ One licensee ended up selling the patented pipes to someone building a house outside the licensee's territory.¹⁴⁴ The licensee from the territory where the house was located sued the licensee seller of the pipes.¹⁴⁵ The plaintiff attempted to distinguish his case from *Adams v. Burke* by affirming that the licensee in *Burke* did not know where the coffin would be used, whereas the licensee in *Hobbie* knew where the pipes would be installed.¹⁴⁶ The Supreme Court disagreed and found that neither the sellers nor the users/purchasers are liable under a territorial restriction agreement.¹⁴⁷ Again, the Court pointed to contracts being the best avenue to resolve these problems.¹⁴⁸

Second, the Supreme Court addressed the international movement of goods. The Supreme Court addressed patent exhaustion in the international context in two cases. In both cases, the Court repeated the same principle:

136. 84 U.S. 453 (1873).

137. *Id.* at 456–57.

138. *Id.* at 454.

139. *Id.* at 456–57.

140. *Id.* at 457–59.

141. 149 U.S. 355, 356 (1893).

142. *Id.* at 360–61.

143. *Id.*

144. *Id.*

145. *Id.* at 356.

146. *Id.*

147. *Id.* at 363–64.

148. *Id.*

patents did not grant its right holders the ability to decrease the movement of patented goods lawfully placed in the stream of commerce.

In *Boesch v. Gräff*,¹⁴⁹ the plaintiff held three German patents and one U.S. patent for an invention, a lamp burner.¹⁵⁰ The defendant bought the patented invention in Germany and imported the lamps to the U.S.¹⁵¹ The German manufacturer had made the lamps without a license and instead had benefited from a court ruling that allowed him to continue making lamps because it had been using the invention prior to the plaintiff applying for the patents.¹⁵² The Supreme Court ruled that while the German manufacturer was able to legally make the lamps under German law, it was not able to make them in the U.S. under U.S. law.¹⁵³ Therefore, even though the lamp was legally made, it could not be legally sold in the U.S.¹⁵⁴

After *Boesch v. Gräff*, it took over 125 years to re-address this issue. *Impression Products, Inc. v. Lexmark International, Inc.*¹⁵⁵ involved a patent holder, Lexmark, who held foreign and U.S. patents.¹⁵⁶ The patents covered printing cartridges. Impression Products bought used cartridges from consumers both in the U.S. and abroad, it refilled the ink in the cartridges, and resold them to consumers in the U.S.¹⁵⁷ Lexmark sued for patent infringement for the refurbishment of U.S.- and foreign-bought cartridges.¹⁵⁸

The Court made a two-part ruling. First, the Supreme Court ruled that Lexmark exhausted its patent rights by the time Impression Products purchased the U.S. cartridges.¹⁵⁹ Lexmark had a contractual agreement with some consumers who received a discount in exchange for their promise not to sell.¹⁶⁰ However, Lexmark did not have a contract with Impression Products and similarly situated refurbishers.¹⁶¹ Lexmark could not use patent law to enforce a no-resale clause.¹⁶² Once again, the Court pointed out the

149. 133 U.S. 697 (1890).

150. *Id.* at 698.

151. *Id.* at 699, 702.

152. *Id.* at 701–02.

153. *Id.* at 703.

154. *Id.*

155. 137 S. Ct. 1523 (2017).

156. *Id.* at 1529.

157. *Id.* at 1529–30.

158. *Id.* at 1530.

159. *Id.* at 1533.

160. *Id.* at 1530.

161. *Id.* (noting Lexmark's contractual agreements were exclusively with the initial customers, not with remanufacturers like Impression Products).

162. *Id.* at 1533.

issue of using patent law to enforce incomplete contracts.¹⁶³

Second, the Supreme Court ruled that Lexmark also exhausted its patent rights by selling the product abroad.¹⁶⁴ The Supreme Court distinguishes *Impression Products v. Lexmark* from *Boesch v. Gräff* through the decision to sell: Gräff held a patent in the U.S. and abroad, but it did not want to sell abroad, whereas Lexmark held a patent in both jurisdictions and wanted to sell in both jurisdictions.¹⁶⁵ The Supreme Court supported its argument by comparing the patent exhaustion doctrine to the copyright first sale doctrine.¹⁶⁶ The Court stated that while a patent rewards its holder by providing the right to exclude others, it does not guarantee that “the patentee receives a premium for selling in the United States.”¹⁶⁷ The (smaller) premiums the patentee receives in other jurisdictions already exhausted its right.¹⁶⁸

Justice Ginsburg disagreed with the majority.¹⁶⁹ She argued that: “[p]atent law is territorial. When an inventor receives a U.S. patent, that patent provides no protection abroad Accordingly, the foreign sale should not diminish the protections of U.S. law in the United States.”¹⁷⁰ In other words, she recognizes that patent holders may be offered less protection in other countries. This weaker protection diminishes the inventor’s ability to profit from its invention. This difference in protection incentivizes the patent holders to avoid a smaller royalty jurisdiction to enforce worldwide licenses.

Justice Ginsburg reprised the argument she made in *Kirtsaeng v. John Wiley & Sons, Inc.*¹⁷¹ when discussing the copyright first sale doctrine, and she re-enforced her argument by noting that, while copyright has been internationally harmonized, patent rights have not.¹⁷² In *Kirtsaeng*, she observed that other territories have different exhaustion doctrines — including the EU — “under which the sale of a copy anywhere within the

163. *Id.* at 1537 (“More is at stake when it comes to patents than simply the dealings between parties, which can be addressed through contract law.”).

164. *Id.* (holding patent exhaustion applies to foreign sales).

165. *Id.* at 1537.

166. *Id.* at 1536.

167. *Impression Products*, 137 S. Ct. at 1531, 1538.

168. *Id.* at 1537 (noting that exhaustion is triggered when a patent owner makes a foreign or domestic sale for any amount because it chose to give up the right to exclude the purchaser for a fee).

169. *Id.* at 1538 (concurring with the majority regarding domestic exhaustion but dissenting based upon international exhaustion).

170. *See id.* at 1538–39 (discussing how U.S. patents do not extend to other countries, so when the patents are sold abroad the U.S. laws should still protect the patent).

171. 568 U.S. 519 (2013).

172. *Impression Products*, 137 S. Ct. at 1538.

European Economic Area exhausts the copyright,” but not sales outside the region.¹⁷³

Thanks to this broad patent exhaustion doctrine, goods can already move more easily between foreign countries and the U.S., thereby negating the necessity for U.S.-negotiated worldwide licenses: SEP implementers need only obtain a license in one of the jurisdictions before the goods reach U.S. shores.¹⁷⁴ The next subsection discusses method patents, a type of patent often involved in modern standards.

2. Patent exhaustion limits the rent seeking ability associated with method patents

Besides contracts, patent holders might resort to other ways to extend their patent rights and control how the patented goods are sold.

First, a patentee might create a product that required the purchaser to carry out the last patented step to get a fully functional invention. As such, the patentee would claim that the incomplete invention did not amount to a (first) sale. Instead, the recipient of the incomplete invention would be a licensee under an implicit contract, not a purchaser who could dispose of it at will.

In *United States v. Univis Lens Co.*,¹⁷⁵ Univis Lens held a number of patents and licensed their uses to wholesalers and retailers.¹⁷⁶ Univis Lens collected royalties, commanded how lenses were finished, and imposed a resale price maintenance on all supply chain participants through licensing agreements.¹⁷⁷ The government challenged Univis Lens’ licensing practices on antitrust grounds: the government asserted that the patent did not address how the lenses were finished and as such, it could not control the sale of lenses once made.¹⁷⁸

The Supreme Court ruled that patent rights cannot be extended through incomplete processes: when an inventor lawfully sells an unfinished invention that embodies the essential patented features and that requires the purchaser to complete the last step in conformity with a patent, it transfers ownership, allows a license to practice the final stage of the patent procedure, and exhausts its patent.¹⁷⁹ The inventor can no longer “control the price at

173. *Kirtsaeng*, 568 U.S. at 575.

174. *Impression Products*, 136 S. Ct. at 1538–39 (2017).

175. 316 U.S. 241 (1942).

176. *Id.* at 244–45 (discussing how the corporation issued three classes of licenses to wholesalers, finishing retailers and prescription retailers).

177. *Id.* at 245–46.

178. *Id.* at 248.

179. *Id.* at 250–52.

which it may be sold either in its unfinished or finished form.”¹⁸⁰

This issue of incomplete product would resurface some seventy years later in the form of method patents.¹⁸¹ However, with method patents, this issue took a different meaning: more than one product are often necessary to practice the patented invention.¹⁸²

In *Quanta Computer, Inc. v. LG Electronics, Inc.*,¹⁸³ the U.S. Supreme Court faced such method patents. In this case, LG Electronics (LGE) held and licensed its patents to Intel Corp.¹⁸⁴ Intel made microchips that practiced the patent they licensed from LGE.¹⁸⁵ But to practice the patents (i.e. storing and retrieving data), a computer called

on multiple elements and microchips.¹⁸⁶ Some of these elements were not Intel-made and had not been licensed to practice LGE’s patents.¹⁸⁷ Quanta Computer made computers with Intel and non-Intel components.¹⁸⁸ LGE sued Quanta for infringement because the non-licensed components were practicing LGE’s patents.¹⁸⁹

The Supreme Court ruled that method claims were exhausted by the sale of the microchips.¹⁹⁰ Once more, the Court noted that LGE might have a breach of contract claim against Intel but not a patent infringement claim against Quanta.¹⁹¹

180. *Id.* at 251.

181. See *Business Method Patents*, IP WATCHDOG, <http://www.ipwatchdog.com/patent/business-method-patents/> (last visited Mar. 7, 2019) (discussing the history of method patents and their current requirements under U.S. federal law).

182. See *business-method patent*, BLACK’S LAW DICTIONARY (10th ed. 2014) (defining a business-method patent, or “method patent,” as “[a] U.S. patent that describes and claims a series of process steps that, as a whole, constitutes a method of doing business,” which necessarily requires that there be more than one product to practice the patented invention).

183. 553 U.S. 617, 625 (2008).

184. *Id.* at 621–23.

185. *Id.* at 623.

186. See *id.* 623–24 (stating that Quanta created and manufactured products that practiced LGE patents by using Intel products with other, non-Intel “memory and buses”).

187. See *id.* at 624.

188. See *id.* at 624–25.

189. See *id.*

190. *Id.* at 638 (“The authorized sale of an article that substantially embodies a patent exhausts the patent holder’s rights and prevents the patent holder from invoking patent law to control postsale use of the article.”).

191. See *id.* n.7 (“We note that the authorized nature of the sale to Quanta does not necessarily limit LGE’s other contract rights. LGE’s complaint does not include a breach-of-contract claim, and we express no opinion on whether contract damages might be available even though exhaustion operates to eliminate patent damages.”).

The Supreme Court's ruling in *Quanta Computer, Inc.* affects the enforcement of standards and FRAND cases discussed in this paper. Most patents associated with standard settings in the Information and Communication Technology industry are method patents.¹⁹² As such, the patent holders have to restructure their licensing agreements to account for patent exhaustion.

This interpretation of the patent exhaustion doctrine is not universal. In China, patent exhaustion doctrine does not apply to patented methods.¹⁹³ For example, in *Iwncomm v. Sony*,¹⁹⁴ the Beijing IP Court ruled that method patents were not exhausted by the sale of an article that substantially embodies the patent.¹⁹⁵ As such, patent holders must also adapt to different jurisdictions.

As discussed, the U.S. Supreme Court has, in a number of cases, noted that patent holders can more effectively create restrictions through contracts rather than through its patent rights.¹⁹⁶ The Supreme Court used the patent exhaustion doctrine to limit the rights granted to patentees and avoid issues related to incomplete contracts.¹⁹⁷

In *Quanta Computer, Inc.*, the policy argument that the Court presented mirrors the policy argument to support worldwide licenses — principally with respect to the free movement of patented products.¹⁹⁸ As the Supreme Court suggested, contracts, rather than patent law, should be used to resolve the issue of appropriate return on innovation because voluntary negotiations from worldwide licenses are better equipped to deal with the issue of the global movement of goods than a patchwork of different patent exhaustion

192. See Kate Gaudry & Tom Franklin, *Post-Alice Exam Stats in Software Art Units: A Bleaker Road*, LAW360 (Oct. 03, 2014, 9:39 AM), <https://www.kilpatricktownsend.com/~media/Files/articles/2014/Post-Alice%20Exam%20Stats%20In%20Software%20Art%20Units%20A%20Bleaker%20Road.ashx> (“business-method . . . patent applications, includ[e] many software applications focused, for example, on medical software, business crypto, anti-counterfeiting, fraud detection and electronic voting.”).

193. See Yangjin Li, *No Exhaustion Doctrine for “method-of-use” Patents* *Iwncomm v. Sony Decision in China*, TRUST IN IP (July 25, 2017), <https://trustinip.com/no-exhaustion-doctrine-for-method-of-use-patents-iwncomm-v-sony-decision-in-china/>.

194. *Xi'an Xi Dian Jie Tong Radio Network Co. v. Sony Mobile Communication (China) Co., Ltd* [*IWNComm v. Sony*], (Jing Zhi Min Chu Zi No. 1194 (Beijing Intellectual Property Ct. 2015) (China)).

195. *Id.*; see Thomas Cotter, *Translation of Abridged Version of IWNCOMM v. Sony Judgment*, COMP. PAT. REMEDIES (Apr. 8, 2017), <http://comparativepatentremedies.blogspot.com/2017/04/translation-of-abridged-version-of.html> (translation of *IWNComm v. Sony*).

196. See *Quanta Computer, Inc.*, 553 U.S. 637 n.7; *supra* Section III.A.

197. See *Quanta Computer, Inc.*, 553 U.S. 637 n.7.

198. See *id.* at 636–37.

doctrines.¹⁹⁹

The patent exhaustion doctrine offers mixed incentives to patent holders and implementers to negotiate worldwide FRAND licenses. On the one hand, SEP holders could refuse to negotiate a worldwide license and wait for the products to reach U.S. shores to ensure they avoid patent exhaustion and get that premium. On other hand, SEP holders could want to negotiate a worldwide license because they fear that an implementer enjoin their suit in the U.S. and attempt to take the suit in a lower premium jurisdiction. These issues are discussed in more details in the next section.

B. Global Movement of SEP Implementing Goods

Supply chains are global. A product might be designed in the U.S., manufactured in Korea, assembled in China, and sold in Europe. Without worldwide licenses, any step along this supply chain could be exposed to infringement claims. Two types of movement can be problematic: (1) the movement from unlicensed to licensed jurisdictions, and (2) the movement between licensed jurisdictions.

First, the movement from an unlicensed to a licensed jurisdiction creates a number of problems. Namely, the patent holder has not received any benefit abroad²⁰⁰ and can raise infringement claims or block the importation of the patented good. Additionally, infringement suits will eat into the patent holder's profits and blocking product imports can be difficult.²⁰¹ Both options require patent holders to spend more resources monitoring imports, and some imports may go undetected.

These issues arose in *Unwired Planet v. Huawei Technologies*.²⁰² Unwired Planet ("Unwired") raised the problems SEP licensor would face without worldwide licenses in the context of global trade and the movement of people.²⁰³ Huawei Technologies ("Huawei") manufactures its phones in Venezuela, where Unwired does not have any patents,²⁰⁴ where the IP regime has been called "inefficient and ineffective," and where there have not been any patents granted since 2007.²⁰⁵ If Unwired were to agree to a UK license

199. See *id.* (recommending that the parties look to the structure of the Licensing Agreement to determine the rights of each party).

200. *Impression Prod.*, 137 S. Ct. at 1538–39.

201. See, e.g., *Beverly Hills Fan Co. v. Royal Sovereign Corp.*, 21 F.3d 1558, 1571 (Fed. Cir. 1994) ("Economic loss occurs to the patent holder at the place where the infringing sale is made because the patent owner loses business there.").

202. *Unwired Planet Int'l, Ltd. v. Huawei Tech. Co.* [2017] EWHC (Pat) 711, [711] (Eng.).

203. See *id.* [1]–[4] (providing case background information).

204. *Id.* [539].

205. See Investment Climate Statements 2018 Venezuela, U.S. Dep't of State (July

only, unlicensed products may find their way into the UK.²⁰⁶ To account for these unlicensed imports and roaming consumers, Justice Birrs imposed a four percent increase on the UK licensing fee.²⁰⁷

While Justice Birrs' licensing fee increase may help avoid additional litigation, it creates other problems. Justice Birrs implicitly estimates that Unwired lost four percent of licensing fees because Huawei phones were used in the UK but purchased in a jurisdiction where Huawei does not have a license.²⁰⁸ Justice Birrs provides no statistical support to this estimate.²⁰⁹ Such uplift could under- or over-estimate the circulation of foreign unlicensed goods.²¹⁰ Therefore, without a *fair* compensation, patent holders could be under-incentivized to participate in the standard-setting process.²¹¹

Moreover, this uplift means that licensed users subsidized unlicensed users. This subsidy means that unlicensed users would pay a lower price for equipment than licensed users. The discrepancy between pricing abroad and at home makes arbitrage even more attractive. More arbitrage worsens the problem and decreases the SEP holders' revenues, which puts even more pressure on the standard setting-process.

Second, the movements from unlicensed to licensed jurisdictions may not be the standard-setting process's main concern. SEP holders may worry more about the movements from a licensed jurisdiction with court mandated low FRAND rate to the U.S.

The patent exhaustion doctrine offers some protection to U.S. importers. If, at any point along the supply chain, a supplier paid a licensing fee, then the importers should be protected from patent litigation under the patent

19, 2018), <https://www.state.gov/e/eb/rls/othr/ics/2018/wha/281787.htm> ("Venezuela's Intellectual Property Rights (IPR) regime remains inefficient and ineffective. . . . Venezuela ranked as one of the top 20 economies worldwide for unlicensed software and an estimated 87 percent of the software used in Venezuela in 2014 was unlicensed. . . . [The Autonomous Intellectual Property Service (SAPI)] has issued no new patents since 2007.").

206. *Unwired Planet Int'l, Ltd.* [2017] EWHC (Pat) 711, [615]–[17].

207. *See id.* [619] (showing that the patent exhaustion doctrine does not afford such protection in the other jurisdictions); *see also* *Impression Prod., Inc. v. Lexmark Int'l, Inc.*, 137 S. Ct. 1523, 1538–39 (2017) (Ginsburg, J., dissenting) (arguing that patents were territorial and U.S. patents do not grant protect abroad and foreign patents do not grant protection in the U.S. and that the patent exhaustion doctrine should follow the same principle).

208. *Unwired Planet Int'l, Ltd.* [2017] EWHC (Pat) 711, [619].

209. *See id.* [619] ("Absent any other figures, the parties would agree a simple percentage uplift on the total handset royalty to take it into account[;] I think a fair, reasonable uplift is [four percent].").

210. *See id.* [620]–[21] (showing the different margin of error that Huawei suggested).

211. *See id.* [622] ("The other issue is about the licensor's access to the licensee's information in the event an audit identifies an underpayment.").

exhaustion principles (under *Boesch v. Gräff* and *Lexmark*). In such situation, the U.S. SEP holders may already have received some benefits from the patent family.²¹² In *Lexmark*, the Supreme Court has stated patent rights do not guarantee a U.S.-level premium.²¹³ Therefore, a holder of such SEP family could be stuck with low court mandated royalty rate because of the patent exhaustion doctrine.

China has a different approach to FRAND terms.²¹⁴ Electronics are heavily produced in China, and, for the last decade, electronic standards have been at the center of numerous U.S. FRAND licensing disputes.²¹⁵ First, China focuses on national licenses terms in *Huawei v. InterDigital*.²¹⁶ Second, China has imposed low FRAND rates.²¹⁷ For a while, Chinese authority hoped that standards could be implemented royalty-free or for “‘significantly lower’ than the normal amount.”²¹⁸ While this policy is not written in official documents, it seems to have been implemented in *Huawei v. InterDigital*.²¹⁹ The Shenzhen Intermediate People’s Court set the FRAND rate that Huawei had to pay equal to InterDigital’s lowest contracted rate.²²⁰ If Huawei’s equipment made in China was imported to the U.S., a U.S. court following the *Lexmark* precedent could consider that InterDigital

212. See *Impression Prod.*, 137 S. Ct. at 1538–39 (differentiating between imports where the patent holders received some benefit from patent protection abroad and imports where the patent holders did not).

213. *Id.* at 1538.

214. Sokol & Zheng, *supra* note 123, at 315.

215. See RAMAN CHITKARA & JIANBIN GAO, CHINA’S IMPACT ON THE SEMICONDUCTOR INDUSTRY: 2016 UPDATE 5 (2017), <https://www.pwc.com/gx/en/technology/chinas-impact-on-semiconductor-industry/assets/china-impact-of-the-semiconductor-industry-2016-update.pdf> (explaining that China has about a third of worldwide production of electronics); see, e.g., *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1208 (Fed. Cir. 2014) (discussing Wi-Fi standards); *Apple, Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014) (discussing wireless standards); *Microsoft Corp. v. Motorola, Inc.*, 795 F.3d 1024, 1042–45 (discussing Wi-Fi and video standards); *Commonwealth Scientific and Industrial Research Organisation v. Cisco Systems, Inc.*, 809 F.3d 1295, 1297–99 (Fed. Cir. 2015) (discussing Wi-Fi standards).

216. *Id.* at 315–17.

217. *Id.*

218. *Id.* at 312.

219. Huawei Jishu Youxian Gongsi Su Jiaohu Suzi Tongxin Youxian Gongsi [Huawei Tech. Co. v. InterDigital Communications, Inc.] 2013 Yue Gao Fa Min San Zhong Zi No. 305 & 306 (Guangdong High People’s Ct. 2013) http://www.mlex.com/China/Attachments/2014-04-18_AXRC879FW8P38IO7/guangdonghpc_IDCh Huawei_S EP_18042014.pdf; ANJIE LAW FIRM, <http://en.anjielaw.com/downloadRepository/084d342a-0bc7-4592-a796-52e9b9f140ce.pdf> (last visited Feb. 5, 2019) (translating Huawei Tech. Co. v. InterDigital Communications, Inc.) [hereinafter Huawei Translation].

220. Huawei Translation, *supra* note 219, at 5–6.

exhausted its rights.²²¹

Those low court mandated royalties could disincentivize SEP holders to participate in the standard-setting process. Because of the patent exhaustion doctrine, China could become the most important jurisdiction when it comes setting FRAND licensing terms and royalty rates²²² — and SSOs everywhere.

IV. CONTRACTS AND POLICIES RE-ENFORCEMENT

The patent exhaustion doctrine has attempted to rein in patent holders' efforts to increase their power over purchasers of patented goods. In the same vein, FRAND attempts to rein in patent holders' market power post standard adoption through an ex-ante contractual commitment.

A. FRAND Commitments

Many scholars have debated about the meaning of FRAND commitments.²²³ All of the court cases described above view FRAND commitments as contracts where the standard implementer is a third-party beneficiary.²²⁴ The SSOs dictated the terms of these contracts. Most SSOs already required that the letters of assurance include the “worldwide”

221. *Id.*

222. D. Daniel Sokol & Wentong Zheng, *FRAND in China*, 22 TEX. INTELL. PROP. L.J. 71, 73 (“Because of the size of China’s economy, developments on FRAND in China potentially have global impact on FRAND rates and even the business models of innovative firms. The operation of market forces will result in globalization of the lowest rate set by a court or agency for a particular patent or patent portfolio in a major jurisdiction. China is such a jurisdiction. Consequently, if China is more influential, it will be because China will be inclined to set rates lower than other jurisdictions. In essence, what happens in China on FRAND now impacts decision-making in the boardrooms of Silicon Valley.”).

223. See e.g., J. Gregory Sidak, *The Meaning of FRAND, Part II: Injunctions*, 11 J. COMPETITION L. & ECON. 201, 206–07 (2015); Damien Geradin, *The Meaning of “Fair and Reasonable” in the Context of Third-Party Determination of FRAND Terms*, 21 GEO. MASON L. REV. 919, 921–22 (2014); J. Gregory Sidak, *The Meaning of FRAND, Part I: Royalties*, 9 J. COMPETITION L. & ECON. 931, 951 (2013); Roger G. Brooks & Damien Geradin, *Interpreting and Enforcing the Voluntary FRAND Commitment*, 9 INT’L J. IT STANDARDS AND STANDARDIZATION RES. 1, 6 (2011); Damien Geradin & Miguel Rato, *Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-Up, Royalty Hold-Up, Royalty Stacking and the Meaning of FRAND*, 3 EUR. COMPETITION J. 101, 114 (2007).

224. See e.g., *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 884 (9th Cir. 2012); *Unwired Planet Int’l, Ltd. v. Huawei Tech. Co.* [2017] EWHC (Pat) 711 [572] (Eng.); *Landgericht [LG] Jan. 8, 2016*, 7 O 96/14 (¶ 2) (Ger.); see also *Oberlandesgericht [OLG] May 5, 2017*, 6 U 55/16 (Ger.).

language.²²⁵ For example, in *Microsoft Corp. v. Motorola*,²²⁶ the letters of assurance promise that the patent holder may grant non-exclusive licenses on “a *worldwide basis* without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.”²²⁷

In courts, SEP implementers have tested the limit of so-called “worldwide” terms.²²⁸ Courts should not allow SEP implementers to pick and choose which part of the FRAND commitment they want enforced. If a standard implementer wants FRAND terms based on a third-party beneficiary theory, then the implementer would have to also agree on the other terms included in the letter of assurance such as *worldwide basis*. In *Unwired*, Justice Birss concluded that “[a local] portfolio license is not

225. See *Microsoft Corp. v. Motorola, Inc.*, 854 F. Supp. 2d 993, 996 (W.D. Wash. 2012) (stating that letters of assurance are required to include either a disclaimer restraining the patent holder from enforcing the “Essential Patent Claims,” or “a statement that a license for a compliant implementation of the standard will be made available to an unrestricted number of applicants on a worldwide basis”).

226. *Id.*

227. *Id.*; see *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823JLR, at *4 (W.D. Wash. Nov. 30, 2012) (order granting motion to dismiss Motorola’s claim for injunctive relief) (citing the IEEE letter of assurance; however, the typical ITU letter also provide for worldwide language); *id.* at 5–6. (“The Patent Holder will grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to use the patented material necessary in order to manufacture, use, and/or sell implementations of the above ITU-T Recommendation | ISOC/IEC International Standard.”).

228. See *Microsoft Corp.*, 854 F. Supp. 2d at 995–96 (remarking the offer made by Motorola for the Wi-Fi standard includes the worldwide language whereas the offered for the video standard does not); *id.* at 998 (noting that the letter for the license offer for the Wi-Fi standard states: “This letter is to confirm Motorola’s offer to grant Microsoft a *worldwide* non-exclusive license.”) (emphasis added); *id.* (comparing that letter with the offer letter for the video standard which states: “Motorola offers to license the patents on a non-discriminatory basis on reasonable terms and conditions (‘RAND’), including a reasonable royalty, of 2.25 [percent] per unit for each H.264 compliant product”); Mannheim Landesgericht [LG] [Regional Courts] May 2, 2012, RECHTSORECHUNG DER OBERLANDESGERICHTEN IN STRAßSACHEN [OLGSt] 1 (8) (Ger.), <http://www.scribd.com/document/94523005/Translation-of-Mannheim-20240-Ruling-Motorola-v-Microsoft> (last visited Mar. 10, 2018) (translating Motorola’s suit against Microsoft in Germany only based on the video standard); [OLGSt] 1 (11) (Ger.) (discussing the uncertainty of whether Motorola offered a worldwide license for its video portfolio by paraphrasing: “the Plaintiff’s parent company submitted to the Defendant’s parent company an offer, effective for 20 days, described as ‘RAND’ . . . to enter into an agreement for a worldwide, nonexclusive license for the portfolio.”); *Microsoft Corp.*, 854 F. Supp. 2d at 998 (quoting the offer without the worldwide language and explaining that a sophisticated licensor like Motorola would likely make license offers with different breath consciously); cf. *Microsoft Corp. v. Motorola, Inc.*, 795 F.3d 1024, 1056–57 (9th Cir. 2015) (confirming that Motorola breached its duty of good faith and fair dealing but the different language was not questioned).

FRAND.”²²⁹ He further noted that “the FRAND license between Unwired Planet and Huawei is a worldwide license.”²³⁰ SSOs need to echo clearly that sentiment in their policy documents: the term should be revised to be WFRAND — worldwide, fair, reasonable, and non-discriminatory.

In fact, FRAND commitments create obligations for both SEP holders and implementers.²³¹ Part of these obligations include a requirement that the SEP implementers communicate in good faith with the SEP holders, according to recognized industry standard.²³² Part of this recognized industry standard includes worldwide licenses. In *Pioneer v Acer*, the Mannheim Regional Court — the lower court — considered that a Germany-only license would not qualify as a FRAND offer because it failed to follow customary business practices.²³³ The court reasoned that an honest and royalty-willing negotiator will not respond to a license offer by the patent proprietor for a worldwide portfolio license with a counteroffer limited to Germany.²³⁴

As such, worldwide licenses should be part of anyone’s attempt to obtain a license under a FRAND license. While courts have enforced this standard, courts are not the correct venue to deal with these terms.

SSOs have an interest in promoting worldwide licenses because worldwide licenses encourage widespread adoption and create more network externalities. SSOs should make a better effort to promote this industry standard. They can ensure that all parties are educated about the benefits. They should ensure that implementers know that if they reject the worldwide aspect of the licensing commitment, they reject all aspect of the commitment including the reasonable licensing terms. SSOs should also petition with courts (through amicus briefs) to encourage courts to view the worldwide aspect of the license as part of the FRAND package.

B. Bundling & Patent Families

Antitrust authority could carve out an antitrust safety zone for bundled patents that are part of the same patent family. The DOJ and the FTC

229. *Unwired Planet Int’l, Ltd.* [2017] EWHC (Pat) 711, [807 (11)].

230. *Id.*

231. See, e.g., Landgericht Düsseldorf [LG] [Düsseldorf Regional Court] Nov. 20, 2014 RECHTSORECHUNG DER OBERLANDESGERICHE IN STRAFSACHEN [OLGSt] 1 (103(1)) (Ger.), <http://curia.europa.eu/juris/liste.jsf?num=C-170/13> (discussing the obligations of SEP holders and implementers during FRAND negotiations).

232. Pedro Henrique D. Batista & Gustavo Cesar Mazutti, Comment, *Huawei Technologies (C-170/13): Standard Essential Patents and Competition Law How Far Does the CJEU Decision Go?* 47 IIC-INT’L R. INTEL. PROP. & COMPETITION L. 244, 246 (2016).

233. OLGSt 330 (¶¶ 131–33) (Ger.).

234. *Id.* (¶¶ 132–33) (author translation).

published their guidelines on a regular basis.²³⁵ The DOJ and the FTC created an Antitrust Safety Zone in their Antitrust Guidelines “to provide some degree of certainty and thus to encourage such activity [as licensing].”²³⁶ They should create an explicit Safety Zone for tying patents that belong to the same patent family.

This Safety Zone would fall within their published Guidelines. The criterion put forth in the Guidelines is: “[a]bsent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement if (1) the restraint is not facially anticompetitive and (2) the licensor and its licensees collectively account for no more than twenty percent of each relevant market significantly affected by the restraint.”²³⁷

In the FRAND context, bundling patents that belong to the same family is not facially anticompetitive. The tying question may be moot in the patent family context. Justice Birss in *Unwired Planet v. Huawei Technologies* ruled that patents in the same family are different products because patents in a family may cover slightly different technologies.²³⁸ But these differences are a question of fact. Moreover, even if slightly different, they could be considered the same patent because they enable similar processes.²³⁹

Even if they were different products, these patents do not facially impede competition. Faced with a slightly different question, the Federal Circuit court established that bundling essential and non-essential patents was not a per se violation of antitrust laws.²⁴⁰ The Federal Circuit found that package patent licensing provided efficiencies and “reject[ed] the Commission’s conclusion that [SEP holder’s bundling] conduct showed a ‘lack of any redeeming virtue’ and should be ‘conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use.’”²⁴¹

In fact, in no case discussed above did the SEP implementers show that tying these different patents was anticompetitive or had anticompetitive

235. See U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, *supra* note 54 (providing 2017 guidelines).

236. *Id.* at 24.

237. *Id.*

238. *Unwired Planet Int’l, Ltd. v. Huawei Tech. Co.* [2017] EWHC (Pat) 711 [546] (Eng.).

239. *Id.* [546] (“A patent in one state is clearly separate from a member of the same patent family in another state However the way in which FRAND royalty rates are determined in practice treats these two distinct patents as a single thing.”).

240. *U.S. Philips Corp. v. ITC*, 424 F.3d 1179, 1193–97 (2005).

241. *Id.* at 1193 (internal citation omitted).

effects.²⁴² SEP holders do not gain a competitive advantage over their competitors because (in theory) they have no competitors for their patents because the patent is essential (i.e., without a work around).

Furthermore, FRAND commitments can be interpreted as a guarantee that any willing licensee has access to the patent on similar terms.²⁴³ As such, the worldwide license — even if it ties patents — would not have anticompetitive effects at the patented product level.

Alternatively, SSOs can work with the DOJ to signal that these worldwide licenses are not an antitrust violation. Any SSO can write a request for a business review letter, and the DOJ could clarify that such licenses do not violate the antitrust laws.²⁴⁴ Such a signal could encourage courts to adopt the same view and would avoid guess-work about the movement of goods and individuals to impose an appropriate uplift.

C. Worldwide License & Patent Exhaustion

In *Birdsell v. Shaliol*,²⁴⁵ the Supreme Court held that if an infringer paid damages for infringement and resold the machine, the patent holder could sue the purchaser of the machine because its patent rights had not been exhausted.²⁴⁶ The infringement damages did not exhaust the patent.²⁴⁷

However, court-imposed FRAND terms are not always damages. For example, in some FRAND cases, the SEP holders commit to grant a license;²⁴⁸ but in some cases, the (foreign) courts set what they consider

242. See *id.* at 1193–97; *Unwired Planet Int’l, Ltd. v. Huawei Tech. Co.* [2017] EWHC (Pat) 711 (Eng.), [787], [791] (rejecting that the SEP holder’s bundling or tying of SEPs and non-SEPs was unlawful).

243. See generally Gabison, *supra* note 2, at 114–23 (analyzing contextual and court interpretations of FRAND commitments as guarantees of licensee access to patents on similar terms).

244. See *supra* notes 38–40 and accompanying text (discussing how SSOs have consulted with the DOJ to ensure their policies did not violate antitrust laws); see also *Business Review Letters and Request Letters*, U.S. DEP’T OF JUSTICE, <https://www.justice.gov/atr/business-review-letters-and-request-letters> (last visited Feb. 5, 2019); *id.* (showing that the DOJ’s record goes as far back as 1991 and no letter since 1991 refers to these worldwide licenses); *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition*, DEP’T OF JUSTICE & FED. TRADE COMM’N 103–14 (Apr. 2007), www.usdoj.gov/atr/public/hearings/ip/222655.pdf (showing that the DOJ and FTC have in the past held hearings about the antitrust implications of intellectual property rights); *id.* at 103 (referring to tying and bundling intellectual property rights similarly to the guidelines but does not refer to worldwide licenses).

245. 112 U.S. 485 (1884).

246. *Id.* at 488–89.

247. *Id.* at 488.

248. See Gabison, *supra* note 2, at 102, 105, 118.

FRAND royalty rates.²⁴⁹

The U.S. Supreme Court has not been faced with needing to set FRAND royalty rates. When faced with the situation, the Court may need to clarify the patent exhaustion doctrine as applied to this context. Based on precedent, the Court should rule that any benefits drawn abroad or at home (under *Lexmark*) exhaust the patent rights of the holder if the benefits were extracted voluntarily (under *Boesch* and *Birdsell*). The reasoning is that, during voluntary negotiation, the SEP holder can control better what the uplifts must be to avoid arbitrage, which may not be a concern for courts setting FRAND royalty rates.

Therefore, the Court would avoid having to decide whether a court-mandated rate that is adjudged to be fair and reasonable in China would be fair and reasonable in the U.S. The Court would avoid having to determine whether the SEP holders may be better off having a lower worldwide rate rather than forgoing the Chinese market entirely to avoid having a low rate in other jurisdictions under patent exhaustion.

V. CONCLUSION

Worldwide licenses play an important role within the FRAND standard and the standard setting process. However, the attacks on this aspect of FRAND licenses should come as no surprise. SEP implementers have a lot to learn. By requesting national licenses, implementers increase the litigation and monitoring costs of SEP holders, which they can leverage into lower royalty rates. This form of rent-seeking should be construed as a holdout.

Forum-shopping remains an issue with worldwide licenses. SEP holders and implementers may seek the most favorable terms to their cause among the mosaic of FRAND term interpretations and attempt to impose these terms through worldwide licenses. But avoiding forum shopping does not warrant losing the efficiencies associated with worldwide licenses.²⁵⁰ The efficiencies these licenses offer should be protected — even from long-standing doctrines like the patent exhaustion doctrine.

249. See, e.g., Layne-Farrar & Wong-Ervin, *supra* note 26 (discussing how different judges have estimated FRAND royalty rates and damages, distinguishing the two).

250. Unwired Planet Int'l, Ltd. v. Huawei Tech. Co. [2018] EWCA Civ. 2344 (Eng.), [100]–[104] (considering the argument that avoiding forum shopping does not warrant losing the efficiencies associated with worldwide licenses, and finding that “a court in one country will decide, as between the parties, whether a global or multi-territorial license is FRAND but that is inevitable and we see nothing unfair about it, and it most certainly does not deprive a licensee from challenging the validity and essentiality of the SEPs in any jurisdiction where it may choose to do so.”).