Global Markets, Competition, and FRAND Royalties: The Many Implications of *Unwired Planet v. Huawei*

Jorge L. Contreras

The recent UK High Court decision in *Unwired Planet v. Huawei*[1] raises several questions regarding the manner in which national courts will assess the conduct of parties that operate in global product markets. In *Unwired Planet*, Mister Justice Colin Birss (UK High Court of Justice, Patents) assesses the royalties due on standard-essential patents (SEPs) subject to a FRAND (fair, reasonable and non-discriminatory) licensing commitment made to the European Telecommunications Standards Institute (ETSI). The ruling is important because it addresses, for the first time, several key issues arising from the international nature of SEP licensing transactions and the manner in which national court decisions can impact global business and litigation strategies. These issues have risen to prominence in recent years with the increasing assertion of SEPs by patent assertion entities (PAEs)[2] and the transfer of SEPs by producing firms to PAEs (a phenomenon sometimes referred to as privateering).[3]

In *Unwired Planet*, Justice Birss views the parties' dispute primarily through the lens of competition law, rather than as an exercise in contractual interpretation. In doing so, he holds that (1) there is but a single FRAND royalty rate applicable to any given set of SEPs and circumstances, (2) FRAND licenses for global market players are necessarily global licenses and should not be limited to a single jurisdiction, (3) neither a breach of contract nor a European competition law claim for abuse of dominance will succeed unless a SEP holder's offer is significantly above this FRAND rate, and (4) the "non-discrimination" (ND) prong of a FRAND commitment does not imply a "hard-edged" test in which a licensee may challenge a FRAND license solely on the basis that another similarly situated licensee has been granted a lower rate, so long as the difference does not distort competition between the two licensees. Justice Birss also develops two alternative methodologies for determining the applicable FRAND royalty rate: one based on comparable licenses and one based on a top-down allocation approach. This article analyzes and assesses the implications of *Unwired Planet* on firms operating in global markets today.

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1 [2017] EWHC 711 (Pat) (Apr. 5, 2017).

2 *See, e.g.*, Jorge L. Contreras, Fabian Gaessler, Christian Helmers, and Brian Love, *Litigation of Standards-Essential Patents in Europe: A Comparative Analysis*, 32 Berkeley Tech. L.J. (forthcoming 2017) (describing SEP assertions in UK and Germany, noting high levels of assertion by NPEs); Jorge L. Contreras, *When a Stranger Calls: Standards Outsiders and Unencumbered Patents*, 12 J. Competition L. & Econ. 507 (2016) [hereinafter Contreras, *Stranger*] (describing high levels of SEP assertion in U.S. litigation).

3 *See, e.g.*, D. Daniel Sokol, *Patent Privateering: The Rise of Hybrid Patent Assertion Entities*, *in* Patent Assertion Entities and Competition Policy, ch. 5 (D. Daniel Sokol, ed. 2017); Erik Hovenkamp & Thomas F. Cotter, *Anticompetitive Patent Injunctions*, 100 Minn. L. Rev. 871 (2016); Florian Mueller, *Ericsson's Pseudo-Sale of Patents to Unwired Planet and the Rampant Problem of Privateering*, FOSS Patents (Apr. 21, 2015), http://www.fosspatents.com/2015/04/ericssons-pseudo-sale-of-patents-to.html.

Background

The case arose in 2014 when Unwired Planet, a U.S.-based patent assertion entity, sued Google, Samsung, and Huawei for infringement of six UK patents.[4] Unwired Planet claimed that five of the asserted patents, which it acquired from Ericsson in 2013 as part of a portfolio of more than 2000 patents and patent applications,[5] were essential to the 2G, 3G, and 4G wireless telecommunications standards developed under the auspices of ETSI. Because Ericsson participated in development of the standards at ETSI, any patents shown to be SEPs would necessarily be encumbered by Ericsson's FRAND commitment to ETSI.[6]

The UK proceedings called for five "technical trials," which would determine whether each of the asserted patents was valid, infringed, and essential to the ETSI standards. After three technical trials were held,[7] the parties agreed to suspend further technical proceedings. In October 2016 a "non-technical" trial began regarding issues of competition law, FRAND, injunction, and damages. Hearings were concluded in December 2016, and the court's opinion and judgment were issued on April 5, 2017. A further decision by the court imposing an injunction against Huawei (stayed pending appeal) was rendered on May 19, 2017.[8]

The principal questions before the court in its April 2017 decision were: (1) the level of the FRAND royalty for Unwired Planet's SEPs, (2) whether Unwired Planet abused a dominant position in violation of Article 102 of the Treaty on the Functioning of the European Union (TFEU) by failing to adhere to the procedural requirements for FRAND negotiations outlined by the European Court of Justice (CJEU) in *Huawei v. ZTE*,[9] and (3) whether an injunction should be issued in the case.

Two overarching themes emerge from the Court's analysis: (a) the tension between the contract-based origins of the FRAND commitment and an analysis that is rooted primarily in competition law, and (b) the impact of a national court decision on the inherently international business relationship of the parties. I discuss the major holdings of the case in terms of these two themes below.

Contract versus Competition Paradigms for FRAND Analysis

A Single FRAND Rate. In an earlier case, *Vringo v. ZTE*,[10] Justice Birss considered the possibility that a SEP holder and a standard implementer could each make the other a FRAND licensing offer, resulting in two competing FRAND offers or, alternatively, a range of possible royalty rates that

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4 Corresponding actions were filed in Germany.

5 *See Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 64; Master Sale Agreement dated Jan. 10, 2013 between Telefonaktiebolaget L M Ericsson and Cluster LLC, et al., https://www.sec.gov/Archives/edgar/data/1082506/000119312513012058/d466328dex102.htm.

6 The court reaches this conclusion without discussion, citing Article 6.1bis of the ETSI IPR policy, which notes that an ETSI participant's FRAND undertaking "should be binding on successors in title." *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 87(i).

7 During these proceedings Google and Samsung settled with Unwired Planet and Ericsson (which receives a portion of the licensing and settlement revenue earned by Unwired Planet from the patents), leaving Huawei as the sole UK defendant. By April 2016 three of the technical trials had been completed, resulting in findings that two of the asserted patents were invalid and that two were both valid and essential to the standards. Several of these findings are currently under appeal. The appeal of the first technical trial ([2015] EWHC 3366 (Pat)) resulted in a finding that Unwired Planet's UK Pat. 2,229,744 was valid. Unwired Planet Intl. Ltd. v. Huawei Techs. Co. Ltd., [2017] EWCA Civ 266 (Apr. 12, 2017).

8 [2017] EWHC 1304 (Pat) ¶ 70i (June 7, 2017). The injunction is designed to dissolve at such time as Huawei enters into a license agreement on the terms prescribed by the court.

9 Case C-170/13 (July 16, 2015).

10 [2013] EWHC 1591 (Pat) and [2015] EWHC 214 (Pat).

could qualify as FRAND. In *Unwired Planet*, Justice Birss reconsiders this possibility, reasoning that it is better to maintain, as a matter of law, that there is but a *single* royalty rate that qualifies as FRAND for any given set of SEPs and products.[11] This conclusion also appears to have been supported by the economic experts in the case.[12]

From a practical standpoint, the single-rate approach solves several problems, including how to evaluate the conduct of the parties from a competition law standpoint. In rejecting the parties' objections to this approach, Justice Birss makes two additional observations. First, if there is but a single value for the FRAND royalty, it is likely that parties, in private bilateral negotiations over SEP licenses, will agree on a royalty rate that *differs* from this precise value. This difference does not, however, open up every negotiated agreement to a FRAND-based challenge, as the parties are free to agree on any royalty they wish, within the constraints of competition law.[13]

In essence, the court holds that while the FRAND rate is precise, the conditions under which it may be enforced are fuzzy.

In essence, the court holds that while the FRAND rate is precise, the conditions under which it may be enforced are fuzzy. For example, it is likely that the parties will usually "miss" the single FRAND rate when making offers and counteroffers to one another. Thus, the relevant question is when a party should be penalized for missing this rate. Would it be acceptable for a SEP holder to miss the rate by 0.5 percent? By 5 percent? By 25 percent or 50 percent? Justice Birss tells us very little about the margin of error by which missing the single FRAND rate could or should result in some penalty. The single-rate approach results in a number of additional logical hurdles with respect to the SEP holder's initial offer to the implementer and how to assess the SEP holder's compliance with competition law.

For example, it has long been a point of debate whether a FRAND commitment requires a SEP holder to *offer* FRAND licensing terms to a potential licensee or actually to *enter* into a license agreement on FRAND terms.[14] Under the single-rate approach, there is only one answer to this question: the FRAND constraint must apply to the final, negotiated rate, not to either party's initial offer (unless no negotiation is allowed at all).[15] Otherwise, Justice Birss reasons, a SEP holder making an initial offer that actually is FRAND would be condemned, given the normal process of negotiation, "to always end up with negotiated rates below a FRAND rate."[16] Under this reasoning, it would seem that a SEP holder would be justified in making an initial offer *above* the FRAND rate, so that the final negotiated rate ended up being FRAND. This approach seems a risky one, as SEP holders may not always negotiate a rate downward, particularly when they use a standard set of rates (which is advisable given the non-discrimination commitment that also makes up part of a FRAND commitment, as discussed below). Thus, ironically, the single-rate approach, which does not constrain a SEP holder's initial offer, could ultimately result in higher (and supra-FRAND) SEP licenses.

The single-rate FRAND approach adopted in *Unwired Planet* is conceptually different than the approach developed by Judge James Robart in *Microsoft Corp. v. Motorola, Inc.*[17] There, the court

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11 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 806(4).

12 *Id.* ¶ 148.

13 *Id.* ¶ 155.

14 *See* Jorge L. Contreras, *A Market Reliance Theory for FRAND Commitments and Other Patent Pledges*, 2015 UTAH L. REV. 479, 497–98 (2015) [hereinafter Contreras, *Market Reliance*] (discussing distinction between "process obligations" and "content obligations").

15 In some situations, such as licensing by patent pools, patent holders may not entertain any negotiation of their offered license rates.

16 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 159.

17 963 F. Supp. 2d 1176 (W.D. Wash. 2013).

determined a FRAND *range* to assess whether the SEP holder complied with its duty of good faith and fair dealing under applicable law. Then, in setting a final royalty, the court picked a specific rate within the allowable range. At the end of the day, picking a single rate with an allowable margin of error could yield the same result as picking a royalty range. My discomfort with the single-rate approach is rooted in the contractual origin of the FRAND commitment. Could one really say that standards-development organization (SDO) participants, in committing to license their SEPs at FRAND rates, envisioned that only a single, precise rate would qualify as FRAND? The very notions of fairness and reasonableness imply some degree of flexibility, rather than arithmetic precision. The single-rate construct thus seems removed from the reality of private negotiation. After all, no SDO policy of which I am aware states that a SEP holder must grant a license at a rate that is FRAND *or somewhat close to FRAND*. Rather, such policies state that rates must be FRAND, implying that some allowable range is contemplated. Thus, while the single-rate approach may make the court's job easier, it appears to depart from the conceptual underpinnings giving rise to FRAND commitments.

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It is notable that Justice Birss, in developing his reasoning around the single-rate approach, does not really dwell on the intent or expectations of ETSI participants. Rather than contract, his approach is grounded largely in competition law. That is, the SEP holder will not be faulted for deviating from the FRAND rate unless that deviation contravenes competition law.[18] In fact, he goes so far as to say that "there is no reason why the [FRAND] undertaking should entitle either party subsequently to challenge agreed terms as being non-FRAND absent competition law considerations."[19] He thus eliminates, for all practical purposes, any contractual interpretive element from his analysis. This approach may make sense in this case, given that Unwired Planet itself never participated in the ETSI standards development process. Yet unmooring the FRAND commitment from its contractual origins has other potentially problematic effects throughout the decision, as discussed below.

The FRAND Negotiation Process. In *Huawei v. ZTE*, the CJEU established a set of procedures that a SEP holder must comply with when negotiating a FRAND license in order to avoid a finding that it abused its dominant position under TFEU Article 102, among which, an important one is that, a SEP holder must make an initial FRAND offer to a potential licensee. However, under Justice Birss's reasoning that there is only a single FRAND rate in a given transaction, requiring the SEP holder to offer this rate at the outset would not be reasonable. Thus, Justice Birss concludes that it would *not* be an abuse of dominance under TFEU Article 102 or the CJEU's holding in *Huawei v. ZTE* for a SEP holder to offer a rate that is different from the precise FRAND rate, so long as it is not *excessively* so.[20] That is, an abuse of dominance will not be found unless an offer "is so far above FRAND as to act to disrupt or prejudice the negotiations themselves."[21] While this standard, rooted in competition law principles, has the ring of fairness to it, the standard is not easy for parties to apply. In fact, the only way to know, definitively, whether an offer is excessively high is to go to court. The uncertainty introduced by subjective standards such as these emerges again in the context of the non-discrimination prong of FRAND, discussed below.

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18 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 155.

19 *Id.*

20 *Id.* ¶ 153.

21 *Id.* ¶ 765.

In *Unwired Planet*, Justice Birss also addresses the potential implementer's behavior in the negotiation over a FRAND license. He reasons that even though potential implementers are not necessarily bound by the undertakings required by SDOs (assuming that they are not SDO members), implementers must still negotiate fairly if they wish to take advantage of the SEP-holder's SDO-imposed commitment to grant them a license on FRAND terms.[22] Thus, if an implementer engages in deliberate delay tactics or other unreasonable behavior to avoid entering into a license and thus paying royalties (behavior often referred to as hold-out or reverse hold-up), a SEP holder might be within its rights to stop offering a license to the implementer and instead assert its SEPs (including by seeking an injunction).[23] Moreover, Justice Birss views holdout behavior by an implementer as relevant in determining whether, from a competition law standpoint, the SEP holder possesses a dominant position, thereby permitting the SEP holder to seek an injunction to prevent infringement.[24] Interestingly, however, Justice Birss reasons that evidence of implementer holdout is really only relevant *before* pricing discussions begin. "Once prices are discussed a delay may just be due to a licensor asking for too much money."[25]

Non-Discrimination (ND). The ND prong of the FRAND commitment is important but has received far less attention from courts and commentators than other issues. Justice Birss devotes substantial attention to the non-discrimination arguments made by the parties, and develops some novel theories in doing so.

There is general consensus (including among the experts in this case) that in order to comply with the non-discrimination prong of the FRAND commitment, a SEP holder must treat "similarly situated" licensees in a similar manner.[26] Several commentators have understood this constraint to allow a SEP holder to charge different royalty rates to implementers based on their size or market share (often with the understanding that larger players are likely to sell more licensed products and thus pay higher levels of royalties). Justice Birss, however, reasons that a FRAND royalty rate should be set based on the value of the licensed patents, not on the size or other characteristics of the licensee.[27] Thus, "all licensees who need the same kind of licence will be charged the same kind of rate" and "[s]mall new entrants are entitled to pay a royalty based on the same benchmark as established large entities."[28] This analysis, even though presumably based on a contractual/textual interpretation of the ETSI policy establishing the FRAND commitment, seems to rely primarily on competition law considerations. This is particularly striking with respect to Justice Birss's emphasis on creating a level playing field for small market entrants, a concern of competition law and competition regulators but not necessarily of SDOs.

Nevertheless, after bolstering the SEP holder's ND commitment by prohibiting size-based discrimination, Justice Birss weakens it in a surprising turn of logic. He asks what happens if, after the FRAND rate is agreed between a SEP holder and an implementer, the implementer discovers that the SEP holder has granted more favorable terms to other "similarly situated" implementers.

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22 *Id.* ¶ 160.

23 *Id.*

24 *Id.* ¶ 806(12).

25 *Id.* ¶ 667.

26 *Id.* ¶ 485; *see generally* Richard J. Gilbert, *Deal or No Deal? Licensing Negotiations in Standard-Setting Organizations*, 77 ANTITRUST L.J. 855 (2011); Dennis W. Carlton & Allan L. Shampine, *An Economic Interpretation of FRAND*, 9 J. COMPETITION L. & ECON. 531 (2013).

27 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 175.

28 *Id.* ¶¶ 175, 806(8).

Has the SEP holder violated its commitment of nondiscrimination? May the aggrieved implementer sue to reform its license and thereby obtain a lower royalty rate? Justice Birss, surprisingly, answers all of these questions in the negative. In the court's view, a SEP licensee cannot challenge a license granted on FRAND terms if it later discovers that a similarly-situated licensee is paying a lower royalty rate for the same patents *unless* the difference would "distort competition" between the two licensees.[29] In reaching this conclusion, Justice Birss rejects the notion that the ND prong of FRAND implies a "hard-edged" obligation that places an absolute ceiling on the rate that a SEP holder may charge.[30] He justifies this conclusion under a competition law rationale, noting that a competition law violation would not occur without a competitive distortion.[31] This reasoning, however, seems to conflate the competition law effects of violating a FRAND commitment and the private "contractual" meaning of the FRAND commitment itself.

From a contractual standpoint, it is not clear how allowing a licensor to discriminate among its licensees could be said to comply with a non-discrimination requirement. That is, if an SDO's participants commit not to discriminate in granting licenses, then, other than de minimis differences in royalty rates, discrimination ought not to be allowed. This being said, many FRAND commitments do not impose unmitigated non-discrimination obligations. For example, the American National Standards Institute (ANSI) requires ANSI-accredited SDOs to require their participants to grant licenses on reasonable terms and conditions that are "demonstrably free of any *unfair* discrimination."[32] In these cases, discrimination among licensees is permitted, so long as it is not unfair. And while the meaning of "unfair" in this context is far from settled, it is at least clear that *some* flexibility is allowed to licensors to vary the terms of their licenses, even among similarly situated licensees.

But ETSI, whose policy is at issue in *Unwired Planet*, does *not* allow such flexibility in its non-discrimination covenant. Rather, ETSI requires that its participants grant licenses on "fair, reasonable and non-discriminatory" terms and conditions.[33] The requirement of non-discrimination is not mitigated by fairness or materiality. It is an absolute requirement. Therefore, while a competition law violation might not arise absent some distortion to competition, the underlying contractual meaning of FRAND, at least in the context of the ETSI policy at issue in *Unwired Planet*, seems to impose a stricter definition of non-discrimination than that determined by the court. Accordingly, it is hard to reconcile the court's conclusion that non-discrimination here lacks a "hard edge," at least when considering the contractual nature of this particular commitment. This step seems to take the competition framework too far, as it would allow individual competitors to be disadvantaged (i.e., by paying higher royalties) so long as competition itself is not distorted. Again, there

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[29] *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 501.

[30] The court denied Huawei permission to appeal this aspect of the ruling. [2017] EWHC 1304 (Pat) ¶ 64 (June 7, 2017).

[31] Mark Patterson closely examines the economic assumptions underlying the court's finding that no competitive harm likely resulted from the lower royalties enjoyed by Samsung as compared to Huawei. He notes that "if Samsung's rate were half of Huawei's, the difference would be about one-half or more of Huawei's profits. Surely one could infer competitive harm from that difference." Mark R. Patterson, *Teasing Through a Single FRAND Rate*, PATENTLY-O (Apr. 20, 2017), https://patentlyo.com/patent/2017/04/patterson-teasing-through.html.

[32] AM. NAT'L STANDARDS INST., ANSI ESSENTIAL REQUIREMENTS: DUE PROCESS REQUIREMENTS FOR AMERICAN NATIONAL STANDARDS § 3.1.1(b), at 11 (2017) (emphasis added).

[33] EUROPEAN TELECOM. STANDARDS INST., RULES OF PROCEDURE § 6.1 (Mar. 20, 2013 and Apr. 5, 2017).

are systemic reasons that this result may be desirable, but one must ask how closely it reflects the intentions of the parties that implemented the FRAND policy in question.[34]

National Law and Global Business

Enforceability of FRAND Commitments. FRAND commitments in standard setting arise from voluntary undertakings made by participants in the standards-development process, largely in response to written policies adopted by SDOs. There is considerable academic debate regarding the legal treatment of these commitments, and whether they can and should be enforceable as contractual commitments—not by the SDO, but by third party implementers of the SDO's standards.[35] ETSI, one of the principal global SDOs, is chartered under French law, and French legal principles govern its membership and policy documentation.[36] However, it is not clear whether or how this fact should affect cases in other countries. For example, in recent cases involving ETSI standards, several non-French courts, particularly in the United States, have studiously avoided any deep engagement with French law in considering these questions. The most notable instance of such evasion occurred in *Apple, Inc. v. Motorola Mobility, Inc.*,[37] in which the trial judge concluded that French law "requires the same general elements" as Wisconsin law, and made little effort to apply anything other than local law to the case.[38]

Justice Birss, by contrast, undertakes a thorough analysis of French statutory law as applied to ETSI's FRAND commitments, thoughtfully probing the arguments of both parties' experts.[39] However, while he concedes that, as a theoretical matter, "the enforceability of the FRAND undertaking in French law is not a clear cut question,"[40] he adopts the pragmatic view that FRAND commitments should in any event be viewed as "public, irrevocable and enforceable" on grounds of public policy, if nothing else.[41] This view supports the international nature of the standard-setting marketplace. While every SDO must, by necessity, be situated in a particular physical location, the national laws governing the SDO's operations should not undermine the expectations and commitments of the SDO's participants. Where, as here, the participants in ETSI intended their public licensing commitments to be binding, these commitments should be taken seriously, notwithstanding potential loopholes in national law.

FRAND Royalty Methodology. Perhaps the most significant aspect of Justice Birss's opinion in *Unwired Planet* is his painstaking calculation of a "benchmark" FRAND royalty applicable to the parties' transaction. He offers two possible methods of calculating this royalty, one based on an

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[34] *But see* Peter Picht, *Unwired Planet/Huawei: A Seminal SEP/FRAND Decision from the UK*, (Max Planck Inst. for Innovation & Comp. Research Paper No. 17-07 at 21 (2017)) (arguing that Justice Birss favors a contractual approach, at least more than his judicial counterparts, for example, in Germany).

[35] *See* Contreras, *Market Reliance*, *supra* note 14, at 508–15 (discussing and questioning third-party beneficiary theory as applied to contractual FRAND commitments).

[36] European Telecom. Standards Inst., ETSI Rules of Procedure, Sec. 12—Law and Regulation ("The POLICY shall be governed by the laws of France.").

[37] 886 F. Supp. 2d 1061 (W.D. Wis. 2012).

[38] *Id.* at 1083.

[39] *Unwired Planet*, [2017] EWHC 711 (Pat) ¶¶ 98–146.

[40] *Id.* ¶ 146.

[41] *Id. See also* Contreras, *Market Reliance*, *supra* note 14, at 486–90 (discussing inherently public nature of FRAND commitments), and Jorge L. Contreras, *From Private Ordering to Public Law: The Legal Frameworks Governing Standards-Essential Patents*, 30 Harv. J.L. & Tech. 211 (2017) (making case for public character of standard-setting).

analysis of comparable license rates, the other based on a top-down analysis of the total aggregate royalty that should be attributable to the standards at issue. Both of these methods are discussed in greater detail below. But before addressing his analytical methodology, it is worth highlighting two significant departures that Justice Birss makes from the U.S. cases that have previously calculated FRAND royalty rates. First, the court in *Unwired Planet* makes no reference to the 15-factor *Georgia-Pacific* framework for calculating "reasonable royalty" patent damages,[42] which U.S. courts sometimes feel compelled to apply despite the fact that a FRAND royalty calculation is in effect a contractual mechanism and not a remedial damages calculation.[43] Without the baggage of *Georgia-Pacific* to clutter the analytical exercise, Justice Birss can focus on the actual task at hand: computing the value of the patented technology as compared to the standard and product at issue.[44]

In addition to Georgia-Pacific*, Justice Birss rejects another touchstone of U.S. FRAND analysis: the notion that a FRAND royalty should reflect the ex ante value of the patented technology, without considering any value attributable to the adoption of the technology in a standard.*

In addition to *Georgia-Pacific*, Justice Birss rejects another touchstone of U.S. FRAND analysis: the notion that a FRAND royalty should reflect the *ex ante* value of the patented technology, without considering any value attributable to the adoption of the technology in a standard. This theoretical construct, which has its basis in economic analysis, has been adopted by scholars,[45] regulatory agencies,[46] and courts in the United States.[47] This position has, however, come under increasing criticism by commentators, who advocate awarding at least part of the value of standardization to the SEP holder.[48] In rejecting the *ex ante* valuation approach, Justice Birss acknowledges that he is departing from the decisions of U.S. courts in cases such as *Innovatio* and *Ericsson v. D-Link*.[49] In the end, however, he notes that the point is moot, as neither party pressed the use of this approach.

Joining several judges in the United States, Justice Birss relies heavily on comparable license agreements to determine a FRAND royalty. While the use of comparable licenses has been criticized on the basis that most licenses are not really comparable at all,[50] the fact that Unwired Planet obtained each of the asserted patents from Ericsson was convincing proof that at least Ericsson's licenses would be sufficiently comparable to what Unwired Planet would have negotiated.[51] Indeed, Justice Birss finds that most other licenses (i.e., those not involving Ericsson) were not

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42 Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), *modified and aff'd*, 446 F.2d 295 (2d Cir. 1971).

43 *See* Jorge L. Contreras & Richard J. Gilbert, *A Unified Framework for RAND and other Reasonable Royalties*, 30 Berkeley Tech. L.J. 1451 (2015) (criticizing use of Georgia-Pacific framework for FRAND royalty analysis); Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1230 (Fed. Cir. 2014) ("[W]e have never described the *Georgia-Pacific* factors as a talisman for royalty rate calculations").

44 U.S. courts are generally in agreement that this "incremental" value should form the basis for the FRAND royalty. *See* Microsoft Corp. v. Motorola, Inc., 963 F. Supp. 2d 1176 (W.D. Wash. 2013), *aff'd*, 795 F.3d 1024 (9th Cir. 2015); Ericsson, 773 F.3d 1201.

45 *See, e.g.*, Carlton & Shampine, *supra* note 26, at 536–37; Joseph Farrell, et al., *Standard Setting, Patents, and Hold-Up*, 74 Antitrust L.J. 603, 610 (2007).

46 Fed. Trade Comm'n, The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition 22–23 (2011) ("A definition of RAND based on the ex ante value of the patented technology at the time the standard is chosen is necessary for consumers to benefit from competition among technologies to be incorporated into the standard").

47 *Ericsson v. D-Link*, 773 F.3d at 1232.

48 *See, e.g.*, Norman V. Siebrasse & Thomas F. Cotter, *The Value of the Standard*, 101 Minn. L. Rev. 1159 (2017); J. Gregory Sidak, *Apportionment, FRAND Royalties, and Comparable Licenses after* Ericsson v. D-Link, 2016 U. Ill. L. Rev. 1809 (2016).

49 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 97.

50 *See, e.g.*, Jonathan S. Masur, *The Use and Abuse of Patent Licenses*, 110 Nw. U. L. Rev. 115 (2015). *But see* Colleen Chien & Eric Schulman, *Patent Semi-Comparables*, 25 Tex. Intell. Prop. L.J. (forthcoming 2017) (arguing that many license comparisons may be useful in patent royalty calculations, even if facts are not identical from transaction to transaction).

51 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 180.

suitable comparables. These observations may provide useful guidance for other courts evaluating FRAND licenses in privateering transaction where parts of a portfolio are sold or given to new entities in an attempt to increase monetization of a portfolio.[52] Specifically, it may be that the best (and only) comparable licenses are those entered into by the original SEP holder.

Another important implication is that if a SEP holder enters into licenses and then sells the SEPs, the SEPs remain subject to the FRAND commitment itself, and the terms of the prior holder's licenses are relevant for purposes of analyzing non-discrimination. This is particularly relevant for cases involving patent transfers. Accordingly, after identifying an appropriate set of comparable Ericsson licenses, Justice Birss reasons that the appropriate FRAND royalty rate for Unwired Planet's 2G/3G/4G SEP portfolio should be the rate charged by Ericsson for its 2G/3G/4G SEP portfolio, scaled down to represent the relative strength of Unwired Planet's smaller portfolio.[53] Using these inputs, he calculates the benchmark FRAND rates for Unwired Planet's portfolio in Major Markets[54] as follows:

a) 4G/LTE: 0.062% for handsets, and 0.072% for infrastructure;

b) 3G/UMTS: 0.032% for handsets, and 0.016% for infrastructure;

c) 2G/GSM: 0.064% for handsets, and 0.064% for infrastructure.[55]

While this calculation results (as shown below) in a FRAND rate that is validated through other methods, it is questionable whether this methodology (which is dependent on having a comparable license under which the asserted SEPs were previously licensed) has significant applicability to cases that do not involve privateered SEPs. That is, FRAND rates in cases such as *Microsoft v. Motorola* and *Ericsson v. D-Link* could not have been calculated as simply or reliably as the rate in *Unwired Planet* because there did not exist an original SEP owner that sold a subset of its SEPs to the licensor in the case. *Unwired Planet* is a rare case with a focus on non-discrimination and a clear comparable. The straightforward apportionment of a fraction of the overall Ericsson portfolio to Unwired Planet would not have worked when Motorola or Ericsson itself was the asserting SEP holder. As such, the court in *Unwired Planet* may simply have been the beneficiary of good luck in having at hand such a clear set of comparable licenses.[56]

But even if the court's reasoning in *Unwired Planet* is useful primarily in privateering cases, it may still offer some vauable general lessons. First, privateering appears to be a significant trend in certain SEP-intensive industries, as an increasing number of operating companies that were or are active in standards development are transferring SEPs to PAEs for enforcement. One recent study found that 77 percent of all U.S. assertions of SEPs covering seven widely-adopted interoperability standards between 2000 and 2015 were made by non-practicing entities.[57] A similar

52 *See supra* note 4 and accompanying text.

53 *Unwired Planet*, ¶¶ 807(4), (7).

54 The court held that Major Markets are those in which Unwired Planet held more than two or three SEPs covering a particular standard. Based on this analysis, the following countries were found to constitute Major Markets for at least one of the standards at issue: France, Germany, India, Japan, UK, United States, Canada, Italy, Spain, Taiwan, Ireland, Netherlands, New Zealand, Switzerland, Argentina, Australia, and South Korea. *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 587.

55 *Id.* ¶ 807(8).

56 That being said, the individual circumstances of a case are always key to resolving it, and similar good fortune (the availability of patent pools covering the standards at issue) played a significant role in establishing comparable license rates in *Microsoft Corp. v. Motorola, Inc.*, 963 F. Supp. 2d 1176 (W.D. Wash. 2013), *aff'd*, 795 F.3d 1024 (9th Cir. 2015). *See* Jorge L. Contreras, *That's What RAND Means? A Brief Report on the Findings of Fact and Conclusions of Law in* Microsoft v. Motorola, PATENTLY-O (Apr. 27, 2013).

57 Contreras, *Stranger*, *supra* note 2, at 528.

study found significant levels of SEP assertion by non-practicing entities in Germany and the United Kingdom.[58] Given this trend, there has been concern that privateering transactions could result in an inflation of the overall royalty burden associated with large SEP portfolios.[59] In 2016, Apple alleged that Nokia, the holder of a large SEP portfolio covering wireless telecommunications standards, conspired with Acacia and other PAEs to divide Nokia's SEP portfolio so as to inflate Apple's (and other licensees') overall royalty burden in violation of both Nokia's applicable FRAND commitment and U.S. antitrust law.[60] But if courts followed the reasoning of Justice Birss in *Unwired Planet* and benchmarked the royalty due to a privateer on the licenses granted by the original SEP holder, this risk would be reduced.

In addition to the comparables method, Justice Birss uses a second FRAND calculation methodology as a "cross-check."[61] It is a "top down" or "aggregate royalty burden" approach, in which the aggregate royalty attributable to a standard under all SEPs is computed and then allocated to the SEP holder asserting patents in the suit. This approach has been advocated by some commentators[62] and has been attempted in cases including *Innovatio*,[63] as well as the Japanese IP High Court's decision in *Apple Japan v. Samsung*.[64]

Under the top down method defined by Justice Birss, the benchmark FRAND royalty equals T x S, where T is the total aggregate SEP royalty burden of a particular standard on a product (i.e., the percentage of a smartphone's price that should be charged for all patents covering 4G), and S is the share of that aggregate royalty that is allocable to the SEP holder (Unwired Planet).[65] The greatest difficulty with such an approach is figuring out what T should be. To calculate "T," Justice Birss considered public statements made by Ericsson and other holders of SEPs covering the rel-

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58 Contreras et al., *supra* note 2.

59 For example, suppose that Firm A holds 500 SEPs and charges a royalty rate of $0.10 per unit on products implementing the relevant standard. A manufacturer of 100,000 standardized products would then pay a total royalty of $10,000 with respect to that portfolio. However, if Firm A split its portfolio into 10 equal portions of 50 patents each and sold 9 of those portions to PAEs, it is possible that at least some of those PAEs would successfully argue, based on factors such as the relative value of the SEPs they held, that they were entitled to a royalty greater than 10% of Firm A's royalty. Accordingly, after the privateering transactions, the same manufacturer of 100,000 standardized products could pay significantly more than $10,000 for the same 500 patents. For an example of a U.S. FRAND royalty calculation with respect to a SEP privateer, see *In re Innovatio IP Ventures, LLC Patent Litigation*, No. 1:11CV-09308, 2013 U.S. Dist. LEXIS 144061 (N.D. Ill. Oct. 3, 2013) (SEPs acquired from Broadcom covering the IEEE 802.11 standard).

60 Complaint at 2, 4, Apple Inc. v. Acacia Research Corp.,. No. 16-CV-7266 (N.D. Cal. filed Dec. 20, 2016) (alleging that Nokia and several PAEs entered into a scheme to "diffuse and abuse" Nokia's SEP portfolio by forcing manufacturers to defend multiple suits by different plaintiffs and "demanding far more in royalties than [Nokia] could have sought on its own").

61 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 476.

62 *See* Jason R. Bartlett & Jorge L. Contreras, *Rationalizing FRAND Royalties: Can Interpleader Save the Internet of Things*, 36 Rev. Litig. (forthcoming 2017), Thomas F. Cotter, *Patent Damages Heuristics*, 25 Tex. Intell. Prop. L.J. (forthcoming 2017) (discussing Innovatio top-down analysis); Chryssoula Pentheroudakis & Justus A. Baron, *Licensing Terms of Standard Essential Patents: A Comprehensive Analysis of Cases*. JRC Science for Policy Report EUR 28302 at 95–96 (2017) (analyzing *Innovatio* and other top-down approaches).

63 *In re Innovatio*, 2013 U.S. Dist. LEXIS 144061, at *84.

64 Apple Japan Godo Kaisha v. Samsung Elecs. Co., IP High Court of Japan (May 16, 2014). See discussion in Bartlett & Contreras, *supra* note 62.

65 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 178.

evant standards.[66] He then calculated "S," Unwired Planet's share of the relevant SEPs, using a variety of counting and filtering methodologies proposed by the parties' experts, including a filter for the likely essentiality of the patents in the asserted portfolio.[67] The resulting FRAND rates served as validating cross-checks for the rates obtained using the comparables methodology.

I have argued previously that whenever multiple patents held by multiple owners cover the same product, top-down royalty allocation methodologies should yield more accurate results than plaintiff-by-plaintiff, patent-by-patent "bottom-up" analyses.[68] Nevertheless, in order for top-down approaches to be useful, the top-level aggregate royalty used by the court must be determined in a reliable manner. Unfortunately, the basis on which Justice Birss determined the aggregate royalty to be apportioned in *Unwired Planet* is far from scientific. To determine the aggregate royalty for the different standards at issue, he references eight different press releases and public statements in which industry participants estimated either the total royalty burden for ETSI's 3G and 4G standards or their share of SEPs covering those standards.[69] In some cases, these rates appeared to be mere ballpark estimates. For example, in one public statement by "wireless industry leaders," the maximum reasonable aggregate royalty level for the 4G LTE standard was estimated to be a "single-digit percentage of the sales price."[70] In a press release, Huawei anticipated "a low single-digit percentage of sales prices as a reasonable maximum aggregate royalty rate applicable to end-user devices."[71] In several cases, the court noted that these statements were "obviously self-serving."[72] Thus, while the top-down methodology employed by the court is sound, it is not clear that the inputs to that methodology were entirely robust. It may be for this reason that Justice Birss relied on the top-down methodology solely as a cross-check against the royalty rates calculated using the comparables methodology.

FRAND Means Worldwide—an Invitation to Forum Shopping? Unwired Planet offered Huawei a worldwide license under the asserted SEPs. Huawei argued that it only wanted a license under Unwired Planet's UK patents and that Unwired Planet's insistence on a worldwide license was unreasonable.[73] In evaluating the reasonableness of Unwired Planet's license offer, Justice Birss first observes that the "vast majority" of SEP licenses in the trial, including all of the comparable licenses introduced at trial, were granted on a worldwide basis, with occasional exclusions.[74] He then observes that Unwired Planet's patents were issued in 42 countries, while Huawei's

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66 *Id.* ¶¶ 264–272. The statements in question were likely made between 2008 and 2010. *Id.* ¶ 264. The LTE standard was finalized in December 2008. 3GPP, LTE, http://www.3gpp.org/technologies/keywords-acronyms/98-lte. Carlton and Shampine observe that "if (i) a patent holder announces non-discriminatory license terms for its patents prior to the adoption of a standard and therefore prior to anyone having sunk investments relying on the standard, and (ii) the SSO then includes those patents in the standard, that is evidence that the SSO regards the terms as reasonable given the value created by the patented invention." Dennis W. Carlton & Allan L. Shampine, *Identifying Benchmarks for Applying Non-Discrimination in FRAND*, CPI Antitrust Chron. 1, 3, 6-7 (Aug. 2014). For a general discussion of the usefulness and enforcement of such public patent "pledges," see Contreras, *Market Reliance*, *supra* note 14.

67 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶¶ 324 et seq.

68 *See* Bartlett & Contreras, *supra* note 62; Jorge L. Contreras, *Aggregated Royalties for Top-Down FRAND Determinations: Revisiting 'Joint Negotiation,'* 62 Antitrust Bull. (forthcoming 2017).

69 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 264.

70 *Id.* ¶ 264(i).

71 *Id.* ¶ 264(iii).

72 *Id.* ¶ 269.

73 *Id.* ¶ 524.

74 *Id.* ¶ 534. Some comparable licenses, for example, excluded China.

operations extended to 51 countries.[75] In effect, both are global companies. Against this backdrop, he concludes that "a licensor and licensee acting reasonably and on a willing basis would agree on a worldwide licence."[76] In contrast, he regards the possibility of country-by-country licensing as highly inefficient.[77] The prospect of two large multinational companies agreeing to country-by-country licensing, he concludes, would be "madness,"[78] and Huawei's insistence on a UK-only license was not reasonable.[79] He likewise dismisses Huawei's arguments that including unwanted patents in the license amounts to illegal tying in violation of competition law.[80] Accordingly, the court ruled that, in this case, a FRAND license is necessarily a *worldwide* license.[81]

Nevertheless, Justice Birss does not apply the benchmark rate that he calculated to every country in the world. As noted above, the benchmark rate was calculated for 17 "major market" countries.[82] Justice Birss recognizes that both the number of SEPs held in a country, as well as commercial and market realities, will affect the FRAND rate in that country. This is especially true of China, Huawei's home jurisdiction. But despite Huawei's objection to the UK court setting a FRAND rate for China with respect to Unwired Planet's Chinese patents (which were, of course, not at issue in the UK case), Justice Birss reasons "The appropriate rate for China is not complicated to arrive at. The comparable licences show that rates are often lower in China than for the rest of the world. The relative factor varies. I find that a FRAND licence would use a factor of 50%."[83]

Though the court's reasoning quoted above sounds almost cavalier, Justice Birss spends a significant amount of time discussing royalty rates in China, including those found in comparable licenses. However, in the final analysis, he simply cuts the Major Market rate in half to arrive at the benchmark rate for China.

Then he turns to the appropriate benchmark rate for countries other than the Major Markets and China (Other Markets). He concludes, with little evidentiary backing, that "the rate of [Other Market] countries would be the China rate on the basis that the products are made in China under license."[84] This rationale makes little commercial sense. First, it assumes that patentees price license rights based on cost rather than the pricing level that a particular market will bear. Second, it ignores the reality that products manufactured in China will be sold in both Other Markets and Major Markets. Thus, establishing Other Market pricing on the basis that products sold in those

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75 *Id.* ¶ 538.

76 *Id.* ¶ 543.

77 *Id.* ¶ 544.

78 *Id.* ¶ 543.

79 *Id.* ¶ 572.

80 *Id.* ¶¶ 544–572.

81 Huawei has been granted leave to appeal this aspect of the ruling. [2017] EWHC 1304 (Pat) ¶¶ 62–63 (June 7, 2017). A similar result was reached by the Landgericht Düsseldorf in *Saint Lawrence Communications v. Vodafone*, Landgericht Düsseldorf 4a O 73/14, 4a O126/14, 4a O 127/14, 4a O 128/14, 4a O 129/14, 4a O 130/14, 31 March 2016. In *Vodafone*, the SEP holder also offered a worldwide license, which the potential licensee resisted. In assessing the SEP holder's conduct under *Huawei v. ZTE*, the court held that the offer for a worldwide license was FRAND compliant. *See* Robin Jacob & Alexander Milner, *Lessons from* Huawei v. ZTE 10, 4iP Council research report (Oct. 2016), http://www.4ipcouncil.com/news/latest-research-4ip-council-lessons-huawei-v-zte.

82 *See supra* note 54.

83 *Unwired Planet*, [2017] EWHC 711 (Pat) ¶ 583.

84 *Id.* ¶ 589.

countries are manufactured in China is inapposite. Products manufactured in China are sold everywhere, yet sales in Major Markets bear a royalty that is twice that of sales in Other Markets.

Despite these issues, my greatest concern is not with the particular rates determined by Justice Birss in this case, but with the very real possibility that national courts will now feel emboldened to set royalty rates for patents across the globe. The implications of this prospect are sobering, as high stakes patent litigation today is a global enterprise with parallel actions brought in a dozen or more jurisdictions.[85]

Justice Birss ruled that Huawei must enter into a global license agreement on the FRAND terms that he dictated or risk the entry of an injunction in the UK.[86] When Huawei enters into that license agreement, it will be licensed across the entire world at the rates set by the UK court. No further licenses will be needed; thus proceedings in other jurisdictions will, to a large degree, be mooted. A separate question is whether the FRAND rates set by the UK court (or whichever court gets to judgment first) will be respected by courts in other jurisdictions evaluating damages claims for past infringement, or whether each national court will feel compelled to conduct its own FRAND royalty calculation.

It is possible that the willingness of judges in particular jurisdictions to set favorable (high) worldwide FRAND rates will begin to attract SEP holders to those jurisdictions, much as U.S. patent holders were once attracted to the patent-friendly District Court for the Eastern District of Texas.[87] By the same token, jurisdictions that gain reputations for setting unfavorable (low) FRAND rates may become attractive venues for implementers claiming that SEP holders have breached their FRAND commitments. Will a new "race to the bottom" (or top) thus emerge, in which litigants will seek out the national courts most likely to produce globe-spanning judgments in their favor?[88]

But why should a UK (or any other) court be able to establish royalty rates for patents that are not before the court? Certainly, the availability of a global license from any court might make the job of SEP holders easier and reduce the need to bring suit against implementers in every country in which they operate. But such global solutions would shortchange national adjudication of patent validity and infringement, which are inherently national questions. Moreover, what if commercial parties wished to negotiate finer-grained royalty structures than the 50 percent discount for China/Other Markets that was established in *Unwired Planet*?[89] What if a quick but lazy court in a particular country did not bother to conduct the detailed analysis undertaken by Justice Birss and simply established a single global FRAND royalty rate for all countries, large and small? Would such a ruling be subject to challenge in other jurisdictions?

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85 *See, e.g.*, Jack Ellis, *Vringo and ZTE Go the Distance: An Infographic*, Intell. Asset Mgmt. Blog (Dec. 15, 2015), https://perma.cc/2MUJ-YY63 (describing litigation between Vringo and ZTE in 12 different jurisdictions), Kurt Eichenwald, *The Great Smartphone War*, Vanity Fair, June 1, 2014 (describing litigation between Apple and Samsung across multiple jurisdictions).

86 As of this writing, Huawei had *not* accepted the license, and the court entered the injunction but stayed its enforcement pending appeal. [2017] EWHC 1304 (Pat) (June 7, 2017).

87 The reign of the Eastern District of.Texas may be coming to an end following the U.S. Supreme Court's recent decision in *TC Heartland LLC v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017); Amy L. Landers, *U.S. Patent Extraterritoriality Within the International Context*, 36 Rev. Litig. Brief 28 (2016) (criticizing U.S. damages awards for infringement occurring outside U.S.).

88 *Cf.* Koren W. Wong-Ervin et al., *Extra-Jurisdictional Remedies Involving Patent Litigation*, Competition Policy Int'l (2017, forthcoming) (warning of potential "race to the bottom" among competition law enforcement agencies).

89 This possibility is very real. *See, e.g.*, Karl Nitzsche, *Longhorn IP Publishes US, EU and China Royalty Rate Schedules for Portfolio Acquired from ZTE*, IAM Market (May 25, 2017), http://www.iam-market.com/blog-entry/longhorn-ip-publishes-us-eu-and-china-royalty-rate-schedules-portfolio-acquired-zte.

Before the decision in *Unwired Planet*, courts in the U.S. appeared the most willing to give extraterritorial reach to their decisions. In *Microsoft v. Motorola*, the U.S. District Court for the Western District of Washington entered an injunction prohibiting Motorola from enforcing an injunction against Microsoft in Germany pending the resolution of the U.S. litigation regarding Motorola's compliance with its FRAND commitment.[90] At least two other U.S. courts have issued similar anti-suit injunctions in cases involving FRAND disputes.[91] Will courts in the UK now vie with those in the U.S. to be the first to prohibit parties from prosecuting actions in other jurisdictions? Will the U.S. and UK be joined by Germany, Japan, China, and other countries? If so, a true race to the courthouse may emerge in cases involving FRAND and other global commitments.

These possibilities have important ramifications not only for FRAND disputes, but also for licensing negotiations in global markets, which are often conducted in the shadow of litigation. At the end of the day, the systemic impact of these changes is hard to predict. On one hand, a race to the courthouse could lead to gamesmanship and opportunism by litigants, inappropriate competition and lowering of standards among courts, and unpredictable results for the market. On the other hand, such a volatile litigation system could pressure parties to settle their disputes without resorting to litigation. What's more, a true race to the courthouse in which the first court enjoins the parties from prosecuting suit elsewhere could, perversely, reduce the extent of duplicative national litigation and reduce litigation costs across the globe. What might be lost in terms of fairness and justice could, to some degree, be made up by increased efficiency and reduced costs.

Conclusion

In *Unwired Planet v. Huawei*, the UK court addresses a complex set of licensing and royalty questions to develop a novel approach to FRAND royalties. Its analysis is deeply rooted in competition law principles, often at the expense of the contractual underpinnings of the FRAND commitment. Most importantly, a willingness to establish global license terms covering patents outside the UK has serious implications for international commercial litigation and licensing transactions. If this approach is adopted by courts around the world, FRAND litigation could devolve to a race to the courthouse, with unpredictable effects on outcomes and efficiency. ●

[90] Microsoft Corp. v. Motorola, Inc., 871 F. Supp. 2d 1089 (W.D. Wash. 2012), *aff'd*, 696 F.3d 872 (9th Cir. 2012).

[91] *See* Jorge L. Contreras & Michael A. Eixenberger, *The Anti-Suit Injunction—A Transnational Remedy for Multi-Jurisdictional SEP Litigation*, *in* Cambridge Handbook of Technical Standardization Law: Patent, Antitrust and Competition Law (Jorge L. Contreras, ed. 2017 forthcoming) (describing anti-suit injunctions in *Microsoft v. Motorola*, *Vringo v. ZTE*, and *TCL v. Ericsson*).