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# INTELLECTUAL PROPERTY AND STANDARD SETTING

By Koren W. Wong-Ervin and Joshua D. Wright

## Note from the Editor:

This article discusses the controversial topic of intellectual property in standard setting.

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• Michael Lindsay, *Updating a Patent Policy: The IEEE Experience*, COMPETITION POL'Y INT'L (Mar. 31, 2015), <https://www.competitionpolicyinternational.com/updates-a-patent-policy-the-ieee-experience/>.

• Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991 (2007), <http://faculty.haas.berkeley.edu/shapiro/stacking.pdf>.

• Jay Jurata, *Turning the Page: The Next Chapter of Disputes Involving Standard-Essential Patents*, COMPETITION POL'Y INT'L (Oct. 15, 2013), <https://www.competitionpolicyinternational.com/turning-the-page-the-next-chapter-of-disputes-involving-standard-essential-patents/>.

• Dennis Carlton & Allan Shampine, *An Economic Interpretation of FRAND*, 9(3) J. COMPETITION L. & ECON. 531 (2013), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2256007](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2256007).

• Jorge L. Contreras, *Fixing FRAND: A Pseudo-Pool Approach to Standards-Based Patent Licensing*, 79 ANTITRUST L.J. 47 (2013), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2232515](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2232515).

• Richard Gilbert, *Deal or No Deal? Licensing Negotiations in Standard-Setting Organizations*, 77 ANTITRUST L.J. 855 (2011), [https://www.jstor.org/stable/23075636?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/23075636?seq=1#page_scan_tab_contents).

• Fiona Scott Morton & Carl Shapiro, *Strategic Patent Acquisitions*, 79 ANTITRUST L.J. 463 (2014), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2288911&download=yes](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2288911&download=yes).

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## I. INTRODUCTION

“Standards enable virtually all the products we rely upon in modern society, including mechanical, electrical, information, telecommunications, and other systems, to interoperate.”<sup>1</sup> Standards reside at the heart of, among other things, the mobile industry, allowing users to experience worldwide interoperability and interconnectivity across mobile devices. If the mobile industry lacked standards, you might enjoy your iPhone but be unable to call your friend on his Galaxy due to incompatible technology.

Standard setting has become increasingly important to the economy. Voluntary, open, and market driven standard setting promotes research and development investments in “best of generation” technologies that enable and accelerate follow-on innovation, competition, and economic growth. Standard-development organizations (SDOs) are private organizations that develop technical and other standards through a collaborative and consensus-driven process that balances the varied interests of industry participants, which include both producers and potential users of technology. SDOs provide a platform for industry scientists and engineers to come together and develop technical standards. Because standards may include technology that is the subject of intellectual property rights (IPRs) such as patents, SDOs historically have promoted widespread dissemination of standardized technologies through IPR Policies, which balance the rights of IPR holders with rights to access essential technology. Although SDO IPR Policies vary widely, many policies achieve this balance by seeking to have their members publicly declare any potential standard-essential patents (SEPs) (i.e., patents that are essential to practice a given standard) and to license them on “fair, reasonable, and nondiscriminatory” (FRAND) terms.<sup>2</sup> Most SDOs clearly state that the purpose of the FRAND assurance is to both ensure access to the standardized technology and fairly compensate the contributors to the standard.<sup>3</sup>

The issues and choices regarding specific IPR Policies are best left to individual SDOs and their members to decide, rather than government agencies. SDOs “vary widely in size, formality, organization and scope,”<sup>4</sup> and therefore individual

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1 Note by the United States, *Intellectual Property and Standard Setting*, OECD at 3 (Dec. 2014), [http://www.oecd.org/officialdocuments/publicdisplaydocumntpdf?cote=DAF/COMP/W/D\(2014\)116&doclanguage=en](http://www.oecd.org/officialdocuments/publicdisplaydocumntpdf?cote=DAF/COMP/W/D(2014)116&doclanguage=en).

2 See, e.g., Joanna Tsai & Joshua D. Wright, *Standard Setting, Intellectual Property Rights, and the Role of Antitrust in Regulating Incomplete Contracts*, 80 ANTITRUST L.J. 1 (2015) [hereinafter Tsai & Wright].

3 For example, the European Telecommunications Standards Institute (ETSI) states that the purpose of its policy is to “reduce the risk . . . that investment in the preparation . . . of standards could be wasted as a result of an essential IPR . . . being unavailable” and also that “IPR holders . . . should be adequately and fairly rewarded for the use of their IPRs.” ETSI Intellectual Property Rights Policy § 3.1–3.2 (Eur. Telecomms. Standards Inst. 2014), <http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf>. See also Anne Layne-Farrar, *The Economics of FRAND*, in ANTITRUST INTELLECTUAL PROPERTY AND HIGH TECH HANDBOOK 1, 13 (Daniel Sokol ed., 2016) [hereinafter Layne-Farrar].

4 U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING

SDOs may need to adopt different approaches to meet the specific needs of their members. A government agency's issuance of recommendations may unduly influence private SDOs and their members to adopt policies that might not otherwise gain consensus support within a particular SDO and that may not best meet the needs of that SDO, its members, and the public. This could occur because the SDO believes that failing to adopt the specified policy is not permitted or because failing to adopt the policy could subject the SDO and its members to other legal liabilities.<sup>5</sup> Accordingly, the U.S. Antitrust Agencies have taken the position that they do "not advocate that SSOs [standard setting organizations or SDOs] adopt any specific disclosure or licensing policy, and the Agencies do not suggest that any specific disclosure or licensing policy is required."<sup>6</sup>

However, despite these statements, the U.S. Department of Justice's Antitrust Division (DOJ) recently issued a Business Review Letter on the proposed amendments to the Institute of Electrical and Electronics Engineers, Incorporated's (IEEE's) IPR Policy.<sup>7</sup> In the letter, the DOJ went well beyond its mission of providing a statement of its antitrust enforcement intentions with respect to the proposed amendments, and instead endorsed certain policy choices. Some of its preferred policies include provisions that essentially prohibit patent holders from seeking or enforcing injunctive relief on FRAND-assured SEPs, and provisions that essentially require component-level licensing; the latter is contrary to the long-standing industry practice of end-user device licensing. The IEEE's controversial amendments were highly criticized by SEP holders and others on both procedural and substantive grounds.<sup>8</sup> Recent econometric analysis reveals

a biased treatment of substantive comments submitted to the IEEE by members opposed to the controversial revisions. Additional empirical evidence following the amendments shows a slowed rate of development for IEEE standards and numerous major SEP holders refusing to grant letters of assurance (i.e., assurances to license under certain terms) under the new policy.<sup>9</sup>

Another concerning development is the U.S. Federal Trade Commission's (FTC's) recent consent agreements with Bosch and Motorola Mobility/Google. The former prohibits the company from seeking or enforcing injunctive relief on FRAND-assured SEPs; the latter prohibits the companies from seeking injunctive relief on a *worldwide* basis except under certain circumstances. Following the FTC's consent agreements, antitrust agencies around the world, including in Canada, China, Korea, and Japan, adopted similar approaches, namely creating competition law sanctions for seeking or enforcing injunctive relief against "willing licensees." These developments represent a fundamental policy shift that threatens to disrupt the carefully balanced FRAND ecosystem without any evidence that the targeted conduct (namely "holdup" by patent holders) is a widespread or systemic problem that has led to higher prices, reduced output, or lower rates of innovation. Indeed, in contrast to the predictions of the theories that such injunctions will have anticompetitive effects, products that intensively use SEPs have seen robust innovation as well as falling prices and increased output when compared to industries that do not rely upon SEPs.

## II. THE ECONOMICS OF IP AND STANDARD SETTING

The economic issues which arise in the context of IPRs in SDOs are related to the broader policy debate about IPRs. The incentive function of IP is illustrated by considering the sale of an invention in the absence of enforceable IPRs. The sale of an invention requires disclosure to the potential buyer. In the absence of enforceable IPRs, the potential buyer—now with knowledge of the invention—has no incentive to purchase or license the invention. This possibility deters the seller from disclosing the invention in the first place. Enforceable property rights solve this problem by allowing the seller to disclose the invention without fear that it will be appropriated without compensation or possibility of legal redress. The inventor can anticipate the ability to appropriate the returns from investment

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INNOVATION AND COMPETITION 33 n.5 (2007), [http://www.ftc.gov/sites/default/files/documents/reports/antitrust-enforcement-and-intellectual-property-rights-promoting-innovation-and-competition-report\\_s.department-justice-and-federal-trade-commission/p040101promotinginnovationandcompetitionrpt0704.pdf](http://www.ftc.gov/sites/default/files/documents/reports/antitrust-enforcement-and-intellectual-property-rights-promoting-innovation-and-competition-report_s.department-justice-and-federal-trade-commission/p040101promotinginnovationandcompetitionrpt0704.pdf) [hereinafter 2007 IP REPORT].

5 Comment of the Global Antitrust Institute, George Mason University School of Law, on the India Department of Industrial Policy and Promotion's Discussion Paper on Standard Essential Patents 8–9 (Mar. 31, 2016), [http://masonlec.org/site/rte/uploads/files/GAI%20DIPP%20Comments%20%28India%20SEP%20Paper%29\\_3-31-16\\_Final.pdf](http://masonlec.org/site/rte/uploads/files/GAI%20DIPP%20Comments%20%28India%20SEP%20Paper%29_3-31-16_Final.pdf).

6 2007 IP REPORT, *supra* note 4, at 48.

7 Letter from Renata B. Hesse, Acting Assistant Attorney Gen., U.S. Dept of Justice, to Michael A. Lindsay, Dorsey & Whitney LLP (Feb. 2, 2015), <https://www.justice.gov/sites/default/files/atr/legacy/2015/02/02/311470.pdf> [hereinafter 2015 IEEE Business Review Letter].

8 *See, e.g.*, Letter from Lawrence F. Shay, Exec. Vice President of Intellectual Prop., InterDigital, Inc., to David Law, Patent Comm. Chair, IEEE-SA Standards Bd. (Mar. 24, 2015), <http://wpuploads.interdigital.com.s3.amazonaws.com/uploads/2015/03/Letter-to-IEEE-SA-ParCom.pdf> ("InterDigital will not make licensing assurances under the new policy; and will instead make alternative licensing assurances, on a case-by-case basis, that are consistent with the goals of driving technology adoption while ensuring fair compensation for research success."); Letter from Gustav Brismark, Vice President, Strategy & Portfolio Mgmt., Ericsson AB, to Eileen M. Lach, Gen. Counsel & Chief Compliance Officer, IEEE (Oct. 21, 2014), [http://www.mlex.com/Attachments/2015-10-26\\_5P338037F7HPVP5L/and-terms.pdf](http://www.mlex.com/Attachments/2015-10-26_5P338037F7HPVP5L/and-terms.pdf) ("Consequently, it appears that, moving forward, Ericsson would not be able to submit any [Letters of Assurance] under the terms of the proposed new IEEE-SA policy.");

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Letter from Irwin Mark Jacobs, Founding Chairman & CEO Emeritus, Qualcomm, to Dr. Roberto Boisson de Marca, President & CEO, IEEE (Nov. 19, 2014), <http://www.advancingengineering.org/irwin-jacobs>. *See also* Letter from Sen. Christopher A. Coons, U.S. Senator, to Hon. Eric Holder, Attorney Gen., U.S. Dept of Justice, and Hon. William J. Baer, Assistant Attorney Gen., U.S. Dept of Justice (Jan. 14, 2015), <http://ipwatchdog.com/materials/1-14-2015-Coons-IEEE.pdf>.

9 Letter from Lawrence F. Shay to David Law, *supra* note 8; Letter from Gustav Brismark to Eileen M. Lach, *supra* note 8; Letter from Irwin Mark Jacobs to Dr. Roberto Boisson de Marca; *supra* note 8. *See also* Ron D. Katznelson, Presentation at IEEE GLOBECOM 2015: Decline in Non-Duplicate Licensing Letters of Assurance (LOAs) from Product/System Companies for IEEE Standards (updated Mar. 30, 2016), <https://works.bepress.com/rkatznelson/80/> (noting the decline in letters of assurance under new IEEE patent policy).

in producing the invention, which serves as an incentive to both invest in producing the invention and to disclose it.<sup>10</sup>

The economic literature also discusses the optimal tradeoff between these incentives and the ability to use the invention.<sup>11</sup> Because inventions and works protected by IPRs are non-rivalrous, one firm using a specific IPR does not diminish the ability of another firm to use the same IPR. Also, the cost of having another firm use an existing IPR is effectively zero. As a consequence, from a *static* welfare perspective, it is desirable to disseminate IPRs to every firm (or consumer) that has a positive valuation for the IPR. Of course, doing so would create a strong disincentive to innovate in the first place, to the great detriment of *dynamic* efficiency, which refers to the gains that result from entirely new ways of doing business. While static efficiency may increase consumer welfare in the short run, economics teaches that dynamic efficiency, including societal gains from innovation, are an even greater driver of consumer welfare.<sup>12</sup>

After the investments of time, money, and competitive effort required to spur breakthrough inventions have already been made and proven successful, it can be tempting to carve up the benefits and distribute them throughout the economy. Doing so, however, would harm competition, innovation, and consumers in the long run. If the government has demonstrated that it is too willing to step in and appropriate the gains from innovation and dynamic competition, then potential innovators anticipating such interventions will have weak incentives to risk investment in new inventions. In addition, the costs of Type I errors (i.e., false positives) leading to a chilling of procompetitive innovation are significant.<sup>13</sup>

With respect to standard setting in particular, the economic goals are complex and involve important benefits and costs. Two primary types of standards are those that set minimum performance levels and those that guarantee interoperability. The former type of standard often serves to inform consumers and facilitate quality assurance by ensuring that products meet a minimum level of performance or quality. Interoperability standards guarantee that products made by different companies are compatible with other products that incorporate the standard, generating significant consumer benefits when the standard is widely adopted. Interoperability can also reduce the costs of production by reducing firms' costs of acquiring

technical information, thus simplifying both the design and production of products that incorporate the standard. The benefits of interoperability are magnified in "network" markets, where the value of a product or service to an individual consumer is dependent upon the total number of consumers that adopt compatible products. On the other hand, adoption of uniform standards can have potential costs. In the absence of property rights to technology included in standards, the adoption of a uniform standard may create incentives for free riding and suppress incentives for firms to improve on the current standard or create alternative standards. As a result of these effects, individual firms' choices to adopt competing proprietary standards using incompatible technology may increase welfare relative to use of a mandated standard. This result highlights the importance of IPRs to standards, namely that the absence of IPRs for standard technologies can lead to the underproduction of those technologies and may deter investment in research and development and reduce the quality of the final product.<sup>14</sup>

Lastly, competition among rival SDOs and their proprietary standards reflects the features of a two-sided market, where SDOs serve as platforms to join together contributors and adopters of technology protected by IPRs. SDOs must adopt policies that are attractive to both contributor and adopter members. All else being equal, an SDO is more attractive to a technology contributor with a larger base of adopters. As a multi-sided platform, a successful SDO will attract members on both sides by striking a balance between the two sides with respect to its rules and policies. The contract terms optimizing this balance will vary between and within SDOs as technology, regulatory, and market conditions facing the organization change over time.<sup>15</sup>

### III. IEEE AMENDMENTS, THE DOJ'S BUSINESS REVIEW LETTER, AND THE AFTERMATH OF THE IEEE'S AMENDMENTS

In 2015, the IEEE proposed significant amendments (which it referred to as mere "updates" or "clarifications") to its IPR Policy. The amendments raised a number of process concerns over revisions that, among other things, would severely limit an SEP holder's ability to seek or enforce injunctive relief and impose numerous conditions on arms-length royalty negotiations. These limits on negotiations would include essentially requiring that an SEP holder license on a component-level basis as opposed to the end-user-device level. Prior to the IEEE amendments, no SDO explicitly addressed injunctive relief.<sup>16</sup>

One recent empirical study analyzing public data finds "a biased treatment of substantive comments submitted to the IEEE by members opposed to the controversial revisions."<sup>17</sup> Sixteen companies submitted 680 comments on four drafts

10 Comment of the Global Antitrust Institute, George Mason University School of Law, on the National Development and Reform Commission's Anti-Monopoly Guide on Abuse of Intellectual Property Rights 1-3 (Nov. 12, 2015) [hereinafter GAI Comment to NDRC], [http://masonlec.org/site/rte/uploads/files/GAI%20NDRC%20Comment\\_11-12-15\\_FINAL.pdf](http://masonlec.org/site/rte/uploads/files/GAI%20NDRC%20Comment_11-12-15_FINAL.pdf).

11 Bruce H. Kobayashi & Joshua D. Wright, *Intellectual Property and Standard Setting*, in ABA HANDBOOK ON THE ANTITRUST ASPECTS OF STANDARDS SETTING (2010) [hereinafter Kobayashi & Wright].

12 Robert Solow won the Nobel Prize in economics for demonstrating that gains in wealth are due primarily to innovation—not to marginal improvements in the efficiency of what already exists. See Press Release, The Royal Swedish Academy of Sciences (Oct. 21, 1987), [http://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/1987/press.html](http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1987/press.html).

13 GAI Comment to NDRC, *supra* note 10, at 1–3.

14 Kobayashi & Wright, *supra* note 11, at 3–4.

15 Tsai & Wright, *supra* note 2, at 165–66.

16 See, e.g., Layne-Farrar, *supra* note 3, at 13.

17 J. Gregory Sidak, *Testing for Bias to Suppress Royalties for Standard-Essential Patents*, 1 CRITERION J. INNOVATION 301 (2016), <https://www.criterioninnovation.com/articles/sidak-bias-to-suppress-sep-royalties.pdf>.

of the proposed amendments and to drafts of a supporting informational document. An ad hoc committee, which IEEE's Patent Committee entrusted with the drafting and development of the 2015 amendments, collected and responded to the suggested revisions. The analysis reveals that "the ad hoc committee at a substantially higher rate rejected comments by companies that opposed or were neutral towards the proposed changes."<sup>18</sup> The study also says that empirical analysis "indicated a strong negative correlation between an IEEE member's status as an SEP holder and the IEEE's propensity to accommodate that member's input in the development" of the amendments, and that the "ad hoc committee was significantly more likely to reject comments from SEP holders when those comments addressed certain controversial provisions" of the amendments.<sup>19</sup>

Despite this evidence, on February 2, 2015, the DOJ issued a favorable Business Review Letter on the amendments, rejecting concerns about process. The letter concluded that "it appears that the overall process afforded considerable opportunity for comment on and discussion of the Update" and noted that "[t]here were numerous opportunities for presenting divergent views as part of the multi-level review process."<sup>20</sup>

The DOJ's letter also endorses the IEEE's policy decision on the grounds that the "clarification" is procompetitive, although it presents no evidence that this is the case. In several places throughout the letter, including with respect to the smallest saleable patent practicing unit (SSPPU) approach, the DOJ claims the IEEE's revisions were "consistent with the direction of U.S. law." These claims are dubious. For example, as the U.S. Court of Appeals for the Federal Circuit recently explained in *Ericsson v. D-Link*, the SSPPU approach was not a substantive doctrine but rather was created as an evidentiary rule "to help our jury system reliably implement the substantive statutory requirement of apportionment."<sup>21</sup> The court went on to explain that, "[l]ogically, an economist could do this [apportionment] in various ways—by careful selection of the royalty base to reflect the value added by the patented feature, where that differentiation is possible; by adjustment of the royalty rate so as to discount the value of a product's non-patented features; or by a combination thereof."<sup>22</sup> Moreover, there are a number of considerations that may dictate the parties' selection of a royalty base in a freely negotiated license agreement. Industry practice and the convenience of the parties are two such considerations; other commercial dealings between the parties may also affect their negotiation. In order to reduce administrative costs, a royalty base is often selected to allow for easy monitoring or

verification of the number of units sold; end product prices are often chosen for these reasons.<sup>23</sup>

Although the DOJ acknowledges in its letter that "[i]t is unlikely that there is a one-size-fits-all-approach for all [SDOs], and, indeed, variation among [SDOs'] patent policies could be beneficial to the overall standards-setting process,"<sup>24</sup> the letter has been widely relied upon, particularly by foreign jurisdictions, to support excessive pricing prohibitions based on charging for the end-user device<sup>25</sup>—something the SSPPU approach was never intended for.

Evidence following the amendments shows a slowed rate of development for IEEE standards and numerous major SEP holders refusing to grant letters of assurance under the new policy.<sup>26</sup>

#### IV. FTC ACTIONS REGARDING INJUNCTIVE RELIEF

The FTC does not merely argue against the use of injunctive relief; it uses its enforcement actions to limit companies' ability to seek it. Consider two recent enforcement actions by the agency. In 2013, the FTC entered into a consent agreement in *Bosch*, prohibiting the company from seeking or enforcing injunctive relief on FRAND-assured SEPs under Section 5 of the FTC Act.<sup>27</sup> Similarly, in 2014, the FTC entered into a consent order with Motorola Mobility and Google prohibiting the companies from seeking injunctive relief on a worldwide basis except under certain circumstances, such as when the accused infringer is an "unwilling licensee."<sup>28</sup> In particular, the FTC alleged that Google breached its FRAND commitment by using threats to enjoin and exclude implementers of its SEPs in order to enhance its bargaining leverage against its willing licensees.<sup>29</sup> Taken together, these actions necessarily depend upon the FTC's presumption that protecting a valid

18 *Id.* at 303; *see also id.* at 322–24.

19 *Id.* at 303–04; *see also id.* at 325–31.

20 2015 IEEE Business Review Letter, *supra* note 7.

21 *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1227 (Fed. Cir. 2014).

22 *Id.* at 1226.

23 *See* Anne Layne-Farrar & Koren W. Wong-Ervin, *An Analysis of the Federal Circuit's Decision in Ericsson v. D-Link*, CPI ANTITRUST CHRONICLE (Mar. 2015), <http://www.crai.com/sites/default/files/publications/An-Analysis-of-the-Federal-Circuits-Decision-in-Ericsson-v-D-Link.pdf> [hereinafter Layne-Farrar & Wong-Ervin].

24 2015 IEEE Business Review Letter, *supra* note 7, at 2.

25 *See generally* Matthew Newman, *Antitrust Agencies Should be Wary of "Excessive Pricing" Cases in Patent Disputes*, HESSE SAYS, MLEX (June 17, 2015) (quoting then-Deputy Assistant Attorney General Renata Hesse, "We really believe the business review letter itself should not set an example for other parts of the world to take action and to suggest that excessive pricing somehow violates the antitrust law.").

26 *See, e.g.*, Katznelson, *supra* note 9.

27 Decision and Order, *In the Matter of Robert Bosch GmbH*, Docket No. C-4377 (Apr. 23, 2013), <https://www.ftc.gov/sites/default/files/documents/cases/2013/04/130424robertboschdo.pdf>.

28 Decision and Order, *In the Matter of Motorola Mobility LLC, and Google Inc.*, Docket No. C-4410, at 7–8 (July 23, 2013), <http://www.ftc.gov/sites/default/files/documents/cases/2013/07/130724googlemotorolado.pdf>.

29 Complaint, *In the Matter of Motorola Mobility LLC, and Google Inc.*, Docket No. C-4410, at 5 (Jan. 3, 2013), <https://www.ftc.gov/sites/default/files/documents/cases/2013/01/130103googlemotorolacmpt.pdf>.

FRAND-assured SEP against infringement by seeking injunctive relief is itself anticompetitive.

It is important to note that these were negotiated consents under the FTC's standalone Section 5 unfair methods of competition authority, not based upon traditional U.S. antitrust law, namely the Sherman Act. No U.S. court has held that seeking or enforcing injunctive relief on a FRAND-assured SEP constitutes an antitrust violation. Instead, every U.S. court that has addressed the injunction issue has done so under contract, not antitrust, principles.<sup>30</sup> The DOJ has stated that it is "continu[ing] to explore where there is room for liability under Section 2 of the Sherman Act in cases where holders of F/RAND-encumbered SEPs seek injunctive relief after a standard is in place."<sup>31</sup>

Moreover, the FTC's 2015 Section 5 Policy Statement would arguably preclude it from bringing future actions like *Bosch* and *Motorola*. The Statement sets forth three basic principles to limit and guide future applications of the Commission's standalone unfair methods of competition authority.<sup>32</sup> The primary thrust of these principles is to link the FTC's standalone authority to the rule of reason as applied under the traditional antitrust laws and to not apply Section 5 to conduct if the U.S. antitrust laws (the Sherman Act or the Clayton Act) are sufficient to address the competitive concern at issue.<sup>33</sup> Given U.S. case law on holdup by patent holders, which requires ex ante deception and but-for causation (i.e., but-for the alleged deception, the SDO would not have adopted the technology at issue), the Sherman

Act precedent will likely preclude future applications of Section 5 to patent holdup cases under the Statement.<sup>34</sup>

## V. FOREIGN ACTIONS—THE DOMINO EFFECT

Within days of the DOJ's issuance of its IEEE Business Review Letter, competition enforcers around the world reportedly received English translations of the letter. Some of them subsequently remarked (at numerous international conferences) that the DOJ endorses prohibitions on seeking and obtaining injunctive relief on FRAND-assured SEPs and condemns end-user device licensing in favor of component-level licensing.<sup>35</sup> Similarly, following the FTC's consent agreements in *Bosch* and *Motorola Mobility/Google*, competition agencies around the world, including in Canada, China, Korea, and Japan, adopted similar approaches, namely by creating competition law sanctions for seeking or enforcing injunctive relief on FRAND-assured SEPs against willing licensees.

For example, in December of 2014 and again in 2016, the Korea Fair Trade Commission revised its Guidelines on the Unfair Exercise of Intellectual Property Rights, adding provisions addressing conduct involving SEPs, including provisions on injunctive relief.<sup>36</sup> Similarly, in 2016, Canada's Bureau of Competition revised its Intellectual Property Enforcement Guidelines, adding provisions on injunctive relief, among others.<sup>37</sup> Also in 2016, the Japan Fair Trade Commission revised its Guidelines for the Use of Intellectual Property Under the Antimonopoly Act, adding provisions on when a patent holders' seeking or enforcing injunctive relief on a FRAND-assured SEP may constitute an antitrust or unfair trade practices violation.<sup>38</sup> In Spring 2014, China's State Administration for Industry and Commerce issued rules governing antitrust enforcement of IPRs. Since then, China's three Anti-Monopoly Law (AML) agencies (along with China's patent office) have issued various competing draft guidelines on the exercise of IPRs, which contain numerous provisions governing conduct involving SEPs.<sup>39</sup> China's State Council is reportedly considering the various competing drafts and will ultimately issue one set of guidelines to govern

30 See, e.g., *Realtek Semiconductor Corp. v. LSI Corp.*, 2013 WL 2181717, at \*7 (N.D. Cal. May 20, 2013); Verdict Form at 3, *Microsoft v. Motorola*, Case No. C10-1823JLR (W.D. Wash. Sept. 4, 2013) (the jury found that Motorola's conduct in seeking injunctive relief violated its duty of good faith and fair dealing with respect to its contractual commitments to the IEEE and the ITU); *Apple v. Motorola, Inc.*, 869 F. Supp. 2d 901, 913–14 (N.D. Ill. 2012); *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 884–85 (9th Cir. 2012).

31 Renata Hesse, Deputy Assistant Attorney Gen., U.S. Dep't of Justice, *The Art of Persuasion: Competition Advocacy at the Intersection of Antitrust and Intellectual Property* 9 (Nov. 8, 2013), <http://www.justice.gov/atr/public/speeches/301596.pdf>.

32 Fed. Trade Comm'n, *Statement of Enforcement Principles Regarding "Unfair Methods of Competition" Under Section 5 of the FTC Act* (Aug. 13, 2015), [https://www.ftc.gov/system/files/documents/public\\_statement/s/735201/150813section5enforcement.pdf](https://www.ftc.gov/system/files/documents/public_statement/s/735201/150813section5enforcement.pdf).

33 See Fed. Trade Comm'n, *Statement of the Federal Trade Commission on the Issuance of Enforcement Principles Regarding "Unfair Methods of Competition" Under Section 5 of the FTC Act* 1 (Aug. 13, 2015), [https://www.ftc.gov/system/files/documents/public\\_statements/735381/150813commissionstatementsection5.pdf](https://www.ftc.gov/system/files/documents/public_statements/735381/150813commissionstatementsection5.pdf) ("Our statement makes clear that the Commission will rely on the accumulated knowledge and experience embedded within the 'rule of reason' framework developed under the antitrust laws over the past 125 years—a framework well understood by courts, competition agencies, the business community, and practitioners.")

34 Joshua D. Wright & Angela M. Diveley, *Unfair Methods of Competition After the 2015 Commission Statement*, ANTITRUST SOURCE, Oct. 2015, at 1, 11 n.60.

35 The authors have firsthand knowledge of these remarks.

36 KOREA FAIR TRADE COMM'N, *REVIEW GUIDELINES ON UNFAIR EXERCISE OF INTELLECTUAL PROPERTY RIGHTS* (2014), [http://eng.ftc.go.kr/bbs.do?command=getList&type\\_cd=62&pageId=0401](http://eng.ftc.go.kr/bbs.do?command=getList&type_cd=62&pageId=0401); Press Release, *KFTC Rationalizes Its Regulations on SEPs to Promote Technology Innovation* (Mar. 30, 2016), <http://eng.ftc.go.kr/bbs.do> (amending 2014 KFTC IP Guidelines).

37 COMPETITION BUREAU CANADA, *ENFORCEMENT GUIDELINES: INTELLECTUAL PROPERTY* (2016), [http://www.competitionbureau.gc.ca/cic/site/cb-bc.nsf/vwap1/cb-IPEG-e.pdf/\\$file/cb-IPEG-e.pdf](http://www.competitionbureau.gc.ca/cic/site/cb-bc.nsf/vwap1/cb-IPEG-e.pdf/$file/cb-IPEG-e.pdf).

38 JAPAN FAIR TRADE COMM'N, *GUIDELINES FOR THE USE OF INTELLECTUAL PROPERTY UNDER THE ANTIMONOPOLY ACT* (2016), [http://www.jftc.go.jp/en/legislation\\_gls/imonopoly\\_guidelines.files/IPGL\\_Frand.pdf](http://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines.files/IPGL_Frand.pdf).

39 STATE ADMIN. FOR INDUS. & COMMERCE, *RULES OF THE ADMIN. FOR INDUS. AND COMMERCE ON THE PROHIBITION OF INTELLECTUAL PROPERTY RIGHTS FOR THE PURPOSES OF ELIMINATING OR RESTRICTING COMPETITION* (2015).

all three AML agencies. In February 2015, China's National Development and Reform Commission imposed a \$975 million fine against Qualcomm based, in large part, on allegations that the company charged "excessive" royalties on SEPs by charging for expired patents, requiring royalty-free grantbacks, bundling SEPs and non-SEPs, and basing its royalties on the wholesale net selling price of end-user devices as opposed to a percentage of the selling price or a smaller component part.<sup>40</sup> The investigation also involved allegations that Qualcomm violated China's AML by bundling sales of patents and chips and refusing to license patents to chip manufacturers.<sup>41</sup> In 2013 and 2014, the Competition Commission of India issued investigation orders against Ericsson alleging that the company violated its FRAND assurances by imposing discriminatory and "excessive" royalty rates by basing royalties on the end-user device as opposed to a component part, such as a chipset, and by using Non-Disclosure Agreements.<sup>42</sup>

## VI. EMPIRICAL EVIDENCE ON HOLDUP BY PATENT HOLDERS

Holdup requires lock-in, and standard-implementing companies with asset-specific investments can be locked in to the technologies defining the standard. On the other hand, innovators that are contributing to SDOs can also be locked-in, and hence susceptible to holdup, if their technologies have a market only within the standard. Thus, incentives to engage in holdup run in both directions.<sup>43</sup> There is also the possibility of holdout by an implementer. While holdup by implementers refers to the situation in which a licensee uses its leverage to obtain rates and terms below FRAND levels, holdout refers to a licensee either refusing to take a FRAND license or delaying its doing so.<sup>44</sup>

While there is serious and important scholarly work exploring the theoretical conditions under which holdup by patent holders might occur, this literature merely demonstrates

the possibility that an injunction (or the threat of an injunction) against infringement of a patent can in certain circumstances be profitable for the licensor and potentially harmful to consumers.<sup>45</sup> This same theoretical literature has also recognized, with respect to both intellectual and tangible property, the threat of both holdup and holdout by implementers. Theories of anticompetitive harm predict systematic opportunism by patent holders and price increases across output markets that depend upon patented technology as an input. These theories predict, in addition to higher final product prices, reduced output and less innovation.<sup>46</sup>

Creating a competition law sanction for seeking or enforcing injunctive relief requires, as a matter of sound economic policy, that there be a probability, not a mere possibility, of higher prices, reduced output, and lower rates of innovation if such relief is pursued. The claim that existing sanctions within antitrust law, contract law, and patent doctrine do not adequately deter patent holdup, and thus expose consumers to the anticompetitive acquisition and exercise of market power, is a testable one. Thus far, proponents of the claim that current law inadequately deters anticompetitive behavior in standard setting have not satisfied the burden they bear to substantiate a change in policy. Indeed, the available evidence not only does not support the claim that holdup is widespread, it appears to suggest SEP-heavy industries are highly competitive, and characterized by robust innovation as well as falling prices and increased output when compared to industries that do not rely upon SEPs.<sup>47</sup>

For example, evidence from the smartphone market, which is both standard and patent intensive, is to the contrary: Output has grown exponentially, while market concentration has fallen, and wireless service prices have dropped relative to the overall consumer price index (CPI).<sup>48</sup> More generally, prices in

40 Koren W. Wong-Ervin, *Antitrust and IP in China: Quo Vadis?*, SPRING MEETING CLE (ABA Section of Antitrust Law) 5–6 (Apr. 16, 2015), [https://www.ftc.gov/system/files/attachments/key-speeches-presentations/wong-ervin\\_-\\_2015\\_aba\\_spring\\_meeting\\_4-16-15.pdf](https://www.ftc.gov/system/files/attachments/key-speeches-presentations/wong-ervin_-_2015_aba_spring_meeting_4-16-15.pdf) [hereinafter Wong-Ervin, *Quo Vadis?*]. See also Press Release, *Qualcomm, Inc., Qualcomm and China's National Development and Reform Commission Reach Resolution* (Feb. 9, 2015), [http://files.shareholder.com/downloads/QCOM/386423320x0x808060/382E59E5-B9AA-4D59-ABFF-BDFB9AB8F1E9/Qualcomm\\_and\\_China\\_NDRC\\_Resolution\\_final.pdf](http://files.shareholder.com/downloads/QCOM/386423320x0x808060/382E59E5-B9AA-4D59-ABFF-BDFB9AB8F1E9/Qualcomm_and_China_NDRC_Resolution_final.pdf).

41 Wong-Ervin, *Quo Vadis?*, *supra* note 40, at 6.

42 See CCI Order under Section 26(1) of the Competition Act, 2002, In re: Micromax Informatics Ltd. v. Telefonaktiebolaget LM Ericsson ¶ 17 (Nov. 12, 2013), <http://cci.gov.in/May2011/OrderOfCommission/261/502013.pdf>; CCI Order under Section 26(1) of the Competition Act, 2002, In re Intex Techn. Ltd., v. Telfonaktiebolaget LM Ericsson ¶ 17 (Jan. 16, 2014), <http://cci.gov.in/May2011/OrderOfCommission/261/762013.pdf>. The first investigation was brought based on complaints from Micromax Informatics Ltd.; the second was brought based on complaints from Intex Technologies (India) Ltd. See also Koren W. Wong-Ervin, *Standard Essential Patents: The International Landscape*, PUBLIC DOMAIN (ABA Section of Antitrust Law) (Spring 2014), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2668602](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2668602).

43 *Id.*

44 *Id.*

45 Douglas H. Ginsburg et al., *The Troubling Use of Antitrust to Regulate FRAND Licensing*, 10 COMPETITION POLICY INTERNATIONAL ANTITRUST CHRONICLE, no. 1, 2015, at 2, 4, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2674759](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2674759) [hereinafter Ginsburg et al., *The Troubling Use*].

46 *Id.*

47 See, e.g., J. Gregory Sidak, *The Antitrust Division's Devaluation of Standard-Essential Patents*, 104 GEO. L.J. ONLINE 48, 61 (2015) (collecting studies at n.49) ("By early 2015, more than two dozen economists and lawyers had disapproved or disputed the numerous assumptions and predictions of the patent-holdup and royalty-stacking conjectures."), <https://www.criterioneconomics.com/docs/antitrust-divisions-devaluation-of-standard-essential-patents.pdf>; ANNE LAYNE-FARRAR, PATENT HOLDUP AND ROYALTY STACKING THEORY AND EVIDENCE: WHERE DO WE STAND AFTER 15 YEARS OF HISTORY? (2014) (surveying the economic literature and concluding that the empirical studies conducted thus far have not shown holdup is a common problem), <http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WD%282014%2984&doclanguage=en>.

48 According to data from Gartner, worldwide smartphone sales to end-users have increased over 900 percent from 2007 to 2014, and 320 percent from 2010 to 2014. Market concentration in smartphones, as measured by HHIs, went from "highly concentrated" in 2007, as defined by the U.S. Antitrust Agencies' Horizontal Merger Guidelines, to "unconcentrated" by the end of 2012. See Keith Mallinson, *Theories of Harm with SEP Licensing Do Not Stack Up*, IP FIN. BLOG (May 24, 2013), <http://ipfinance.blogspot.com/2013/05/theories-of-harm-with-sep-licensing-do.html>. According to the U.S. Bureau of Labor Statistics, the ratio of the CPI for wireless

SEP-reliant industries in the United States have declined faster than prices in non-SEP intensive industries.<sup>49</sup> A recent study by the Boston Consulting Group found that, globally, the cost per megabyte of data declined 99 percent from 2005 to 2013 (reflecting both innovations making data transmission cheaper and the healthy state of competition); the cost per megabyte fell 95 percent in the transition from 2G to 3G, and 67 percent in the transition from 3G to 4G; and the global average selling price for smartphones decreased 23 percent from 2007 through 2014, while prices for the lowest-end phones fell 63 percent over the same period.<sup>50</sup> All of this indicates a thriving mobile market, not a market in need of fixing, and suggests caution prior to disrupting the carefully balanced FRAND ecosystem.

As evidence of holdup, some point to a small number of litigated cases in which the court-determined FRAND royalty was lower than the patent holder's original demand. Among the numerous flaws with this argument—even setting aside the reasonable debate over whether the courts correctly determined reasonable royalty damages in those cases—is that the outcome of a handful of litigated cases says nothing about whether holdup is a widespread problem for competition and consumers.<sup>51</sup> Economists have long understood the shortcomings of making inferences about a population from a sample of litigated cases.<sup>52</sup>

Economic analysis provides the basis upon which to understand the apparent disconnect between holdup theory and the available evidence. As economic theory would predict, patent holders and those seeking to license and implement patented technologies write their contracts so as to minimize the probability of holdup. Indeed, the original economic literature upon which the patent holdup theories are based was focused upon the various ways that market actors use reputation, contracts, and other institutions to mitigate the inefficiencies

associated with opportunism in transactions involving tangible property.<sup>53</sup>

Several market mechanisms are available to transactors to mitigate the incidence and likelihood of patent holdup. Reputational and business costs may deter repeat players from engaging in holdup and “patent holders that have broad cross-licensing agreements with the SEP-owner may be protected from hold-up.”<sup>54</sup> Also, patent holders often enjoy a first-mover advantage if their technology is adopted as the standard. “As a result, patent holders who manufacture products using the standardized technology ‘may find it more profitable to offer attractive licensing terms in order to promote the adoption of the product using the standard, increasing demand for its product rather than extracting high royalties’” per unit.<sup>55</sup> This result is not surprising given the incentives of patent holders and implementers to reach efficient solutions that minimize the risk of opportunism.

Recently, some have asserted that the theoretical predictions of holdup models cannot be tested and thus it is only prudent to assume a systemic holdup problem. This is incorrect as a matter of economics. It is also inconsistent with economic methodology and the scientific method more generally. Were ex post opportunism in licensing SEPs a systematic problem—that is, were market failure preventing firms from efficiently contracting to minimize their risk—one would expect to observe one-sided SDO contracts that do not reflect the risk of opportunism and that primarily protect SEP holders rather than potential licensees. However, the empirical evidence shows that SDO contract terms vary both across organizations and over time in response to changes in the perceived risk of patent holdup and other factors.<sup>56</sup>

Recognizing the speculative nature of holdup concerns, the Federal Circuit (which has nationwide jurisdiction over patent disputes) has held that a claim of holdup must be substantiated

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telephone services to the overall CPI has dropped 34% from 2007 to 2014.

49 Alexander Galetovic et al., *An Empirical Examination of Patent Hold-Up* (Nat'l Bureau of Econ. Research, Working Paper No. 21090, Apr. 2015), <http://www.nber.org/papers/w21090.pdf>.

50 JULIO BEZERRA ET AL., THE MOBILE REVOLUTION: HOW MOBILE TECHNOLOGIES DRIVE A TRILLION DOLLAR IMPACT 3, 9 (The Boston Consulting Grp., Jan. 15, 2015), [https://www.bcgperspectives.com/content/articles/telecommunications\\_technology\\_business\\_transformation\\_mobile\\_revolution/#chapter1](https://www.bcgperspectives.com/content/articles/telecommunications_technology_business_transformation_mobile_revolution/#chapter1).

51 It is worth noting that the district courts in the cases relied upon by commentators (e.g., *Microsoft v. Motorola* and *Innovatio*) employed methodologies that presumed the prevalence of both holdup and royalty stacking without requiring proof that either exists in a particular case. See *Microsoft Corp. v. Motorola, Inc.*, 2013 WL 2111217, at \*12, \*73–74 (W.D. Wash. Apr. 25, 2013); *In re Innovatio IP Ventures, LLC Patent Litig.*, 2013 WL 5593609, at \*8–10 (N.D. Ill. Oct. 3, 2013). This approach was squarely rejected by the Federal Circuit Court of Appeals in *Ericsson v. D-Link Systems*, which held that to be considered as part of a FRAND damages analysis, concerns about holdup and royalty stacking must be proven rather than presumed. 773 F.3d 1201, 1234 (Fed. Cir. 2014). See also *Sidak*, *supra* note 47, at 65 (explaining that the adjudicated rates in *Microsoft v. Motorola* and *Innovatio* were not necessarily high enough to be FRAND, and that “[t]he methodologies used to determine the final rates in those two decisions contained significant economic flaws”); Layne-Farrar & Wong- Ervin, *supra* note 23, at 5–6.

52 See, e.g., George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUDIES 1 (1984).

53 Benjamin Klein, *Why Hold-Ups Occur: The Self-Enforcing Range of Contractual Relationships*, 34 ECON. INQUIRY 444, 449–50 (1996); Benjamin Klein et al., *Vertical Integration, Appropriate Rents, and Competitive Contracting Process*, 21 J.L. & ECON. 297, 303–07 (1978); OLIVER E. WILLIAMSON, *MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS* 26–30 (New York: Free Press 1975); see also Joshua D. Wright, Comm’r, Fed. Trade Comm’n, Remarks Before George Mason University School of Law: SSOs, FRAND, and Antitrust: Lessons Learned from the Economics of Incomplete Contracts 2–3 (Sept. 12, 2013), [https://www.ftc.gov/sites/default/files/documents/public\\_statements/ssos-frand-and-antitrust-lessons-economics-incomplete-contracts/130912cpip.pdf](https://www.ftc.gov/sites/default/files/documents/public_statements/ssos-frand-and-antitrust-lessons-economics-incomplete-contracts/130912cpip.pdf) (“[T]he economics of hold-up began not as an effort to explain contract failure, but as an effort to explain real world contract terms, performance, and the enforcement decisions starting with the fundamental premise that contracts are necessarily incomplete.”).

54 See, e.g., Suzanne Munck, Fed. Trade Comm’n, Prepared Statement of the Federal Trade Commission Before the U.S. Senate Committee on the Judiciary Subcommittee on Antitrust, Competition Policy and Consumer Rights Concerning “Standard Essential Patent Disputes and Antitrust Law” 6 (July 30, 2013), [https://www.ftc.gov/sites/default/files/documents/public\\_statements/prepared-statement-federal-trade-commission-concerning-standard-essential-patent-disputes-and/130730st-andardessentialpatents.pdf](https://www.ftc.gov/sites/default/files/documents/public_statements/prepared-statement-federal-trade-commission-concerning-standard-essential-patent-disputes-and/130730st-andardessentialpatents.pdf).

55 *Id.* (internal citation omitted).

56 See Tsai & Wright, *supra* note 2.

with “actual evidence,” and that the burden is on the accused infringer to show that the patent holder used injunctive relief to gain undue leverage and demand supra-FRAND royalties.<sup>57</sup>

## VII. POLICY RECOMMENDATIONS

*Antitrust agencies should refrain from issuing or otherwise making policy recommendations on SDO IPR Policies.* The issues and choices regarding specific rules are best left to individual SDOs and their members to decide. The issuance of recommendations by a government agency may unduly influence private SDOs and their members to adopt policies that might not otherwise gain consensus support within a particular SDO and that may not best meet the needs of that SDO, its members, and the public. This could occur because the SDO believes failing to adopt the specified policy is not permitted or because failing to adopt the policy could subject the SDO and its members to other legal liabilities.

*SDOs should ensure that their voting procedures are fair, transparent, and consensus-based.* Consensus-based voting procedures, which ensure that standardized technologies are selected on the basis of technological merit by technical experts, are critical. For more than three decades, the SDOs for core wireless technologies have functioned as a true technological meritocracy. This dynamic has allowed disruptive technologies to achieve a fair hearing, even over the objections of very large incumbents, and the market to choose the ultimate winner between competing approaches to next generation standards. Likewise, it is critical that the development of any revisions to SDO IPR Policies be conducted in a fair, transparent, and consensus-based manner that reflects the views of a particular SDO’s members.

*For the reasons set forth below, agencies should not impose an antitrust law sanction for seeking or enforcing injunctive relief, which would likely reduce incentives to innovate and deter SEP holders from participating in standard setting, thereby depriving consumers of the substantial procompetitive benefits of standardized technologies.*<sup>58</sup> An antitrust sanction is not only unnecessary to protect consumer welfare given that the law of contracts is sufficient to provide optimal deterrence, but is likely to be harmful.<sup>59</sup>

First, significant monetary sanctions are likely to over-deter procompetitive participation in SDOs; FRAND-assured

SEP holders need the credible threat of an injunction if they are to recoup the value added by their patents and have no other adequate remedy against an infringing user. Indeed, excessive deterrence is particularly likely because, with liability turning upon whether the infringing user was truly a “willing licensee”—a factual determination that may be far from clear in many cases—the outcome of an antitrust case will necessarily be uncertain. The prospect of penalizing a FRAND-assured SEP holder for seeking injunctive relief diminishes the value of its patents and hence reduces its incentive to innovate.

Second, the prospect of antitrust liability for a patentee seeking injunctive relief would enable an infringing user to negotiate in bad faith, knowing its exposure is capped at the FRAND royalty rate; in this way, an unscrupulous or a judgment-proof infringing user can force the SEP holder to take a below-FRAND rate. Indeed, when the worst penalty an SEP infringer faces is not an injunction but merely paying, after a neutral adjudication, the FRAND royalty that it should have agreed to pay when first asked, then reverse holdup and holdout give implementers a profitable way to defer payment—or, if they are judgment proof, to avoid payment altogether—and puts SEP holders at a disadvantage that reduces the rewards from, and can only discourage innovation and participation in, standard setting.<sup>60</sup>

Third, antitrust liability is likely to deter patent holders from contributing their technology to an SDO under FRAND terms if doing so will require them to forfeit their right to protect their intellectual property by seeking an injunction against infringing users. These possibilities, far from protecting the public interest in competition and innovation, actually threaten to reduce the gains from innovation and standardization.<sup>61</sup>

Finally, if competition agencies decide to adopt such a sanction, at the very least they should adopt an approach similar to that crafted by the European Court of Justice in *Huawei v. ZTE*, in which the court adopted a safe harbor from antitrust liability.<sup>62</sup> Under this safe harbor, an SEP holder is free from liability if: (1) prior to initiating an infringement action, it alerts the alleged infringer to the claimed infringement and specifies the way in which the patent has been infringed; and (2) after the alleged infringer has expressed its willingness to conclude a license agreement on FRAND terms, presents to the alleged infringer a specific, written offer for a license, specifying the royalty and calculation methodology. The Court put the burden on the alleged infringer to “diligently respond” to the SEP holder’s offer, “in accordance with recognized commercial practices in the field and in good faith,” by promptly providing a specific written counter-offer that corresponds to FRAND terms, and by providing appropriate security (e.g., a bond or

<sup>57</sup> See, e.g., *Ericsson, Inc.*, 773 F.3d at 1234 (“In deciding whether to instruct the jury on patent hold-up and royalty stacking, again, we emphasize that the district court must consider the evidence on the record before it. The district court need not instruct the jury on hold-up or stacking unless the accused infringer presents actual evidence of hold-up or stacking. Certainly something more than a general argument that these phenomena are possibilities is necessary.”). See also Layne-Farrar & Wong-Ervin, *supra* note 23, at 5–7.

<sup>58</sup> See Douglas H. Ginsburg et al., *Enjoining Injunctions: The Case Against Antitrust Liability for Standard Essential Patent Holders Who Seek Injunctions*, ANTITRUST SOURCE, Oct. 2014, at 1, 5–6 (explaining, among other things, that the law of contracts is sufficient to provide optimal deterrence). See also Bruce H. Kobayashi & Joshua D. Wright, *The Limits of Antitrust and Patent Holdup: A Reply to Cary, et al.*, 78 ANTITRUST L.J. 505 (2012).

<sup>59</sup> Ginsburg et al., *The Troubling Use*, *supra* note 45, at 7.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.*

<sup>62</sup> Case C-170/13, *Huawei Techs. Co. v. ZTE Corp.*, ECLI:EU:C:2015:477 (ECJ July 16, 2015), <http://curia.europa.eu/juris/document/document.jsf?text=&docid=165911&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=603775>.



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funds in escrow) from the time at which the counter-offer is rejected and prior to using the teachings of the SEP.<sup>63</sup>

In its decision, the Court recognized that SEP holders have “the right to bring an action for prohibitory injunction or for the recall of products,” and made clear that the SEP holder’s right can be limited only in particular and exceptional circumstances.<sup>64</sup> The decision recognizes concerns about holdup by both patent holders and implementers, stating that the Court will not tolerate infringers’ “delaying tactics.”<sup>65</sup>

#### VIII. CONCLUSION

In the past several years, the U.S. antitrust agencies have taken a number of positions with respect to SEPs that are unsupported by (and at times contrary to) the available economic evidence. These decisions devalue IPRs and seem to urge intervention in favor of one side or another in private licensing disputes. In the 1970s, the agencies infamously announced the “Nine No-Nos,” a set of practices a patent holder could not engage in without running afoul of the antitrust laws. By the 1990s, the U.S. agencies took the lead in renouncing those anti-innovation policies in favor of a more analytical approach that would reject special antitrust rules and presumptions against intellectual property. If the United States is to remain the global leader in antitrust policy that protects consumers and innovation, it must lead by example once again in the area of patent licensing by taking an objective look at the data driving their own patent policy positions, and considering the influence those positions have on critical and emerging antitrust authorities.

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<sup>63</sup> *Id.* ¶¶ 66–67.

<sup>64</sup> *Id.* ¶¶ 65–66, 71.

<sup>65</sup> *Id.* ¶ 65.

