

Unclassified

DAF/COMP/WD(2014)116

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

08-Dec-2014

English - Or. English

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

DAF/COMP/WD(2014)116
Unclassified

INTELLECTUAL PROPERTY AND STANDARD SETTING

-- Note by the United States --

17-18 December 2014

This document reproduces a written contribution from the United States submitted for Item VII of the 122nd meeting of the OECD Competition Committee on 17-18 December 2014.

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JT03368151

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1. Introduction

1. In June 2010, the United States submitted a paper to the Competition Committee setting forth its views on U.S. competition policy concerning standard-setting activities.¹ This paper updates parts of that submission, focusing on U.S. antitrust enforcement actions and advisory policy guidance and leading U.S. court decisions in the area of standard setting and intellectual property rights. Through enforcement actions and policy statements, the U.S. Department of Justice, Antitrust Division (DOJ) and the U.S. Federal Trade Commission (FTC) (collectively “the Agencies”) have provided significant guidance concerning competition issues related to standard setting and intellectual property rights. The Agencies’ policy guidance and enforcement decisions in this area take into account the complementary roles that competition and intellectual property laws play in promoting innovation and enhancing consumer welfare.²

2. The Agencies recognize that the core principles of antitrust and intellectual property law can help ensure that any competition enforcement involving standard setting protects competition and consumers, and encourages investment, innovation, and participation in standard-setting activity. The Agencies acknowledge that, generally, “pricing freedom in bilateral licensing negotiations is critical for intellectual property owners.”³ Market power is not presumed from a patent because often there are substitutes for the patented technology.⁴ When patents confer market power, ordinarily “exercise of monopoly power, including the charging of monopoly prices, through the exercise of a lawfully gained monopoly position will not run afoul of the antitrust laws.”⁵ Competition enforcement involving intellectual property rights should protect competition and should not be used to advance unrelated domestic or industrial policy goals. In the Agencies’ view, “[e]nforcers need to be particularly careful about imposing price controls or prohibiting so-called ‘excessive pricing.’”⁶ “Enforcement activity that deprives patent owners of a reasonable reward in one country can depress incentives to create technology for next-generation standards that will benefit consumers around the world.”⁷ Thus, using competition enforcement solely to reduce the royalty firms pay

¹ Submission of the United States to Working Party No. 2 on Competition and Regulation, DAF/COMP/WP2/WD(2010)28 [hereinafter 2010 U.S. Submission], available at <http://www.ftc.gov/sites/default/files/attachments/us-submissions-oecd-and-other-international-competition-fora/usstandardsetting.pdf>.

² U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 1 (2007) [hereinafter 2007 IP Report], available at <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>.

³ Bill Baer, Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, International Antitrust Enforcement: Progress Made; Work to Be Done, Remarks as Prepared for Delivery at the 41st Annual Conference on International Antitrust Law and Policy 7 (Sept. 12, 2014) [hereinafter Baer, Progress Made; Work to Be Done], available at <http://www.justice.gov/atr/public/speeches/308592.pdf>; see also Edith Ramirez, Chairwoman, Federal Trade Comm’n, Standard-Essential Patents and Licensing: An Antitrust Enforcement Perspective, Remarks Presented at the 8th Annual Global Antitrust Enforcement Symposium 11 (Sept. 10, 2014) [hereinafter Ramirez, Standard-Essential Patents and Licensing], available at http://www.ftc.gov/system/files/documents/public_statements/582451/140915georgetownlaw.pdf.

⁴ See *Illinois Tool Works v. Independent Ink.*, 547 U.S. 28, 31 (2006); U.S. Dep’t of Justice & Federal Trade Comm’n, Antitrust Guidelines for the Licensing of Intellectual Property § 2.2 (1995), reprinted in 4 Trade Reg. Rep. (CCH) ¶ 13,132, available at <http://www.usdoj.gov/atr/public/guidelines/0558.pdf>.

⁵ 2007 IP Report, *supra* note 2, at 1.

⁶ Baer, Progress Made; Work to Be Done, *supra* note 3, at 7.

⁷ Ramirez, Standard-Essential Patents and Licensing, *supra* note 3, at 2.

to implement standardized technology may diminish incentives for future inventors to contribute their patented technology to a standard and to compete and innovate. The Agencies seek to promote consumer welfare and innovation by supporting incentives to innovate created by adequate and effective intellectual property rights while protecting competition in their enforcement decisions involving standard setting.

3. This paper first provides general background on standard-setting activities, the procompetitive benefits of standard setting, and the potential for competitive harm, and then surveys U.S. antitrust enforcement developments and the Agencies' policy guidance since 2010. The paper also briefly discusses recent U.S. case law that addresses the judicial calculation of royalties and availability of injunctive relief in patent infringement actions in the U.S. court system when a patent is committed to being licensed on (fair, reasonable, and non-discriminatory terms (F/RAND)).⁸

2. General Background on Standard Setting

2.1 *The nature of standards and standard setting*

4. "Industry standards are widely acknowledged to be one of the engines driving the modern economy."⁹ "Standards can make products less costly for firms to produce and more valuable to consumers. They can increase innovation, efficiency, and consumer choice; foster public health and safety; and serve as a 'fundamental building block for international trade.'"¹⁰ Standards enable virtually all the products we rely upon in modern society, including mechanical, electrical, information, telecommunications, and other systems, to interoperate.¹¹ "The most successful standards are often those that provide timely, widely adopted, and effective solutions to technical problems."¹²

5. The process by which industry standards are developed and adopted varies. Standards development in the United States may be characterized as sector based and market led. U.S. businesses often collaborate to establish standards by working through standard-setting organizations (SSOs)¹³ to develop a standard that all firms, regardless of whether they participate in the process, can use in making

⁸ The precise language of the licensing commitment varies by jurisdiction. In the United States, participants in a standard-setting organization may commit to license patents that are essential to a standard on "reasonable and non-discriminatory" (RAND) terms, whereas in other jurisdictions, they may commit to license such patents on terms that are "fair, reasonable, and non-discriminatory" (FRAND). Commentators frequently use "RAND" and "FRAND" interchangeably. For purposes of this paper, "F/RAND" refers to FRAND and RAND commitments. "F/RAND-encumbered" means that a standard-essential patent (SEP) is subject to a voluntary F/RAND commitment.

⁹ 2007 IP Report, *supra* note 2, at 33.

¹⁰ 2007 IP Report, *supra* note 2 (internal citations omitted). The United States is a party to trade agreements governing the development, adoption and implementation of standards-related measures. The particular rules governing standards-related measures under the World Trade Organization Agreement on Technical Barriers to Trade (TBT Agreement) and U.S. free trade agreements, as well as the U.S. legal framework for implementing its standards-related trade obligations, are described in the *2014 Report on Technical Barriers to Trade (TBT Report)*, available at <http://www.ustr.gov/sites/default/files/2014%20TBT%20Report.pdf>.

¹¹ With respect to beneficial network effects stemming from standardization-induced interoperability, see Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 109 (1994).

¹² 2007 IP Report, *supra* note 2, at 33.

¹³ For ease of discussion, this paper will refer to all collaborative standards-setting groups – whether standards development organizations (SDOs), promoter's groups, joint ventures, special interest groups, or consortia – as SSOs, recognizing that SSOs vary widely in size, formality, operation, and scope.

products.¹⁴ “[S]tandards may also be set in the marketplace where firms vigorously compete, [sometimes] in a winner-take-all standards war to establish their own technology as the *de facto* standard.”¹⁵

6. Most standards developed and used in the United States are voluntary consensus standards created through private sector leadership.¹⁶ In some instances, United States Government (USG) agencies need standards to achieve their own regulatory and procurement objectives. In these situations, the USG prefers that the federal agencies rely on voluntary consensus standards instead of government standards.¹⁷

7. In some countries, governments themselves are involved in selecting technologies to be incorporated into voluntary, collaborative standards, and in determining acceptable royalty and other licensing terms. Such government involvement has the potential to undermine incentives to innovate and to participate in the standard-setting process. Consequently, even for mandatory technical regulations that the government needs to set, the USG may determine the performance requirements that a standard needs to meet, but it allows SSOs to determine which technologies to incorporate according to intellectual property rules set by each SSO, and not mandated by the government.

8. In the United States, as elsewhere, licensing on F/RAND terms for SEPs arises through voluntary commitments by the patent holder.¹⁸ Intellectual property disclosures to SSOs and licensing commitments are designed to promote access to the technology needed to implement the standard on F/RAND terms and to encourage patent holder participants to include the best technology in a standard by allowing for appropriate compensation.¹⁹ Firms that participate in collaborative standard setting can reap significant benefits. For example, a firm that contributes patented technology to a standard might “enjoy a first-mover advantage if [the firm’s] technology is adopted as the standard” and it can benefit from an expanded market for the licensing of its technology.²⁰ Even firms whose technology is not accepted may benefit by gaining technical knowledge as well as insights regarding what technology will ultimately be adopted.²¹

¹⁴ 2007 IP Report, *supra* note 2, at 33 (internal citations omitted).

¹⁵ *Id.* at 34 (internal citations omitted).

¹⁶ Development of voluntary consensus standards includes several attributes, outlined in Office of Mgmt. & Budget, Exec. Office of the President, OMB Circular A-119, Fed. Participation in the Dev. and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (1998) [hereinafter OMB Circular A-119], available at http://www.whitehouse.gov/omb/circulars_a119; see also OMB A-119 Revision Process, available at <http://www.whitehouse.gov/sites/default/files/omb/inforeg/revisions-to-a-119-for-public-comments.pdf>.

¹⁷ OMB Circular A-119, *supra* note 16. An exception arises when reliance on voluntary-consensus standards would be inconsistent with law or otherwise impractical. *Id.*

¹⁸ See, e.g., Ramirez, Standard-Essential Patents and Licensing, *supra* note 3, at 11.

¹⁹ See, e.g., Christine Varney, Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, Promoting Innovation Through Patent and Antitrust Law and Policy 9 (May 26, 2010), available at <http://www.justice.gov/atr/public/speeches/260101.pdf>. These disclosures and F/RAND commitments sometimes identify specific patents that are or may become essential to the standard being developed, or they may be more general “blanket disclosures” or “blanket F/RAND commitments” applicable to a participant’s portfolio. Blanket F/RAND commitments do not typically enumerate specific patents that might be infringed by the standard in question, but rather offer F/RAND terms with respect to all patents within the participant’s portfolio that are or may become standard essential.

²⁰ See 2007 IP Report, *supra* note 2, at 41.

²¹ See, e.g., INTERNATIONAL ELECTROTECHNICAL COMM’N, STANDARDS FOR BUSINESS - HOW COMPANIES BENEFIT FROM PARTICIPATION IN INTERNATIONAL STANDARDS SETTING (2006) (presenting case studies of how companies had benefitted from participation in SSOs), available at <http://www.iec.ch/about/globalreach/academia/pdf/vries-1.pdf>.

9. When a patent holder, in its discretion, declines to make a licensing commitment, the policies of many SSOs allow the SSO then to decide whether to use a different technology, to include the technology without a licensing commitment from its owner, or to abandon the proposed standard. It is foundational that a patent holder's determination of whether to contribute technology to a standard must be voluntary and free of government coercion or pressure. The patent holder, for example, may choose to exercise its right to exclude others from using the patented product or process by supporting an alternative standard or retaining the patented technology for its exclusive use. The SSO likewise may decide not to include the patented technology in the standard, or it may choose to incorporate the patented technology into the standard with the recognition that the patent holder may later choose to seek whatever royalties the market will bear.

2.2 *Potential procompetitive benefits of collaborative standard setting*

10. In many contexts, the collaborative standard-setting process can produce substantial benefits. The U.S. Supreme Court has stated that when “private associations promulgate safety standards based on the merits of objective expert judgments and through procedures that prevent the standard-setting process from being biased by members with economic interests in stifling product competition . . . those private standards can have significant procompetitive advantages.”²² As the FTC has explained, “[t]ypically, the procompetitive benefits of standard setting outweigh the loss of market competition. For this reason, antitrust enforcement has shown a high degree of acceptance of, and tolerance for, standard-setting activities.”²³

11. As described above, these benefits take a variety of forms. “[T]he collaborative standard-setting process can enable industry participants to share knowledge and develop a ‘best-of-breed’ product or process.”²⁴ Interoperability standards, by ensuring that products from different manufacturers can work together, offer a range of benefits.²⁵ Such standards “pave[] the way for moving many important innovations into the marketplace, including the complex communications networks and sophisticated mobile computing devices that are hallmarks of the modern age.”²⁶

12. Standard setting may help to prevent coordination failures that can arise in markets that have network effects.²⁷ In such markets, consumers’ individual decisions may lead them to choose incompatible networks, even though they would all be better off if they coordinated.²⁸ An SSO can provide leadership

²² Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492, 501 (1988).

²³ In the Matter of Rambus, Inc., 2006-2 Trade Cas. (CCH) ¶ 75364 4 (F.T.C. Aug. 2, 2006), *rev’d on other grounds*, Rambus, Inc. v. Fed’l Trade Comm’n, 522 F.3d 456 (D.C. Cir. 2008).

²⁴ Ltr. from Thomas O. Barnett, Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, to Robert A. Skitol, Partner, Drinker, Biddle & Reath, LLP at 7 (Oct. 30, 2006) [hereinafter VITA Business Review Letter], available at <http://www.justice.gov/atr/public/busreview/219380.pdf>.

²⁵ See, e.g., TELECOMMUNICATION STANDARDIZATION BUREAU, INT’L TELECOMMUNICATION UNION: UNDERSTANDING PATENTS, COMPETITION AND STANDARDIZATION IN AN INTERCONNECTED WORLD 25-27 (July 2014) (explaining that standards can “[e]ncourage innovation and competition,” “facilitate interoperability,” “[i]ncrease cost efficiency,” and “[p]romote national development”), available at http://www.itu.int/en/ITU-T/Documents/Manual_Patents_Final_E.pdf.

²⁶ U.S. DEP’T OF JUSTICE & U.S. PATENT & TRADEMARK OFFICE, POLICY STATEMENT ON REMEDIES FOR STANDARDS-ESSENTIAL PATENTS SUBJECT TO VOLUNTARY F/RAND COMMITMENTS 3 (2013) [hereinafter DOJ-PTO Joint Policy Statement], available at <http://www.justice.gov/atr/public/guidelines/290994.pdf>.

²⁷ “[T]here are network effects if one agent’s adoption of a good (a) benefits other adopters of the good (a ‘total effect’) and (b) increases others’ incentive to adopt it (a ‘marginal effect’).” Joseph Farrell & Paul Klempner, *Coordination and Lock-in: Competition with Switching Costs and Network Effects*, 3 HANDBOOK OF INDUSTRIAL ORGANIZATION 1967, 2007 (2007).

²⁸ See *id.* at 2022-24.

that prevents this situation from occurring. In addition, “[b]y agreeing on an industry standard, firms may be able to avoid many of the costs and delays of a standards war, thus substantially reducing transaction costs to both consumers and firms” and speeding up the introduction and adoption of innovative products and services in the marketplace.²⁹ In short, standard setting offers numerous efficiencies.

2.3 *Potential harm to competition from collaborative standard setting*

13. As set forth in the United States’ 2010 submission, collaborative standard setting “is not free of potential social costs.”³⁰ In general, agreements among competitors about which standard is best for the marketplace replaces competition that otherwise would have occurred absent the standard-setting process.³¹ The U.S. Supreme Court has condemned efforts by SSOs or their members that used the standard-setting process to exclude rivals from the market as a violation of Section 1 of the Sherman Act, which prohibits concerted action that unreasonably restrains competition.³²

14. Certain competition concerns may arise when standards incorporate technologies that are protected by intellectual property rights.³³ One potential competition concern relates to the market power that an intellectual property owner may gain from having its technology incorporated into a standard.³⁴ Once a technology is selected, it may be very costly for implementers to switch to a different technology or standard.³⁵ Owners of essential patents included in a standard may take advantage of any new market power derived from the standard and “hold-up” the implementation of the standard, by, for example, excluding competitors from the market based on the infringement of a patent that is necessary to implement the standard, or by obtaining higher prices for their inventions or licensing terms that would not have been possible before the standard was set.³⁶

The Agencies have explained that,

Before, or ex ante, adoption of a standard, multiple technologies may compete to be incorporated into the standard under consideration. Afterwards, unless they have protected themselves ex ante, users of the “winning” technology may lack effective substitutes precisely because the SSO chose it as the standard. Thus, ex post, the owner of a patented technology necessary to implement the standard may have the power to extract higher royalties or other licensing terms that reflect the absence of competitive alternatives. The users of the patented technology do not receive the price benefits that competition between technologies can provide. Consumers of the products using the standard would be harmed to the extent those higher royalties were passed on in the form of higher prices.³⁷

²⁹ 2007 IP Report, *supra* note 2, at 34.

³⁰ 2010 U.S. Submission, *supra* note 1, at 6.

³¹ *Id.*; see also 2007 IP Report, *supra* note 2, at 34.

³² See 2010 U.S. Submission, *supra* note 1 at 7-8 (discussing cases).

³³ See generally 2007 IP Report, *supra* note 2.

³⁴ *Id.* at 35-36

³⁵ *Id.* at 36.

³⁶ Renata B. Hesse, Deputy Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, Six “Small” Proposals for SSOs Before Lunch, Remarks as Prepared for the ITU-T Patent Roundtable 5 (Oct. 10, 2012) [hereinafter, Hesse, Six “Small” Proposals for SSOs Before Lunch], available at <http://www.justice.gov/atr/public/speeches/287855.pdf>. Licensing commitments designed to mitigate such hold-up opportunities must be made voluntarily. See *supra*, §2.1.

³⁷ See 2010 U.S. Submission, *supra* note 1, at 8-9 (internal citations and quotations omitted).

15. To mitigate this type of hold-up, as discussed above in Section 2.1, some SSOs require patent disclosures from participants for essential patents that may be infringed by the potential users of a standard in development.³⁸ They may ask SSO members to commit to license patents essential to that standard on F/RAND terms.³⁹ As stated above, patent disclosures and voluntary licensing commitments are designed to promote access on F/RAND terms to the technology needed to implement the standard and to encourage patent holder participants to include the best technology in a standard by promising adequate compensation. However, a decision by an intellectual property owner *not* to make any licensing commitment to an SSO does not itself create antitrust liability. As explained in Section 2.1, in this circumstance, the SSO may decide whether or not to include the technology without a licensing commitment in the standard.

16. In certain circumstances, competition concerns can arise if potential licensees of a standard jointly insist upon particular licensing terms. The Agencies have explained that joint *ex ante* licensing negotiations may be unreasonable “if there [are] no viable alternatives to a particular patented technology that is incorporated into a standard, the IP holder’s market power [is] not enhanced by the standard, and all potential licensees refuse to license that particular patented technology except on agreed upon licensing terms.”⁴⁰ In these cases, the royalty obtained by the patent owner may be driven below the value of the invention.

2.4 *Other concerns relating to intellectual property and standards*

17. Other concerns can arise when patent holders cannot obtain reasonable compensation for the use of valid and enforceable patents that they have contributed to a standard and that the potential licensee’s products infringe. These concerns have been categorized by some as “hold out.” In the United States, concerns of this nature may arise when there is a dispute between the holder of alleged F/RAND-encumbered SEPs and the potential licensee regarding either the value of the patented technology or its validity, enforceability or infringement. Regardless of the reason for the inability to come to mutually agreed-upon license terms, a potential licensee who may need a license may in some circumstances refuse to take a license or unreasonably delay negotiations to the same effect. Without the availability of relatively prompt and effective civil remedies, including injunctive relief in appropriate circumstances (as described further below with regards to F/RAND-encumbered SEPs⁴¹), patent holders that seek compensation for the patented technology they contribute to a standard may not be compensated for their innovations in a way that reflects the appropriate value of the technology.⁴² In the absence of the ability to

³⁸ 2007 IP Report, *supra* note 2, at 36. Disclosure rules have limitations, however. “Disclosure, even of an issued patent, let alone of an application, does not clearly reveal what will eventually be held to be covered by a valid patent. This patent fog stems from various aspects of [U.S.] patent policy[.]” Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L. J. 603, 629 (2007).

³⁹ 2007 IP Report, *supra* note 2, at 36.

⁴⁰ See 2007 IP Report, *supra* note 2, at 53.

⁴¹ See generally DOJ-PTO Joint Policy Statement, *supra* note 26 at 6; *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1331-32 (Fed. Cir. 2014).

⁴² See *Microsoft Corp. v. Motorola, Inc.*, 2013 WL 2111217, at *18 (W.D. Wash. April 25, 2013). See also U.S. DOJ-PTO Joint Policy Statement, *supra* note 26, at 8; FED. TRADE COMM’N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION, Ch. 4 (2011) (describing the importance of providing appropriate incentives for innovation through remedies for patent infringement) [hereinafter FTC 2011 Evolving IP Marketplace Report], available at <http://www.ftc.gov/os/2011/03/110307patentreport.pdf>; Prepared Statement of The Federal Trade Commission, Concerning “Standard Essential Patent Disputes and Antitrust Law,” Before the United States Senate Comm. on the Judiciary Subcomm. on Antitrust, Competition Policy and Consumer Rights, July 30, 2013, at 6n.16, available at http://www.ftc.gov/sites/default/files/documents/public_statements/prepared-statement-federal-trade-

obtain such compensation, patent holders may become reluctant to contribute technology to a standard or to invest in future research and development that leads to further innovation.

3. Enforcement Actions

3.1 *Harming competition through deception during the standard-setting process*

18. The FTC has brought three cases under Section 5 of the FTC Act alleging anticompetitive manipulation of standard-setting processes. In *Dell*, “the FTC alleged that during an SSO’s deliberations about a certain standard, Dell, a member of the SSO, had twice certified that it had no intellectual property relevant to the standard, and that the SSO adopted the standard based, in part, on Dell’s certifications.⁴³ After the SSO adopted the standard, Dell demanded royalties from those using its technology in connection with that standard. The [FTC] accepted a consent agreement under which Dell agreed not to enforce the patent in question against firms using it as part of the standard.”⁴⁴

19. Similarly, in *Rambus*, the FTC found that Rambus was able to distort a critical standard-setting process and engage in an anticompetitive “hold-up” of the computer memory industry by knowingly failing to disclose to the SSO patents that it believed were or could be essential to the relevant standard.⁴⁵

20. Rambus appealed, and the U.S. Court of Appeals for the District of Columbia overturned the FTC’s decision.⁴⁶ The court opined that if the SSO, in the world that would have existed “but for” Rambus’s deception, would have standardized the very same technologies, Rambus’s alleged deception could not be said to have had an effect on competition in violation of the antitrust laws. The court did not view the SSO’s loss of an opportunity to seek favorable F/RAND licensing terms as an “antitrust” harm. Because the FTC did not negate the possibility that the SSO would have developed the same standard even absent Rambus’s deceptive conduct, the court held that “the Commission failed to demonstrate that Rambus’s conduct was exclusionary, and thus to establish its claim that Rambus unlawfully monopolized the relevant markets.”⁴⁷

21. In *In re Union Oil Company of California*, the FTC alleged that Union Oil Company of California (Unocal) misrepresented its proprietary interest in the relevant standard until members of the refining industry had spent billions of dollars modifying their refineries to become compliant with the new standards, thereby enabling Unocal to charge substantial royalties, costing consumers hundreds of millions of dollars per year.⁴⁸ Under the terms of the settlement, Unocal agreed not to enforce its patents related to the relevant standard.⁴⁹

[commission-concerning-standard-essential-patent-disputes-and/130730standardessentialpatents.pdf](#); Reply Submission of the Office of Unfair Import Investigations on Remedy and the Public Interest, *In re Certain Wireless Communications Devices, Portable Music and Data Processing Devices, Computers and Components Thereof*, Inv. No. 337-TA-745, at 12 n.3 (Int’l Trade Comm’n July 18, 2012).

⁴³ *In re Dell*, 121 F.T.C. 616 (1996).

⁴⁴ 2007 IP Report, *supra* note 2, at 44; *see also* Decision and Order, *In re Dell*, 121 F.T.C. at 618-23 (1996).

⁴⁵ *Rambus, Inc.*, 9302 F.T.C. (2006), *available at* <http://www.ftc.gov/os/adjpro/d9302/060802commissionopinion.pdf>.

⁴⁶ *Rambus Inc. v. Fed. Trade Comm’n*, 522 F.3d 456 (D.C. Cir. 2008), *reh’g en banc denied* (Sept. 9, 2008).

⁴⁷ *Id.* at 467.

⁴⁸ Complaint, *Union Oil Company of California*, 9305 F.T.C. (Mar. 4, 2003), *available at* <http://www.ftc.gov/os/adjpro/d9305/030304unocaladminemplt.pdf>.

⁴⁹ *See* Statement of the Federal Trade Commission, *In re Union*

22. In addition to the FTC's enforcement activity, a U.S. Court of Appeals allowed private monopolization and attempted monopolization claims under Section 2 of the Sherman Act to proceed against a patent holder based on an alleged failure to license its patented technology on F/RAND terms to which it had committed during the standard-setting process.⁵⁰ The court found the conduct actionable under the antitrust laws when "[i]n a consensus-oriented private standard-setting environment," the "patent holder's intentionally false promise to license essential proprietary technology on [F/RAND] terms" is "coupled with an SDO's reliance on that promise when including the technology in a standard" and the patent holder subsequently breaches that promise.⁵¹

3.2 *Harming competition by renegeing on commitments to SSOs*

23. The FTC has brought three cases alleging that companies harmed competition in violation of Section 5 of the FTC Act by failing to abide by commitments made to SSOs. In *N-Data*, the FTC found that N-Data engaged in an "unfair method of competition" under Section 5 of the FTC Act by (1) knowingly refusing to comply with commitments made by its predecessor in interest, (2) demanding royalties far in excess of that commitment after it became expensive and difficult for the industry to switch to another standard, and (3) threatening or initiating lawsuits against companies that refused to pay the royalties it demanded.⁵² In *In the Matter of Robert Bosch GmbH*, the FTC found reason to believe that SPX Service Solutions U.S. LLC (SPX) harmed competition by renegeing on a commitment to license SEPs on F/RAND terms by seeking injunctions against willing licensees of those patents.⁵³ Similarly, in *In the Matter of Motorola Mobility LLC and Google, Inc.*, the FTC alleged that Google renegeed on its F/RAND commitments and pursued – or threatened to pursue – injunctions against companies that were willing to license the relevant SEPs on F/RAND terms.⁵⁴ The FTC approved a final order prohibiting Google from seeking injunctive relief unless it takes a series of steps including (1) providing a potential licensee with a written offer containing all of the material license terms necessary to license its SEPs, and (2) providing the potential licensee with an offer of binding arbitration to determine the terms of a license.⁵⁵ The consent order also provided potential licensees with a voluntary negotiation framework that they could opt into to negotiate license terms. Finally, the order identified several narrowly-defined circumstances when Google would be allowed to seek injunctive relief, such as when the potential licensee is not subject to jurisdiction in the United States or when it refuses to agree to terms set by a court or in binding arbitration.

Oil Company of California, Dkt. No. 9305 and *Chevron/Unocal*, File No. 051-0125 (June 10, 2005), available at www.ftc.gov/os/adjpro/d9305/050802statement.pdf.

⁵⁰ 2010 U.S. Submission, *supra* note 1, at 12.

⁵¹ *Broadcom v. Qualcomm*, 501 F.3d 297, 314 (3d Cir. 2007); *see also* 2010 U.S. Submission, *supra* note 1, at 12.

⁵² Statement of the Federal Trade Commission, *In re Negotiated Data Solutions, LLC*, File No. 051-0094 (Jan. 23, 2008), available at <http://www.ftc.gov/sites/default/files/documents/cases/2008/01/080122statement.pdf>.

⁵³ Analysis of Agreement Containing Consent Orders to Aid Public Comment, *In the Matter of Robert Bosch GmbH*, File No. 121-0081 (Apr. 24, 2013), available at <http://www.ftc.gov/sites/default/files/documents/cases/2013/04/121126boschanalysis.pdf>.

⁵⁴ Complaint, *In the Matter of Motorola Mobility LLC and Google, Inc.*, File No. 121-0120 (F.T.C. July 24, 2013), available at <http://www.ftc.gov/sites/default/files/documents/cases/2013/07/130724googlemotorolacmpt.pdf>.

⁵⁵ Analysis of Proposed Consent Order to Aid Public Comment, *In the Matter of Motorola Mobility LLC and Google, Inc.*, File No. 121-0120 (F.T.C. Jan. 3, 2013), available at <http://www.ftc.gov/sites/default/files/documents/cases/2013/01/130103googlemotorolaanalysis.pdf>.

3.3 Patent portfolio acquisition

24. Under Section 7 of the Clayton Act,⁵⁶ DOJ has investigated the acquisition of several large patent portfolios that included patents that the patent seller (or a previous owner) had agreed to license or make available to users on specific terms, such as F/RAND or royalty-free. DOJ's investigations focused on whether the acquiring firms would have the incentive and ability to exploit ambiguities in the licensing commitments the sellers made so as to hold-up implementers of a standard or foreclose competitors.

25. The first investigation concerned the acquisition of Novell Inc.'s patent portfolio by CPTN, a holding company owned by Microsoft Inc., Oracle Corp., Apple Inc., and EMC Corp. Prior to the acquisition, Novell had committed to cross-license its patents on a royalty-free basis for use in the open-source Linux system.⁵⁷ DOJ determined that "[a]s originally proposed, the deal would jeopardize the ability of open source software, such as Linux, to continue to innovate and compete in the development and distribution of server, desktop, and mobile operating systems, middleware, and virtualization products."⁵⁸ In light of competition concerns about the acquisition, CPTN and its owners agreed to make revisions to CPTN's formation agreements in order to preserve competition and innovation in open source software. Among other revisions, the parties agreed that all of Novell's patents would be acquired subject to the GNU General Public License Version 2, a widely adopted open-source license, and the Open Invention Network License related to the Linux system.⁵⁹

26. In February 2012, DOJ closed Clayton Act investigations examining whether firms acquiring two significant patent portfolios could use the patents in the portfolios to raise rivals' costs or foreclose competition.⁶⁰ Many of the patents in both these portfolios were relevant to wireless communications technologies and many were encumbered with commitments made to SSOs to license them on F/RAND terms for uses implementing certain standards.⁶¹ DOJ examined whether the acquiring firms might seek to hold-up implementers of the standards by demanding higher royalty rates, compelling cross licenses, charging licensees the entire portfolio rate for a subset of patents, or seeking to exclude infringing products from the market altogether. DOJ also considered whether the patent acquisitions would permit the acquirers of the SEPs to obtain higher royalties by using the threat of an injunction.⁶²

27. DOJ concluded that the acquisitions were unlikely to substantially lessen competition. DOJ's analysis took into account public statements made during the pendency of these investigations by the

⁵⁶ 15 U.S.C. § 18.

⁵⁷ Press Release, Antitrust Div., U.S. Dep't of Justice, CPTN Holding LLC and Novell Inc. Change Deal In Order to Address Department of Justice's Open Source Concerns (Apr. 20, 2011), *available at* http://www.justice.gov/atr/public/press_releases/2011/270086.pdf.

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ The first involved Rockstar Bidco, a partnership formed by Apple, Microsoft, RIM Ltd., Sony Corp., and Ericsson, which sought to acquire Nortel's portfolio of approximately 6,000 patents and patent applications. The second concerned Google's acquisition of Motorola's portfolio of approximately 17,000 patents and 6,800 applications.

⁶¹ See Press Release, U.S. Dep't of Justice, Statement of the Department of Justice's Antitrust Division on its Decision to close its Investigations of Google Inc.'s Acquisition of Motorola Mobility Holdings Inc. and the Acquisitions of Certain Patents By Apple Inc., Microsoft Corp. and Research In Motion Ltd. (Feb. 13, 2012) [hereinafter DOJ Closing Statement], *available at* http://www.justice.gov/atr/public/press_releases/2012/280190.pdf.

⁶² *Id.* at 1, 4.

acquiring firms, Apple, Google and Microsoft, explaining their respective SEP licensing practices.⁶³ DOJ's competition concerns "were lessened by the clear commitments by Apple and Microsoft to license SEPs on [F/RAND] terms, as well as their commitments not to seek injunctions in disputes involving SEPs."⁶⁴ DOJ also found that Google's acquisition of Motorola's patents would not lessen competition.⁶⁵ Motorola was already in a number of disputes with Microsoft, Apple, and others over the licensing of its SEPs and Google's acquisition of Motorola's patents was unlikely to materially alter current market dynamics.⁶⁶

28. These transactions "highlight the complex intersection of intellectual property rights and antitrust law and the need to determine the correct balance between the rightful exercise of patent rights and a patent holder's incentive and ability to harm competition through the anticompetitive use of those rights."⁶⁷ The Agencies continue to monitor how competitors are transferring ownership of their patent rights, particularly when the patents at issue are F/RAND-encumbered and could affect the implementation of a standard.⁶⁸

4. Competition policy guidance concerning F/RAND-encumbered SEPs

4.1 Introduction

29. The Agencies have provided advisory competition policy guidance, including through written guidance and outreach to SSOs regarding intellectual property policies, advocating for clarity in the law and procompetitive rules with respect to administrative and court decisions involving F/RAND-encumbered patents, and testifying before Congress about potential competitive harm that can result from patent hold-up. The Agencies have also engaged in competition advocacy in foreign jurisdictions to ensure that patent holder determinations of whether to contribute technology to a standard are voluntary and free of government coercion or pressure and that patent holders contributing technology to standards are not required to license those patents on royalty-free or below market terms.

4.2 Agency guidance to SSOs regarding F/RAND licensing

30. In providing advisory competition policy guidance, the Agencies do not require SSOs to adopt specific intellectual property policies and DOJ has stated that "experimentation and competition among [SSOs] regarding the breadth and depth of member licensing commitment obligations or options should help [SSOs] and their members determine which methods ultimately provide the best platforms for collaborative standard setting."⁶⁹ As explained in the 2010 U.S. Submission, the Agencies review standard-

⁶³ *Id.* at 1, 5.

⁶⁴ *Id.* at 1.

⁶⁵ *Id.*

⁶⁶ DOJ's investigation of this acquisition was limited to Motorola's transfer of patent ownership rights and did not involve Google's exercise of those transferred rights, which was the subject of a different FTC investigation discussed above. *Id.* at 5. In the Google/Motorola investigation, DOJ coordinated with state competition authorities, as well as antitrust enforcers in other jurisdictions including the European Commission, the Australian Competition and Consumer Commission, the Canadian Competition Bureau, the Israeli Antitrust Authority, and the Korean Fair Trade Commission. *Id.*

⁶⁷ *Id.* at 5-6.

⁶⁸ *See Oversight of the Impact on Competition of Exclusion Orders to Enforce Standards Essential Patents: Hearing Before the S. Comm. on the Judiciary*, 112th Cong. 9-10 (2012) (testimony of Joseph F. Wayland, Acting Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice), available at <http://www.justice.gov/atr/public/testimony/284982.pdf>; see also DOJ Closing Statement at 1-2.

⁶⁹ Ltr. from Thomas O. Barnett, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Michael A. Lindsey, Partner, Dorsey & Whitney, LLP at 12 (Apr. 30, 2007) [hereinafter IEEE Business Review

setting activity under a flexible rule of reason and have provided written policy guidance to private sector SSOs regarding proposed changes to their patent policies. In 2006 and 2007, DOJ advised two SSOs that it would not challenge their intellectual property policies designed to preserve competition and limit the potential for licensing hold-up by requiring or permitting patent holders to disclose the most restrictive terms on which they are willing to license their SEPs before the standard is set.⁷⁰ More recently, in a number of speeches, DOJ has encouraged SSOs to provide greater clarity in patent policies.⁷¹

31. In addition, in an exceptional circumstance, the United States, based on its member status in the International Telecommunication Union (ITU), submitted text in 2014 on the question of the conditions under which injunctive and exclusionary relief may be available to owners of F/RAND-encumbered patents essential to an ITU-T standard for consideration by the Telecommunications Standards Advisory Group (TSAG) of the ITU-T.⁷² In this particular instance, the executive branch agencies of the USG recommended that the ITU consider several principles. The recommendation provided that “[l]icensing terms should be determined by good faith negotiations between the Patent Holder, or its successors in interest, and potential licensees without unreasonable delays by either party.” For F/RAND-encumbered SEPs, it stated “the Patent Holder, or its successors in interest, shall neither seek nor seek to enforce injunctive/exclusionary relief against a potential licensee willing to accept a license on RAND terms.” The recommendation explained that an example of a willing potential licensee is one that commits without unreasonable delay to be bound by an independent determination of F/RAND terms. Additionally, the text suggested that injunctive or exclusionary relief “may be available to the extent allowed under the laws of the applicable jurisdiction: (i) where money damages would not be adequate to provide [F/RAND] compensation for the infringement, or (ii) where the potential licensee refuses to accept a license on [F/RAND] terms or engages in conduct to the same effect.” It further suggested that patent infringement and F/RAND disputes be settled by “an independent judicial, administrative, or mutually agreed upon arbitral authority.” And “in any such proceeding, “each party may assert available relevant arguments and defenses.”⁷³ The United States takes no position on whether this text is suitable for adoption by other SSOs.

4.3 Competition policy guidance regarding the ITC and the courts

4.3.1 Exclusion orders and the U.S. International Trade Commission

32. The U.S. International Trade Commission (ITC) is an independent, quasi-judicial Federal agency with broad investigative responsibilities on matters of trade. Under 19 U.S.C. § 1337, the ITC investigates whether importers of goods have committed “unfair practices in import trade” in administrative hearings on the record. By statute, the ITC “shall” issue an exclusion order when it finds a Section 337 violation, unless public interest considerations counsel otherwise.

33. In January 2013, DOJ and the U.S. Patent and Trademark Office (PTO) issued a Joint Policy Statement (DOJ-PTO Joint Policy Statement) addressing the public interest factor analysis under 19 U.S.C. §1337 administered by the ITC. The DOJ-PTO Joint Policy Statement stated that exclusionary relief at the ITC to remedy infringement of F/RAND-encumbered SEPs may cause competitive harm by facilitating

Letter], available at <http://www.atrnet.gov/subdocs/222978.pdf>. See also 2010 U.S. Submission *supra* note 1, at 15; 2007 IP Report, *supra* note 2, at 48.

⁷⁰ See VITA Business Review Letter, *supra* note 24; IEEE Business Review Letter, *supra* note 69.

⁷¹ See, e.g., Hesse, Six “Small” Proposals for SSOs Before Lunch, *supra* note 36.

⁷² United States Submission to Telecommunication Standardization Advisory Group, Contribution 43 (June 2014), available at <http://www.nist.gov/standardsgov/upload/T13-TSAG-C-0043-A1-r1-E.pdf>.

⁷³ *Id.*

patent hold-up and, therefore, such relief may be inconsistent with the statutory public interest standard.⁷⁴ The DOJ-PTO Joint Policy Statement also explained that ITC exclusion orders can be an appropriate remedy in some circumstances, such as where an implementer of a standard “refuses to pay what has been determined to be a F/RAND royalty or refuses to engage in a negotiation to determine F/RAND terms” or if a potential licensee “is not subject to the jurisdiction of a court that could award damages.”⁷⁵ This guidance was consistent with the view the FTC previously expressed to the ITC in June 2012.⁷⁶

34. On August 3, 2013, the U.S. Trade Representative (USTR) cited the DOJ-PTO Joint Policy Statement in a letter to the ITC Chairman disapproving an ITC determination for policy reasons. The USTR shared the “substantial concerns” expressed in the DOJ-PTO Joint Policy Statement regarding “the potential harms that can result from owners of [F/RAND-committed SEPs] gaining undue leverage and engaging in ‘patent hold-up’ At the same time, technology implementers also can cause potential harm by, for example, engaging in ‘reverse hold up’ (‘hold out’), e.g., by constructive refusal to negotiate a [F/RAND] license with the SEP owner or refusal to pay what has been determined to be a [F/RAND] royalty.”⁷⁷

4.3.2 *The U.S. courts*

35. Over the past few years, several litigated breach of contract cases and patent infringement cases have helped clarify how courts can calculate a “reasonable royalty” for a F/RAND-encumbered SEP⁷⁸ and when injunctive relief may be granted.⁷⁹ The Agencies have engaged in advocacy with respect to both issues.⁸⁰

⁷⁴ DOJ-PTO Joint Policy Statement, *supra* note 26, at 6-7.

⁷⁵ *Id.*

⁷⁶ Third Party U.S. Fed. Trade Comm’n Statement on the Public Interest, Certain Wireless Communication Devices, Portable Music and Data Processing Devices, Computers and Components Thereof, Inv. No. 337-TA-745 (June 6, 2012) (explaining that issuance of an exclusion order in matters involving F/RAND-encumbered SEPs, when infringement is based on implementation of standardized technology “has the potential to cause substantial harm to U.S. competition, consumers and innovation,” and noting that the ITC may refrain from imposing remedies that conflict with the public interest), *available at* http://www.ftc.gov/sites/default/files/documents/advocacy_documents/ftc-comment-united-states-international-trade-commission-concerning-certain-wireless-communication/1206ftcwirelesscom.pdf.

⁷⁷ Certain Electronic Devices, Including Wireless Communications Devices, Portable Music and Data Processing Devices, and Tablet Computers, Inv. No. 337-TA-794 (Aug. 2013), *disapproved by* Ltr. from Michael B.G. Froman, Amb., U.S. Trade Rep., to Irving A. Williamson, Chairman, U.S. Int’l Trade Comm’n (Aug. 3, 2013), *available at* http://www.ustr.gov/sites/default/files/08032013%20Letter_1.PDF.

⁷⁸ *See, e.g.*, Realtek Semiconductor Corp. v. LSI Corp., 946 F.Supp. 2d 998, 1006 (N.D. Cal. 2013); Apple, Inc. v. Motorola Mobility, Inc., 886 F. Supp. 2d 1061, 1083-84 (W.D. Wis. Aug. 10, 2012), 2011 WL 7324582, at *7-11 (W.D. Wis. June 10, 2011); Microsoft Corp. v. Motorola, Inc., 864 F. Supp. 2d 1023, 1030-33, 854 F. Supp. 2d 993, 999-1001 (W.D. Wash. 2012), 696 F.3d 872, 884 (9th Cir. 2012); Research In Motion Ltd. v. Motorola, Inc., 644 F.Supp.2d 788, 797 (N.D. Tex. 2008). *See also In re Innovatio IP Ventures, LLC Patent Litig.*, No. 11 c 9308, 2013 WL 5593609 at *4 (N.D. Ill. Oct. 3, 2013), 2013 WL 427167, at *17 (N.D. Ill. Feb. 4, 2013).

⁷⁹ *See, e.g.*, Apple Inc. v. Motorola, Inc., 757 F.3d 1286, 1331-32 (Fed. Cir. 2014) (rejecting a *per se* rule prohibiting injunctions for SEPs).

⁸⁰ Equitable patent law defenses and tort law actions might also be relied upon to resolve licensing disputes involving SEPs. *See* 2010 U.S. Submission, *supra* note 1, at 16.

4.3.2.1 F/RAND royalty rate determinations

36. In recent cases involving F/RAND licensing disputes, courts have considered a hypothetical *ex ante* negotiation between the parties using a modified version of the *Georgia-Pacific* factors.⁸¹ Two decisions by district court judges determining a RAND rate or range, which have been informed by the goals of RAND, are instructive.⁸² [Note: The U.S. Court of Appeals for the Federal Circuit remanded one district court decision just as this submission was finalized. It is not reflected in this discussion.⁸³] These [earlier] decisions acknowledged that RAND licensing requirements seek to avoid patent hold-up and encourage “widespread adoption” of a standard,⁸⁴ and that a RAND rate must maintain incentives to participate in and contribute technology to a standard.⁸⁵ The decisions are also cognizant of the problem of royalty stacking “and the need to ensure that the aggregate royalties associated with a given standard are reasonable,” given that today’s standards incorporate intellectual property from multiple owners.⁸⁶ In applying the modified *Georgia-Pacific* factors, these courts discussed, *inter alia*, comparable RAND licenses,⁸⁷ whether the SSO could have adopted alternatives to the patented technology,⁸⁸ and the incremental value contributed by the patented technology to the standard, apart from the value associated with its adoption into the standard.⁸⁹

37. These recent decisions are consistent with the FTC’s 2011 report, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition*, in which the FTC described the potential for

⁸¹ See *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), *modified and aff’d*, 446 F.2d 295 (2d Cir. 1971).

⁸² *In re Innovatio IP Ventures, LLC Patent Litig.*, 2013 WL 5593609 (N.D. Ill. October 3, 2013); *Microsoft Corp. v. Motorola, Inc.*, 2013 WL 2111217 (W.D. Wash. April 25, 2013); *cf. CSIRO v. Cisco Sys. Inc.*, 2014 WL 3805817 (E.D. Tex. July 23, 2014) (no modification of the *Georgia-Pacific* analysis when the F/RAND commitment extended only to an early version of the standard and “a modified analysis . . . would have a *de minimus* impact on the overall royalty,” but the court would consider the F/RAND obligation when appropriate). There have also been two jury verdicts. See *Ericsson Inc. v. D-Link Sys., Inc.*, 2013 WL 4046225 (E.D. Tex. 2013), *aff’d in part, rev’d in part, vacated-in-part and remanded*, No., 2013-1625 (Fed. Cir. Dec. 4, 2014); *Realtek Semiconductor Corp. v. LSI Corp.*, 2014 WL 2738216 (N.D. Cal. June 16, 2014).

⁸³ *Ericsson Inc. v. D-Link Sys., Inc.*, No., 2013-1625 (Fed. Cir. Dec. 4, 2014).

⁸⁴ *Innovatio*, 2013 WL 5593609, at *8-9, 12; *Microsoft*, 2013 WL 2111217, at *10-12.

⁸⁵ *Innovatio*, 2013 WL 5593609, at *12, 20; *Microsoft*, 2013 WL 2111217, at *12, 20, 80.

⁸⁶ *Microsoft*, 2013 WL 2111217, at *11-12, 20, 73-74, 86; *Innovatio*, 2013 WL 5593609, at *9-10, 38.

⁸⁷ *Innovatio*, 2013 WL 5593609, at *5, 30-37; *Microsoft*, 2013 WL 2111217, at *18, 20, 64-101.

⁸⁸ *Innovatio*, 2013 WL 5593609, at *19-20; *Microsoft*, 2013 WL 2111217, at *13, 19, 53-54 (discussing one modified *Georgia-Pacific* factor and explaining “the parties to a hypothetical negotiation under a RAND commitment would consider alternatives that could have been written into the standard instead of the patented technology. The focus is on the period before the standard was adopted and implemented (i.e., *ex ante*).”).

⁸⁹ *Microsoft*, 2013 WL 2111217, at *12-13 (“[A] reasonable royalty rate for an SEP committed to a RAND obligation must value the patented technology itself, which necessarily requires considering the importance and contribution of the patent to the standard. If alternatives available to the patented technology would have provided the same or similar technical contribution to the standard, the actual value provided by the patented technology is its incremental contribution. . . . Thus, comparison of the patented technology to the alternatives that the SSO could have written into the standard is a consideration in determining a RAND royalty”). See also *id.* at *18, *85-86. *But cf. id.* at *13 (raising practical concerns about determining incremental value); *Innovatio*, 2013 WL 5593609, at *37.

patentees to engage in hold-up through patent assertions,⁹⁰ and made recommendations for the determination of reasonable royalty damages to avoid hold-up generally and in the standard-setting context. The FTC observed that “a court may look to reasonable royalty damages law for guidance” in addressing F/RAND licensing disputes.⁹¹ Specifically, the FTC recommended that reasonable royalty damages for F/RAND-encumbered patents be set using the hypothetical negotiation framework, and recognized that in market negotiation before the standard is set and switching costs accrue, a licensee would be unwilling to agree to a royalty that exceeded “the incremental value of the patented technology over alternatives available at the time the standard was defined.”⁹²

4.3.2.2 *The use of injunctions*

38. Under the U.S. Supreme Court’s 2006 decision in *eBay Inc. v. MercExchange, LLC*,⁹³ a patent holder must satisfy four factors in order to obtain an injunction:

*(1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by [an] injunction.*⁹⁴

39. Recent U.S. court decisions have applied the *eBay* standard when examining the availability of injunctive relief for the infringement of an SEP subject to a voluntary commitment to license on F/RAND terms for uses implementing a standard. In the first U.S. federal decision at the appellate level, *Apple v. Motorola*, the U.S. Court of Appeals for the Federal Circuit affirmed the district court’s denial of an injunction to the SEP holder, Motorola. In so doing, the court described the *eBay* standard as providing “ample strength and flexibility for addressing the unique aspects of [F/RAND] committed patents and industry standards in general.”⁹⁵ The court expressly rejected “a per se rule that injunctions are unavailable for SEPs [subject to a F/RAND commitment].”⁹⁶ The court explained that “[a] patentee subject to [F/RAND] commitments may have difficulty establishing irreparable harm. On the other hand, an injunction may be justified where an infringer unilaterally refuses a [F/RAND] royalty or unreasonably delays negotiations to the same effect.”⁹⁷ The court acknowledged the public interest “in encouraging participation in standard-setting organizations but also in ensuring that SEPs are not overvalued.”⁹⁸ The court noted that district courts are “more than capable of considering these factual issues when deciding whether to issue an injunction.”⁹⁹ Addressing the facts presented in the appeal, the court concluded that Motorola’s F/RAND licensing “commitments, which yielded many license agreements . . . , strongly suggest that money damages are adequate to fully compensate [it] for any infringement.”¹⁰⁰

⁹⁰ See FTC 2011 Evolving IP Marketplace Report, *supra* note 42.

⁹¹ *Id.* at 194.

⁹² *Id.*

⁹³ *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

⁹⁴ *Id.* at 391.

⁹⁵ *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1332 (Fed. Cir. 2014).

⁹⁶ *Id.* at 1331.

⁹⁷ *Id.* at 1332.

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.*

40. The Federal Circuit’s decision is consistent with the FTC’s *amicus curiae* brief in the case, in which the FTC advocated that “a practice of widespread licensing . . . strongly militates against a finding of irreparable harm.”¹⁰¹ The FTC also argued that “a commitment to license . . . on F/RAND terms should be sufficient to establish that a reasonable royalty is adequate to compensate the patentee for infringement by any particular implementer willing and able to abide by those terms.”¹⁰² The FTC also noted the potential hardship that an injunction would pose to infringers, as well as the “public interest in promoting innovation and protecting consumers.”¹⁰³ The FTC’s brief was based on its longstanding research in the area, notably its 2011 IP Report.

4.4 Congressional testimony

41. The Agencies have also testified before Congress, identifying potential harm to competition and the standard-setting process that could result from patent hold-up¹⁰⁴ and urging Congress to act if necessary.¹⁰⁵

5. Concluding Comments

42. The Agencies have provided competition guidance to SSOs, the business community, the courts, and the ITC concerning competition issues related to standard setting and intellectual property rights. The USG believes that intellectual property holders should be free to decide whether to contribute technology to a standard, and that intellectual property holders who seek compensation for the technology they contribute to a standard should be compensated for their invention in a way that appropriately reflects the value of the technology while avoiding harm to competition. In view of that, the Agencies have encouraged standard-setting bodies to adopt clear intellectual property policies that may facilitate such compensation for contributions to a standard, help to mitigate hold-up, and promote swift implementation of industry standards, and the Agencies have undertaken enforcement actions when conduct involving F/RAND-encumbered SEPs harms competition and violates the antitrust laws.

¹⁰¹ Brief of Amicus Curiae Fed. Trade Comm’n Supporting Neither Party, *Apple Inc. v. Motorola, Inc.*, Nos. 2012-1548, 2012-1549 2012 WL 6655899 at 10 (Fed. Cir. Dec. 4, 2012), available at http://www.ftc.gov/sites/default/files/documents/amicus_briefs/apple-inc.and-next-software-inc.v.motorola-inc.and-motorola-mobility-inc./121205apple-motorolaamicusbrief.pdf.

¹⁰² *Id.* at 11.

¹⁰³ *Id.* at 12.

¹⁰⁴ *Prepared Statement of the Federal Trade Commission Concerning Oversight of the Impact on Competition of Exclusion Orders To Enforce Standard-Essential Patents before the S. Comm. on the Jud.*, 113th Cong. (2012) (statement of Edith Ramirez, Chairwoman, Fed. Trade Comm’n) [hereinafter Ramirez Testimony], available at http://www.ftc.gov/sites/default/files/documents/public_statements/prepared-statement-federal-trade-commission-concerning-oversight-impact-competition-exclusion-orders/120711standardpatents.pdf; *Oversight of the Impact on Competition of Exclusion Orders to Enforce Standards Essential Patents: Hearing Before the S. Comm. on the Judiciary*, 112th Cong. 9-10 (2012) (statement of Joseph F. Wayland, Acting Assistant Att’y Gen., Antitrust Div.), available at <http://www.justice.gov/atr/public/testimony/284982.pdf>; *Prepared Statement of the Federal Trade Commission Concerning Standard Essential Patent Disputes and Antitrust Law before the S. Comm. on the Jud. Subcomm. on Antitrust, Competition Policy and Consumer Rights*, 113th Cong. (2013) (statement by Suzanne Munck, Chief Counsel for Intellectual Property, Fed. Trade Comm’n), available at http://www.ftc.gov/sites/default/files/documents/public_statements/prepared-statement-federal-trade-commission-concerning-standard-essential-patent-disputes-and/130730standardessentialpatents.pdf.

¹⁰⁵ See Ramirez Testimony, *supra* note 104 at 1-2.