

Equity, Antitrust, and the Reemergence of the Patent Unenforceability Remedy

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The conventional legal analysis of technical standard setting derives primarily from antitrust law. But antitrust remedies, taken alone, may not be broad enough to address recent abuses of the standardization process. The principal example of this shortcoming is the well-known case of Rambus, Inc., which, over the course of several years, was alleged to have concealed relevant patent applications from a standards organization in which it participated and then successfully sued the entire DRAM industry for royalties after the standard was “locked-in.” Remarkably, Rambus prevailed in its litigation campaign despite aggressive enforcement efforts by the Federal Trade Commission.¹ Rambus’s success stemmed, in part, from inherent limitations of the antitrust theories asserted against it to reach its opportunistic behavior.

Another tool for redressing deceptive conduct in the context of standard setting is the equitable remedy of patent unenforceability, the use of which was recently affirmed by the Federal Circuit in *Qualcomm Inc. v. Broadcom Corp.*² The *Qualcomm* decision marks an important advance in the law surrounding standards-based patent hold-up by making available a remedy that is not constrained by the narrow requirements of antitrust law and which is effective toward both defendants in private litigation and the broader community of standards implementers. Though not yet universally acknowledged as such, the remedy of patent unenforceability, when coupled with affirmative theories of liability, may offer the most effective tool available to address patent hold-up in standard setting, both for private litigants and, potentially, for public enforcement agencies.

Standards Hold-Up Litigation

The narrative of patent “hold-up” in technical standard setting is well known: an opportunistic participant in a standards-development organization (SDO), contrary to express rules or common expectations, conceals the fact that it holds a patent or patent application claiming one or more aspects of a standard under development. Then, after the standard has been approved and broadly adopted (“locked-in”), the patent holder emerges to seek royalties from implementers of the standard.³ Robert Merges and Jeffrey Kuhn colorfully refer to this pattern as “snake-in-the-

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¹ See, e.g., Robert A. Skitol & Kenneth M. Vorrasi, *Patent Holdup in Standards Development: Life After Rambus v. FTC*, ANTITRUST, Spring 2009, at 26; M. Sean Royall, Amanda Tessar & Adam Di Vincenzo, *Deterring “Patent Ambush” in Standard Setting: Lessons Learned from Rambus and Qualcomm*, ANTITRUST, Summer 2009, at 34.

² 548 F.3d 1004 (Fed. Cir. 2008).

³ See, e.g., FED. TRADE COMM’N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION 191 (2011), available at <http://www.ftc.gov/os/2011/03/110307patentreport.pdf> [hereinafter 2011 FTC Report]; MICHAEL A. CARRIER, INNOVATION FOR THE 21ST CENTURY 328–29 (2010); HAL R. VARIAN, JOSEPH FARRELL & CARL SHAPIRO, THE ECONOMICS OF INFORMATION TECHNOLOGY—AN INTRODUCTION 81 (2004).

grass.”⁴ I will refer to it as “standards hold-up.”⁵ By whatever name, many commentators agree that such conduct is detrimental both to the standardization process and to the efficient operation of the networked markets that depend upon it. Thus, before a standard is locked-in, the industry may choose among various technical alternatives: some may be covered by patents and others may not. Patented technology must compete with unpatented technology on the basis of factors including price and technical quality. After lock-in, however, the cost of switching to a new standard increases dramatically, and patent holders who emerge without warning have significant, and arguably improper, leverage to charge rents to implementers of the standard.

Standards hold-up cases have been litigated in two distinct but related modes: private litigation and public enforcement. In the first mode (private litigation), a patent holder sues one or more implementers of a standard for patent infringement and the defendant raises various defenses and counterclaims seeking to render the asserted patents unenforceable against it. Cases in this mode include *Wang v. Mitsubishi*,⁶ *Stambler v. Diebold Inc.*,⁷ *Rambus v. Infineon*,⁸ and *Qualcomm v. Broadcom*. In the second mode (public enforcement litigation), an enforcement agency, typically the U.S. Federal Trade Commission, initiates an independent action against the patent holder after it has either sued or threatened implementers under the relevant patents. These cases include *Dell Computer Corp.*,⁹ *N-Data*,¹⁰ and *Rambus Inc. v. FTC*,¹¹ and have generally been brought on antitrust grounds, whether under Section 2 of the Sherman Act or Section 5 of the FTC Act. In both litigation modes, the patent holder’s ability to enforce the asserted patents is challenged on the basis of its allegedly deceptive conduct toward the SDO and its other participants.

Equitable Defenses in Standards Hold-Up Litigation

Remedies in equity trace their origins to 14th century England, where ecclesiastical courts of chancery arose as alternatives to the law courts.¹² Due to their religious origins, the courts of chancery purported to act on the basis of higher moral principles and dealt in flexible remedies, such as injunctive relief and specific performance.¹³ As explained by the New York Court of Appeals in the canonical case of *Riggs v. Palmer*, equitable principles ensure that “[n]o one shall be permitted to profit by his own fraud, or to take advantage of his own wrong, or to found any claim upon his own iniquity, or to acquire property by his own crime.”¹⁴ And though the courts of law and equity merged in the United States more than a century ago, equitable principles remain

⁴ Robert P. Merges & Jeffrey M. Kuhn, *An Estoppel Doctrine for Patented Standards*, 97 CALIF. L. REV. 1, 10 (2009).

⁵ I consider standards hold-up to occur only when the patent holder is (or was) a member of or participant in the relevant SDO. In this respect I part company with Merges and Kuhn (see discussion *infra* note 17).

⁶ *Wang Labs. Inc. v. Mitsubishi Elecs. Am. Inc.*, 860 F. Supp. 1448 (C.D. Cal. 1993).

⁷ 1988 WL 95479 (E.D.N.Y. 1988).

⁸ *Rambus Inc. v. Infineon Techs. Ag*, 318 F.3d 1081 (Fed. Cir. 2003).

⁹ 121 F.T.C. 616 (1996).

¹⁰ Decision and Order, *Negotiated Data Solutions LLC*, FTC Docket No. C-4234 (Jan. 23, 2008), available at <http://www.ftc.gov/os/caselist/0510094/080122do.pdf>.

¹¹ 522 F.3d 456 (D.C. Cir. 2008).

¹² See generally ROBERT N. LEAVELL ET AL., *EQUITABLE REMEDIES, RESTITUTION AND DAMAGES: CASES & MATERIALS* 3–5 (7th ed. 2005).

¹³ See generally *id.*; DAN B. DOBBS, *REMEDIES: DAMAGES, EQUITY, RESTITUTION* 24–25 (1973).

¹⁴ 22 N.E. 188, 190 (N.Y. 1889) (in an inheritance case in which a young man poisoned his own grandfather to prevent him from amending his will to disinherit the grandson from his share of a large estate, the court declared the bequest to the grandson to be ineffective in view of his crime).

alive and well. As observed by Henry Smith, equity today serves as a general “private law solution to opportunism.”¹⁵

When a patent holder violates the express or implicit patent disclosure requirements of an SDO and subsequently seeks to enforce patents against implementers of the adopted standard, the infringing defendant may raise one or more equitable defenses. These defenses include fraud, estoppel, laches, waiver, unclean hands, and implied license. For example, in *Stambler v. Diebold Inc.*, the patent holder Diebold was found to have known for ten years that a proposed standard concerning the activation of automated teller machines infringed its patent, yet remained silent “while an entire industry adopted the proposed standard.”¹⁶ The court concluded that Diebold’s silence was “intentionally misleading” and granted summary judgment for the defendant based on the equitable doctrines of laches and estoppel.¹⁷ In *Qualcomm v. Broadcom*, the Federal Circuit held that Qualcomm’s deceptive conduct before an SDO supported the application of the equitable defense of waiver, relieving the defendant Broadcom of any liability for infringement, and also spoke favorably about the doctrine of equitable estoppel. And in *Wang v. Mitsubishi*, the Federal Circuit ruled in favor of the defendant on grounds of implied license after the patent holder made assurances to an SDO regarding the absence of patents covering a standard.

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Agency Enforcement and the Failure of Antitrust Remedies to Address Standards Hold-Up

Public actions to enforce the antitrust laws may be brought by the Department of Justice, the FTC, and state attorneys general. Recently, the FTC has been the most active in seeking to curb deceptive conduct and standards hold-up by means of antitrust enforcement. In *Dell Computer*, the FTC alleged that Dell’s deception of the Video Electronics Standards Association (VESA) constituted unfair competition affecting commerce and thus violated Section 5 of the FTC Act. In the resulting Consent Agreement, Dell was prohibited from enforcing the asserted patents against any implementer of VESA’s VL-bus standard. The breadth of this remedy flows from the FTC’s broad authority to redress market harm under Section 5.¹⁸

The *Dell* decision shaped the debate regarding standards hold-up for more than a decade and may have emboldened the agency to exercise its Section 5 authority to police the standard-setting world more broadly. It did so most notably to redress the now-notorious conduct of Rambus both during and after its participation in the Joint Electron Device Engineering Council (JEDEC). As has been discussed at length in numerous books and articles, Rambus allegedly deceived JEDEC participants regarding the patenting of standards on semiconductor DRAM technology. When Rambus began to seek patent royalties from implementers of these standards, the FTC brought an action charging Rambus with violation of Section 5(b) of the FTC Act and Section 2 of

¹⁵ Henry E. Smith, *An Economic Analysis of Law Versus Equity* 8, 17–18 (Working Paper, Oct. 22, 2010), available at <http://extranet.isnie.org/uploads/isnie2010/smith.pdf> (defining “opportunism” as “behavior that is technically legal but done with a view to securing unintended benefits from the system, and these benefits are usually smaller than the costs they impose on others”).

¹⁶ 1988 WL 95479 at 6.

¹⁷ Merges & Kuhn, *supra* note 4, have recently proposed that the equitable estoppel defense be broadened in the context of standards hold-up to become a new defense that they term “standards estoppel.” While their proposal has significant merit, I disagree with the proposed expansion of the estoppel defense to patents held by third parties who were not part of the standards-development process. Such a proposal would perversely enable SDOs to appropriate non-participant patented technology without the patent holder’s acquiescence and thus unduly tilt the playing field in favor of standards adopters.

¹⁸ 15 U.S.C. § 45.

the Sherman Act. In 2006 the Commission ruled against Rambus under both theories of liability and ordered, among other things, that Rambus license its patents to all implementers of the standards at specified royalty rates.¹⁹ In 2008, however, the D.C. Circuit reversed the Commission's ruling, holding that it failed to establish that Rambus's deceptive conduct harmed competition for purposes of the Sherman Act (i.e., that the relevant standards would not have been adopted but for Rambus's conduct). The court also cast doubt on the Commission's Section 5 theory, questioning its generous reading of the vague JEDEC intellectual property policy and its conclusions regarding common practices and expectations within the standard-setting community.

Though the validity of the D.C. Circuit's reasoning in Rambus has been widely debated,²⁰ a number of commentators argue that antitrust law has proven to be a suboptimal theory for addressing issues of standards hold-up.²¹ The weaknesses of antitrust law arise both when it is used as a theory of liability and also when it is used to fashion remedies (two distinct but inextricably related sides of the antitrust coin). Antitrust suffers as a theory of liability because, as the D.C. Circuit reasoned, a showing of antitrust harm is necessarily tied to market-wide effects on competition, rather than effects on individual competitors. Absent proof of market harm, antitrust injury cannot exist. Indeed, the dissent in *Dell* made this point in 1995, taking the view that the allegations of the Commission's complaint failed to demonstrate that Dell obtained market power as a result of its alleged misstatements to the SDO.

Antitrust law also falls short in enabling appropriate remedies for standards hold-up. Thus, while the FTC in *Dell* fashioned a sweeping order under Section 5 that prohibited Dell from enforcing its patents against any implementer of the VL-bus standard,²² the Commission's order eleven years later in Rambus exhibits a significant retreat from this early expansive posture. Perhaps influenced by public commentary and the briefs of the parties or a more refined understanding and appreciation of the market harm arising from such conduct, the FTC in *Rambus* required that Rambus license its patents to any implementer of the JEDEC standard but also permitted Rambus to collect a specified royalty with respect to this license (a royalty that was lower, of course, than

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¹⁹ Opinion of the Commission on Remedy, Rambus, Inc., FTC Docket No. 9302 (Feb. 2, 2007) [hereinafter Rambus Remedy Opinion], available at <http://www.ftc.gov/os/adjpro/d9302/070205opinion.pdf>; Final Order, Rambus, Inc., FTC Docket No. 9302 (Feb. 2, 2007), available at <http://www.ftc.gov/os/adjpro/d9302/070205finalorder.pdf>.

²⁰ See, e.g., Richard Dagen, *Rambus, Innovation Efficiency and Section 5 of the FTC Act*, 90 B.U. L. REV. 1479 (2010); Joel M. Wallace, *Rambus v. F.T.C. in the Context of Standard-Setting Organizations, Antitrust, and the Patent Hold-Up Problem*, 24 BERKELEY TECH. L.J. 661 (2009); Joshua D. Wright, *Why the Supreme Court Was Correct to Deny Certiorari in FTC v. Rambus* (Geo. Mason L. & Econ. Research Paper No. 09-14, Feb. 26, 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1349969; Richard Wolfram, "Analyze This!" *Deconstructing Rambus Following the Supreme Court's Denial of Certiorari—The Mechanics of How the D.C. Circuit's Decision "Jumped the Tracks"* (Am. Antitrust Inst. Commentary, Apr. 29, 2009), http://www.antitrustinstitute.org/files/Rambus%20-%20Analyze%20This%20-%20Deconstructing%20Rambus%20-%20AAI%20Commentary_042720092020.pdf.

²¹ See, e.g., Merges & Kuhn, *supra* note 4; Skitol & Vorrasi, *supra* note 1, at 31 (raising questions regarding the "viability of the Sherman Act as a meaningful source of protection of open industry standards against patent hold-up"); Bruce H. Kobayashi & Joshua D. Wright, *Federalism, Substantive Preemption, and Limits of Antitrust: An Application to Patent Holdup*, 5 J. COMPETITION L. & ECON. 469 (2009); Herbert Hovenkamp, *Patent Deception in Standard Setting: The Case for Antitrust Policy* (U. Iowa Legal Studies Research Paper July 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1138002.

Interestingly, however, while the Rambus case was on appeal to the D.C. Circuit, the Third Circuit held that Qualcomm's intentional deception of an SDO could give rise to a claim of monopolization under the Sherman Act. *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 314 (3d Cir. 2007). This decision is distinct from the Federal Circuit decision in *Broadcom v. Qualcomm* discussed *infra* notes 29–31 and accompanying text.

²² As noted by the FTC in the Rambus Remedy Opinion, *supra* note 19, at 6, "The Commission enjoys wide latitude for judgment in fashioning a remedial order, subject to the constraint that the requirements of the order bear a reasonable relationship to the unlawful practices that the Commission has found."

Rambus requested, but significant nonetheless). The rationale for this seeming generosity toward a company that the Commission found to have engaged in a “deliberate course of deceptive conduct”²³ can be explained by the Commission’s need to fashion a remedy calculated to address perceived market harm. Indeed, the Commission noted that imposing a requirement of *royalty-free* licensing on Rambus would be justified only to the extent “necessary to restore the competitive conditions that would have prevailed absent Rambus’s misconduct.”²⁴ Instead, the Commission proceeded to construct an elaborate “reasonable royalty” analysis based on a series of assumptions about how the potential DRAM market would have looked “but for” Rambus’s deceptive conduct, and to set royalty rates for Rambus patents accordingly. While the FTC’s remedy opinion was rendered moot by the D.C. Circuit’s reversal of its liability holding, the fact that the FTC’s analysis would have resulted in the award of ongoing royalties to Rambus despite its deceptive conduct suggests that antitrust remedies may not address all of the harms that are likely to arise in the context of standards hold-up and that perhaps other remedial regimes are more likely both to penalize those engaging in standards hold-up and to deter future instances of hold-up behavior.²⁵

The Equitable Remedy of Unenforceability

An alternative to the antitrust theories advanced in *Rambus* is the equitable remedy of patent unenforceability, which offers the flexibility to address both the market-based harms that antitrust remedies seek to address, as well as a broader range of equitable harms. The unenforceability remedy has historically been applied in cases in which a patentee has committed misconduct before the Patent and Trademark Office (PTO) or other substantial irregularities in prosecuting a patent.²⁶ The remedy renders a patent unenforceable not only toward a particular infringer but toward the entire world,²⁷ on the theory that the patent holder’s inequitable conduct taints the property right *ab initio*.²⁸ Accordingly, this drastic and far-reaching remedy has been called the “atomic bomb” of patent law.²⁹

In *Broadcom v. Qualcomm*, the district court for the first time applied the remedy of unenforceability to patents that Qualcomm failed to disclose to an SDO, analogizing such conduct, in its effect and character, to misconduct before the PTO.³⁰ The Federal Circuit approved of the dis-

²³ Opinion of the Commission at 69, *Rambus, Inc.*, FTC Docket No. 9302 (Aug. 2, 2006), available at <http://www.ftc.gov/os/adjpro/d9302/060802commissionopinion.pdf>.

²⁴ *Rambus Remedy Opinion*, *supra* note 19, at 10.

²⁵ An analogy can be drawn to the criminal law of theft, which punishes the thief *in addition* to providing restitution to the victim. Under the antitrust theory applied to standards hold-up, the offender might be liable for restitution but not otherwise penalized for the wrong committed.

²⁶ See, e.g., *Therasense, Inc. v. Beckton, Dickinson & Co.*, 2011 WL 2028255, at *16 (Fed. Cir. May 25, 2011); *Symbol Tech., Inc. v. Lemelson Med.*, 277 F.3d 1361, 1368 (Fed. Cir. 2002) (“a patent may be rendered unenforceable if it was obtained after an unreasonable and unexplained delay in prosecution”); *AGFA Corp. v. Creo Prods. Inc.*, 451 F.3d 1366, 1379 (Fed. Cir. 2006) (unenforceability due to inequitable conduct before the PTO).

²⁷ This globally applicable remedy should be distinguished from the more common *in personam* remedy of patent unenforceability, which is utilized to redress, among other things, patent misuse. See *U.S. Philips Corp. v. ITC*, 424 F.3d 1179, 1197–98 (Fed. Cir. 2005).

²⁸ See *Aptix Corp. v. Quickturn Design Sys. Inc.*, 269 F.3d 1369, 1376 (Fed. Cir. 2001); Christina Bohannon & Herbert Hovenkamp, *IP and Antitrust: Reformation and Harm*, 51 B.C. L. REV. 905, 931 (2010) (“[t]he remedy of unenforceability, which the patent system itself administers against falsified applications, is designed to protect the integrity of the patent issuance process”).

²⁹ *Aventis Pharma S.A. v. Amphastar Pharms., Inc.*, 525 F.3d 1334, 1349 (Fed. Cir. 2008) (Rader, J., dissenting). In addition, as noted by the court in *Therasense*, “[a] finding of inequitable conduct may also spawn anti-trust and unfair competition claims.” 2011 WL 2028255, at *22 (citing *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 178 (1965)).

³⁰ *Broadcom Inc. v. Qualcomm Corp.*, 539 F. Supp. 2d 1214, 1249 (S.D. Cal. 2007).

trict court's reasoning, recognizing its authority to "give a fair, just, and equitable response reflective of the offending conduct."³¹ And while the Federal Circuit narrowed the scope of the district court's remedy so as to render Qualcomm's patents unenforceable only with respect to products complying with the relevant standard, it retained the district court's broad formulation that extended this remedy to all third parties, rather than limiting its effect to the defendant Broadcom. As a result, the equitable remedy in *Broadcom v. Qualcomm* is just as far-reaching as the FTC's remedy in *Dell*, but is used following the successful assertion of an equitable affirmative defense (waiver), rather than an affirmative antitrust theory of liability.³²

Implications for Agency Litigation

As demonstrated by *Broadcom v. Qualcomm*, the remedy of patent unenforceability may be applied in private patent litigation following standards hold-up. This remedy may *also* be available to federal enforcement agencies that wish to sanction hold-up behavior without limiting remedies to redressing a specific antitrust injury. Armed with the equitable remedy of unenforceability, these agencies may be empowered to address instances of actual and threatened standards hold-up through the assertion of affirmative theories of liability, such as fraud and equitable estoppel.³³

Standardization activity in the United States has typically been reviewed by the DOJ and the FTC. The DOJ has a broad civil jurisdiction that extends to patent matters generally, whether or not associated with antitrust claims.³⁴ While the DOJ has historically addressed standardization issues through its Antitrust Division, it would not be inappropriate for the Antitrust Division to cooperate with other units of the DOJ to seek remedies extending beyond traditional antitrust remedies, such as patent unenforceability, to redress standards hold-up conduct.³⁵

The scope of the FTC's authority is prescribed by the FTC Act³⁶ as preventing the use of "unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affecting commerce."³⁷ While in practice most applications of the FTC's enforcement authority have sought to redress violations of the Sherman Act and other antitrust laws, the FTC's authority is not limited to these claims. The Supreme Court has interpreted the FTC's authority broadly to encompass any "unfair competitive practice, even though the practice does not infringe either the letter or the spirit of the antitrust laws."³⁸ The Court again recognized the FTC's broad scope of enforcement authority in *FTC v. Indiana Federation of Dentists*, in which it explained that the FTC Act's standard of "unfairness" encompasses not only violations of the Sherman Act and other

³¹ *Qualcomm Corp. v. Broadcom Inc.*, 548 F.3d 1004, 1026 (Fed. Cir. 2008).

³² *Qualcomm* argued that it was improper for the district court to impose a remedy of unenforceability in response to the successful assertion of an affirmative defense, and that the only appropriate remedy was a finding of noninfringement. The Federal Circuit disagreed and affirmed the reasoning of the district court. *Id.* at 1025.

³³ In this sense, estoppel may be asserted as an affirmative cause of action seeking to prevent ongoing or threatened hold-up, rather than as an affirmative defense.

³⁴ 28 C.F.R. § 0.45(f) (2008) (covering "patent and allied cases and other patent matters [including] civil patent-fraud cases").

³⁵ *Cf. United States v. Ames Sintering Co.*, 927 F.2d 232 (6th Cir. 1990) (Antitrust Division cooperated with other DOJ units in a case involving allegations of wire fraud).

³⁶ 15 U.S.C. § 41 et seq.

³⁷ 15 U.S.C. § 45(a)(2).

³⁸ *FTC v. Sperry & Hutchinson Co.*, 405 U.S. 233, 239 (1972).

antitrust laws, but also “practices that . . . are against public policy *for other reasons*.”³⁹ Thus, while the FTC has traditionally limited its analysis of standard-setting behavior to violations of the Sherman Act, this limitation is not necessarily mandated by the scope of the Commission’s statutory authority.

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The FTC has recently evidenced a willingness to address intellectual property issues beyond the strict boundaries of the Sherman Act in its 2003 report, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*,⁴⁰ and its 2011 report, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition*.⁴¹ In this comprehensive report, the Commission critiques several perceived weaknesses of current patent law that may broadly impact markets and competition and recommends thirty-five specific changes to the law governing both patent litigation and prosecution.⁴² A number of these recommendations and the accompanying analysis are not based directly on antitrust law, but on general principles of patent law and its effect on markets.

Thus, while the federal enforcement agencies have traditionally relied on antitrust remedies to address perceived instances of standards abuse and hold-up, there is no reason to restrict the enforcement agencies to the limited tools of antitrust law when alternative approaches, such as the equitable remedy of patent unenforceability, may be better suited to addressing deception and harm in the standard-setting context.

Conclusion

It has been widely suggested that opportunistic and deceptive behavior by participants in the standard-setting process disrupts that process and introduces inefficiencies that are difficult to cure using traditional antitrust remedies. Equity presents a powerful and flexible mechanism that is designed to deter private party opportunism.⁴³ As such, equity is an intuitively appealing theory with which to redress standards hold-up, the quintessence of opportunism. As a theory of liability, equity does not depend on the acquisition of market power or market effects to assign liability, as does antitrust law.⁴⁴ And while antitrust remedies, as demonstrated by the FTC’s short-lived remedial order in *Rambus*, seek to correct dislocations to the *market* that may have been caused by deceptive conduct and the improper exercise of market power, equity seeks to prevent the wrongdoer from profiting from his own wrongdoing.⁴⁵ In this respect, the deterrent value of equitable remedies is likely to be greater than that of market-based antitrust remedies.

³⁹ 476 U.S. 447, 454 (1986) (emphasis added). See HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY—THE LAW OF COMPETITION AND ITS PRACTICE 584–89 (2d ed. 1999) (discussing the debate over the scope of the FTC’s statutory authority); Jonathan B. Baker, *Two Sherman Act Section 1 Dilemmas: Parallel Pricing, the Oligopoly Problem, and Contemporary Economic Theory*, 38 ANTITRUST BULL. 143, 211–15 (1993) (analyzing *Sperry & Hutchinson* and *Indiana Federation of Dentists* and questioning the Second Circuit’s seemingly inconsistent holding in *E.I. du Pont de Nemours & Co. v. FTC*, 729 F.2d 128 (2d Cir. 1984)).

⁴⁰ FED. TRADE COMM’N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>.

⁴¹ 2011 FTC Report, *supra* note 3.

⁴² The broad scope of the Commission’s inquiry in the 2011 FTC Report has been questioned by some commentators. See, e.g., David M. Maiorana & Geoffrey D. Oliver, *Federal Trade Commission Issues Report on the Evolving Intellectual Property Marketplace*, AIPLA ANTITRUST NEWS, May 2011, at 2 (noting that, unlike prior FTC guidelines and reports, the 2011 FTC Report goes beyond the application of antitrust laws to “issues of pure patent law”).

⁴³ See *supra* note 15 and accompanying text.

⁴⁴ The appeal of equity as a theory of liability is discussed by Merges & Kuhn, *supra* note 4 and accompanying text.

⁴⁵ See *Head v. Porter*, 70 F. 498, 501 (D.Mass. 1895) (“[I]t would be inequitable that he should make a profit out of his own wrong.”).

One can only speculate whether the *Rambus* saga might have ended differently (and less favorably for Rambus) had a more liberal application of equitable remedies been applied. As to the future, one hopes that the availability of the patent unenforceability remedy will strengthen deterrence of opportunistic and inefficient standards hold-up behavior. ●