

STANDARDS × PATENTS ÷ ANTITRUST = ∞: THE INADEQUACY OF ANTITRUST TO ADDRESS PATENT AMBUSH

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ABSTRACT

“Patent ambush” describes certain rent-seeking behavior by the owner of patent rights to a technology that is essential to an industry standard. Two cases, Qualcomm and Rambus, represent attempts of the Third and D.C. Circuits, respectively, to address patent ambushes using federal antitrust statutes. In both cases, antitrust law proves inadequate to the task. Under Qualcomm, licensees gain too much power to extort undervalued royalty rates from patent holders who have disclosed their rights during standard-setting. Under Rambus, coupled with the dearth of other options to combat patent ambushes, non-disclosing patent holders are given free reign over standardized markets, to the detriment of end-users. This iBrief argues that the flaws in each rule inhere from a fundamental inadequacy of antitrust law to address patent ambush.

INTRODUCTION

¶1 Industry standards in high-technology markets can enhance competition by allowing supply to be vertically segmented and/or horizontally decentralized across multiple firms. When standards work, the technology’s market will grow, as consumers are offered lower prices and more choices. But, standards sometimes fail. In a “patent ambush,” a single supplier who owns patent rights to an essential component in a standard exploits the market by demanding excessive licensing fees from firms at other levels of the supply chain. As a result, technology prices may remain high, and consumers may be deprived of choices. Although antitrust law purports to prevent harm to consumers by prohibiting anticompetitive practices, recent case law demonstrates that it is inadequate to address patent ambush.

¶2 The *Qualcomm* case from the Third Circuit² and the *Rambus* case from the D.C. Circuit³ are opposed to each other in their treatment of patent

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² *Broadcom Corp. v. Qualcomm, Inc.*, 501 F.3d 297 (3d Cir. 2007).

ambushes under antitrust law. Each precedent also establishes perverse incentives for patent holders and licensees in standardized markets. *Qualcomm* raises the specter of oligopsonistic exploitation of patent holders, thereby creating disincentives to their participation in and full disclosure in connection with standard-setting activities.⁴ *Rambus*, by contrast, severely curtails counterattacks to ambushes executed by way of nondisclosure of patent rights during the standard-setting process, and leaves such ambushes largely unchecked.⁵ More generally, these cases create arguably conflicting liability rules for standard-setting activities,⁶ introducing “legal turbulence”⁷ into this essential process for product development in many high-technology markets.

¶3 This iBrief joins other commentary objecting to the confusion in antitrust law⁸ and potential adverse incentives⁹ arising in the wake of *Qualcomm* and *Rambus*. Unlike other scholarship, this iBrief argues that

³ *Rambus, Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008), *cert. denied*, 129 S.Ct. 1318 (2009).

⁴ See Damien Geradin et al., *The Complements Problem Within Standard Setting: Assessing the Evidence on Royalty Stacking*, 14 B.U. J. SCI. & TECH. L. 144, 173–74 (2008) (“The majority of SSOs have far more IPR licensees than IPR holders, so the risk of concerted buyer power to hold royalties below their competitive level strikes us as a very real concern.”); see also RAYMOND T. NIMMER, *LAW OF COMPUTER TECHNOLOGY* § 4:58 (2009) (“[*Qualcomm*] creates numerous potential traps for rights owners who participate in SSOs, perhaps creating incentives for them not to do so.”).

⁵ J. Thomas Rosch, Commissioner, Fed. Trade Comm’n, Remarks, LSI 4th Antitrust Conference on Standard Setting and Patent Pools (Oct. 2, 2008), available at 2008 WL 4519192 (“[T]he Commission will have to decide whether it will continue to prioritize [ambush] cases if the D.C. Circuit’s decision is allowed to stand.”).

⁶ Compare *Rambus*, 522 F.3d at 466 (“[*Qualcomm* conflicts with Supreme Court precedent] to the extent that it [held] . . . that there is a cognizable violation of the Sherman Act when a lawful monopolist’s deceit has the effect of raising prices (without an effect on competitive structure).”) with George S. Cary et al., *Antitrust Implications of Abuse of Standard-Setting*, 15 GEO. MASON L. REV. 1241, 1252 (2008) (“Although the D.C. Circuit’s decision in *Rambus* and the Third Circuit’s decision in [*Qualcomm*] led to different outcomes for the defendants in each case, the two rulings are not necessarily in tension.”).

⁷ See *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 929 (2007) (Breyer, J., dissenting) (using the phrase “legal turbulence” to describe the negative business consequences of uncertainty in antitrust law).

⁸ See M. Sean Royall & Adam J. Di Vincenzo, *The FTC’s N-Data Consent Order: A Missed Opportunity to Clarify Antitrust in Standard Setting*, 22 ANTITRUST 83, 84 (2008) (“[O]utside of the narrow [*Rambus*] fact pattern, confusion still reigns.”).

⁹ See Geradin et al., *supra* note 4, at 173–74; see also NIMMER, *supra* note 4, § 4:58.

both approaches are flawed, and the common root of this problem lies in antitrust doctrine itself as it relates to patent ambushes.

¶4 Liability for monopolization under Section 2 of the Sherman Act requires some “bad act” on the part of the monopolist.¹⁰ This distinguishes a monopolist’s acquisition or maintenance of market power through exclusionary conduct from market success by virtue of “superior skill, foresight, and industry.”¹¹ The *Qualcomm* and *Rambus* decisions concur that a patent holder’s deception of a standard-setting organization (“SSO”) can constitute the requisite exclusionary conduct for a Section 2 violation.¹² However, their mutual focus on the patent holder’s conduct is misplaced. In standardization, the monopoly structure of the market is established by the consensus of the SSO, not by the acts—good or bad—of the patent holder.¹³

¹⁰ Dennis Carlton, Deputy Assistant Attorney General Economic for Analysis, Antitrust Division, U.S. DOJ, Remarks on Single Firm Conduct, *in* 15 GEO. MASON L. REV. 1205, 1211 (2008) (“In a Section 2 case, a bad act is alleged. As a result of the bad act, presumably you’ve created market power or you’ve increased your market power.”).

¹¹ *U.S. v. Aluminum Co. of Am.*, 148 F.2d 416, 430 (1945) (“A single producer may be the survivor out of a group of active competitors, merely by virtue of his superior skill, foresight and industry. . . . The successful competitor, having been urged to compete, must not be turned upon when he wins.”). Areeda and Turner provide the following generally accepted definition of exclusionary conduct:

‘Exclusionary’ conduct is conduct, other than competition on the merits or restraints reasonably ‘necessary’ to competition on the merits, that reasonably appears capable of making a significant contribution to creating or maintaining monopoly power.

PHILLIP E. AREEDA & DONALD F. TURNER, ANTITRUST LAW § 651f (2007).

Notably, antitrust doctrine has undergone ebbs and flows over the years, and the stringency of the “bad act” requirement has at times, as in the *Alcoa* case itself, been a nearly non-existent criterion. See William E. Kovacic, *The Intellectual DNA Of Modern U.S. Competition Law For Dominant Firm Conduct: The Chicago/Harvard Double Helix*, 2007 COLUM. BUS. L. REV. 1, 17 (2007) (“Although Section 2 cases in this period [including *Alcoa*] continued to insist on some element of bad acts, the courts defined the concept of wrongful behavior so broadly that a wide range of conduct sufficed to create liability for dominant firms.”).

¹² See Royall & Di Vincenzo, *supra* note 8, at 84 (“In light of these cases, it is now clear that deceptive acts designed to subvert a standard-setting process with the ultimate goal of transforming a benevolent industry standard into a private monopoly can lead to antitrust liability . . . under Section 2 of the Sherman Act.”).

¹³ See NIMMER, *supra* note 4, § 4:58 (“Antitrust law only precludes actions that adversely affect the competitive *process*—not conduct that might harm particular competitors or increase the value of particular products or technologies. . . . Non-disclosure is not an antitrust issue unless there is an anti-

Consequently, the severity of antitrust punishments may be unwarranted, yet at the same time, patent royalty windfalls are undeserved. Antitrust simply does not fit the patent ambush problem, and alternate remedies are required.

¶5 Part I of this iBrief discusses the process of standard-setting and the roles of the various SSO participants. Part II examines early antitrust case law addressing patent ambushes. Part III critiques the *Qualcomm* and *Rambus* decisions. Part IV discusses the fundamental inadequacy of antitrust doctrine to handle patent ambush.

I. STANDARDIZATION AND PATENT AMBUSHES

¶6 The principal benefits of formal (as opposed to *de facto*) standardization¹⁴ are twofold: standards facilitate the development of systems of complementary products¹⁵ and permit entry by competing firms at multiple points of the supply chain. Standards facilitate vertical segmentation of supply, allowing firms to specialize in specific components without producing complete systems.¹⁶ Standards also facilitate horizontal competition, allowing multiple firms to supply competing products with equivalent functionality and common specifications.¹⁷

¶7 Standardization is particularly prevalent in high-tech markets. A computer processor chip, for example, has limited utility without a hard drive, operating memory, and input/output components. Standards facilitate the interconnectivity of these different components, allowing the manufacturers of each individual piece to follow common blueprints that

competitive impact. The fact that it may harm some competitors or increase the price of a product does not qualify.”).

¹⁴ See generally Carl Shapiro, *Setting Compatibility Standards: Cooperation or Collusion*, in EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY 81, 83–84 (Roche C. Dreyfuss et al., eds., 2001). A technology can become standardized through either a dynamic or a formal process. In *de facto* standardization firms individually adopt the technology in their respective businesses. In *de jure* or formal standardization, an industry organization or government agency chooses a particular technological specification, and market participants may voluntarily adopt the standard.

¹⁵ *Id.* at 82 (“Standards are an inevitable outgrowth of *systems*, whereby *complementary products work in concert to meet users’ needs.*”).

¹⁶ *Id.* (“[Standards may be set] among companies selling complementary components that work together to form a system, as when Intel and Microsoft team up to make sure that their chips and operating system function smoothly in concert.”).

¹⁷ *Id.* (“[C]ompanies that compete directly with one another [may] agree on compatibility or interface standards to build sufficient support for a new technology.”).

specify the physical interface, communication protocols, and other features that enable interoperability.¹⁸ The polar opposite framework is proprietary systems, where all components are designed or controlled by a single firm.¹⁹

¶8 The benefits of standardization inure to product suppliers and consumers. Standard-setting often spurs investment in new technology markets, as suppliers can expect the market to expand and are assured that new products will be met with demand.²⁰ Prior to standardization, existing firms compete fiercely to win selection of their technologies by the SSO. After the standard is selected, however, competition is redirected to the downstream product markets, as firms adopt the chosen specification and develop competitive niches for their products.²¹ In turn, consumers benefit through increased choice, enhanced quality, and lower prices.²²

¶9 A patent ambush can frustrate both supply-side efficiencies and demand-side advantages. Standards often include proprietary technologies, and SSOs typically require that patent holders disclose their rights *ex ante* (before standardization) and agree to license their rights at reasonable and nondiscriminatory (“RAND”) rates *ex post* (after standardization).²³ To be “reasonable,” RAND royalty rates must be defined in relation to *ex ante*

¹⁸ For example, computer buses provide standardized interfaces that facilitate interoperability of multiple distinct components. See Bus (computing), WIKIPEDIA, [http://www.en.wikipedia.org/wiki/Bus_\(computing\)](http://www.en.wikipedia.org/wiki/Bus_(computing)) (last visited Mar. 23, 2009).

¹⁹ See Apple to Use Intel Microprocessors Beginning in 2006, APPLE.COM, <http://www.apple.com/pr/library/2005/jun/06intel.html> (last visited Mar. 23, 2009). Apple, for example, uses this model. But, as demonstrated by their switch to Intel processors, firms using proprietary models often cannot match the competitive advantages of specialized component manufacturers.

²⁰ As phrased by the *Qualcomm* court: “Standard setting . . . reduces the risk to producers . . . of investing scarce resources in a technology that ultimately may not gain widespread acceptance.” *Broadcom Corp. v. Qualcomm, Inc.*, 501 F.3d 297, 309 (3d Cir. 2007).

²¹ See *Rambus, Inc. v. FTC*, 522 F.3d 456, 459 (D.C. Cir. 2008) (“Before an SSO adopts a standard, there is often vigorous competition among different technologies for incorporation into that standard. After standardization, however, the dynamic typically shifts, as industry members begin adhering to the standard and the standardized features start to dominate.”); see also Daniel F. Spulber, *Unlocking Technology: Antitrust and Innovation*, 4 J. COMPETITION L. & ECON. 915, 942 (2008) (“Firms have a strong incentive to adapt their products to market standards to obtain a share of the market.”).

²² See *Qualcomm*, 501 F.3d at 308–09 (listing the consumer benefits of formal standard-setting).

²³ Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CAL. L. REV. 1889, 1906 (2002) (surveying the bylaws of forty-three SSOs and finding that the majority required licensing of standardized intellectual property on RAND terms).

market power, thereby rewarding the patent holder for the value of her innovation in a competitive market.²⁴ In an ambush, however, the holder of an essential patent (the “standard-owner”) either avoids disclosing its rights *ex ante* or breaches its RAND commitment *ex post*, and thereby seeks supra-competitive royalties from the market participants who have become locked-in (the “standard-users”). In so doing, the patent holder reaps a “windfall,”²⁵ which may come at the expense of reduced choices and increased market prices for the standardized technology.²⁶

II. EARLY ANTITRUST PRECEDENT

¶10 Several legal theories have been invoked to combat patent ambushes, and antitrust has been used with increasing prevalence.²⁷ Indeed, antitrust is a good candidate in theory—by ambushing competitors, the patent holder exercises monopoly control over the market and causes harm to consumers.²⁸ But the problem is not so simple. A patent holder has the right to exclude competitors from using its technology, and patent rights may lead to the lawful acquisition of monopoly power, including via inclusion in a formal standard.²⁹ Also, it is difficult in practice to establish the causal link between a patent holder’s misconduct in connection with a standard and the resulting antitrust harm of market monopolization.³⁰ In

²⁴ Daniel G. Swanson & William J. Baumol, *Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power*, 73 ANTITRUST L.J. 1, 10–11 (2005) (“[T]he concept of a “reasonable” royalty for purposes of RAND licensing must be defined and implemented by reference to *ex ante* competition, i.e., competition in advance of standard selection.”).

²⁵ Cary et al., *supra* note 6, at 1242.

²⁶ *Id.* at 1262 (“[Patent ambush] can cause extensive harm to consumer welfare by undermining the reliability and viability of standard-setting, raising the costs of goods, and slowing innovation.”).

²⁷ See generally Lemley, *supra* note 28 (discussing contract, patent, and antitrust theories of liability for patent ambush); see also Royall & Di Vincenzo, *supra* note 8, at 84.

²⁸ Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L.J. 603, 609 (2007) (“[Patent ambush] is not merely a private contracting problem, but an antitrust problem.”).

²⁹ See Qualcomm, 501 F.3d at 314 (discussing the implications of patent rights to standard setting).

³⁰ See, e.g., Lemley, *supra* note 28, at 1931 (“[T]he competitive risk is that the misrepresentation will cause an SSO to adopt a standard it otherwise would have rejected, and that the adoption of that standard will in turn confer on the defendant market power it would not otherwise have obtained. This is a rather long chain of inferences.”).

general, the plaintiff must prove that the SSO would have adopted a non-proprietary standard but for the patent holder's deception.³¹

¶11 The earliest attempts to apply antitrust doctrine to patent ambushes emerged in the form of consent decrees issued by the Federal Trade Commission (FTC). These decrees failed to establish guidelines for private litigation and prompted widespread criticism, particularly when the Commission exercised its jurisdiction under Section 5 of the FTC Act.³² Later, the Commission began to litigate monopolization actions under Section 2 of the Sherman Act.³³ Competitors in standardized markets also began bringing private actions under the Sherman Act, with varying degrees of success.³⁴ As discussed below, these initial attempts foreshadowed the larger problems that would emerge from antitrust challenges to patent ambushes, specifically the tenuous nature of the antitrust claims against patent holders and the potential for abuse by licensees. (Given the high cost and uncertain outcomes of litigation, these two problems are not necessarily mutually exclusive.)

A. The Dell Consent Decree

¶12 In the 1996 *Dell* consent decree, the Commission claimed that Dell's alleged *ex ante* misrepresentations and *ex post* enforcement of its patent rights violated Section 5 of the FTC Act.³⁵ The Commission's theory was that

[o]nce [the] standard had become widely accepted, the standard effectively conferred market power upon Dell as the patent holder. This market power was not inevitable: had [the SSO] known of the Dell patent, it could have chosen an equally effective, non-proprietary standard.³⁶

³¹ *Id.*; see also *Rambus, Inc. v. FTC*, 522 F.3d 456, 463–64 (D.C. Cir. 2008) (“[I]f Rambus’s more complete disclosure would have caused JEDEC to adopt a different (open, non-proprietary) standard, then its failure to disclose harmed competition . . . if Rambus’s conduct merely enabled it to avoid . . . RAND licensing terms, such conduct, alone, could not be said to harm competition.”).

³² See *Royall & Di Vincenzo*, *supra* note 8, at 83 (criticizing the Commission’s consent order in *Dell*).

³³ *Id.* (“[T]he Commission brought two cases, *Rambus* and *Unocal*, that . . . were rooted firmly in Sherman Act case law.”).

³⁴ See *infra*, Part II.D (discussing early private litigation). The *Qualcomm* decision cemented the requirements for stating a cause of action against patent ambush under § 2 of the Sherman Act. *Broadcom Corp. v. Qualcomm, Inc.*, 501 F.3d 297, 314 (3d Cir. 2007).

³⁵ *Dell Computer Corp.*, 121 F.T.C. 616 (1996); see *Cary et al.*, *supra* note 6, at 1246–47 (discussing *Dell*).

³⁶ *Cary et al.*, *supra* note 6, at 1247 (citing *Dell*, 121 F.T.C. at 626 n.2).

¶13 In *Dell*, a company representative had stated to the SSO *ex ante*, in accordance with disclosure mandates, that the company did not hold patent rights over the proposed standard.³⁷ After adoption of the standard, Dell sought to assert its patents against standard-users, and the FTC commenced its challenge. The resulting consent decree precluded Dell from enforcing its patents against any users of the standard.³⁸ Nonetheless, the *Dell* order was not without controversy, and Commissioner Azcuenaga dissented at the time that “[t]he complaint against Dell does not articulate a violation of Section 5 of the FTC Act under any established theory of law. Under any novel theory, the competitive implications of the conduct alleged remain unclear.”³⁹

B. The Unocal Consent Decree

¶14 Unlike *Dell*, the *Unocal* consent decree in 2005⁴⁰ was “rooted firmly in Sherman Act case law.”⁴¹ Unocal had participated in a governmental standard-setting process regarding reformulated gasoline specifications, without disclosing its pending patent claims. After the standard was adopted by the California Air Resources Board (CARB), Unocal proceeded to amend its patent applications to more precisely read on the regulatory standard. In so doing, Unocal had effectively patented the standard itself, in that it was able to “capture[] almost any practicable formulation for meeting the CARB regulations.”⁴²

¶15 The FTC’s action was initially dismissed by the administrative law judge (ALJ) under the *Noerr-Pennington* doctrine of immunity for private lobbying efforts of governmental bodies.⁴³ However, the Commission reversed, finding that Unocal had committed fraud before the CARB and therefore was not immune from liability.⁴⁴ The Commission held that “misrepresentations to [SSO’s] would be actionable if they caused

³⁷ See Lemley, *supra* note 28, at 1928 (“Each of the members who voted to adopt the standard, including Dell Computer Corporation, was required by VESA rules to affirm that it did not own any patent rights that covered the VL-Bus standard, and Dell’s representative did in fact make such a statement.”).

³⁸ *Dell*, 121 F.T.C. at 626.

³⁹ *Id.* at 627 (dissenting statement of Commissioner Mary L. Azcuenaga); see also Royall & Di Vincenzo, *supra* note 8, at 83 (“[The] 1996 consent order with Dell Computer Company . . . was hardly a model of clarity.”).

⁴⁰ *Chevron Corp.*, 140 F.T.C. 100 (2005).

⁴¹ Royall & Di Vincenzo, *supra* note 8, at 83 (discussing *Unocal*).

⁴² Scott H. Segal, *Fuel for Thought: Clean Gasoline and Dirty Patents*, 51 AM. U. L. REV. 49, 61 (2001).

⁴³ *In re Union Oil Co. of California*, No. 9305, *1-*2 (F.T.C. Nov. 25, 2003).

⁴⁴ See Cary et al., *supra* note 6, at 1247–48 (discussing the procedural background in *Unocal*).

substantial competitive harm from their ‘own force in the marketplace.’⁴⁵ Following remand, Unocal and Chevron entered a consent decree with the FTC and conceded enforceability of the patents, in connection with the pending merger of the two companies.⁴⁶ Accordingly, *Unocal* set the stage for subsequent Sherman Act litigation by licensees of a standardized patent, but again fell short of offering clear precedent for private suits.

C. The N-Data Consent Decree

¶16 Another permutation of patent ambush arose in *N-Data*, leading to another FTC consent decree.⁴⁷ In *N-Data*, the original patent holder had fully disclosed its rights and committed to licensing restrictions for its standardized patent, but subsequently had assigned the patent to a spin-off entity.⁴⁸ Not contractually bound by the agreement between the original patent holder and the SSO, the assignee (and its subsequent assignee, N-Data) proceeded to seek higher royalties from standard-users.⁴⁹ Utilizing its Section 5 authority, the Commission characterized the transaction as both an “unfair method of competition” and an “unfair act or practice.”⁵⁰ The Commission reached a consent decree with the assignee that limited licensing of the patent to the licensing terms agreed to by the assignor.⁵¹

¶17 In support of the decree, FTC Commissioner Rosch justified applying Section 5 to circumstances of ambush in which standard-users are unable to defend themselves. He argued that

in the standard-setting context—with numerous, injured third parties, big and small, who lack privity with the patentee and with the mixed incentives generated when members must decide whether to pass on royalties that raise costs market-wide— . . . Section 5 intervention may serve an unusually important role.⁵²

¶18 The decree, however, has faced widespread criticism, both for straying from established precedent and for its failure to guide future

⁴⁵ *Id.* (quoting *In re Union Oil Co. of California*, 138 F.T.C. 1, 37 (2004)).

⁴⁶ *Id.*

⁴⁷ *Negotiated Data Solutions LLC*, 2008 WL 258308, *32 (F.T.C. Jan. 22, 2008).

⁴⁸ Royall & Di Vincenzo, *supra* note 8, at 84 (discussing the facts in *N-Data*).

⁴⁹ *Id.*

⁵⁰ Rosch, *supra* note 5, § II (“[A] majority of the Commission condemned N-Data’s conduct as both an unfair method of competition and an unfair act or practice.”).

⁵¹ See Cary et al., *supra* note 6, at 1256 (citing *Negotiated Data Solutions*, 2008 WL 258308, at *32) (“The FTC filed a simultaneous complaint and settlement under which N-Data [the transferee] is obliged to abide by National’s initial commitment to the IEEE [the transferor].”).

⁵² Rosch, *supra* note 5, § II.

litigants.⁵³ Not only is the FTC Act enforceable by the Commission and not by private litigants,⁵⁴ the standards of liability under Section 5 are also sufficiently different from the requirement of exclusionary conduct under Section 2 of the Sherman Act that they fail to give guidance to private litigants.⁵⁵

¶19 Yet even under the FTC Act, it is unclear what exactly was “unfair” about the conduct of either the original patent holder or its assignee. Once the original patent holder had agreed to license on RAND terms, a legitimate arbitrage opportunity arose for it to sell the patents rights to an unconstrained entity. SSOs can readily impose restrictions on assignment in the original RAND commitment, or create conditions that the assignee agrees to be bound thereby, or provide rights of first refusal for any transfers of the standardized patents, or other contractual protections.

¶20 In this light, antitrust liability under either the FTC Act or the more “traditional antitrust law principles” of the Sherman Act⁵⁶ would frustrate the private contract rights established between the parties involved. Furthermore, imposing antitrust liability is less efficient than requiring parties to protect themselves via contract. Placing the burden on the parties in *ex ante* negotiations would allow the patent holder and SSO to bargain for their desired covenants and restrictions and rely on their enforceability *ex post*.⁵⁷ Unlike in ambushes involving deception, SSOs who are aware of the patent rights covering the standard under consideration are readily able to restrict a standard-owner’s future opportunities for transfer arbitrage.

D. Early Private Litigation

¶21 Initial attempts at private litigation under the Sherman Act encountered mixed results. In *Townshend v. Rockwell Int’l Corp.*, the district court dismissed a claim brought by standard-users for the standard-

⁵³ See Royall & Di Vincenzo, *supra* note 8, at 84 (“[B]y failing to rely at least in part upon Sherman Act principles in support of its proposed order, the Commission has missed a significant opportunity to further clarify how traditional antitrust law principles apply in this immensely important commercial setting.”).

⁵⁴ See 15 U.S.C. § 45(a)(2) (2006).

⁵⁵ See Royall & Di Vincenzo, *supra* note 8, at 90 (“The Commission’s silence on Section 2 issues in *N-Data*, at a very minimum, creates uncertainty and doubt concerning the extent to which antitrust will protect against opportunistic conduct in this setting.”).

⁵⁶ *Id.* at 84.

⁵⁷ Of course, bankruptcy of the standard-owner could frustrate enforceability of RAND-related covenants and conditions on assignment, but certain bankruptcy protections could be imposed.

owner's alleged violation of its *ex ante* licensing commitments.⁵⁸ In that case, the standard-owner had submitted proposed licensing terms to the SSO that violated the SSO's rules, and furthermore had failed to disclose certain litigation relating to its patents.⁵⁹ The court dismissed the suit because the licensing terms at issue had been vetted by the SSO *ex ante* notwithstanding violation of its policies, and the SSO had not relied on the nondisclosure of the patent-related litigation when adopting the standard.⁶⁰

¶22 Conversely, in *ESS Tech v. PC-Tel*, the district court held that *ex ante* misrepresentation of the standard-owner's willingness to license on RAND terms could support a Sherman Act claim.⁶¹ Lemley notes that "*ESS* has parallels to *Dell* . . . the only significant difference is that the patentee misrepresented its willingness to license a patent [in *ESS*] rather than the existence of the patent itself [in *Dell*]."⁶² Accordingly, under *ESS*, *ex ante* misrepresentation may constitute a "bad act" sufficient to give rise to an antitrust claim. However, as *Townsend* demonstrated, the "bad act" must be causally linked to the standard-owner's acquisition of monopoly control over the standard, in order to constitute a violation of Section 2 of the Sherman Act.

III. THE *QUALCOMM* AND *RAMBUS* DECISIONS

¶23 The principal question presented in *Qualcomm* was "what facts must be pled to survive a motion to dismiss" on a Section 2 claim alleging a patent-holder's deception before an SSO;⁶³ conversely, *Rambus* addressed the requirements for establishing causation under Section 2 based on such alleged deception.⁶⁴ Because they address these different legal issues, the two cases can be read as non-contradictory, if taken at face value.⁶⁵ Beneath the surface, however, a fundamental conflict exists between the decisions' respective conceptions of monopolization due to a patent ambush. As discussed below, *Qualcomm* disadvantages the standard-owner by permitting an antitrust suit against it for any proposed licensing terms

⁵⁸ No. C99-0400SBA, 2000 WL 433505 at *9 (N.D. Cal. Mar. 28, 2000).

⁵⁹ *Id.* at *2.

⁶⁰ *Id.* at *10–11; *see also* *Broadcom Corp. v. Qualcomm, Inc.*, 501 F.3d 297, 312 n.7 (3d Cir. 2007) (distinguishing *Townshend* on these facts).

⁶¹ No. C-99-20292, 1999 WL 33520483, at *4 (N.D. Cal. Nov. 4, 1999).

⁶² Lemley, *supra* note 28, at 1930.

⁶³ *Qualcomm*, 501 F.3d at 303.

⁶⁴ *Rambus, Inc. v. F.T.C.*, 522 F.3d 456, 459 (D.C. Cir. 2008).

⁶⁵ *See id.* at 466 ("To the extent that [*Qualcomm*] . . . rested on the argument that deceit lured the SSO away from non-proprietary technology, it cannot help the Commission in view of its inability to find that Rambus's behavior caused JEDEC's choice." (internal citations omitted)); *see also* Cary et al., *supra* note 6, at 1252 ("[T]he two rulings are not necessarily in tension.").

that arguably overstep the RAND constraints. Conversely, *Rambus* effectively disables antitrust remedies in cases of nondisclosure. Though this outcome aligns with this iBrief's thesis, the *Rambus* opinion is fraught with error and its implications are equally disturbing.⁶⁶

A. The Qualcomm Decision

¶24 In *Qualcomm*, the Third Circuit upheld the applicability of monopolization claims under the Sherman Act to alleged patent ambushes. At the outset, the court acknowledged the two main counterarguments to its position: first, patent rights permit the exercise of monopoly power through price and access restrictions,⁶⁷ and second, antitrust liability is only proper where the competitive process itself has been harmed, not only individual competitors.⁶⁸ The court dismissed these arguments,⁶⁹ however, and proceeded to expound the risks of “patent hold-up” in formal standard-setting⁷⁰ and the harms caused to competition by the exercise of monopoly power in standardized markets.⁷¹

¶25 Citing prior FTC enforcement actions for patent ambushes,⁷² most notably the “landmark, 120-page opinion in *In the Matter of Rambus*,

⁶⁶ See *infra*, Part IV.B.

⁶⁷ *Qualcomm*, 501 F.3d at 305 (“In dismissing Broadcom’s claim of monopolization in the WCDMA technology markets, the Court reasoned that Qualcomm enjoyed a legally-sanctioned monopoly in its patented technology, and that this monopoly conferred the right to exclude competition and set the terms by which that technology was distributed.”).

⁶⁸ *Id.* at 308 (“Conduct that merely harms competitors . . . while not harming the competitive process itself, is not anticompetitive.”).

⁶⁹ *Id.* at 305 (“The [district court] did not discuss the possibility that the FRAND commitments that SDOs required of vendors were intended as a bulwark against unlawful monopoly, nor did it consider the possibility that the SDOs might have chosen nonproprietary technologies for inclusion in the standard.”).

⁷⁰ *Id.* at 310.

⁷¹ The Third Circuit discussed a number of harms resulting from patent ambushes, many of which have been previously noted in the foregoing analysis. The Court explained that “[i]nefficiency may be injected into the standard-setting process by what is known as ‘patent hold-up.’” *Id.* Furthermore, an ambush increases the bargaining power of the patent holder, permitting it to charge supra-competitive prices in excess of its normal entitlement under the patent grant. *Id.* (“Although a patent confers a lawful monopoly over the claimed invention . . . its value is limited when alternative technologies exist.”). Therefore, patent ambushes harm *competition*, in addition to competitors, by “obscuring the costs of including proprietary technology in a standard and increasing the likelihood that patent rights will confer monopoly power on the patent holder.” *Id.*

⁷² *Id.* at 310–12 (discussing *Dell*, *Unocal*, and the Commission’s decision in *Rambus*).

Inc.,”⁷³ the Third Circuit highlighted the “growing awareness of the risks associated with deceptive conduct in the private standard-setting process.”⁷⁴ This portion of the opinion has been recognized as “a facially sound analysis that highlights what many have considered to be wrong about deceptive conduct or nondisclosure by rights owners in standards-setting groups.”⁷⁵ However, the remainder of the *Qualcomm* opinion is more controversial, both in terms of its practical implications,⁷⁶ and in its possible conflict with the D.C. Circuit’s *Rambus* decision.⁷⁷

¶26 The *Qualcomm* court enumerated the elements of its holding, as follows:

(1) in a consensus-oriented private standard-setting environment, (2) a patent holder’s intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an SDO’s reliance on that promise when including the technology in a standard, and (4) the patent holder’s subsequent breach of that promise, is actionable anticompetitive conduct.⁷⁸

¶27 Still, the actual parameters of this rule are not so easily discernible. Nimmer highlights the ambiguities in the holding, including “what conduct establishes a failure to perform the RAND obligation,” given that SSO’s rules regarding disclosure and licensing are often unclear.⁷⁹ Indeed, since the definition of “reasonable and non-discriminatory” is highly subjective, any disagreement during licensing negotiations could permit standard-users to bring antitrust complaints against the standard-owner, or threaten the same and their risk of treble damages and patent unenforceability to gain leverage. Accordingly, this could facilitate oligopsonistic exploitation of the standard-owner to depress royalties *below* competitive rates.⁸⁰

¶28 The other issue with *Qualcomm* concerns its laudation of and reliance on the FTC’s *Rambus* decision,⁸¹ which presents an unavoidable

⁷³ *Id.* at 311.

⁷⁴ *Id.* at 312.

⁷⁵ NIMMER, *supra* note 4, § 4:58.

⁷⁶ *Id.* (“[The *Qualcomm*] holding creates numerous potential traps for rights owners who participate in SSOs, perhaps creating incentives for them not to do so.”).

⁷⁷ *Rambus, Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008).

⁷⁸ *Qualcomm*, 501 F.3d at 314.

⁷⁹ NIMMER, *supra* note 4, § 4:58.

⁸⁰ *Cf. Geradin et al.*, *supra* note 4, at 173–74 (“The majority of SSOs have far more IPR licensees than IPR holders, so the risk of concerted buyer power to hold royalties *below* their competitive level strikes us as a very real concern.”).

⁸¹ *See Qualcomm*, 501 F.3d at 312 (“[The Commission’s *In re Rambus* decision] is particularly noteworthy for its extensive discussion of deceptive conduct in

conflict with the D.C. Circuit's subsequent reversal of the Commission's order. As discussed further below, the D.C. Circuit attempted to avoid confrontation with the Third Circuit's decision:

To the extent that [*Qualcomm*] (which simply reversed a grant of dismissal) rested on the argument that deceit lured the SSO away from non-proprietary technology, it cannot help the Commission in view of its inability to find that Rambus's behavior caused JEDEC's choice.⁸²

¶29 The D.C. Circuit only acknowledged a potential conflict "to the extent that [*Qualcomm* held] that there is a cognizable violation of the Sherman Act when a lawful monopolist's deceit has the effect of raising prices (without an effect on competitive structure)."⁸³ This is a coy statement, because the Third Circuit's decision in *Qualcomm* relies on the traditional criteria for monopolization, including the "intentional acquisition of monopoly power" by way of deception,⁸⁴ as well as the increase in the "likelihood that patent rights will confer monopoly power on the patent holder" caused by the deception.⁸⁵

¶30 Unlike *Rambus*, the *Qualcomm* opinion did not exclusively highlight the SSO's reliance on *Qualcomm*'s misrepresentations as the but-for cause of its resulting monopoly power. The Third Circuit extensively discussed the RAND mechanism, and its function to provide a "bulwark against unlawful monopoly."⁸⁶ The Court emphasized that "measures such as [RAND] commitments [are] important safeguards against monopoly power."⁸⁷

¶31 By contrast, the D.C. Circuit reasoned that "an otherwise lawful monopolist's end-run around [RAND] price constraints, even when deceptive or fraudulent, does not alone present a harm to competition."⁸⁸ The direct tension between the circuits lies in their respective conceptions of the RAND commitment and whether it prevents the acquisition of monopoly power by a standard-owner or merely caps the price that the owner of a standardized patent may charge. Phrased another way, *Rambus* views the RAND commitment as preventing the *exercise* of monopoly power that the standard-owner lawfully holds, whereas *Qualcomm* focuses

the standard-setting context and the factors that make such conduct anticompetitive under § 2 of the Sherman Act.").

⁸² *Rambus*, 522 F.3d at 466 (internal citation omitted).

⁸³ *Id.*

⁸⁴ *Qualcomm*, 501 F.3d at 304.

⁸⁵ *Id.* at 314.

⁸⁶ *Id.* at 305.

⁸⁷ *Id.* at 314.

⁸⁸ *Rambus*, 522 F.3d at 466.

more on the economic equivalence between creating monopoly power in the first instance versus avoiding restraints on its exercise.

B. *The Rambus Decision*

¶32 Whereas the *Qualcomm* decision can be read as creating incentives for standard-users to sue (or threaten to sue) standard-owners who have committed to RAND licensing, the *Rambus* decision institutes a crucial limitation on antitrust actions against patent ambushes involving *ex ante* nondisclosure—perhaps, in fact, a debilitating one. The D.C. Circuit held that *ex ante* nondisclosure to an SSO, enabling a standard-owner to “avoid [RAND commitments] on its patent licensing fees that the SSO would have imposed as part of its normal process of standardizing patented technologies [does] not in itself constitute monopolization.”⁸⁹ The opinion has spurred considerable controversy, both concerning the holding itself as well as the reasoning underlying it.⁹⁰

¶33 *Rambus* arose from the company’s appeal of the Commission’s finding of monopolization under Section 2 of the Sherman Act for its *ex ante* nondisclosure of certain patent applications and claim amendments that eventually read on standards adopted by the Joint Electron Device Engineering Council (JEDEC). The standards related to random-access memory (RAM) in computers. The factual circumstances are convoluted and are complicated by Rambus’s intermittent participation in JEDEC,⁹¹ the

⁸⁹ *Id.* at 459.

⁹⁰ Compare Justin Hurwitz, *The Value of Patents in Industry Standards: Avoiding Licensing Arbitrage with Voluntary Rules*, 36 AIPLA Q.J. 1, 15 (2008) (“It is indefensible for the Commissioners to have usurped the ALJ’s traditional role once again. Rambus has already begun its appeal—this is an appeal that will very likely be won.”), NIMMER, *supra* note 4, § 4:58 (“[T]he DC Circuit restored some rationality to antitrust law regarding standards-setting organizations (SSOs) in its review and reversal of the FTC ruling in the *Rambus* case.”), and Stephen H. Haber et al., *On the Importance to Economic Success of Property Rights in Finance and Innovation*, 26 WASH. U. J.L. & POL’Y 215, 236 (2008) (“[E]ven though the Federal Trade Commission found against Rambus, the Commission itself had trouble identifying the exact wrong it found Rambus to have committed This lack of support explains why the Commission’s decision was set aside by the [D.C.] Circuit.”), with Cary et al., *supra* note 6, at 1252 (“[T]he *Rambus* decision has at least two fundamental flaws in its application of Section Two of the Sherman Act.”), and Rosch, *supra* note 5, § III (“I personally support a petition for certiorari in *Rambus*. I think the D.C. Circuit’s decision is wrong”).

⁹¹ See *Rambus Inc. v. Infineon Techs. Ag.*, 318 F.3d 1081, 1105 (Fed. Cir. 2003) (“Rambus attended its last JEDEC meeting on December 6, 1995, and formally withdrew from JEDEC by a letter dated June 17, 1996. JEDEC did not begin formal work on the DDR-SDRAM standard until December 1996.”).

lack of clarity in JEDEC's rules,⁹² the sensitive nature of strategic amendments to pending patent claims,⁹³ and criminal antitrust violations committed by other JEDEC participants.⁹⁴

¶34 Indeed, the D.C. Circuit should have focused on the factual record and reversed under the substantial evidence standard, rather than articulate a resounding legal rule applicable to all future instances of alleged ambush.⁹⁵ Instead, the court held that *ex ante* deceptive conduct towards an SSO that enables the future standard-owner to avoid making RAND commitments for its *ex post* licensing to standard-users does not, in itself, violate the Sherman Act.⁹⁶

¶35 The D.C. Circuit relied on the Supreme Court's decision in *NYNEX Corp. v. Discon, Inc.*⁹⁷ to justify its holding that avoidance of RAND limits does not constitute monopolization under Section 2.⁹⁸ Citing *NYNEX* in cursory fashion, the court explained that "an otherwise lawful monopolist's use of deception simply to obtain higher prices normally has no particular tendency to exclude rivals and thus to diminish competition."⁹⁹

⁹² *Id.* at 1102 ("[T]here is a staggering lack of defining details in the EIA/JEDEC patent policy.").

⁹³ See Thomas J. Scott et al., *Proscribed Conduct for Patent Holders Participating in Standard-Setting Organizations*, 20 INTELL. PROP. & TECH. L.J. 14, 14 (2008) ("[T]he disclosure of patents, and particularly of patent applications, carries with it inherent risks to which companies might, justifiably, be . . . averse.").

⁹⁴ See Haber et al., *supra* note 90, at 236 ("The particular irony is . . . that the complaining DRAM manufacturers, Hynix and Infineon, have recently settled with the U.S. government in one of the largest criminal antitrust price fixing cases ever, involving fines now totaling over half a billion dollars and jail sentences for several of the conspiring executives.").

⁹⁵ In discussing the possibility of § 5 liability, the D.C. Circuit noted that "the Commission's findings are conclusive so long as they are supported by substantial evidence," but then proceeded to question the sufficiency of the evidentiary record "on both the relevant margins: what JEDEC's disclosure policies were, and what, within those mandates, Rambus failed to disclose." *Rambus Inc. v. FTC*, 522 F.3d 456, 467 (D.C. Cir. 2008).

⁹⁶ See J. Thomas Rosch, *The Common Law of Section 2: Is It Still Alive and Well?*, 15 GEO. MASON L. REV. 1163, 1173 (2008) ("We at the Commission were very mindful of Chicago School scholarship and of the Supreme Court's recent jurisprudence in deciding *Rambus*, and I assume that the Third Circuit was similarly mindful of it in deciding *Qualcomm*. But we were not convinced that deceptive conduct in the context of a standard-setting process could or should be considered presumptively legal, much less legal [*per se*].").

⁹⁷ 525 U.S. 128 (1998).

⁹⁸ See *Rambus Inc. v. FTC*, 522 F.3d 456, 464–65 (D.C. Cir. 2008).

⁹⁹ *Id.* at 464.

¶36 However, *NYNEX* is not on point. *NYNEX* addressed “the specific legal question [of] whether an antitrust court considering an agreement by a buyer to purchase goods or services from one supplier rather than another should . . . apply the per se rule if it finds no legitimate business reason for that purchasing decision.”¹⁰⁰ There, a regulatory agency imposed a permanent restraint on prices, and the defendant-monopolist allegedly conspired with its downstream supplier to be billed at inflated prices, pass down these costs to consumers through higher regulated prices that were calculated based on its supplier’s invoices, and then split the difference with its supplier via kickbacks.¹⁰¹ These facts are distinguishable from *Rambus*, in which the defendant’s alleged deception occurred *ex ante* and affected whether a constraint on *ex post* prices (similar to the regulatory oversight in *NYNEX*) would be imposed at all.¹⁰²

¶37 Further, it is not at all clear that the “mere avoidance” of a RAND commitment *ex ante* would not, in itself, constitute unlawful acquisition of market power under the Sherman Act.¹⁰³ The definition of market power is the ability to sustain prices above competitive rates.¹⁰⁴ Whereas dominant or even complete market share may support an inference of power, proof of an inability to maintain supra-competitive pricing will refute the possibility that the defendant is a monopolist.¹⁰⁵ Reciprocally, avoidance of a

¹⁰⁰ *NYNEX Corp. v. Discon, Inc.*, 525 U.S. 128, 135 (1998).

¹⁰¹ *Id.* at 132 (“[Defendant] could pass the higher prices . . . on to telephone consumers in the form of higher regulatory-agency-approved telephone service charges. At the end of the year, [defendant] would receive a special rebate from [its over-charging supplier] . . .”).

¹⁰² See Cary et al., *supra* note 6, at 1253 (“[*NYNEX*] has no bearing on the use of deception to obtain monopoly power in the first instance.”); see also Rosch, *supra* note 5, § I (“As numerous other commentators have noted, the court’s reading of *NYNEX* was unwarranted because the defendant in that case acquired monopoly power lawfully whereas the Commission found that *Rambus*’s acquisition of that power was unlawful.”).

¹⁰³ See *United States v. Microsoft Corp.*, 253 F.3d 34, 50 (D.C. Cir. 2001) (“The offense of monopolization has two elements: ‘(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.’” (quoting *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966))).

¹⁰⁴ See *id.* at 51 (“The Supreme Court defines monopoly power as ‘the power to control prices or exclude competition.’ More precisely, a firm is a monopolist if it can profitably raise prices substantially above the competitive level.” (quoting *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 391 (1956))).

¹⁰⁵ See, e.g., *id.* at 54 (“Although the ‘existence of [monopoly] power ordinarily may be inferred from the predominant share of the market,’ . . . because of the possibility of competition from new entrants, looking to current market share alone can be ‘misleading.’” (alteration in original) (citations omitted)).

permanent *ex post* restraint on pricing power should constitute monopolization, even though the standard-owner would otherwise have obtained a dominant market share by virtue of standardization.¹⁰⁶

¶38 A second basis for criticizing the D.C. Circuit's decision is its initial bifurcation of the consequences of Rambus's alleged deception, which led the court to treat the "mere avoidance" of RAND limits as a separate necessary premise of liability. The majority of FTC Commissioners had found that if Rambus had disclosed its patent applications and pending amendments, "JEDEC either would have excluded Rambus's patented technologies from the [standards], or would have demanded RAND assurances . . ." ¹⁰⁷ The Commission therefore refused to render Rambus's patents unenforceable, as it was unclear whether but for its deception, JEDEC would have adopted a *different* standard (rending Rambus without market power) or instead would have required Rambus to commit to RAND licensing (rending Rambus without pricing power).¹⁰⁸ This occurred in the remedies phase, after the Commission had determined that Rambus has violated Section 2.

¶39 However, the D.C. Circuit used this finding to determine the issue of liability. The court reasoned as follows: (A) but for Rambus's deception, JEDEC either would have adopted a different (and possibly nonproprietary) standard or it would have chosen Rambus but imposed RAND limitations;¹⁰⁹ (B) assuming JEDEC would have adopted a nonproprietary standard, Rambus's deception may have created a monopoly and violated Section 2;¹¹⁰ (C) but, if Rambus's technology would have been included in the standard anyway subject to RAND limitations, Rambus did not *obtain* monopoly power through deceptive means. What this logic fails to consider

¹⁰⁶ *Accord* Cary et al., *supra* note 6, at 1253 ("In these alternative scenarios" without *ex ante* deception, any standard owner "would be constrained from controlling prices or excluding competitors. Deceptive actions that avoid any or all of these alternatives could be anticompetitive.").

¹⁰⁷ *Rambus, Inc. v. FTC*, 522 F.3d 456, 461 (D.C. Cir. 2008) (citing Opinion of the Commission, *In re Rambus*, Docket No. 9302, at 74 (F.T.C. July 31, 2006)); *see also* Rosch, *supra* note 5, § I ("[Two Commissioners dissented, finding] strong evidence . . . that if JEDEC had been aware of the potential scope of Rambus's patent portfolio, it would have adopted standards that would have avoided Rambus's patents.").

¹⁰⁸ *Id.* at 462.

¹⁰⁹ *Id.* at 463.

¹¹⁰ The Court did not rule on this issue. *Id.* ("We assume without deciding that avoidance of the first of these possible outcomes was indeed anticompetitive; that is, that if Rambus's more complete disclosure would have caused JEDEC to adopt a different (open, non-proprietary) standard, then its failure to disclose harmed competition and would support a monopolization claim.").

is that JEDEC would *not* have adopted Rambus's technology *without* a RAND commitment had it known about the underlying patents.¹¹¹

¶40 The flaw in the court's reasoning occurred with its initial conjunction of alternatives: that "the consequences of [Rambus's] nondisclosure . . . [were] that it prevented JEDEC *either* from adopting a non-proprietary standard, *or* from extracting a RAND commitment from Rambus when standardizing its technology."¹¹² The court required both alternatives to be satisfied in order to find liability, and after assuming without deciding that the former could lead to liability,¹¹³ the court proceeded to analyze whether the latter, namely that "Rambus's conduct merely enabled it to avoid . . . JEDEC's obtaining assurances from Rambus of RAND licensing terms,"¹¹⁴ violated Section 2.

¶41 However, these two "possible outcomes"¹¹⁵ are really one and the same. Rambus's avoidance of RAND licensing commitments is inextricably linked with the inclusion of its patented technology into the adopted standard. First, consider the underlying logical structure: According to the Commission's findings, if (A) Rambus had disclosed its patents, then *either* (X) JEDEC would have adopted a different standard *or* (Y) JEDEC would have required a RAND commitment from Rambus. The D.C. Circuit reasoned that the consequences of NOT A (Rambus's nondisclosure) were *either* NOT X (JEDEC did not adopt a different (non-proprietary) standard) *or* NOT Y (Rambus merely avoided RAND limitations). However, the logical negative of a conjunction is a disjunction; that is, NOT A implies NOT X *and* NOT Y.¹¹⁶ Thus, the consequences of Rambus's nondisclosure, based on the facts found by the Commission, were that JEDEC adopted Rambus's technology *and* JEDEC did not impose RAND limitations.

¶42 This point is supported by other facts on the record that the D.C. Circuit ignored. Discussing the Commission's case, the *Qualcomm* court noted that JEDEC's rules prohibited adopting a proprietary standard if its

¹¹¹ *Broadcom Corp. v. Qualcomm, Inc.*, 501 F.3d 297, 317 (3d Cir. 2007) ("If Rambus had refused to provide the requisite [F]RAND assurances, [the SDO] would have been bound by its rules to avoid Rambus's patented technologies." (alterations in original) (quoting *In re Rambus*, Docket No. 9302, at 97 (F.T.C. Aug. 2, 2006))).

¹¹² *Rambus*, 522 F.3d at 462.

¹¹³ *Id.* at 463.

¹¹⁴ *Id.* at 464.

¹¹⁵ *Id.* at 463.

¹¹⁶ See DEBORAH J. BENNETT, LOGIC MADE EASY: HOW TO KNOW WHEN LANGUAGE DECEIVES YOU 155 (2004) ("[T]he negation of a conjunction is the disjunction of the negations of the conjuncts. Hence, the propositions 'not(X or Y)' and 'not-X and not-Y' are equivalent.").

owner refused to commit to RAND licensing.¹¹⁷ That is, JEDEC would have *rejected* Rambus's technology if it had known about the patents but Rambus had *refused* to commit to RAND licensing. Accordingly, had Rambus disclosed its patents, it necessarily would have been required to commit to RAND licensing or be excluded from the standard.¹¹⁸ Rambus therefore did not "merely avoid" RAND commitments—it acquired both structural and economic monopoly power by doing so.

¶43 In this light, the Third Circuit was correct in considering RAND commitments as the "bulwark against unlawful monopoly" power,¹¹⁹ and reasoning that the deceptive avoidance of RAND limitations is the catalyst that confers true monopoly power on the standard-owner.¹²⁰ Especially given that alternatives to Rambus's technology had existed *ex ante*,¹²¹ Rambus's nondisclosure to the SSO created economic monopoly power where, otherwise, none would have existed.

IV. THE INADEQUACY OF ANTITRUST TO ADDRESS PATENT AMBUSH

¶44 The general rule that emerges from *Rambus* is that a patent-holder's deceptive conduct before an SSO will not give rise to liability under Section 2 if such conduct cannot be shown to have caused the SSO to include that technology in its standard over an alternative.¹²² In this respect, the

¹¹⁷ *Broadcom Corp. v. Qualcomm, Inc.*, 501 F.3d 297, 317 (3d Cir. 2007) ("If Rambus had refused to provide the requisite [F]RAND assurances, [the SDO] would have been bound by its rules to avoid Rambus's patented technologies." (alterations in original) (quoting *In re Rambus*, Docket No. 9302, at 97 (F.T.C. Aug. 2, 2006))).

¹¹⁸ *Accord Cary et al.*, *supra* note 6, at 1253 ("If a patent holder discloses its intellectual property but declines to commit to license on reasonable and non-discriminatory terms, the SSO could adopt a solution covered by a patent held by another firm that has made such a commitment.").

¹¹⁹ *Qualcomm*, 501 F.3d at 305.

¹²⁰ *Id.* at 314 ("The patent holder's IPRs, if unconstrained, may permit it to demand supracompetitive royalties. It is in such circumstances that measures such as FRAND commitments become important safeguards against monopoly power.") (internal citation omitted).

¹²¹ *Cary et al.*, *supra* note 6, at 1254 n.99 ("[T]he FTC's remedy decision expressly noted that it was taking account of evidence that '[a]lternative technologies were available' and that 'it likely would have been possible for members to design around Rambus's patents.'" (quoting Opinion of Commission on Remedy at 17, *In re Rambus Inc.*, Docket No. 9302, (F.T.C. Feb. 5, 2007))).

¹²² That is, the court held that deception causing adoption of a proprietary standard without RAND assurances does not constitute monopolization under Section 2; as to whether deception causing adoption of a proprietary standard over alternatives would violate Section 2, the court only "assume[d] without

holdings of *Rambus* and *Qualcomm* do not conflict, because the Third Circuit expressly required the SSO's reliance on the deceptive conduct as an element in actionable deception of an SSO.¹²³ Accordingly, taken together, the two cases hold that if a patent-holder has engaged in deceptive conduct *ex ante*, whether through nondisclosure of its patent rights or a fraudulent RAND commitment following disclosure, and the SSO would have chosen a non-proprietary technology but for the deception, then the standard-owner may be liable under Section 2. One resulting remedy would be to hold the relevant patents unenforceable against the standard-users,¹²⁴ whereas another would be to restrict royalties to reasonable rates. Yet, the decisions do not mix well, and substantial legal uncertainty and perverse incentives reside in the interstices between them.

A. Legal Uncertainty Between the Decisions

¶45 One unanswered question under *Rambus* is whether proof of but-for selection of a different *proprietary* technology would permit antitrust liability for the ambush. The Commission found that if Rambus had fully disclosed its patent position, "JEDEC either would have excluded Rambus's patented technologies from the JEDEC DRAM standards, or would have demanded RAND assurances . . . with an opportunity for *ex ante* licensing negotiations."¹²⁵ However, the D.C. Circuit mischaracterized the Commission's finding as involving the difference between "a different (*open, non-proprietary*) standard" and RAND limits on Rambus's technology.¹²⁶

deciding . . . [that this] would support a monopolization claim." *Rambus, Inc. v. FTC*, 522 F.3d 456, 463-64 (D.C. Cir. 2008).

¹²³ *Qualcomm*, 501 F.3d at 314; *see also* Cary et al., *supra*, note 6, at 1252 ("In contrast [to *Qualcomm*], the D.C. Circuit reversed . . . on the grounds that the FTC failed to prove that an alternative technology could [not] have been adopted and therefore left open the possibility that Rambus's technology would have been incorporated into the standard even if Rambus had not engaged in deception.").

¹²⁴ The remedy requires construction of the but-for market, but under *Rambus*, the only possible but-for world that could give rise to liability is the one in which a different standard would have been adopted by the SSO. Under this scenario, the patent would likely be ruled unenforceable. *See, e.g., Rambus*, 522 F.3d at 462 ("[T]he Commission refused to compel Rambus to license its relevant patents royalty-free because there was insufficient evidence that . . . such a remedy was necessary to restore competition that would have existed in the but for world." (internal quotation marks omitted)).

¹²⁵ *Id.* (quoting Opinion of the Commission, *In re Rambus*, Docket No. 9302, at 74 (July 31, 2006)).

¹²⁶ *Id.* (emphasis added); *see also id.* at 466 (distinguishing *Qualcomm* to the extent it "rested on the argument that deceit lured the SSO away from *non-*

¶46 Accordingly, it is not immediately clear whether proof of the SSO's selection of a different *proprietary* standard would suffice to give rise to liability for monopolization. The D.C. Circuit's reasoning suggests that proof of a *nonproprietary* alternative would be required. In relying on *NYNEX* for its finding of no Section 2 liability and in its choice of cases in which deceptive conduct gave rise to antitrust violations, the Court stressed that "[e]ven if deception raises the price secured by a seller, but does so without harming competition, it is beyond the antitrust laws' reach."¹²⁷ This language suggests that deception must alter the *structure* of the market; creating a monopoly, not merely permitting the defendant to obtain a monopoly that otherwise would have been controlled by another firm. Also, in both cases cited by the court in which a Section 2 violation was found, the defendant's deceptive conduct created the monopoly where there was one, as opposed to merely allowing it to gain control over a monopolized market.¹²⁸

¶47 Of course, the difference with standardization, where the standard-owner's deception causes an SSO to choose its technology over another proprietary alternative, is that the *ex post* monopoly structure of the market would exist irrespective of the technology chosen. *Rambus* makes clear that the presence or absence of RAND restraints is not a structural feature of a standardized market, and a standard-owner that is bound by a RAND commitment is no less a monopolist than one free to set prices at will.¹²⁹ Whereas a monopoly clearly does not exist when a nonproprietary standard is adopted, the *ex post* market structure is identical whether RAND commitments are imposed or not.

proprietary technology," whereas the Commission below had failed to prove that this alternative necessarily would have occurred) (emphasis added).

¹²⁷ *Id.* at 464.

¹²⁸ In *United States v. Microsoft*, the D.C. Circuit held that "Microsoft engaged in anticompetitive conduct when it tricked independent software developers into believing that its software development tools could be used to design cross-platform Java applications when, in fact, they produced Windows-specific ones." *Rambus*, 522 F.3d at 464 (citing *United States v. Microsoft Corp.*, 253 F.3d 34, 76 (D.C. Cir. 2001)). In *Conwood Co. v. U.S. Tobacco Co.*, the Sixth Circuit held that the defendant's "misrepresentations to retailers about the sales strength of its products versus its competitors' strength reduced competition in the monopolized market by increasing the display space devoted to [the defendant's] products and decreasing that allotted to competing products." *Rambus*, 522 F.3d at 464 (citing *Conwood Co. v. U.S. Tobacco Co.*, 290 F.3d 768 (6th Cir. 2002)).

¹²⁹ *Rambus*, 522 F.3d at 466 ("[T]here is [no] cognizable violation of the Sherman Act when a lawful monopolist's deceit has the effect of raising prices (*without an effect on competitive structure*).") (emphasis added).

¶48 If, in fact, a non-proprietary, but-for alternative is required for Section 2 liability, then this will apply both in cases of *ex ante* nondisclosure, as well as instances in which a standard-owner had committed to RAND terms but later breaches. A contract cause of action may exist as between the SSO and standard-owner in the case of *ex post* breach,¹³⁰ though recourse of standard-users may be limited, and the case of *ex ante* nondisclosure would remain unaddressed. However, *Rambus* does not conclusively answer this issue. Furthermore, courts in other circuits are free to follow or disregard *Rambus* as they see fit in cases of *ex post* breach.¹³¹

B. Perverse Incentives Under Antitrust Law

¶49 One consequence of the *Rambus* holding may be to discourage SSOs from adopting proprietary standards altogether. Lemley explains that establishing causation will be easier when SSO by-laws preclude proprietary standards: “If an SSO flatly refuses to adopt any standard covered by an IP right, for example, as some open source groups do, it should be apparent that an intentional failure to disclose the existence of an IP right affected the outcome of the decision.”¹³² The problem with this outcome is that the proprietary options may be technologically or otherwise superior compared with the nonproprietary alternatives.

¶50 The converse scenario is that SSOs may take steps to make proof of reliance easier to accomplish. Specifically, the SSO might document its

¹³⁰ NIMMER, *supra* note 4, § 4:58 (“If there [has] been actual fraud or breach of contract, then that is how the claims should [be] brought; but these are not claims over which FTC typically has jurisdiction.”).

¹³¹ As an extreme example, in a recent case involving a patent assignee’s alleged failure to comply with RAND commitments made by the assignor, a district court in the Central District of California dismissed the plaintiff’s Section 2 claims against the assignee by following *Rambus*, but suggested that the assignor (who was not a party to the litigation) could be liable under *Qualcomm*:

Vizio cites to [*Broadcom*] for the proposition that deceiving a standard setting organization and then evading FRAND commitments can qualify as anticompetitive conduct and can constitute harm to competition. . . . However, other courts [such as the Third Circuit in *Rambus*] have reached the opposite conclusion.

. . . .

Although the allegations might suffice to state an antitrust claim against [the assignor] under the holding in *Broadcom*, they do not against [the assignee].

Vizio, Inc. v. Funai Electric Co., 2010 U.S. Dist. LEXIS 30850, *14–16 (C.D. Cal. Feb. 3, 2010).

¹³² Lemley, *supra* note 28, at 1932.

deliberations in such a manner as to show that its selection of a proprietary standard was predicated on the patent holder's RAND covenant. Armed with this evidentiary record, *Qualcomm* would permit standard-users the ability to bring an antitrust proceeding based solely on a disagreement over RAND royalties. In turn, this would exacerbate the prospect of buyer-side hold-up in licensing negotiations, whereby standard-users could credibly threaten to bring such litigation in order to depress the royalty rate.

¶51 Nimmer noted that the threat of litigation post-*Qualcomm* may deter patent-holders from participating in standard-setting activities altogether.¹³³ Combined with *Rambus*, the nondisclosure is the safer strategy; both to escape liability for an actual ambush, but also to avoid *ex post* exploitation of RAND commitments by standard-users. This in turn can be expected to further impede the efficiency of standard-setting endeavors, as participants in the process will be more distrustful of each other, and users will be more doubtful about the standards adopted and the hidden patent rights that may lie therein.

C. Doctrinal Deficiencies of Antitrust

¶52 Patent ambushes can harm technology markets and consumers. Although antitrust serves to prevent consumer harm, it is not designed to address the unique context of a patent ambush. Whereas liability for monopolization requires exclusionary conduct that created or maintained the defendant's monopoly, the standardized market structure is most directly attributable to the SSO's activities. If deception enables one firm to win inclusion of its technology in the standard over the proprietary technology of another firm, this is merely a distributional difference among private actors rather than a structural change of the market economics. If deception enables the avoidance of RAND licensing limits, this is a pricing problem but not a competitive effect.

¶53 Even in the limited case in which deception truly steered an SSO away from a nonproprietary standard and caused it to select the *ex post* monopolist's technology, antitrust liability is an ill-suited remedy. When an ambush involves a patent holder's breach of its RAND commitment, unenforceability may be an inappropriate remedy. The SSO would only have selected the technology if its quality-adjusted value, at the expected RAND rates, exceeded the value conferred by the royalty-free nonproprietary standard. Therefore, if the patent is rendered unenforceable, the standard-users may reap a windfall. Even without an unenforceability ruling, treble damages may still be overcompensatory, and the possibility of

¹³³ NIMMER, *supra* note 4, § 4:62 (“[*Qualcomm*] creates numerous potential traps for rights owners who participate in SSO's, perhaps creating incentives for them not to do so.”).

either remedy would be likely to encourage actual and threatened litigation.¹³⁴

¶54 Finally, in the case where the deception was nondisclosure and but for this the SSO would have adopted a nonproprietary technology, unenforceability may still be an excessive punishment against the standard-owner. Standards compete with non-standardized technological alternatives as well as other standards, and monopolization of a particular technology market is not at all certain.¹³⁵ Although *ex ante* the SSO would have chosen an open standard, standard users may value the proprietary technology component and be willing to pay to license it. Or, if the nonproprietary technology had originally been adopted by the SSO, the standard might not have attracted comparable user demand. The standard-owner should be entitled to recover the differential value conferred by its technology over available alternatives.

¶55 Overall, the application of antitrust doctrine to patent ambush frustrates standard-setting efforts. Beneficial technologies may be withheld or excluded from an SSO, and resulting standards may be technologically suboptimal and may fail to gain widespread adoption or longevity. Furthermore, freedom of contract of SSO participants is impeded by antitrust rules that create new obligations where none previously existed, as in *N-Data*, or establish incentives to challenge a standard-owner's right to receive royalties, as in *Qualcomm*. The net effect is exacerbated inefficiency, both in the *ex ante* standard-setting activities and in *ex post* licensing negotiations.

V. CONCLUSION

¶56 Antitrust law does not adequately address the patent ambush problem and impedes rather than facilitates beneficial standard-setting. When antitrust prohibitions do apply, as under *Qualcomm*, they are overly harsh and create concomitant burdens on the marketplace. When antitrust liability does not arise, as under *Rambus*, patent ambushers remain free to extract economic rents from the market and potentially stunt its long-term growth. To the extent that a solution to the patent ambush problem is needed, antitrust does not hold the key. An adequate remedy would preserve the incentives of patent holders to submit their innovative

¹³⁴ See Farrell et al., *supra* note 33, at 659 (“Antitrust remedies generally seek to restore competition and compensate injured parties for antitrust harm they have suffered. The trebling of actual damages . . . serve[s] a deterrence function.”).

¹³⁵ Lemley, *supra* note 28, at 1932 (“[T]he SSO’s decision to adopt the standard must in turn influence the market. Not all or even most standards adopted through an SSO dominate a relevant market.”).

technologies for consideration by SSOs, while restricting their ability to reap more than their share of the *ex post* benefits of standardization.