

***RAMBUS V. F.T.C.* IN THE CONTEXT OF STANDARD-SETTING ORGANIZATIONS, ANTITRUST, AND THE PATENT HOLD-UP PROBLEM**

By Joel M. Wallace

In April 2008, a panel of the Federal Court of Appeals for the District of Columbia overturned the decision of the Federal Trade Commission (FTC) in an antitrust suit against Rambus, Inc. (Rambus).¹ The line of cases leading up to the D.C. Circuit's decision² demonstrated the willingness of the FTC and federal courts to apply principles of antitrust liability to parties that misdirect or otherwise interrupt the standards-setting process. The D.C. Circuit, however, "call[s] into question the ability of the antitrust agencies and private plaintiffs to challenge standard-setting deception on Sherman Act grounds."³

Standard Setting Organizations (SSOs) play an increasingly important role in today's technology and consumer electronics industries by allowing firms to shift their resources into developing end-user applications for technology, as opposed to focusing their resources on establishing competing formats. Unfortunately, nefarious firms may attempt to undermine the process by either demanding excessive royalties after participation or by withholding relevant patents until after the standard is set. Thus, abuse of the standard-setting process has become a large concern for SSOs, firms participating in the process, and consumers⁴ affected by increased technology prices. If SSOs are not able to punish deceptive behavior, then either fewer firms will be willing to subject themselves to SSO commitments or more firms will join SSOs without an intention to abide by their rules. Hamstringing the efforts of SSOs to set clearer rules at the outset of negotiations are fears that the FTC will invalidate the product of such negotiations as anticompetitive restraints on trade.

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1. *Rambus, Inc. v. F.T.C.*, 522 F.3d 456, 469 (D.C. Cir. 2008), *cert. denied*, 129 S. Ct. 1318 (2009).

2. *See, e.g., In re Dell*, 121 FTC 616 (1996); *infra* Section I.C.2.a.

3. Wilson D. Mudge & Marni B. Karlin, *The District of Columbia Circuit Court's Decision In Rambus Overturns The FTC Finding Of Monopolization*, 20 INTELL. PROP. & TECH. L.J. 11, 13 (2008).

4. As represented by the FTC.

This Note makes three arguments: (1) the D.C. Circuit's decision is inconsistent with precedent and could cripple the standard setting process by preventing punishment of parties that purposely deceive SSOs; (2) SSOs should require royalty commitments from their members at the outset of the standard-setting process, however, they must be mindful to not over-regulate, thus discouraging the use of their procompetitive processes or hindering innovation; and (3) SSO participants and non-participants should challenge the enforceability of secret patents held by participants during the standard-setting process under the doctrine of waiver.

Part I discusses the standard-setting process, the relevant statutory frameworks, and previous litigation relating to antitrust liability in the SSO context. Part II delves into the *Rambus* litigation by examining the facts and rulings in the FTC and D.C. Circuit. Part III first analyzes the D.C. Circuit opinion. Then, it addresses the ability of SSOs to protect their members from holdup using royalty commitments and the ability of defendants to protect themselves using the equitable defense of waiver.

I. BACKGROUND

This Part explores the problem of patent hold-up in the SSO process, as well as the various notable cases associated with the problem. Section I.A. describes the role of SSOs in the technology sector and the commonly understood motivation behind patent hold-up by SSO members. Section I.B. examines the patent and antitrust legal regimes to establish some context for the ongoing battle between the two doctrines. Finally, Section I.C. traces the development of case law in the field of standards-setting deception over the last decade.

A. Standard Setting Organizations and the Hold-up Problem

Uniform product standards expand downstream markets for complementary products, thus broadening the market for the industry as a whole and benefiting end-users.⁵ When a new technology is first developed, several equally viable alternative implementations of that technology may exist. However, each particular embodiment of the technology holds little value on its own because downstream providers may delay incorporating it or consumers may be hesitant to accept any one version of the new technology for fear that their format may lose out.⁶

5. See Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329, 1331 (1987) (describing the value of uniform product standards in broadening the availability of complementary products in the software industry).

6. See *id.* at 1340-41.

Adding further complication, some technologies rely on the so-called “network effect” to provide value to users through widespread adoption.⁷ Today, products such as DVDs, music players, and computers all rely on the network effect to encourage consumers to purchase products that fit within that network. For example, if a consumer were to buy an audio compact disc, she would not worry if that disc will be compatible with the CD player in her car, computer, or elsewhere because the CD format has been established already as the de facto standard physical music media. During the transition to that standard, however, that same CD may have held less value to the same consumer if she owned a car equipped with a cassette tape player.⁸

To help bridge this gap, industry participants may form an SSO to establish a single version of the technology, thus helping the entire industry by building on the positive externalities of the network effect and allowing downstream producers to devote resources to research and development of more widely useable consumer goods.⁹ An SSO can also speed the transition from an old to a new standard by foregoing the sometimes drawn-out process of having the market choose a preferred embodiment of a technology.¹⁰ SSOs seek the optimal implementation of a technology based on both efficacy and cost. To ensure that quality technologies can be implemented cheaply, SSOs often require their members to both disclose their intellectual property rights (IPR) in the underlying technology and to commit to a license if their IPR is used in the new standard.¹¹

Great care is necessary in the standards-setting process because once a standard is set the industry is “locked-in” to that specific implementation of the technology.¹² The FTC cautioned, “when a firm engages in exclu-

7. A “network effect” exists when the network of interoperable devices drives the value of components compatible with the network. The telephone system is the paradigmatic example of a technology that utilizes a network effect to establish its large value. The value of a telephone network with a single telephone is practically nothing. However, as more users are added to the network, each provides value to the other users. *Id.* at 1340.

8. *See id.* at 1340-44 (describing the increased value of interoperable products).

9. Mark A. Lemley, *Ten Things to Do About Patent Holdup of Standards (And One Not To)*, 48 B.C. L. REV. 149, 154-55 (2007).

10. An example of a long and costly war over de facto standards was the standard war between Blu-Ray and HD DVD over the format for next-generation video playback technology. *See, e.g.*, Dawn C. Chmielewski, *DVD format war appears to be over*, L.A. TIMES, Jan. 5, 2008 at C1; CNN, *Toshiba quits HD DVD ‘format war’*, Feb. 21, 2008, <http://www.cnn.com/2008/BUSINESS/02/19/toshiba.hdd/index.html>.

11. *See* Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CALIF. L. REV. 1889, 1904-06 (2002).

12. *See, e.g.*, Lemley, *supra* note 9, at 154-55.

sionary conduct that subverts the standard-setting process and leads to the acquisition of monopoly power, the procompetitive benefits of standard setting cannot be fully realized.”¹³ This creates a hold-up problem: a firm possessing IPR in the underlying technology threatens enforcement of its patent rights after the standard is in place to extract supracompetitive fees from firms producing goods that use or are compatible with the standard at issue.

Currently, the digital technology industry relies heavily on industry standards, which, in turn, rely heavily on patented technologies.¹⁴ If an industry standard implicates a patent, then that patent owner should either be compensated or be able to deny the use of her property.¹⁵ These two rights form the basis of the “hold-up problem.” On its face, neither of these “problems” is illegal, or even discouraged. While the time and cost associated with changing an industry standard may be large, if an SSO chose a standard without adequate due diligence, then patents implicated by that standard should be able to be enforced legally.¹⁶

This simple premise becomes more complicated when one considers the possibility that the patent owner may take an active role in the negotiation and establishment of the industry standard. As one author put it, the owner of a town’s only well would not be acting illegally to charge higher prices for water during a drought; monopoly pricing could lead to the search for alternative sources of water or other innovations in the field of efficiency of use.¹⁷ However, if the well owner also has the power to cause a drought, he may be liable for antitrust violations if he charges high, drought-based prices regardless of the weather.¹⁸

The hold-up problem normally occurs in one of two scenarios. First, a firm will participate in an SSO and agree to “Reasonable and Non-Discriminatory” (RAND) or “Fair and Reasonable and Non-Discriminatory” (FRAND) licensing terms, then under threat of suit,

13. Opinion of the Commission, *In re Rambus, Inc.*, FTC No. 9302, Slip op. at 3 (F.T.C. Aug. 2, 2006) [hereinafter Liability Opinion] (Public Record Version), available at <http://ftc.gov/os/adjpro/d9302/060802commissionopinion.pdf>.

14. Justin (Gus) Hurwitz, *The Value of Patents in Industry Standards: Avoiding License Arbitrage with Voluntary Rules*, 36 AIPLA Q.J. 1, 3 (2008).

15. See 35 U.S.C. § 271 (2006) (stating the exclusionary rights of a patent holder). Patents covering industry standards are actually thirteen times more likely to be litigated than similar patents that do not cover any standard. Lemley, *supra* note 9, at 154-55.

16. See Hurwitz, *supra* note 14, at 3. Adoption by competitors, in the standard-setting context or not, is exactly the type of exclusion expressly granted by the Patent Act. See also *infra* Section I.B.1 for a discussion of the patent legal regime.

17. Hurwitz, *supra* note 14, at 3.

18. *Id.*

charge rates much higher than other SSO participants regarded as “reasonable.”¹⁹ Second, a firm will not disclose material patents until after the industry standard is set, then attempt to extract large royalty payments under threat of an injunction or infringement damages.²⁰

The first form of hold-up is primarily based on the lack of a universally accepted and standard understanding of the meaning of RAND and FRAND commitments.²¹ Few SSOs define the term “reasonable” or establish means to resolve disputes over its meaning.²² In determining the meaning of “reasonable,” courts have applied numerous different tests²³ or not enforced the term at all based on its indeterminate nature.²⁴ Because licensing terms are not known when the final vote is taken and the industry is locked in to a particular technology, the patent owner can unilaterally impose burdensome license terms at ex post rates after adoption.²⁵ They can extract these onerous rates because of the seller’s artificially created market power.²⁶

The second form of hold-up is tied to patent disclosure rules in SSOs. In a perfect world, SSOs would mandate that all participants exhaustively search their patent portfolios and then disclose all patents and pending applications that cover the standard or related technologies.²⁷ The SSO would enforce the rule using contract provisions providing for severe penalties for non-disclosure, such as withholding royalties. However, a mandatory disclosure policy would discourage participation in the SSO by

19. *Id.* at 3-4. A RAND commitment may also be interpreted as a covenant to license in the future, thus removing the threat of injunction from royalty negotiations. Lemley, *supra* note 9, at 157-58.

20. Hurwitz, *supra* note 14, at 3-4; *see also* 35 U.S.C. §§ 283-84 (2006) (establishing injunctive relief and monetary damages as the remedy for patent infringement). The third possibility is that a non-participant to an SSO may hold patents that read on the chosen standard and demand high fees or refuse licenses altogether. This problem is rare and the case law discussed here would likely not be applicable to those facts.

21. Anne Layne-Farrar, A. Jorge Padilla & Richard Schmalensee, *Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of FRAND Commitments*, 74 ANTITRUST L.J. 671, 678-79 (2007).

22. Lemley, *supra* note 11, at 1964-65.

23. Layne-Farrar, Padilla & Schmalensee, *supra* note 21, at 680-85 (discussing the use of *Georgia-Pacific* factors borrowed from infringement damages cases in some instances, but a Numeric Proportionality test in other instances).

24. *See* Townshend v. Rockwell Int’l Corp., 55 U.S.P.Q.2d 1011, 1018 (N.D. Cal. Mar. 28, 2000).

25. Robert A. Skitol, *Concerted Buying Power: Its Potential for Addressing the Patent Holdup Problem in Standard Setting*, 72 ANTITRUST L.J. 727, 728 (2005).

26. *Id.*

27. Joseph Farrell et. al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L.J. 603, 629 (2007).

firms because of the fear of liability for breach of contract, or worse, treble damages related to antitrust violations for interference with a procompetitive process.²⁸ Thus, an SSO can only base its choice of standards on the likelihood of being held-up by undisclosed patents, while simultaneously securing RAND commitments from all participants on the disclosed patents. And so most current SSOs have voluntary disclosure standards, which have historically been easily abused.²⁹

B. Relevant Antitrust Legal Regimes

Given the possible grave impacts of holdup on the standards-setting process and on consumers, many practitioners, scholars, and government officials have attempted to rectify the problem. Because of the alleged effects on the competitive process, these solutions invariably turn to Antitrust law. This Section first provides a brief background to relevant antitrust doctrines from patent law. Next, it turns to relevant antitrust doctrines stemming from sections 1 and 2 of the Sherman Act and section 5 of the Federal Trade Commission Act.

1. Antitrust Implications of a Patent Right

A patent grants the right to its owner to exclude others from making, selling, offering for sale, importing or practicing a specific product or process for a term of twenty years from the date of filing the application,³⁰ but does not confer the positive right on the patentee to practice the invention herself.³¹

The rights granted by a patent are commonly described as a “monopoly” but this is not a precisely accurate description.³² First, a patentee may not be able to practice the invention described in the patent because other patents may exist on essential sub-components of the final product.³³

28. *Id.* at 625-27, 646.

29. *See, e.g., In re Dell Corp.*, 121 FTC 616 (1996); *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007); Liability Opinion, *In re Rambus*, FTC No. 9302 (F.T.C. Aug. 2, 2006). *See generally* Lemley, *supra* note 11 (demonstrating the wide variety of IPR disclosure policies and discussing both the reasoning behind lax policies and the rampant abuses of those policies).

30. 35 U.S.C. § 271 (2006) (stating the exclusionary rights of a patent holder); 35 U.S.C. § 154 (2006) (describing the term of an issued patent).

31. ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 126-27 (4th ed. 2007).

32. HERBERT HOVENKAMP, MARK D. JANIS & MARK A. LEMLEY, *IP & ANTITRUST* § 4.2(a) at 4-8 (2005 & 2007 Supp.); *see* Mark A. Lemley, *A New Balance Between IP and Antitrust*, 13 Sw. J. L. & TRADE AM. 237, 246-47 (2007).

33. These other patents are commonly referred to as “blocking patents.” MERGES, MENELL & LEMLEY, *supra* note 31, at 126-27.

Without a license to use the sub-component, the patentee may never be able to commercialize the disclosed invention of her own patent. Second, the scope of the rights granted by a patent are intimately bound to the language of the claims recited in the patent.³⁴ If a competitor can achieve the same result as a patented invention by designing a product that functions in a substantially different way or by a substantially different means, then that competitor cannot legally be excluded.³⁵ The possibility of a design-around means that a patent grants no more than a stake in the game of technological competition—far from a government-granted monopoly. If a patentee attempts to institute monopoly pricing when other goods in the market serve the same or similar functions, then consumers will likely switch to these “substitute goods” reducing the patent’s value to the patentee.³⁶

2. *Antitrust Law*

“The guiding principle of modern antitrust law is that competition is generally desirable in order to achieve economic efficiency,” and thus it attempts to protect competition and the competitive process from interferences in the free market.³⁷ Importantly, the law has never made monopoly itself illegal, but instead punishes anticompetitive behavior designed to illegitimately increase market power.³⁸

a) Sherman Act Section 1

Section 1 of the Sherman Act provides that: “[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade . . . is declared to be illegal.”³⁹ The text of the statute could be read to cover almost all contracts since they in some way restrict free trade by fore-

34. 35 U.S.C. § 112 para. 2 (2006) (requiring that the claims “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention”); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004))); *MERGES, MENELL & LEMLEY*, *supra* note 31, at 125.

35. *See Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39-40 (1997); *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 610 (1950).

36. *HOVENKAMP, JANIS & LEMLEY*, *supra* note 32, at 4-9. (“My patent grant creates an antitrust ‘monopoly’ only if it succeeds in giving me the exclusive right to make something for which there are not adequate market alternatives and for which consumers would be willing to pay a monopoly price.”)

37. *Lemley*, *supra* note 32, at 241.

38. *Id.* at 247.

39. 15 U.S.C. § 1 (2006).

closing options that otherwise would be available.⁴⁰ However, courts generally read its language narrowly to avoid this problem. In fact, the Supreme Court has read section 1 as only prohibiting unreasonable restraints of trade.⁴¹

SSOs often fear being charged with antitrust violations because they are purposefully sacrificing market competition, albeit for procompetitive downstream benefits.⁴² SSOs literally involve an agreement among competitors to control access to downstream markets, actions which technically fall within section 1 of the Sherman Act as a collective restraint on trade.⁴³ SSOs generally only demand “reasonable” license commitments from members because they fear that, despite the potential benefits to consumers, ex ante discussion of licensing fees could be considered price fixing.⁴⁴

However, because the Sherman Act exists to encourage competition, courts will not find section 1 violations in all cases of concerted action out of the desire to not chill procompetitive behavior.⁴⁵ Alternatively, SSOs must also be wary of allowing anticompetitive harm to the competitive process via holdup by participants.⁴⁶ Refusing to act in the face of obvious anticompetitive threats could raise the specter of section 1 liability for SSOs.⁴⁷

b) Sherman Act Section 2

Section 2 of the Sherman Act provides that: “[e]very person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce

40. Nat’l Soc’y of Prof’l Eng’rs v. United States, 435 U.S. 679, 687-88 (1978).

41. See Standard Oil Co. of N.J. v. United States, 221 U.S. 1, 103 (1911).

42. See Skitol, *supra* note 25, at 736 (providing examples of procompetitive benefits of SSOs).

43. See 15 U.S.C. § 1.

44. Lemley, *supra* note 9, at 161-62. Recent actions by the DOJ and FTC strongly indicate that ex ante negotiations would not be considered per se price fixing violations of the Sherman Act. See *infra* Section III.B.1.

45. See InterVest, Inc. v. Bloomberg, L.P., 340 F.3d 144, 161 (3d Cir. 2003).

46. See Skitol, *supra* note 25, at 743.

47. *Id.* (discussing the implications of Am. Soc. of Mech. Eng’rs v. Hydrolevel Corp., 456 U.S. 556 (1982), and Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492 (1988), for holding SSOs accountable for their lack of adequate safeguards against holdup). Antitrust liability for SSOs who willfully undermine the competitive process has been found, but the extent that that liability would extend to SSOs who simply retain policies that have been exploited in the past is unclear and beyond the scope of this Note. See *id.*

. . . shall be deemed guilty.”⁴⁸ This section is also read more narrowly than its language would allow. The offense of monopolization requires proof that a firm (1) possesses monopoly power, and (2) willfully acquired or maintained that monopoly power.⁴⁹ Courts have expressly granted immunity from section 2 for businesses that possess a monopoly due to “superior skill, foresight and industry,”⁵⁰ while punishing businesses that actively acquire or maintain a monopoly through anticompetitive conduct. Anticompetitive conduct has been defined as “excluding rivals on some basis other than efficiency,”⁵¹ taking actions not explainable by “valid business reasons,”⁵² and more recently, as “a willingness to forsake short-term profits to achieve an anticompetitive end.”⁵³ This illegal “market power” is defined as “the power to raise prices or exclude competition in the relevant market.”⁵⁴

The Supreme Court identified actionable conduct based on section 2 of the Sherman Act in *NYNEX Corp. v. Discon, Inc.*⁵⁵ There, a provider of local telephone service, a lawful monopoly, fraudulently charged customers for “removal service” of replacing outdated switching components. The service provider switched from Discon to another, higher-priced firm which passed the costs to the provider, then to the consumers.⁵⁶ At the end of each year the removal service company would give a ‘rebate’ to the phone provider offsetting their higher costs, but consumers were still charged the higher rate.⁵⁷ Since Discon refused to take part in the rebate “game” they were driven out of business.⁵⁸ The Court held that the plain-

48. 15 U.S.C. § 2 (2006).

49. *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966) (finding monopolization through market allocations, acquisitions of competitors, and predatory pricing).

50. *United States v. Aluminium Co. of Am.*, 148 F.2d 416, 430 (2d Cir. 1945).

51. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 605 n.32 (1985) (finding monopolization by using market power to exclude competitors from cooperative pricing without a valid business reason).

52. *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 483 (1992) (“[R]espondents have presented evidence that Kodak took exclusionary action to maintain its parts monopoly and used its control over parts to strengthen its monopoly share of the Kodak service market. Liability turns, then, on whether “valid business reasons” can explain Kodak’s actions.”).

53. *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 409 (2004).

54. HERBERT HOVENKAMP, MARK D. JANIS & MARK A. LEMLEY, *IP & ANTITRUST* § 1.2 at 1-7 (2001 & Supp. 2005).

55. 525 U.S. 128, 139-40 (1998).

56. *Id.* at 132.

57. *Id.*

58. *Id.*

tiff failed to meet their burden because they could only show harm to a single competitor, and not the entire process.⁵⁹

Actions by SSO participants that undermine the competitive process have been held to be actionable section 2 violations.⁶⁰

c) FTC Act Section 5

In contrast with the Sherman Act, which focuses on protecting the competitive process, section 5 of the Federal Trade Commission Act expressly focuses on protecting consumers from unfair trade practices.⁶¹ Section 5 provides that: “[u]nfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.”⁶² The terms are not statutorily defined, so the FTC has wider latitude to respond to new forms of unfair competition.⁶³ The FTC has declared that section 5 imposes liability on firms that act to hurt consumers, but whose acts do not rise to the level of Sherman Act violations.⁶⁴

C. Cases Involving Deception in the Standard-Setting Process

Prior to the D.C. Circuit’s decision in *Rambus*,⁶⁵ the FTC and courts had punished participants that had willfully misled the organizations or competitors during the standard-setting process. The case law concerning antitrust violations in the context of SSOs, beginning with the *In re Dell* decision in 1995, had relied on liability under the Sherman Act.⁶⁶ More recently, the FTC utilized section 5 of the FTC Act against an SSO par-

59. *Id.* at 135; *see also id.* at 137 (“The freedom to switch suppliers lies close to the heart of the competitive process that the antitrust laws seek to encourage.”).

60. *See, e.g., infra* Section I.C.1 for discussion of *In re Dell*, 121 FTC 616 (1996); *infra* Section I.C.2 for discussion of *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) (en banc) (per curiam), *cert. denied*, 534 U.S. 952 (2001).

61. TAMMY HINSHAW ET AL, 54 AM. JUR. 2D MONOPOLIES & RESTRAINTS OF TRADE § 1154 (2008).

62. 15 U.S.C. § 45 (2006).

63. *See* 15 U.S.C. §§ 45(a)-(b); TAMMY HINSHAW ET AL, 54 AM. JUR. 2D MONOPOLIES & RESTRAINTS OF TRADE § 1154 (2008).

64. *See* Statement of the Federal Trade Commission, *In re Negotiated Data Solutions LLC*, File No. 0510094, at 2-3 (Jan. 23, 2008), *available at* <http://www.ftc.gov/os/caselist/0510094/080122statement.pdf>; *see also* discussion on *In re N-Data* *infra* Section I.C.5.

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

66. *See In re Dell Corp.*, 121 FTC 616 (1996); *see also* *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007); *In re Rambus*, Liability Opinion, FTC No. 9302 (F.T.C. Aug. 2, 2006).

ticipant that had engaged in deceptive behavior.⁶⁷ The cases detailed below constitute litigations specific to alleged acts of deception in the context of high-technology standards setting.

1. *Sherman Act Section 2 Cases*

Either the Department of Justice⁶⁸ or private parties⁶⁹ may file Sherman Act complaints. The possibility of enjoining anticompetitive behavior and obtaining treble damages for the amount of injuries sustained as a result of the violation incentivizes private enforcement.⁷⁰ The Department of Justice may punish violations as felonies, subject to large fines and imprisonment.⁷¹

a) *United States v. Microsoft*

*United States v. Microsoft Corp.*⁷² is one of the few cases to directly tackle the question of the link between anticompetitive behavior and the creation or acquisition of monopoly power in the context of section 2 liability.⁷³ Importantly, instead of disrupting a formalized standard-setting process, Microsoft used deception to maintain its position as the de facto standard among computer operating systems at that time.⁷⁴

The Court of Appeals for the District of Columbia ruled that Microsoft had induced software developers to write programs that would function only on Microsoft products.⁷⁵ Developers wrote such programs because they relied on Microsoft's promises that it would cooperate with potential rivals, such as Netscape and Java, to ensure interoperability.⁷⁶ The D.C.

67. See Statement of the Federal Trade Commission, *In re* Negotiated Data Solutions LLC, No. 0510094, at 1 (F.T.C. Jan. 23, 2008), available at <http://www.ftc.gov/os/caselist/0510094/080122statement.pdf>; 15 U.S.C. § 45 (2006).

68. 15 U.S.C. § 4 (2006).

69. 15 U.S.C. § 26 (2006).

70. 15 U.S.C. § 15 (2006); 1 HOLMES, INTELLECTUAL PROPERTY AND ANTITRUST LAW § 5.1 (2008).

71. 15 U.S.C. § 1-2 (2006).

72. 253 F.3d 34 (D.C. Cir. 2001) (en banc) (per curiam). For a survey of the U.S. and European antitrust actions against Microsoft, see Amanda Cohen, Note, *Surveying the Microsoft Universe*, 19 BERKELEY TECH. L.J. 333 (2004).

73. J. Thomas Rosch, FTC Comm'r, Section 2 and Standard Setting: Rambus, N-Data & the Role of Causation at LSI 4th Antitrust Conference on Standard Setting & Patent Pools (Oct. 2, 2008), at 6, available at <http://www.ftc.gov/speeches/rosch/081002section2rambusndata.pdf>.

74. *Id.* at 7.

75. *Microsoft*, 253 F.3d at 76 (“[E]ven Java ‘developers who were opting for portability over performance unwittingly wrote Java applications that ran only on Windows.’”) (internal citations omitted).

76. *Id.* at 76.

Circuit admonished Microsoft for “serv[ing] to protect its monopoly of the operating system in a manner not attributable either to the superiority of the operating system or to the acumen of its makers, and therefore was anticompetitive.”⁷⁷ Microsoft asserted that the Government’s evidence was insufficient to prove that but-for Microsoft’s actions, Netscape and Java would have actually become competitors in the operating system market.⁷⁸ After pointing out that no case supported the necessity of proving but-for causation, the D.C. Circuit proclaimed that causation can be inferred from exclusionary conduct aimed at competing substitutes, while drawing all inferences against the defendant so that they may “suffer the uncertain consequences of its own undesirable conduct.”⁷⁹

The court found that the exclusion of nascent threats was “reasonably capable of contributing significantly to a defendant’s continued monopoly power,” and that Java and Netscape “reasonably constituted nascent threats” at the time of Microsoft’s deceptive acts. Thus, Microsoft had violated section 2 of the Sherman Act.⁸⁰

b) *Broadcom v. Qualcomm*

The highly contentious battle between mobile phone component manufacturers Broadcom and Qualcomm⁸¹ originated as a patent infringement suit filed by Qualcomm in the Southern District of California.⁸² In response, Broadcom separately brought an action for antitrust violations under section 2 of the Sherman Act in the District of New Jersey.⁸³ Qualcomm owned more than 1,400 patents that implicated one of the major standards for mobile phone networks, Code Division Multiple Access (CDMA).⁸⁴ Broadcom alleged that Qualcomm used its power over the CDMA standard (1) to threaten phone manufacturers with the loss of pric-

77. *Id.* at 77.

78. *Id.* at 78-79.

79. *Id.* at 79 (quoting 3 AREEDA & HOVENKAMP, ANTITRUST LAW ¶ 651c, at 78).

80. *Id.* at 79, 118-19.

81. Both companies make chipsets for computer networking equipment, mobile phones, and other consumer electronics. Broadcom, “Company Fact Sheet” 1, available at http://www.broadcom.com/docs/company/company_factsheet.pdf (last visited Dec. 19, 2008); Qualcomm, “Who We Are — Our Businesses,” http://www.qualcomm.com/who_we_are/businesses/index.html (last visited Dec. 19, 2008).

82. Complaint, Qualcomm Inc. v. Broadcom Corp., No. 05-CV-1958, 2005 WL 5176496 (S.D. Cal. Oct. 14, 2005); see *infra* Section I.C.4.

83. Broadcom Corp. v. Qualcomm Inc. (*Broadcom I*), No. 05-3350, 2006 WL 2528545 (D.N.J. Aug. 31, 2006); see also Ashley Vance, *Broadcom finds an antitrust suit for Qualcomm*, THE REGISTER, Jul. 5, 2005, http://www.theregister.co.uk/2005/07/05/broadcom_anti_qualcomm/.

84. *Broadcom I*, 2006 WL 2528545 at 2.

ing benefits if they purchased chipsets from Qualcomm competitors, (2) to induce companies to exclusively purchase Qualcomm chipsets by offering reduced royalty rates in return, and (3) to manipulate SSOs in order to ensure that the third generation (3G) standard could also be controlled by Qualcomm's patents.⁸⁵

After the New Jersey district court dismissed the case for failure to state a claim, the Federal Court of Appeals for the Third Circuit overturned the decision finding that an intentionally false promise to license technology on FRAND terms, coupled with an SSO's reliance on that promise, qualifies as actionable anticompetitive conduct.⁸⁶ Based on this test, Qualcomm's alleged activity was sufficient to sustain Broadcom's claims of monopolization and attempted monopolization under section 2 of the Sherman Act.⁸⁷

2. *FTC Cases*

Under section 5 of the FTC Act, the FTC can bring Sherman Act complaints on behalf of consumers.⁸⁸ While private citizens or the Department of Justice may also file Sherman Act causes of action, only the FTC may pursue claims under the FTC Act.⁸⁹ The following cases demonstrate both the scope and power of FTC enforcement in the realm of standard setting.

a) *In re Dell*

The seminal decision from the FTC regarding deceptive practices toward SSOs is *In re Dell*.⁹⁰ The case concerned the industry standard for VL-bus, "a mechanism to transfer instructions between the computer's central processing unit and its peripherals, such as a hard disk drive or video display hardware."⁹¹ The Video Electronics Standards Association (VESA) established the standard for VL-bus.⁹² Dell, along with virtually

85. *Id.*; see Second Amended Complaint, *Broadcom Corp. v. Qualcomm Inc.*, No. 05-3350, 2007 WL 4910067 (D.N.J. Nov. 2, 2007).

86. *Broadcom Corp. v. Qualcomm Inc. (Broadcom II)*, 501 F.3d 297, 314 (3d Cir. 2007) (basing its ruling in part on the FTC's Liability Opinion in *Rambus*).

87. *Id.* at 315, 318.

88. 15 U.S.C. § 45(a)(1) (2006) ("Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.").

89. TAMMY HINSHAW, ET. AL., 54 AM. JUR. 2D MONOPOLIES AND RESTRAINTS OF TRADE § 1235 (2008).

90. *In re Dell Corp.*, 121 FTC 616 (1996).

91. Press Release, Fed. Trade Comm'n, *Dell Computer Settles FTC Charges: Won't Enforce Patent Rights for Widely Used Computer Feature* (Nov. 2, 1995), available at <http://www.ftc.gov/opa/1995/11/dell.shtm> [hereinafter *FTC/Dell Press Release*].

92. *Id.*

all major U.S. hardware and software manufacturers, had participated in VESA and certified that it knew of no patents that would read on the standard.⁹³ After the standard became wildly successful, Dell contacted other VESA members and informed them of a 1991 patent that read on the VL-bus standard and requested licenses.⁹⁴

After the FTC filed a complaint against Dell, it found that Dell's affirmative act of deception led the VESA to believe they were selecting a non-proprietary, open standard. Had VESA known of the patent, they likely would have adopted a different standard to avoid implicating Dell's patent.⁹⁵ Citing the damage done to the VL-bus standard, as well as the chilling effect on SSOs in general, the Commission found that Dell had "unreasonably restrained competition."⁹⁶ Dell settled the charges by agreeing to not enforce its patent against manufacturers using the VL-bus standard.⁹⁷

b) *In re Negotiated Data Solutions*

The FTC filed a complaint against Negotiated Data Solutions (N-Data) under section 5 of the FTC Act⁹⁸ for conduct that did not rise to the level of a Sherman Act violation.⁹⁹ The complaint alleged that the Institute of Electrical and Electronic Engineers (IEEE) received a promise from a SSO participant, National Semiconductor Corporation (National), to license its NWay technology at a one-time royalty of \$1,000 per license to manufacturers and sellers of products including the technology.¹⁰⁰ The NWay technology now underpins the entire Ethernet standard. N-Data procured the patents related to NWay from National, knowing of the licensing promise, but then refused to comply with the commitment.¹⁰¹ N-Data contacted several manufacturers and demanded royalties far in excess of those originally agreed to between IEEE and National.¹⁰²

93. *Id.*

94. *Id.*

95. *Id.*

96. *Id.*

97. *Id.*

98. 15 U.S.C. § 45(a)(1) (2006) ("Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.").

99. Press Release, Fed. Trade Comm'n, FTC Challenges Patent Holder's Refusal to Meet Commitment to License Patents Covering 'Ethernet' Standard Used in Virtually All Personal Computers in U.S., (Jan. 23, 2008), available at <http://www.ftc.gov/opa/2008/01/ethernet.shtm> [hereinafter FTC/N-Data Press Release].

100. *Id.*

101. *Id.*

102. *Id.*

Citing the chilling effect of such behavior on the entire standard-setting process, the Commission noted:

the FTC's authority to stop anticompetitive conduct that does not rise to the level of a Sherman Act violation is unique among federal agencies—and the cost of ignoring this particularly pernicious problem is too high. Using our statutory authority to its fullest extent is not only consistent with the Commission's obligations, but also essential to preserving a free and dynamic marketplace.¹⁰³

The complaint additionally alleged that consumers would be hurt by N-Data's actions by being forced to pay higher prices.¹⁰⁴ N-Data agreed to settle the complaint by not enforcing the patent unless it first offered the terms originally agreed to by National and the IEEE.¹⁰⁵

3. Patent Law and SSO Interference—Qualcomm v. Broadcom

Concurrent with the antitrust litigation action, Qualcomm pursued claims of patent infringement against Broadcom in the Southern District of California.¹⁰⁶ The claims alleged that Qualcomm's patent claims covered the H.264 video compression standard developed by the Joint Video Team (JVT) SSO. Qualcomm also claimed that Broadcom's products used the H.264 standard, so they infringed the patents at issue.¹⁰⁷ Broadcom countered by asserting the affirmative defense of waiver as a consequence of silence in the face of a duty to speak.¹⁰⁸ Broadcom argued that Qualcomm had participated in JVT negotiations¹⁰⁹ but had purposefully withheld the existence of its patents despite having knowledge that they “reasonably

103. *Id.* (internal quotes omitted).

104. Complaint, at 6-7, *In re Negotiated Data Solutions, LLC*, No. C-4234, (F.T.C. Jan. 23, 2008), available at <http://www.ftc.gov/os/caselist/0510094/080122complaint.pdf>.

105. FTC/N-Data Press Release, *supra* note 99.

106. Complaint, *supra* note 82, at 1.

107. *Qualcomm, Inc. v. Broadcom Corp. (Qualcomm I)*, 539 F. Supp. 2d 1214, 1218 (S.D. Cal. 2007). Qualcomm's alleged that U.S. Patent Nos. 5,452,104 and 5,576,767 covered the key video compression and encoding systems in the H.264 standard. *Id.* at 1215-16.

108. *Id.* at 1216.

109. Qualcomm consistently denied its involvement with JVT until the last day of trial when on cross-examination a witness indicated that evidence existed that would prove that Qualcomm had participated. After trial, over two hundred thousand pages of previously undisclosed documents were turned over leading to an award of attorney's fees and sanctions on six Qualcomm attorneys. *Qualcomm Inc. v. Broadcom Corp. (Qualcomm II)*, 548 F.3d 1004, 1009-10 (Fed. Cir. 2008).

might be necessary” to practice the H.264 standard.¹¹⁰ The district court found in favor of Broadcom and held the patents unenforceable against the world based on the equitable doctrine of waiver.¹¹¹ Qualcomm appealed the ruling to the Court of Appeals for the Federal Circuit; the Federal Circuit limited the district court’s remedy by finding the patents unenforceable only against products practicing the H.264 standard.¹¹²

Importantly, the Federal Circuit clarified the equitable defense of waiver. The court explained that while intentional concealment of IPR from an SSO does not constitute “true waiver,” the act of non-disclosure with knowledge of an SSO policy that required disclosure constitutes conduct inconsistent with an intent to enforce its rights that would induce others to reasonably believe that those rights were relinquished, and thus constitutes an “implied waiver.”¹¹³ The court held that since Qualcomm knew that JVT’s policy required disclosure of relevant patents, then acted to shield its relevant patents from disclosure, then planned to extract fees from manufacturers of H.264-compliant products, its misconduct warranted an application of the equitable doctrine of implied waiver to all H.264-compliant products.¹¹⁴

II. THE RAMBUS LITIGATION

In the wake of these cases, the FTC again sought to hold liable a manufacturer that allegedly used deception during the standard-setting process to gain market advantages over its competition. The series of cases relating to Rambus and its computer memory products has become one of the most scrutinized litigations relating to the standard-setting process and possible antitrust violations. This Section will follow the dispute, from the facts that set the antitrust suit in motion, through the FTC complaint and adjudication, and finally to the D.C. Circuit’s decision.

110. *Id.* at 1018 (citing *Rambus Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1104 (Fed. Cir. 2003), for the proposition that “reasonably might be necessary” is an objective standard that does not require that the patents ultimately are necessary to practice the standard in question).

111. *Qualcomm I*, 539 F. Supp. 2d at 1249.

112. *Qualcomm II*, 548 F.3d at 1026.

113. *Id.* at 1019-22.

114. *Id.* at 1022. The Federal Circuit limited the unenforceability of the patents only to H.264-compliant products because the misconduct that gave rise to the equitable defense (non-disclosure before the JVT) bore no connection to products that were not H.264-compliant but may infringe Qualcomm’s patents. *Id.* at 1026.

A. Rambus's Technology and Role in the Standard-Setting Process

Rambus, Inc. was founded by two inventors, Michael Farmwald and Mark Horowitz, who worked together to develop a solution to the growing “memory bottleneck”¹¹⁵ problem of the late 1980s.¹¹⁶ Farmwald and Horowitz developed a faster architecture for dynamic random access memory (DRAM). After founding Rambus in March 1990, they filed Patent Application No. 07/510,898 (the '898 application) on April 18, 1990.¹¹⁷

Simultaneously, the Joint Electron Device Engineering Council (JEDEC) was standardizing DRAM technologies for the computer memory industry. Rambus attended its first JEDEC meeting in December 1991 as a guest, and then began participating formally in February 1992.¹¹⁸ In May 1993, JEDEC approved the standard for synchronous DRAM (SDRAM), which included two of the four technologies over which Rambus later asserted patent rights—programmable CAS latency and programmable burst length.¹¹⁹

The SDRAM standard was not adopted as quickly or as widely as anticipated so JEDEC decided to begin work on a next-generation SDRAM standard, which ultimately became the double data rate (DDR) SDRAM standard.¹²⁰ In October 1995, JEDEC solicited opinions from its members, including Rambus, about features to be included in the new standard.¹²¹ Rambus attended its last meeting in December 1995, in which participants discussed the standard.¹²² They formally withdrew from JEDEC by letter dated June 17, 1996, saying (among other things) that the terms on which

¹¹⁵ The “memory bottleneck” problem refers to the inability of a central processor to access RAM fast enough to retrieve the information needed to make calculations and then write the output back into RAM. *See, e.g.,* Anthony Cataldo, *MPU designers target memory to battle bottlenecks*, EE TIMES, Oct. 19, 2001, available at <http://www.eetimes.com/story/OEG20011019S0125>.

¹¹⁶ *Rambus, Inc. v. FTC*, 522 F.3d 456, 459 (D.C. Cir. 2008).

¹¹⁷ *Id.* The '898 application contained a sixty-two page written description, 150 claims and fifteen technical drawings. Pursuant to 35 U.S.C. § 121 (2006), and under direction by the Patent and Trademark Office (PTO), the original application was split into eleven separate applications. Rambus later amended some of these applications and filed additional continuation and divisional applications. *Id.* at 459-60.

¹¹⁸ *Id.* at 460.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.*

Rambus intended to license its proprietary technology “may not be consistent with the terms set by standards bodies, including JEDEC.”¹²³

The features ultimately approved by JEDEC in 1999 included the two technologies mentioned previously, as well as two new technologies, on-chip phase lock and delay lock loops and dual-edge clocking, over which Rambus asserted patent rights.¹²⁴ According to the FTC investigation:

Rambus refused to disclose the existence of its patents and applications, which deprived JEDEC members of critical information as they worked to evaluate potential standards. . . . Rambus also went a step further: through its participation in JEDEC, Rambus gained information about the pending standard, and then amended its patent applications to ensure that subsequently-issued patents would cover the ultimate standard. Through its successful strategy, Rambus was able to conceal its patents and patent applications until after the standards were adopted and the market was locked in.¹²⁵

Rambus notified DRAM manufacturers that it held patent rights to the technologies contained within the SDRAM and DDR SDRAM standards, and that the continued manufacture, sale, or use of products that met the standard infringed its rights.¹²⁶ Several manufacturers signed license agreements with Rambus while others did not, and several separate patent infringement cases ensued.¹²⁷

B. Procedural History

On June 18, 2002, the Federal Trade Commission filed a complaint against Rambus under section 5(b) of the FTC Act¹²⁸ and section 2 of the Sherman Act, claiming that Rambus engaged in unfair competition and unfair or deceptive acts or practices in violation of the acts.¹²⁹ The FTC alleged that Rambus breached JEDEC policies requiring participants in the standard-setting process to disclose patent interests related to standardization efforts and also alleged that the disclosures Rambus did make were

123. *Id.*

124. *Id.*

125. Liability Opinion, *In re Rambus, Inc.*, FTC No. 9302, Slip op. at 4-5 (F.T.C. Aug. 2, 2006).

126. *Rambus, Inc. v. FTC*, 522 F.3d 456, 460 (D.C. Cir. 2008).

127. *Id.*; *see, e.g., Rambus, Inc. v. Infineon Techs. AG*, 155 F. Supp. 2d 668 (E.D. Va. 2001), *rev'd in part, vacated in part*, 318 F.3d 1081 (Fed. Cir. 2003), *cert. denied*, 540 U.S. 874 (2003).

128. 15 U.S.C. § 45(b); *see supra* Section I.B.2.

129. *Rambus*, 522 F.3d at 461.

misleading.¹³⁰ The FTC claimed Rambus unlawfully monopolized four technology markets in which its patented technologies competed with alternative innovations that could have been selected by the standard setting organization.¹³¹

The administrative law judge (ALJ) hearing the case dismissed it in its entirety, stating that Rambus had not violated JEDEC rules when it withheld information, and that there was insufficient evidence that had Rambus fully disclosed its patent information, JEDEC would have standardized an alternative technology.¹³² That decision was appealed to the Federal Trade Commission, which vacated the administrative rulings of fact and law.¹³³ The FTC found that the JEDEC policies required members to disclose patents and patent applications relevant to the technologies, plus possible future research directions.¹³⁴

The ALJ had found, in part, that proof of whether alternative technologies would have been adopted absent Rambus's silence was inconclusive, and therefore ruled in favor of Rambus.¹³⁵ The Commission stated that the ALJ had erred as a matter of law because inevitability is an affirmative defense that must be pled and proven by the defendant.¹³⁶ The FTC explicitly based its ruling on the D.C. Circuit's decision in *Microsoft*.¹³⁷ The Commission re-examined the evidence relating to the superiority and lower cost of the adoption of Rambus's technology cited by the ALJ, and, citing the same inconclusive nature of the evidence, found that Rambus had not met the burden of proof for its affirmative defense.¹³⁸

The Commission's ruling centered on the monopolization claim, holding that "but for Rambus's deceptive course of conduct, JEDEC either would have excluded Rambus's patented technologies from the JEDEC DRAM standards, or would have demanded RAND assurances [i.e., assurances of 'reasonable and nondiscriminatory' license fees], with an op-

130. *Id.*

131. *Id.*

132. *Id.*

133. *Id.*

134. Liability Opinion, *In re Rambus*, FTC No. 9302, Slip op. at 51-53.

135. Initial Decision, *In re Rambus Inc.*, FTC No. 9302, Slip op. at 206-07 (FTC Feb. 23, 2004), available at <http://www.ftc.gov/os/adjpro/d9302/040223initialdecision.pdf> [hereinafter ALJ Decision].

136. Liability Opinion, *In re Rambus, Inc.*, FTC No. 9302, Slip op. at 81 (citing 3 AREEDA & HOVENKAMP, ANTITRUST LAW, ¶ 650c, at 69 and *United States v. Microsoft Corp.*, 253 F.3d 34, 79 (D.C. Cir. 2001)).

137. *Id.*

138. See Liability Opinion, *In re Rambus, Inc.*, FTC No. 9302, Slip op. at 82-96.

portunity for *ex ante* licensing negotiations.”¹³⁹ Rambus’s deceptive acts increased its “acquisition of monopoly power.”¹⁴⁰

The Commission requested additional briefing by both parties to separately determine the appropriate remedy and final order.¹⁴¹ Interestingly, the Commission did not order Rambus to license its technology royalty-free because there was insufficient evidence to prove that absent Rambus’s deception, JEDEC would have chosen a non-proprietary standard.¹⁴² Instead, the Commission imposed “reasonable royalty rates,” based on what it believed would have been the result of negotiations between Rambus and manufactures before JEDEC committed to the standard.¹⁴³ The order also limited Rambus’s royalty collection to three years.¹⁴⁴

After a motion for rehearing was denied by the Commission, Rambus petitioned the D.C. Circuit Court of Appeals to review the Commissions Final Order and Denial of Reconsideration.¹⁴⁵

C. D.C. Circuit Court’s Analysis

Rambus presented to the D.C. Circuit two bases for overturning the FTC’s decision. First, it argued that the Commission erred in its finding that Rambus’s actions had violated JEDEC rules.¹⁴⁶ Second, it argued that even if the JEDEC rules had been violated, “the Commission found the consequences of such nondisclosure only in the alternative: that it prevented JEDEC *either* from adopting a non-proprietary standard, *or* from

139. *Id.* at 74.

140. *Id.* at 68.

141. *Id.* at 119-20.

142. *Rambus, Inc. v. FTC*, 522 F.3d 456, 462 (D.C. Cir. 2008). *But see* Statement of Commissioner J. Thomas Rosch, Concurring in Part and Dissenting in Part from the Commission Opinion on Remedy, *In re Rambus*, FTC No. 9302, (Feb. 5, 2007) at 4, available at <http://www.ftc.gov/os/adjpro/d9302/070205roschstmt.pdf> (stating that “strong evidence” existed “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”).

143. *Rambus*, 522 F.3d at 462.

144. Opinion of the Commission on Remedy, *In re Rambus*, FTC No. 9302, Slip op. at 22-23 (F.T.C. Feb. 5, 2007), available at <http://www.ftc.gov/os/adjpro/d9302/070205opinion.pdf> [hereinafter Remedy Opinion].

145. Petition for Review of Final Orders of the Federal Trade Commission, *Rambus, Inc. v. F.T.C.*, Nos. 07-1086, 07-1124 (consolidated) (D.C. Cir. Nov. 21, 2007), available at <http://www.ftc.gov/os/adjpro/d9302/071121ftcappealbrief.pdf>. The appeal generated numerous *amici* briefs from numerous sources. These include a joint *amici* brief from the Attorneys General of 32 states. Brief of Ohio and 31 Other States and Commonwealths as *Amici Curiae* in Support of Respondent Federal Trade Commission, *Rambus, Inc. v. F.T.C.*, Nos. 07-1124, 07-1086 (consolidated) (D.C. Cir. Nov. 28, 2007).

146. *Rambus*, 522 F.3d at 462.

extracting a RAND commitment from Rambus when standardizing its technology.”¹⁴⁷ Because the latter alternative is not an antitrust violation, according to Rambus, then no basis for liability existed.

The D.C. Circuit found the second of these arguments persuasive, set aside the Commissions order, and remanded the case.¹⁴⁸ In reaching its conclusion, the court applied the Sherman Act, and reviewed the Commission’s order de novo.¹⁴⁹

Liability for monopolization requires, “the willful acquisition or maintenance of [monopoly] power [in the relevant market] as distinguished from growth or development as a consequence of a superior product, business acumen, or historical accident.”¹⁵⁰ Rambus did not dispute that it had a monopoly in the four disputed technologies through its patent rights, but rather denied that it had engaged in exclusionary conduct that made its acquisition of the market power unlawful.¹⁵¹

Conduct is only considered exclusionary if it has an anticompetitive effect: “[the conduct] must harm the competitive *process* and thereby harm consumers. In contrast, harm to one or more *competitors* will not suffice.”¹⁵² The court stated that the burden of proof falls squarely on the party asserting that a competitor has used anticompetitive practices.¹⁵³ The court was “not convinced” that the Commission had carried its burden of proving that Rambus’s conduct had an anticompetitive effect because there was insufficient evidence that had Rambus fully disclosed its intentions, JEDEC would not have still chosen Rambus’s technology and secured RAND licensing.¹⁵⁴

The court accepted that Rambus had engaged in deceptive practices, but clarified 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. Cases that recognize deception as exclusionary hinge, therefore, on whether the conduct impaired rivals in a manner

147. *Id.*

148. *Id.* at 462, 469.

149. *Id.* at 462.

150. *Id.* at 463 (quoting *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004)); *United States v. Microsoft Corp.*, 253 F.3d 34, 50 (D.C. Cir. 2001).

151. *Rambus*, 522 F.3d at 463.

152. *Id.* (quoting *Microsoft*, 253 F.3d at 58) (emphasis in original).

153. *Id.*

154. *Id.* at 464.

tending to bring about or protect a defendant's monopoly power.¹⁵⁵

The court distinguished Rambus's conduct from Microsoft's in *Microsoft*.¹⁵⁶ There, Microsoft had deceived software developers, causing them to believe that Microsoft's development tools could be used to create cross-platform applications, when in fact they could only be run by Microsoft's Windows.¹⁵⁷ The court focused its analysis on the harm to the competitive process instead of the deception alone.¹⁵⁸

The court decided that the facts of *Rambus* more closely resembled those of *NYNEX Corp. v. Discon, Inc.*,¹⁵⁹ where the Supreme Court addressed antitrust implications of a lawful monopoly that used deceptive practices to raise prices.¹⁶⁰ The D.C. Circuit stated, "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."¹⁶¹

Next, the court distinguished *Rambus* from the contemporaneous case involving antitrust violations and standard-setting bodies, *Broadcom Corp. v. Qualcomm Inc.*¹⁶² In that case, strong evidence indicated that but for *Qualcomm's* false promises, the SSO would have chosen a non-proprietary technology. Without similar evidence in *Rambus*, the court held that the burden of proof had not been met.¹⁶³

Finally, the court addressed concerns raised by scholars and practitioners that nondisclosure can lead to higher royalties which can distort competition in downstream markets.¹⁶⁴ Again, relying on *NYNEX*, the court dismissed those concerns by stating "an otherwise lawful monopolist's end-run around price constraints, even when deceptive or fraudulent, does not alone present a harm to competition in the monopolized market."¹⁶⁵

155. *Id.*

156. *Id.*

157. *See supra* Section I.C.2.

158. *Rambus*, 522 F.3d at 463-64.

159. 525 U.S. 128 (1998); *see supra* Section I.B.2.b.

160. *Rambus*, 522 F.3d at 464.

161. *Id.*

162. 501 F.3d 297 (3d Cir. 2007); *see supra* Section I.C.3

163. *Rambus*, 522 F.3d at 466-67. The court also noted that since *Broadcom II* relied in part on the reasoning of the FTC decision in *Rambus*, which the court was now overturning, the 3rd Circuit opinion had little persuasive authority. *Id.*

164. *Id.* at 466.

165. *Id.* (quoting 2 HOVENKAMP ET. AL., IP & ANTITRUST § 35.5 at 35-47 (Supp. 2008)).

The FTC filed for an en banc rehearing of the case, but was denied.¹⁶⁶ They filed a *writ of certiorari* on November 24, 2008,¹⁶⁷ which was denied on February 23, 2009.¹⁶⁸

III. DISCUSSION

Part III will focus on the legal errors in the D.C. Circuit's ruling and what recourse SSOs and participants have in the wake of the Supreme Court's denial of *certiorari*. Section III.A argues that the D.C. Circuit's decision was based on numerous legal errors. Section III.B examines possible actions that SSOs and participants can use regardless of the Supreme Court's decision in *Rambus*. Section III.B.1 proposes a set of licensing rules to supplant RAND and FRAND, based on a recent rule proposal by two larger SSOs. These proposed rules are intended to provide more stability and certainty for both SSOs and their participants. Further, Section III.B.2 explores the possibility of increased reliance of equitable defenses for defendants using standards accused of infringing previously undisclosed patents.

A. The D.C. Circuit Appeal Was Incorrectly Decided

The reasoning in the decision by the Circuit Court of Appeals for the District of Columbia was flawed in several ways. First, the D.C. Circuit's causation analysis directly contradicted its previous en banc ruling in *Microsoft*. Second, the D.C. Circuit incorrectly relied on *NYNEX v. Discon* because it related to a firm that used deception after gaining monopoly power instead of using deception to gain that power in the first place. Further, the court's opinion incorrectly focused on whether Rambus's actions violated JEDEC's bylaws, which was unnecessary to determine the legal issue at hand. Finally, the opinion contradicted the clearly articulated public policy goals of antitrust laws, which are to protect the competitive process among firms vying for market superiority.

1. *The D.C. Circuit conflated the FTC's liability and damages opinions on the issue of causation and misapplied its own ruling from Microsoft*

The central fault of the D.C. Circuit's analysis was the misapplication of its own decision in *Microsoft* regarding the proof of causation necessary

166. Order denying petition for rehearing en banc, *Rambus Inc. v. FTC*, No. 07-1086, Slip op. at 1, (Aug. 26, 2008) (per curiam).

167. Petition for A Writ of Certiorari, *Rambus Inc. v. FTC*, No. 07-1086 (Nov. 24, 2008), available at <http://www.ftc.gov/os/caselist/0110017/081124rambuspet.pdf>.

168. *FTC v. Rambus, Inc.*, 129 S. Ct. 1318 (2009).

to support a claim of anticompetitive conduct.¹⁶⁹ The *Rambus* court held that there was insufficient evidence to prove that Rambus's lack of disclosure directly caused JEDEC to adopt their memory technology.¹⁷⁰ However, in reaching this conclusion, the court placed the burden of proving causation on the plaintiff.¹⁷¹ In *Microsoft*, the court stated that it would not require proof of causation by the plaintiff because "neither plaintiffs nor the court can confidently reconstruct a product's hypothetical technological development in a world absent the defendant's exclusionary conduct."¹⁷² The D.C. Circuit explicitly stated that these types of inferences should be drawn against a deceptive defendant.¹⁷³ The FTC's Liability Opinion relied on this *Microsoft* court's exact statement of the law in its findings against Rambus.¹⁷⁴

The D.C. Circuit's opinion also conflated the FTC's liability and damages opinions. While the Commission did state that Rambus's designs might have been chosen and constrained by the RAND commitment had they been disclosed,¹⁷⁵ it did so in the damages opinion only to show that Rambus was entitled some royalty.¹⁷⁶ This statement was not sufficient to support the D.C. Circuit's opinion that JEDEC's choice of Rambus's technology was equally likely as not. The Commission had noted explicitly that the totality of the evidence indicated that "[a]lternative technologies were available" and that "it likely would have been possible for members to design around Rambus's patents."¹⁷⁷

Finally, the D.C. Circuit ignored the harm to the competitive process inherent in the deceptive acts of Rambus, regardless of the technical superiority of its products. While engaging in hold-up using a technically superior product would not distort the choice of technology, it will inflate the

169. See Rosch, *supra* note 73, at 4 (Oct. 2, 2008) (stating "the clearest key to understanding the appellate decision is causation").

170. *Rambus*, 522 F.3d at 463.

171. See *id.*

172. *United States v. Microsoft Corp.*, 253 F.3d 34, 79 (D.C. Cir. 2001); see also *supra* Section I.C.2.

173. *Id.* at 79.

174. Liability Opinion, *In re Rambus, Inc.*, FTC No. 9302, Slip op. at 82-96.

175. Remedy Opinion, *In re Rambus Inc.*, FTC No. 9302, Slip op. at 17.

176. *Id.* at 22-24. The decision to allow a limited royalty was in contrast to the *In re Dell* decision decided a decade earlier. There, the FTC had no doubt that but-for Dell's deceptive conduct a different standard would have been chosen because of the SSO's clear preference for an open standard. See *supra* Section I.C.1.

177. Remedy Opinion, *In re Rambus Inc.*, FTC No. 9302, Slip op. at 18; George S. Cary, Paul S. Hayes & Larry C. Work-Dembrowski, *Antitrust Implications of Abuse of Standard-Setting*, 15 GEO. MASON L. REV. 1241, 1254 n.99 (2008).

royalties paid for the licenses.¹⁷⁸ The D.C. Circuit's opinion stopped its analysis after determining that deception was not a but for cause of JEDEC's decision to incorporate Rambus's technology.¹⁷⁹ Instead, the proper analysis under *Microsoft* would have also considered the possibility that JEDEC might have decided that Rambus's technology was superior, but upon determining that the licensing fees demanded would be cost-prohibitive, they would have (1) chosen to design around the Rambus patents, (2) not adopted any standard, or (3) selected a less advanced standard.¹⁸⁰ In fact, part of the economic harm of hold-up is that users may make "inefficient investments to partially protect themselves" from predatory behavior.¹⁸¹ Deceptive conduct leading to this type of economic harm has previously been held a section 2 violation when it leads to the acquisition of monopoly power.¹⁸² The circuit court expressly acknowledged that Rambus's receipt of higher royalties is likely to directly result in higher downstream prices for consumers, but dismissed this concern.¹⁸³ This would appear to be the harm to the "competitive process" the Supreme Court stated antitrust law is intended to remedy.¹⁸⁴ Thus, under the D.C. Circuit's earlier formulation of a section 2 violation in *Microsoft*, Rambus had illegally monopolized the relevant market of DDR SDRAM memory.

2. *The D.C. Circuit's Reliance on NYNEX v. Discon was misplaced*

The D.C. Circuit relied heavily on *NYNEX*, despite the facts being inapposite.¹⁸⁵ In *NYNEX*, the telephone company engaged in deceptive behavior only after it was granted a legal monopoly.¹⁸⁶ In *Rambus*, however, the deceptive behavior occurred before the standard was selected.¹⁸⁷ The court did not deny that Rambus engaged in deceptive behavior. Instead it decided that since JEDEC may have adopted the same technology

178. Farrell, *supra* note 27, at 615.

179. *Rambus, Inc. v. FTC*, 522 F.3d 456, 466-67 (D.C. Cir. 2008).

180. *See* Farrell, *supra* note 27 at 615; Cary, *supra* note 177, at 1253-54 ("Under a proper Section Two analysis, all such alternatives should be evaluated when determining whether challenged conduct that avoids any of these constraints is anticompetitive.")

181. *See* Farrell, *supra* note 27, at 615.

182. *See* Cary, *supra* note 177, at 1255; ALJ Decision, *In re Rambus Inc.*, FTC No. 9302, Slip op. at 150 (finding that Rambus possessed monopoly power in the relevant technology markets).

183. *Rambus*, 522 F.3d at 466.

184. *See* *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458 (1993); *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 225 (1993).

185. *See supra* Section I.B.2.b.

186. *Rambus*, 522 F.3d at 466.

187. *Id.* at 459-60.

absent any deception, Rambus had not “unlawfully monopolized the relevant markets.”¹⁸⁸ *NYNEX* does not address the issue of using deception to gain monopoly power in any way, which was at the heart of the *Rambus* dispute. Additionally, *NYNEX* does not address the standards-setting process. Cases dealing with standard setting point to the unique situation of an entire industry coming together to make decisions that directly affect consumers and competitors in the market.¹⁸⁹

Additionally, regardless of when the deception occurred, *NYNEX*'s monopoly was government granted and not subject to market competition. The D.C. Circuit analogized this government monopoly to Rambus's patent rights.¹⁹⁰ As discussed previously, the rights granted by a patent are far from a government granted monopoly.¹⁹¹ At most, the government granted Rambus the right to exclude others from using their specific solution to the SDRAM memory bottleneck problems, but not the right to exclude any of the numerous alternative technologies considered by JEDEC.¹⁹²

3. *Requiring a violation of JEDEC bylaws was unnecessary to determine the legal issues before the court*

Finally, the D.C. Circuit erred by finding that since Rambus did not technically violate JEDEC rules, they did not engage in exclusionary or anticompetitive behavior without analyzing whether its deceptive behavior had affected the competitive process. While SSOs' rules may provide a benchmark for “bad acts” in disputes,¹⁹³ they should not be dispositive as to whether a firm has engaged in anticompetitive behavior.¹⁹⁴ Hiding the terms on which the technology will be available undermines the competitive process by manipulating buyers, here SSOs and their participants, into a deal they did not knowingly choose.¹⁹⁵ Requiring an SSO rule violation as a predicate for a Sherman Act violation creates a scenario where the same anticompetitive conduct may impose liability for an SSO that chose

188. *Id.* at 466-67.

189. *See generally* *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492 (1988); *Am. Soc'y of Mech. Eng'rs v. Hydrolevel Corp.*, 456 U.S. 556 (1982).

190. *Rambus*, 522 F.3d at 440-42.

191. *See supra* Section I.B.1.

192. *See* Liability Opinion, *In re Rambus Inc.*, FTC No. 9302, Slip op. at 79-96 (discussing the plethora of alternative technologies considered by JEDEC that would have equally solved the memory bottleneck problem without implicating Rambus's patents).

193. *See supra*, Section I.C.4; Skitol, *supra* note 25, at 732.

194. Farrell, *supra* note 27, at 609, 657-58; Skitol, *supra* note 25, at 732.

195. Farrell, *supra* note 27, at 609.

to address the issue, but not for an SSO that ignored the problem—a nonsensical outcome.¹⁹⁶

As the FTC noted, deception in the standard-setting process is especially likely to harm the competitive process regardless of whether SSO rules are violated. SSOs are based on maximizing efficiencies through cooperative behavior of market competitors.¹⁹⁷ Deception undermines these efficiencies by obscuring information necessary to make informed decisions, which harms the selection process.¹⁹⁸ Further, the standard-setting process has “unique potential to skew the competitive process by aligning supply and demand in a prescribed direction.”¹⁹⁹ Deception during the standard-setting process can lead to anticompetitive harm that offsets the efficiency gains that justify the existence of SSOs in the first place.²⁰⁰ Regardless of whether an SSO’s rules require disclosure, a finding of active deception by a member warrants a section 2 violation if that deception harmed the standard-setting process.²⁰¹

4. *The D.C. Circuit’s decision was incorrect as a matter of public policy*

The D.C. Circuit’s decision reduces the effectiveness of antitrust law as a deterrent to wielding patent rights to hold up the standard-setting process. First, such a decision may curtail aggressive prosecution of deceptive activity in the SSO context by the FTC.²⁰² The D.C. Circuit’s formulation of a section 2 violation requires a high burden of proof for the causation element, thus increasing the burdens on the plaintiff.²⁰³ Without effective public enforcement, higher costs may be passed on to consumers. As FTC Commissioner Rosch stated: “if we allow firms to manipulate or distort the process then we risk the very efficiencies we are looking to capture.”²⁰⁴ Those efficiencies, detailed above, benefit consumers by allowing for efficient investment in technologies that will be viable for longer peri-

196. Skitol, *supra* note 25, at 732-33.

197. Liability Opinion, *In re Rambus Inc.*, FTC No. 9302, Slip op. at 33.

198. *Id.*; see Rosch, *supra* note 73, at 15.

199. Liability Opinion, *In re Rambus Inc.*, FTC No. 9302, Slip op. at 33.

200. *Id.*

201. Farrell, *supra* note 27, at 657; Liability Opinion, *In re Rambus Inc.*, FTC No. 9302, Slip op. at 33.

202. See Rosch, *supra* note 73, at 2, 14-15.

203. *Id.* at 10 (“The D.C. Circuit’s decision in *Rambus* is a potentially dramatic shift away from *Microsoft* and towards a much more demanding standard in terms of establishing causation.”).

204. *Id.* at 15.

ods of time, and will increase in value through the network effect of a larger user base.²⁰⁵

A potential solution to inadequacies in Sherman Act enforcement authority may be reliance on FTC Act section 5 enforcement.²⁰⁶ The N-Data case²⁰⁷ illustrated the possibility of using section 5 when the Sherman Act fails to provide a cognizable claim for enforcement.²⁰⁸ There, the FTC highlighted the “special role” of section 5 in providing it with enforcement authority to police actions on the fringes of anticompetitive behavior.²⁰⁹ Commissioner Rosch explicitly stated: “I think it is safe to say that section 5 is on the table.”²¹⁰ The D.C. Circuit anticipated such a result and, in dicta, openly warned the FTC against resuming its action against Rambus under section 5 by stating that the Commission’s findings regarding the nature of JEDEC’s bylaws would preclude such an action.²¹¹

Unfortunately, FTC Act section 5 violations may not be enforced by private actions.²¹² Therefore, if section 5 violations are the only cognizable claims against deceptive SSO participants, the FTC would be forced to unilaterally police all SSO negotiations and possible malfeasance. Congress expressly encouraged private antitrust litigation in the Clayton Act to deter behavior that harms the public interest in the free competitive process.²¹³ This public interest is negatively impacted by the D.C. Circuit’s decision because of the inability of private citizens and SSO participants to deter sharp practices under the court’s overly restrictive formulation of causation. The FTC’s formulation of section 2 liability strikes the best balance, and should have been followed by the D.C. Circuit.

The possibility of antitrust liability will improve the SSO process. An emboldened FTC, with increased likelihood of prosecution, will encourage more and better disclosure during the standard-setting process by participants.²¹⁴ Further, because disclosure policies will likely have more teeth,

205. *See supra* Section I.A.

206. *See supra* Section I.C.2.

207. *See supra* Section I.C.2.b.

208. *See supra* notes 98-105 and accompanying text.

209. *See supra* note 103 and accompanying text.

210. Rosch, *supra* note 73, at 15.

211. *Rambus, Inc. v. FTC*, 522 F.3d 456, 467-69 (D.C. Cir. 2008).

212. TAMMY HINSHAW, ET. AL., 54 AM. JUR. 2D MONOPOLIES AND RESTRAINTS OF TRADE § 1235 (2008).

213. *Fortner Enterprises v. U.S. Steel Corp.*, 394 U.S. 495, 502 (1969); TAMMY HINSHAW, ET. AL., 54 AM. JUR. 2D MONOPOLIES AND RESTRAINTS OF TRADE § 330 (2008).

214. Thomas J. Scott, Jr., Stephen T. Schreiner & Inge A. Osman, *Proscribed Conduct for Patent Holders Participating in Standard-Setting Organizations*, 20 INTELL. PROP. & TECH. L.J. 14, 14, 18-19 (2008).

SSO participants would be compelled to send participants with a greater knowledge of their firm's patent portfolio.²¹⁵ Both of these factors would enhance the efficiency of the standards-setting process by ultimately allowing for a more informed choice by participants and the SSO.²¹⁶

B. Possible Solutions for SSOs

This Section examines the possible actions by market participants and SSOs in the wake of the Supreme Court's decision to not review the D.C. Circuit's *Rambus* decision. Section III.B.1 examines the feasibility of requiring ex ante license negotiations in the standards-setting process. Section III.B.2 explores the strategy of focusing on equitable defenses by defendants accused of infringing patents intentionally withheld from the standards-setting process.

1. Disclosure and Ex Ante Negotiations

This Section examines one possible solution to the hold-up problem presented by the Department of Justice in response to VITA and IEEE's requests for business review letters—ex ante licensing negotiations.

Most, but not all, SSOs today require that participants will license disclosed patents on RAND terms.²¹⁷ Under current RAND schemes, if a firm discloses its patents and they are incorporated into the standard, then the firm collects a “reasonable” fee from each user of the standard.²¹⁸ If that same firm fails to disclose its patents and they are incorporated into the standard, then under current rules the patent-holder would be eligible for *no less than* a reasonable royalty in an infringement action against standard adopters.²¹⁹ Importantly, in the second scenario, a “reasonable royalty” would be the floor for recovery by a firm using deception, while a firm acting in good faith would be *capped* at the reasonable rate. The possibility for greater damages by the deceptive firm greatly incentivizes non-disclosure, even if they are likely to be caught.²²⁰

215. *Id.*

216. *See supra* notes 178-184 and accompanying text.

217. Lemley, *supra* note 11, at 1904-06 (finding twenty-nine of thirty-six SSOs studied used RAND conditions).

218. *Id.* at 1906.

219. 35 U.S.C. § 284 (2006) (“[T]he court shall award the claimant damages adequate to compensate for the infringement, but *in no event less than a reasonable royalty* for the use made of the invention by the infringer.”) (emphasis added).

220. Farrell, *supra* note 27, at 660-61. To deter attempts at hold-up via non-disclosure based on this incentive, deception could be punished by either awarding royalties at rates less than ex ante “reasonable” levels, or by completely withholding fees.

A system that encourages *ex ante* negotiations of licensing fees during the selection of the technology could avoid hold-up by locking in the value of the royalties at the outset, thus destroying the ability of non-disclosing parties to calculate royalties in an *ex post* world where the technology becomes more valuable than it was at the time of selection.²²¹ The DOJ recently allowed two SSOs, VITA and IEEE, to include provisions that require participants to “publicly commit to their most restrictive licensing terms” and to “consider[] potential licensing fees” during the standard-setting process.²²² After sending the letters, a representative from the DOJ Antitrust Division stated in a public speech that:

[t]he message is that United States enforcers see antitrust and intellectual property as complementary forces, not forces in tension, and we support a high degree of licensing freedom. DOJ and the FTC are not in the business of endorsing particular approaches to intellectual property licensing; instead, in standard setting . . . , we intervene only where a practice imposes a restraint on competition *and* is likely to harm long-term efficiency and the competitive process itself.²²³

Importantly, these speeches and letters signal a focus by both the DOJ and FTC on reinforcing the efficiencies gained by using SSOs for standards setting.

Both the VITA and IEEE policies would require participants to disclose patents and patent applications at the request of the SSO.²²⁴ One critical difference between the two alternatives is that the VITA policy mandates that all participants’ non-disclosed patents or applications will be licensed royalty-free if they cover the standard.²²⁵ The IEEE policy,²²⁶ in

221. Lemley, *supra* note 9, at 158, 161-62; *see* Skitol, *supra* note 25, at 733. Generally, SSOs forbid any discussion of specific licensing terms during the standard-setting process. *Id.* at 728-29.

222. Letter from Thomas O. Barnett, Assistant Att’y Gen., U.S. Dep’t of Justice, to Michael A. Lindsay, at 10 (April 30, 2007), *available at* <http://www.usdoj.gov/atr/public/busreview/222978.pdf> [hereinafter IEEE Letter]; *see* Letter from Thomas O. Barnett, Assistant Att’y Gen., U.S. Dep’t of Justice, to Robert A. Skitol (Oct. 30, 2006), *available at* <http://www.usdoj.gov/atr/public/busreview/219380.pdf> [hereinafter VITA Letter].

223. Gerald F. Masoudi, Dep. Assistant Att’y Gen., U.S. Dep’t. Of Justice, Antitrust Enforcement and Standard Setting: The VITA and IEEE Letters and the “IP2” Report, Address Before the Spring Meeting of the American Intellectual Property Law Association (May 10, 2007) at 1-2, *available at* <http://www.usdoj.gov/atr/public/speeches/223363.htm> (emphasis in original).

224. IEEE Letter, *supra* note 222, at 5-7; VITA Letter, *supra* note 222, at 4-6.

225. VITA Letter, *supra* note 222, at 4-6, 9.

essence, maintains the ability of a participant to not disclose its relevant patents, but such an action would alert all SSO members to that member's actions, thus allowing the selection of an alternative technology and preventing ambush.²²⁷

Each proposed SSO policy would also allow discussion of maximum royalty rates during the process of selecting a standard.²²⁸ The disclosure of maximum royalty rates would change the selection of standard from one of choosing the preferred technology without reference to the cost of that technology, to one where participants can make an informed choice between less elegant but cheaper solutions and more elegant but possibly costlier alternatives.²²⁹ If SSO rules require the disclosure of a maximum licensing fees to be part of a technology proposal, then it provides a much stronger basis for a waiver argument to be made later in the event of an attempted hold-up. An SSO participant could argue the refusal to disclose either the patents or the maximum fee constituted a waiver of the desire to enforce that patent or to receive compensation.²³⁰ While the defense is far from certain to be accepted, the pleading would at least be grounded in the rules of the SSO.

Neither policy requested the ability for participants to negotiate specific licensing terms during the standard-selection process.²³¹ However, the DOJ included a footnote in the IEEE Letter stating that the Antitrust Division would "typically apply a rule-of-reason analysis to joint negotiations of licensing terms in the standard-setting context."²³² This statement indicates a willingness to allow full ex ante negotiations by SSO participants. This conclusion is further supported by the DOJ and FTC's jointly prepared study on the patent holdup problem.²³³ The study examined the antitrust issues raised by allowing ex ante royalty negotiations and con-

226. The IEEE policy requires participants to either (1) declare they have no essential patents, (2) declare they hold essential patents but commit to royalty-free licensing, (3) commit to RAND licensing, (4) commit to maximum price terms, or (5) refuse to provide any assurance to the SSO. IEEE Letter, *supra* note 222, at 3. The responses would be publicly available, and participants may discuss the relative costs of proposed alternatives, although they could not discuss specific royalty rates. *Id.* at 8.

227. Skitol, *supra* note 25, at 729.

228. Masoudi, *supra* note 223; IEEE Letter, *supra* note 222, at 5-7; VITA Letter, *supra* note 222, at 4-6, 8.

229. VITA Letter, *supra* note 222, at 9.

230. See Section III.B.2 *infra*.

231. Masoudi, *supra* note 223.

232. IEEE Letter, *supra* note 222, at 11 n.47.

233. U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT & INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 33-57 (2007), available at <http://www.usdoj.gov/atr/public/hearings/ip/222655.pdf>.

cluded that because of the “strong potential for procompetitive benefits” the DOJ and FTC would review such negotiations under the rule of reason as opposed to declaring such negotiations *per se* violations of section 1 of the Sherman Act.²³⁴

The implementation of an *ex ante* licensing scheme could offer challenges to SSOs as they are currently structured.²³⁵ Generally SSO negotiations solely include technical personnel such as engineers; they do not include lawyers or business representatives.²³⁶ However, given the impacts of anticompetitive behavior on the industry and consumers, firms should be responsible for protecting the competitive process by including representatives that can make informed choices with regard to the relative costs of the proposed technologies.²³⁷

2. *Equitable defenses: estoppel and waiver*

Strengthening the availability of the equitable defenses of estoppel and waiver to defendants sued by plaintiffs who engaged in deceptive non-disclosure encourages disclosure while protecting against hold-up.

The Federal Circuit’s decision in *Qualcomm II*²³⁸ may provide a beacon of hope for SSOs and firms that incorporate standards into their products.²³⁹ There, the court held that when an SSO participant chooses to not disclose a patent in the face of either a rule or custom requiring disclosure, then that participant has waived its right to enforce the patent against other firms practicing the standard.²⁴⁰ This decision was consistent with previous cases where courts dismissed the claims of plaintiffs alleging patent infringement when the plaintiff chose not to acknowledge the infringing activity for an extended period of time.²⁴¹

An expansion of the defense of waiver can provide enforcement of SSO rules for non-participants. As Professor Lemley noted in his survey of SSO rules and IPR policies, SSO participants would be able to enforce disclosure requirements against other participants via doctrines of contract law, but non-participants could not assert contract-based defenses based

234. *Id.* at 53-54. *See* Cal. Dental Ass’n v. Fed. Trade Comm’n, 525 U.S. 756, 779 (1999) (discussing the categories of analysis in antitrust cases).

235. *See* DOJ & FTC, *supra* note 233, at 50.

236. *See id.*; Lemley, *supra* note 11, at 1907.

237. *See* Skitol, *supra* note 25, at 734.

238. *Qualcomm II*, 548 F.3d 1004 (Fed. Cir. 2008).

239. *See supra* Section I.C.4.

240. *Qualcomm II*, 548 F.3d at 1019-22.

241. *See, e.g.*, *Stambler v. Diebold, Inc.*, 11 U.S.P.Q.2d 1709 (Fed. Cir. 1988); *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020 (Fed. Cir. 1992).

on the plaintiff's nefarious behavior during the standard-setting process.²⁴² The Federal Circuit's expression of the implied waiver doctrine, however, indicates that non-participants may be able to rely on equitable to defeat an infringement suit. A non-participant could point to the patent owner's silence during the standard-setting process, and replace its lack of privity with a constructive reliance on that silence.

Unfortunately, equitable defenses can only be raised *after* an infringement suit has been filed. In the end, these defenses only affect conduct within SSOs by attempting to reduce the enforceability of patents that are knowingly withheld. However, as evidenced by Rambus's extraction of royalty payments from several firms before filing suit, many firms will not wish to risk a multi-million dollar litigation to determine whether they may continue doing business as they had before the suit.²⁴³ The difficulties of proving intentional misconduct may limit the effectiveness of the waiver defense enough to encourage settlement instead of obtaining a court-ordered limit on the asserted patent. On the other hand, because the accused infringer would have some equitable ammunition against the patent holder, the licensing negotiations would be less tilted toward the patentee.

IV. CONCLUSION

The D.C. Circuit's decision in *Rambus* was inconsistent with previous precedent. Indeed, the issue of causation in antitrust actions involving standard setting has not been thoroughly addressed in any Supreme Court decision. The appropriate standard for causation and the burden of persuasion on the issue of inevitability need to be conclusively addressed. Given the important nature of standards in today's technological society and economy, the authority of SSOs in facilitating standard selection and adoption should be buttressed. Despite the outcome in *Rambus*, SSOs can begin to change their rules in order to effectively deal with the hold-up problem before it starts. SSOs should closely examine the next rounds of standardization within the IEEE and VITA to see if ex ante license negotiations will alleviate the problem of holdup in standard setting. Further, standard-practicing defendants accused of infringing previously non-disclosed patents should begin to assert the equitable defenses of waiver and estoppel to force secretive patent holders to defend their actions before courts of law.

242. Lemley, *supra* note 11, at 1914-18.

243. *Rambus, Inc. v. FTC*, 522 F.3d 456, 460 (D.C. Cir. 2008).