United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued February 14, 2008 Decided April 22, 2008

No. 07-1086

RAMBUS INCORPORATED,
PETITIONER

v.

FEDERAL TRADE COMMISSION,
RESPONDENT

Consolidated with
07-1124

On Petitions for Review of Final Orders of the
Federal Trade Commission

A. Douglas Melamed argued the cause for petitioner. With him on the briefs were *Paul R. Wolfson*, *Sambhav N. Sanikar*, *Andrew J. Ewalt*, and *Pratik A. Shah*.

S. M. Oliva, appearing pro se, was on the brief for amicus curiae S. M. Oliva in support of petitioner.

John F. Daly, Deputy General Counsel for Litigation, Federal Trade Commission, argued the cause for respondent. With him on the briefs were *John D. Graubert*, Principal

Deputy General Counsel, *William E. Cohen*, Deputy General Counsel for Policy Studies, and *Leslie R. Melman*, *Imad D. Abyad*, *Richard B. Dagen*, and *Patrick J. Roach*, Attorneys.

Jennifer L. Pratt, Assistant Attorney General, Attorney General's Office of the State of Ohio, was on the brief for amici curiae State of Ohio, et al. in support of respondent. With her on the brief were *Marc Dann*, Attorney General, *Talis J. Colberg*, Attorney General, Attorney General's Office of the State of Alaska, *Terry Goddard*, Attorney General, Attorney General's Office of the State of Arizona, *Dustin McDaniel*, Attorney General, Attorney General's Office of the State of Arkansas, *John W. Suthers*, Attorney General, Attorney General's Office of the State of Colorado, *Linda Singer*, Attorney General, Attorney General's Office of the District of Columbia, *Bill McCollum*, Attorney General, Attorney General's Office of the State of Florida, *Mark Bennett*, Attorney General, Attorney General's Office of the State of Hawaii, *Lawrence G. Wasden*, Attorney General, Attorney General's Office of the State of Idaho, *Lisa Madigan*, Attorney General, Attorney General's Office of the State of Illinois, *Thomas J. Miller*, Attorney General, Attorney General's Office of the State of Iowa, *Paul J. Morrison*, Attorney General, Attorney General's Office of the State of Kansas, *Charles C. Foti, Jr.*, Attorney General, Attorney General's Office of the State of Louisiana, *G. Steven Rowe*, Attorney General, Attorney General's Office of the State of Maine, *Douglas F. Gansler*, Attorney General, Attorney General's Office of the State of Maryland, *Martha Coakley*, Attorney General, Attorney General's Office of the Commonwealth of Massachusetts, *Michael A. Cox*, Attorney General, Attorney General's Office of the State of Michigan, *Lori Swanson*, Attorney General, Attorney General's Office of the State of Minnesota, *Jeremiah W. (Jay) Nixon*, Attorney General, Attorney General's Office of the State of Missouri, *Catherine Cortez Masto*, Attorney General, Attorney

General's Office of the State of Nevada, *Anne Milgram*, Attorney General, Attorney General's Office of the State of New Jersey, *Gary King*, Attorney General, Attorney General's Office of the State of New Mexico, *Andrew M. Cuomo*, Attorney General, Attorney General's Office of the State of New York, *W.A. Drew Edmondson*, Attorney General, Attorney General's Office of the State of Oklahoma, *Hardy Myers*, Attorney General, Attorney General's Office of the State of Oregon, *Roberto J. Sánchez Ramos*, Attorney General, Attorney General's Office of the Commonwealth of Puerto Rico, *Lawrence E. Long*, Attorney General, Attorney General's Office of the State of South Dakota, *Mark L. Shurtleff*, Attorney General, Attorney General's Office of the State of Utah, *William H. Sorrell*, Attorney General, Attorney General's Office of the State of Vermont, *Robert M. McKenna*, Attorney General, Attorney General's Office of the State of Washington, *Darrell V. McGraw, Jr.*, Attorney General, Attorney General's Office of the State of West Virginia, and *Arthur Ripley, Jr.*, Attorney General, Attorney General's Office of the American Samoa Government. *Bennett Rushkoff*, Assistant Attorney General, Attorney General's Office of the District of Columbia, entered an appearance.

Before: HENDERSON and RANDOLPH, *Circuit Judges*, and WILLIAMS, *Senior Circuit Judge*.

Opinion for the Court filed by *Senior Circuit Judge* WILLIAMS.

WILLIAMS, *Senior Circuit Judge*: Rambus Inc. develops computer memory technologies, secures intellectual property rights over them, and then licenses them to manufacturers in exchange for royalty payments. In 1990, Rambus's founders filed a patent application claiming the invention of a faster architecture for dynamic random access memory ("DRAM").

In recent years, Rambus has asserted that patents issued to protect its invention cover four technologies that a private standard-setting organization ("SSO") included in DRAM industry standards.

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. In this case, 90% of DRAM production is compliant with the standards at issue, and therefore the technologies adopted in those standards—including those over which Rambus claims patent rights—enjoy a similar level of dominance over their alternatives.

After lengthy proceedings, the Federal Trade Commission determined that Rambus, while participating in the standard-setting process, deceptively failed to disclose to the SSO the patent interests it held in four technologies that were standardized. Those interests ranged from issued patents, to pending patent applications, to plans to amend those patent applications to add new claims; Rambus's patent rights in all these interests are said to be sufficiently connected to the invention described in Rambus's original 1990 application that its rights would relate back to its date. Commission Br. at 46-47; Transcript of Oral Argument at 35-36; see also 35 U.S.C. §§ 120, 132. Finding this conduct monopolistic and in violation of § 2 of the Sherman Act, 15 U.S.C. § 2, the Commission went on to hold that Rambus had engaged in an unfair method of competition and unfair or deceptive acts or practices prohibited by § 5(a) of the Federal Trade Commission Act ("FTC Act"), *id.* § 45(a).

Rambus petitions for review. We grant the petition, holding that the Commission failed to sustain its allegation of

monopolization. Its factual conclusion was that Rambus's alleged deception enabled it *either* to acquire a monopoly through the standardization of its patented technologies rather than possible alternatives, *or* to avoid limits on its patent licensing fees that the SSO would have imposed as part of its normal process of standardizing patented technologies. But the latter—deceit merely enabling a monopolist to charge higher prices than it otherwise could have charged—would not in itself constitute monopolization. We also address whether there is substantial evidence that Rambus engaged in deceptive conduct at all, and express our serious concerns about the sufficiency of the evidence on two particular points.

* * *

During the early 1990s, the computer hardware industry faced a "memory bottleneck": the development of faster memory lagged behind the development of faster central processing units, and this risked limiting future gains in overall computer performance. To address this problem, Michael Farmwald and Mark Horowitz began collaborating during the late 1980s and invented a higher-performance DRAM architecture. Together, they founded Rambus in March 1990 and filed Patent Application No. 07/510,898 ("the '898 application") on April 18, 1990.

As originally filed, the '898 application included a 62-page written description of Farmwald and Horowitz's invention, 150 claims, and 15 technical drawings. Under the direction of the Patent Office, acting pursuant to 35 U.S.C. § 121, Rambus effectively split the application into several (the original one and 10 "divisionals"). Thereafter, Rambus amended some of these applications and filed additional continuation and divisional applications.

While Rambus was developing a patent portfolio based on its founders' inventions, the computer memory industry was at work standardizing DRAM technologies. The locus of those efforts was the Joint Electron Device Engineering Council ("JEDEC")—then an "activity" of what is now called the Electronics Industries Alliance ("EIA") and, since 2000, a trade association affiliated with EIA and known as the JEDEC Solid State Technology Association. Any company involved in the solid state products industry could join JEDEC by submitting an application and paying annual dues, and members could receive JEDEC mailings, participate in JEDEC committees, and vote on pending matters.

One JEDEC committee, JC 42.3, developed standards for computer memory products. Rambus attended its first JC 42.3 meeting as a guest in December 1991 and began formally participating when it joined JEDEC in February 1992. At the time, JC 42.3 was at work on what became JEDEC's synchronous DRAM ("SDRAM") standard. The committee voted to approve the completed standard in March 1993, and JEDEC's governing body gave its final approval on May 24, 1993. The SDRAM standard includes two of the four technologies over which Rambus asserts patent rights—programmable CAS latency and programmable burst length.

Despite SDRAM's standardization, its manufacture increased very slowly and asynchronous DRAM continued to dominate the computer memory market, so JC 42.3 began to consider a number of possible responses—among them specifications it could include in a next-generation SDRAM standard. As part of that process, JC 42.3 members received a survey ballot in October 1995 soliciting their opinions on features of an advanced SDRAM—which ultimately emerged as the double data rate ("DDR") SDRAM standard. Among the features voted on were the other two technologies at issue here: on-chip phase lock and delay lock loops ("on-chip

PLL/DLL") and dual-edge clocking. The Committee tallied and discussed the survey results at its December 1995 meeting, which was Rambus's last as a JEDEC member. Rambus formally withdrew from JEDEC by letter dated June 17, 1996, saying (among other things) that the terms on which it proposed to license its proprietary technology "may not be consistent with the terms set by standards bodies, including JEDEC." Complaint Counsel's Exhibit ("CX") 887.

JC 42.3's work continued after Rambus's departure. In March 1998 the committee adopted the DDR SDRAM standard, and the JEDEC Board of Directors approved it in 1999. This standard retained SDRAM features including programmable CAS latency and programmable burst length, and it added on-chip PLL/DLL and dual-edge clocking; DDR SDRAM, therefore, included all four of the technologies at issue here.

Starting in 1999, Rambus informed major DRAM and chipset manufacturers that it held patent rights over technologies included in JEDEC's SDRAM and DDR SDRAM standards, and that the continued manufacture, sale, or use of products compliant with those standards infringed its rights. It invited the manufacturers to resolve the alleged infringement through licensing negotiations. A number of manufacturers agreed to licenses, see Opinion of the Commission ("Liability Op."), *In re Rambus*, Docket No. 9302, at 48 n.262 (July 31, 2006) (discussing cases); others did not, and litigation ensued, see *id.* at 17-21.

On June 18, 2002, the Federal Trade Commission filed a complaint under § 5(b) of the FTC Act, 15 U.S.C. § 45(b), charging that Rambus engaged in unfair methods of competition and unfair or deceptive acts or practices in violation of the Act, see *id.* § 45(a). Specifically, the Commission alleged that Rambus breached JEDEC policies

requiring it to disclose patent interests related to standardization efforts and that the disclosures it did make were misleading. By this deceptive conduct, it said, Rambus unlawfully monopolized four technology markets in which its patented technologies compete with alternative innovations to address technical issues relating to DRAM design—markets for latency, burst length, data acceleration, and clock synchronization technologies. Compl. at 1-2, 28-29 (June 18, 2002); see also Liability Op. at 5.

Proceedings began before an administrative law judge, who in due course dismissed the Complaint in its entirety. Initial Decision ("ALJ Op.") at 334 (Feb. 23, 2004). He concluded that Rambus did not impermissibly withhold material information about its intellectual property, *id.* at 260-86, and that, in any event, there was insufficient evidence that, if Rambus had disclosed all the information allegedly required of it, JEDEC would have standardized an alternative technology, *id.* at 310-23.

Complaint Counsel appealed the ALJ's Initial Decision to the Commission, which reopened the record to receive additional evidence and did its own plenary review. See Liability Op. at 17, 21. On July 31, 2006 the Commission vacated the ALJ's decision and set aside his findings of fact and conclusions of law. *Id.* at 21. The Commission found that while JEDEC's patent disclosure policies were "not a model of clarity," *id.* at 52, members expected one another to disclose patents and patent applications that were relevant to technologies being considered for standardization, *plus* (though the Commission was far less clear on these latter items) planned amendments to pending applications or "anything they're working on that they potentially wanted to protect with patents down the road," *id.* at 56; see generally *id*. at 51-59, 66. Based on this interpretation of JEDEC's disclosure requirements, the Commission held that Rambus

willfully and intentionally engaged in misrepresentations, omissions, and other practices that misled JEDEC members about intellectual property information "highly material" to the standard-setting process. *Id.* at 68; see also *id.* at 37-48 (outlining Rambus's "Chronology of Concealment").

The Commission focused entirely on the allegation of monopolization. See *id.* at 27 n.124. In particular, the Commission held that the evidence and inferences from Rambus's purpose demonstrated 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 non-discriminatory" license fees], with an opportunity for *ex ante* licensing negotiations." *Id.* at 74; see also *id.* at 77, 118-19. Rejecting Rambus's argument that factors other than JEDEC's standards allowed Rambus's technologies to dominate their respective markets, *id.* at 79-96, the Commission concluded that Rambus's deception of JEDEC "significantly contributed to its acquisition of monopoly power," *id.* at 118.

After additional briefing by the parties, see *id.* at 119-20, the Commission rendered a separate remedial opinion and final order. Opinion of the Commission on Remedy ("Remedy Op.") (Feb. 2, 2007); Final Order (Feb. 2, 2007). It held that it had the authority in principle to order compulsory licensing, but that remedies beyond injunctions against future anticompetitive conduct would require stronger proof that they were necessary to restore competitive conditions. Remedy Op. at 2-11. Applying that more demanding burden to Complaint Counsel's claims for relief, the Commission refused to compel Rambus to license its relevant patents royalty-free because there was insufficient evidence that "absent Rambus's deception" JEDEC would have standardized non-proprietary technologies instead of

Rambus's; thus, Complaint Counsel had failed to show that such a remedy was "necessary to restore competition that would have existed in the 'but for' world." *Id.* at 12; see also *id.* at 13, 16. Instead, the Commission decided to compel licensing at "reasonable royalty rates," which it calculated based on what it believed would have resulted from negotiations between Rambus and manufacturers before JEDEC committed to the standards. *Id.* at 16-25. The Commission's order limits Rambus's royalties for three years to 0.25% for JEDEC-compliant SDRAM and 0.5% for JEDEC-compliant DDR SDRAM (with double those royalties for certain JEDEC-compliant, non-DRAM products); after those three years, it forbids any royalty collection. Final Order at 2-4; Remedy Op. at 22-23.

Rambus moved for reconsideration, and the Commission denied the motion in relevant part on April 27, 2007. Rambus timely petitioned for our review of both the Commission's Final Order and its Denial of Reconsideration, see 15 U.S.C. § 45(c), and we consolidated those petitions.

Rambus challenges the Commission's determination that it engaged in unlawful monopolization—and thereby violated § 5 of the FTC Act—on a variety of grounds, of which two are most prominent. First, it argues that the Commission erred in finding that it violated any JEDEC patent disclosure rules and thus that it breached any antitrust duty to provide information to its rivals. Second, it asserts that even if its nondisclosure contravened JEDEC's policies, 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 extracting a RAND commitment from Rambus when standardizing its technology. As the latter would not involve an antitrust violation, says Rambus, there is an insufficient basis for liability.

We find the second of these arguments to be persuasive, and conclude that the Commission failed to demonstrate that Rambus's conduct was exclusionary under settled principles of antitrust law. Given that conclusion, we need not dwell very long on the substantiality of the evidence, which we address only to express our serious concerns about the breadth the Commission ascribed to JEDEC's disclosure policies and their relation to what Rambus did or did not disclose.

* * *

In this case under § 5 of the FTC Act, the Commission expressly limited its theory of liability to Rambus's unlawful monopolization of four markets in violation of § 2 of the Sherman Act, 15 U.S.C. § 2. See Liability Op. at 27 n.124; see also *FTC v. Cement Inst.*, 333 U.S. 683, 694 (1948) (§ 5 reaches all conduct that violates § 2 of the Sherman Act). Therefore, we apply principles of antitrust law developed under the Sherman Act, and we review the Commission's construction and application of the antitrust laws *de novo*. *FTC v. Indiana Fed'n of Dentists*, 476 U.S. 447, 454 (1986); *Polygram Holding, Inc. v. FTC*, 416 F.3d 29, 33 (D.C. Cir. 2005).

It is settled law that the mere existence of a monopoly does not violate the Sherman Act. See *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, 58 (D.C. Cir. 2001) (en banc) (*per curiam*). In addition to "the possession of monopoly power in the relevant market," the offense of monopolization requires "'the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historical accident.'" *Trinko*, 540 U.S. at 407 (quoting *United States v. Grinnell Corp.*, 384 U.S. 563, 570-

71 (1966)); *Microsoft*, 253 F.3d at 50 (same). In this case, Rambus does not dispute the nature of the relevant markets or that its patent rights in the four relevant technologies give it monopoly power in each of those markets. See Liability Op. at 72-73. The critical question is whether Rambus engaged in exclusionary conduct, and thereby acquired its monopoly power in the relevant markets unlawfully.

To answer that question, we adhere to two antitrust principles that guided us in *Microsoft*. First, "to be condemned as exclusionary, a monopolist's act must have 'anticompetitive effect.' That is, it must harm the competitive *process* and thereby harm consumers. In contrast, harm to one or more *competitors* will not suffice." *Microsoft*, 253 F.3d at 58; see also *Trinko*, 540 U.S. at 407; *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993); *Covad Commc'ns. Co. v. Bell Atlantic Corp.*, 398 F.3d 666, 672 (D.C. Cir. 2005). Second, it is the antitrust plaintiff—including the Government as plaintiff—that bears the burden of proving the anticompetitive effect of the monopolist's conduct. *Microsoft*, 253 F.3d at 58-59.

The Commission held that Rambus engaged in exclusionary conduct consisting of misrepresentations, omissions, and other practices that deceived JEDEC about the nature and scope of its patent interests while the organization standardized technologies covered by those interests. Liability Op. at 28, 68. Had Rambus fully disclosed its intellectual property, "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." Liability Op. at 74. But the Commission did not determine that one or the other of these two possible outcomes was the more likely. See Transcript of Oral Argument at 43 (Commission's counsel confirming that the Commission was unable to decide

which of the two possible outcomes would have occurred had Rambus disclosed). The Commission's conclusion that Rambus's conduct was exclusionary depends, therefore, on a syllogism: Rambus avoided one of two outcomes by not disclosing its patent interests; the avoidance of either of those outcomes was anticompetitive; therefore Rambus's nondisclosure was anticompetitive.

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. But while we can assume that Rambus's nondisclosure made the adoption of its technologies somewhat more likely than broad disclosure would have, the Commission made clear in its remedial opinion that there was insufficient evidence that JEDEC would have standardized other technologies had it known the full scope of Rambus's intellectual property. See Remedy Op. 12. Therefore, for the Commission's syllogism to survive—and for the Commission to have carried its burden of proving that Rambus's conduct had an anticompetitive effect—we must also be convinced that if Rambus's conduct merely enabled it to avoid the other possible outcome, namely JEDEC's obtaining assurances from Rambus of RAND licensing terms, such conduct, alone, could be said to harm competition. Cf. *Avins v. White*, 627 F.2d 637, 646 (3d Cir. 1980) ("Where . . . a general verdict may rest on either of two claims—one supported by the evidence and the other not—a judgment thereon must be reversed." (quoting *Allbergo v. Reading Co.*, 372 F.2d 83, 86 (3d Cir. 1966))). We are not convinced.

Deceptive conduct—like any other kind—must have an anticompetitive effect in order to form the basis of a

monopolization claim. "Even an act of pure malice by one business competitor against another does not, without more, state a claim under the federal antitrust laws," without proof of "a dangerous probability that [the defendant] would monopolize a particular market." *Brooke Group*, 509 U.S. at 225. Even 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 tending to bring about or protect a defendant's monopoly power. In *Microsoft*, for example, we found 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. The deceit had caused "developers who were opting for portability over performance . . . unwittingly [to write] Java applications that [ran] only on Windows." 253 F.3d at 76. The focus of our antitrust scrutiny, therefore, was properly placed on the resulting harms to competition rather than the deception itself.

Another case of deception with an anticompetitive dimension is *Conwood Co. v. U.S. Tobacco Co.*, 290 F.3d 768 (6th Cir. 2001), where the Sixth Circuit found that U.S. Tobacco's dominance of the moist snuff market caused retailers to rely on it as a "category manager" that would provide trusted guidance on the sales strategy and in-store display for all moist snuff products, *id.* at 773-78. Under those circumstances, the court held that its 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 U.S. Tobacco's products and decreasing that allotted to competing products. *Id.* at 783, 785-88, 790-91; see also *LePage's Inc. v. 3M*, 324 F.3d 141, 153 (3d Cir. 2003) (calling *Conwood* "a

good illustration of the type of exclusionary conduct that will support a § 2 violation").

But 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. Consider, for example, *NYNEX Corp. v. Discon, Inc.*, 525 U.S. 128 (1998), in which the Court addressed the antitrust implications of allegations that NYNEX's subsidiary, New York Telephone Company, a lawful monopoly provider of local telephone services, charged its customers higher prices as result of fraudulent conduct in the market for the service of removing outdated telephone switching equipment (called "removal services"). Discon had alleged that New York Telephone (through its corporate affiliate, Materiel Enterprises) switched its purchases of removal services from Discon to a higher-priced independent firm (AT&T Technologies). Materiel Enterprises would pass the higher fees on to New York Telephone, which in turn passed them on to customers through higher rates approved by regulators. *Id.* at 131-32. The nub of the deception, Discon alleged, was that AT&T Technologies would provide Materiel Enterprises with a special rebate at year's end, which it would then share with NYNEX. *Id.* By thus hoodwinking the regulators, the scam raised prices for consumers; Discon, which refused to play the rebate game, was driven out of business.[1] Discon alleged that

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[1] The scheme alleged by Discon is a spin on a familiar problem of cost-based price regulation—its tendency to dilute a monopolist's incentive to seek the best price for inputs. Even where it cannot channel above-market prices to itself (either by corporate affiliation or, as here, by rebates and affiliation), regulation will have been holding the monopolist's selling prices below profit-maximizing rates, and it can therefore raise them without loss of net revenue. Where, as here, the input charges are being flowed back to the regulated monopolist (or its affiliate),

this arrangement was anticompetitive and constituted both an agreement in restraint of trade in violation of § 1 of the Sherman Act and a conspiracy to monopolize the market for removal services in violation of § 2. *Id.* at 132.

As to Discon's § 1 claim, the Court held that where a single buyer favors one supplier over another for an improper reason, the plaintiff must "allege and prove harm, not just to a single competitor, but to the competitive process." *Id.* at 135; see generally *id.* at 133-37. Nor, as Justice Breyer wrote for a unanimous Court, would harm to the consumers in the form of higher prices change the matter: "We concede Discon's claim that the [defendants'] behavior hurt consumers by raising telephone service rates. But that consumer injury naturally flowed not so much from a less competitive market for removal services, as from the exercise of market power that is *lawfully* in the hands of a monopolist, namely, New York Telephone, combined with a deception worked upon the regulatory agency that prevented the agency from controlling New York Telephone's exercise of its monopoly power." *Id.* at 136.

Because Discon based its § 2 claim on the very same allegations of fraud, the Court vacated the appellate court's decision to uphold that claim because "[u]nless those agreements harmed the competitive process, they did not

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payment of above-market prices even provides a profit opportunity, as it more than recovers the artificial hike in input prices (via increased final prices and flowback of the input prices). See IIIA Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶ 787b, at 295-301 (2d ed. 2002); see also *Assoc. Gas Dist. v. FERC*, 824 F.2d 981, 995 (D.C. Cir. 1987); cf. *Nat'l Rural Telecom Ass'n v. FCC*, 988 F.2d 174, 178 (D.C. Cir. 1993).

amount to a conspiracy to monopolize." *Id.* at 139; see also *Forsyth v. Humana, Inc.*, 114 F.3d 1467, 1477-78 (9th Cir. 1997) (rejecting a claim that an insurance company's alleged kickback scheme caused antitrust injury to group health insurance customers where the evidence showed the scheme caused higher copayments and premium payments, but did "not explain how the scheme reduced competition in the relevant market"), *aff'd on other grounds*, 525 U.S. 299 (1999); *Schuylkill Energy Res., Inc. v. Penn. Power & Light Co.*, 113 F.3d 405, 414 (3d Cir. 1997) (finding conduct did not violate antitrust laws where absent that conduct consumers would still receive the same product and the same amount of competition).

While the Commission's brief doesn't mention *NYNEX*, much less try to distinguish it, it does cite *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007), which in turn had cited the Commission's own "landmark" decision in the case under review here, *id*. at 311. There the court held that a patent holder's intentionally false promise to a standard-setting organization that it would license its technology on RAND terms, "coupled with [the organization's] reliance on that promise when including the technology in a standard," was anticompetitive conduct, on the ground that it increased "the likelihood that patent rights will confer monopoly power on the patent holder." *Id.* at 314; accord *id.* at 315-16. To the extent that the ruling (which simply reversed a grant of dismissal) rested on the argument that deceit lured the SSO away from non-proprietary technology, see *id*., it cannot help the Commission in view of its inability to find that Rambus's behavior caused JEDEC's choice; to the extent that it may have rested on a supposition 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), it conflicts with *NYNEX*.

Here, the Commission expressly left open the likelihood that JEDEC would have standardized Rambus's technologies *even if Rambus had disclosed* its intellectual property. Under this hypothesis, JEDEC lost only an opportunity to secure a RAND commitment from Rambus. But loss of such a commitment is not a harm to competition from alternative technologies in the relevant markets. See 2 Hovenkamp et al., IP & Antitrust § 35.5 at 35-45 (Supp. 2008) [hereinafter "IP & Antitrust"] ("[A]n antitrust plaintiff must establish that the standard-setting organization would not have adopted the standard in question but for the misrepresentation or omission."). Indeed, had JEDEC limited Rambus to reasonable royalties and required it to provide licenses on a nondiscriminatory basis, we would expect *less* competition from alternative technologies, not more; high prices and constrained output tend to attract competitors, not to repel them.

Scholars in the field have urged that if nondisclosure to an SSO enables a participant to obtain higher royalties than would otherwise have been attainable, the "overcharge can properly constitute competitive harm attributable to the nondisclosure," as the overcharge "will distort competition in the downstream market." 2 IP & Antitrust § 35.5 at 35-47. The contention that price-raising deception has downstream effects is surely correct, but that consequence was equally surely true in *NYNEX* (though perhaps on a smaller scale) and equally obvious to the Court. The Commission makes the related contention that because the ability to profitably restrict output and set supracompetitive prices is the *sine qua non* of monopoly power, any conduct that permits a monopolist to avoid constraints on the exercise of that power must be anticompetitive. But again, as in *NYNEX*, 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.

Thus, if JEDEC, in the world that would have existed but for Rambus's deception, would have standardized the very same technologies, Rambus's alleged deception cannot be said to have had an effect on competition in violation of the antitrust laws; JEDEC's loss of an opportunity to seek favorable licensing terms is not as such an antitrust harm. Yet the Commission did not reject this as being a possible—perhaps even the more probable—effect of Rambus's conduct. We hold, therefore, that the Commission failed to demonstrate that Rambus's conduct was exclusionary, and thus to establish its claim that Rambus unlawfully monopolized the relevant markets.

* * *

Our conclusion that the Commission failed to demonstrate that Rambus inflicted any harm on competition requires vacatur of the Commission's orders. But the original complaint also included a count charging Rambus with other unfair methods of competition in violation of § 5(a) of the FTC Act, 15 U.S.C. § 45(a). See Compl. at 32 ¶ 124. While the Commission dropped this aspect of its case and focused on a theory of liability premised on unlawful monopolization, see Liability Op. at 27 n.124, at least one Commissioner suggested that a "stand-alone" § 5 action would have had a "broader province" than a Sherman Act case. See Concurring Opinion of Commissioner Jon Leibowitz at 18, 21, Docket No. 9302 (Jul. 31, 2006). Because of the chance of further proceedings on remand, we express briefly our serious concerns about strength of the evidence relied on to support some of the Commission's crucial findings regarding the scope of JEDEC's patent disclosure policies and Rambus's alleged violation of those policies.

In noting our concerns, we recognize, of course, that the Commission's findings are conclusive so long as they are

supported by substantial evidence. See 15 U.S.C. § 45(c); see also *Polygram Holding*, 416 F.3d at 33. The Commission's findings are murky on both the relevant margins: what JEDEC's disclosure policies were, and what, within those mandates, Rambus failed to disclose.

First, the Commission evidently could find that Rambus violated JEDEC's disclosure policies only by relying quite significantly on participants' having been obliged to disclose their work in progress on *potential* amendments to pending applications, as that work became pertinent. The Commission's counsel confirmed as much at oral argument. Transcript of Oral Argument at 37-38. Indeed, the parties stipulated that as of Rambus's last JEDEC meeting it held no patents that were essential to the manufacture or use of devices complying with any JEDEC standard, and that when JEDEC issued the SDRAM standard Rambus had no pending patent claims that would necessarily have been infringed by a device compliant with that standard. Parties' First Set of Stipulations ¶¶ 9-10.

The case *appears* (and we emphasize *appears*, as the Commission's opinion leaves us uncertain of its real view) to turn on the idea that JEDEC participants were obliged to disclose not merely relevant patents and patent applications, but also their work in progress on amendments to pending applications that included new patent claims. We do not see in the record any formal finding that the policies were so broad, but the Commission's opinion points to testimony of witnesses that might be the basis of such a finding. Five former JC 42.3 participants testified (in some cases ambiguously) that they understood JEDEC's written policies, requiring the disclosure of *pending* applications, to also include a duty to disclose work in progress on *unfiled* amendments to those applications, and JEDEC's general counsel testified that he believed a firm was required to

disclose *plans* to amend if supported by the firm's current interpretation of an extant application. See Liability Op. at 56 & nn.303-05. JEDEC participants did not have unanimous recollections on this point, however, and the Commission noted that another JC 42.3 member testified that there was no duty to disclose work on future filings. *Id.* at 56 n.305.

Reading these statements as interpretations of JEDEC's written policies seems to significantly stretch the policies' language. The most disclosure-friendly of those policies is JEDEC Manual No. 21-I, published in October 1993, which refers to "the obligation of all participants to inform the meeting of any knowledge they may have of any patents, or pending patents, that might be involved in the work they are undertaking." CX 208 at 19; see also *id.* at 19 n.** ("For the purpose of this policy, the word 'patented' also includes items and processes for which a patent has been applied and may be pending."), 27 (referring to "technical information covered by [a] patent or pending patent").[2] This language speaks fairly clearly of disclosure obligations related to patents and pending patent applications, but says nothing of unfiled work in progress on potential amendments to patent applications. We don't see how a few strands of trial testimony would persuade the Commission to read this language more broadly, especially as at least two of the five participants cited merely stated that disclosure obligations reached anything in the patent "process"—which leaves open the question of when

[2] Rambus notes that Manual 21-I was only adopted *after* JEDEC approved the SDRAM standard; the Manual came in October 1993 after JC 42.3 approved the SDRAM standard in March 1993 and JEDEC's governing body adopted it that May. But we will assume *arguendo* that the Commission could reasonably find that this new policy language merely formalized a preexisting understanding.

that "process" can be said to begin. See Joint Appendix 1908-09 (testimony of Desi Rhoden); *id*. at 2038 (testimony of Brett Williams).

Alternatively, to the extent the Commission reads this testimony not to broaden the interpretation of Manual 21-I, but rather to provide evidence of disclosure expectations that extended beyond those incorporated into written policies, a different problem may arise. As the Federal Circuit has said, JEDEC's patent disclosure policies suffered from "a staggering lack of defining details." *Rambus Inc. v. Infineon Technologies AG*, 318 F.3d 1081, 1102 (Fed. Cir. 2003); see also Liability Op. at 52 (stating that the record shows that JEDEC's patent policies "are not a model of clarity"). Even assuming that any evidence of unwritten disclosure expectations would survive a possible narrowing effect based upon the written directive of Manual 21-I, the vagueness of any such expectations would nonetheless remain an obstacle. One would expect that disclosure expectations ostensibly requiring competitors to share information that they would otherwise vigorously protect as trade secrets would provide "clear guidance" and "define clearly what, when, how, and to whom the members must disclose." *Infineon*, 318 F.3d at 1102. This need for clarity seems especially acute where disclosure of those trade secrets itself implicates antitrust concerns; JEDEC involved, after all, collaboration by *competitors*. Cf. *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492, 500 (1988) (stating that because SSO members have incentives to restrain competition, such organizations "have traditionally been objects of antitrust scrutiny"); *Am Soc'y of Mech. Eng'rs v. Hydrolevel Corp.*, 456 U.S. 556, 571 (1982) (noting that SSOs are "rife with opportunities for anticompetitive activity"). In any event, the more vague and muddled a particular expectation of disclosure, the more difficult it should be for the Commission to ascribe competitive harm to its breach. See 2 IP &

Antitrust § 35.5 at 35-51 ("[A]lthough antitrust can serve as a useful check on abuses of the standard-setting process, it cannot substitute for a general enforcement regime for disclosure rules.").

The Commission's conclusion that Rambus engaged in deceptive conduct affecting the inclusion of on-chip PLL/DLL and dual-edge clocking in the DDR SDRAM standard, which JEDEC adopted more than two years after Rambus's last JC 42.3 meeting, presents an additional, independent concern. To support this conclusion, the Commission looked to a technical presentation made to JC 42.3 in September 1994, and the survey balloting of that committee in October 1995 on whether to proceed with the consideration of particular features (including the two Rambus technologies ultimately adopted), finding that Rambus deliberately failed to disclose patent interests in any of the named technologies. Liability Op. 42-44. This finding is evidently the basis, so far as DDR SDRAM is concerned, of its conclusion that Rambus breached a duty to disclose. *Id*. at 66-68.

Once again, the Commission has taken an aggressive interpretation of rather weak evidence. For example, the October 1995 survey ballot gauged participant interest in a range of technologies and did not ask those surveyed about their intellectual property (as did the more formal ballots on proposed standards). See CX 260. The Commission nonetheless believes that every member of JC 42.3—membership that included most of the DRAM industry—was duty-bound to disclose *any* potential patents they were working on that related to *any* of the questions posed by the survey. The record shows, however, that the only company that made a disclosure at the next meeting was the one that formally presented the survey results. See Liability Op. at 44-45; ALJ Op. at 58 ¶ 401 (citing Joint Exhibit 28, at 6). For reasons similar to those that make vague but broad disclosure

obligations among competitors unlikely, it seems to us unlikely that JEDEC participants placed themselves under such a sweeping and early duty to disclose, triggered by the mere chance that a technology might someday (in this case, more than two years later) be formally proposed for standardization.

* * *

We set aside the Commission's orders and remand for further proceedings consistent with this opinion.

So ordered.