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[12] *See* Schine Chain Theatres, Inc. v. United States, 334 U.S. 110, 128 (1948) ("In this type of case we start from the premise that an injunction against future violations is not adequate to protect the public interest. If all that was done was to forbid a repetition of the illegal conduct, those who had unlawfully built their empires could

[20] *Id.* at 430 n.7 ("We need not discuss the full scope of the powers of the Federal Trade Commission, nor their relative breadth in comparison with those of a court of equity.").

[21] *Id.* at 430 (quoting Int'l Salt Co. v. United States, 332 U.S. 392, 400 (1947)). The Court's declaration in this respect is consistent with its repeated statements that an antitrust wrongdoer can – and should – be made to relinquish the fruits of his violation. United States v. United Shoe Mach. Corp., 391 U.S. 244, 250 (1968); United States v. U.S. Gypsum Co., 340 U.S. 76, 88 (1950).

[22] As the Supreme Court has recognized, in a monopolization case, there is a presumption that a mere prohibitory injunction allows a monopolist "to retain the full dividends of [its] monopolistic practices . . . ." *Schine Chain Theatres*, 334 U.S. at 128; *accord* United States v. Grinnell Corp., 384 U.S. 563, 577 (1966) ("We start from the premise that adequate relief in a monopolization case should . . . render impotent the monopoly power found to be in violation of the Act.").

[23] 380 U.S. 374, 395 (1965).

courts, *Reynolds Metals* merely determined that the record did not support going *beyond* that by ordering divestiture of unrelated assets. The court of appeals in *Reynolds Metals* overturned a Commission order requiring divestiture of a factory acquired after a merger when the Commission had failed to demonstrate that there was "any nexus between the continued possession of [the factory] and the violation of Section 7 . . . " or a need to divest the factory for "restoration of the competitive status quo."[31] In rejecting a suggestion that *Reynolds Metals* limited remedies in a district court action brought by the United States, the Supreme Court's *Ford Motor* opinion cursorily noted that *Reynolds Metals* concerned the enforcement powers of the Commission, not those of the courts; set that issue to the side, without further comment; and proceeded to focus on the appropriate remedy in the district court action before it.[32] In sum, neither opinion provides a basis for Rambus's claim that the Commission is confined to issuing prohibitive injunctions.

We turn next to the legislative history of the 1973 amendments to the FTC Act. Contrary to Rambus's claim,[33] there is no basis for concluding that Congress, in enacting Section 13(b), or the Commission, in requesting the provision, effectively acknowledged the Commissionore it.

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31 309 F.2d at 231.

32 405 U.S. at 573 n.8.

33 *See* RRBR at 3.

34 *Warner-Lambert Co.*, 562 F.2d at 758 n.39 (quoting *Dean Foods*, 384 U.S. at 610, in rejecting a contention that a congressional grant of court remedial authority meant that the Commission itself lacked such authority).

35 *See* James T. Halverson, *The Federal Trade Commission's Injunctive Powers Under the Alaskan Pipeline Amendments: An Analysis* 69 NW. U. L. REV. 872-73 (1974-75).

36 Citing the testimony of Commissioner Elman during a 1969 Congressional hearing, Rambus argues that the Commission itself has recognized limits on its Section 5 authority. *See* RRBR at 3 n.4. Rambus's reliance on the cited testimony is misplaced, however, because former Commissioner Elman's statement relates to the FTC's authority to administratively assess civil penalties and award so-called "civil damages" in consumer fraud cases. *Id.* at 57-70. Morever, as Rambus conceded at oral argument, Commissioner Elman indicated that his testimony represented his own "separate statement" and not necessarily the views of the other Commissioners. *See* Oral Argument before the Commission on the Issue of Remedy (Nov. 15, 2006), at 42-43. Commissioner Elman provided that caveat during a colloquy with Senator Moss, which Rambus did not cite in its brief. *See Consumer Protection:*

designed to correct – the absence of a specific grant of authority to obtain ancillary and preliminary equitable relief in the district courts in aid of administrative adjudicative proceedings – was not a limitation on the remedies that are available to the Commission in crafting an administrative cease-and-desist order.

In sum, we do not agree with Rambus's contention that the Commission's remedial authority is limited to enjoining it from deceiving an SSO in the future. Instead, the Commission's authority extends to restoring, to the extent possible, the competitive conditions that would have been present absent Rambus's unlawful conduct.[37] We now address the Commission's authority to order compulsory patent licenses.

A.

Rambus argues that even if the Commission has remedial power beyond the issuance of a cease-and-desist order, the Commission does not have the authority to order compulsory licensing on terms prescribed by the Commission.[38] Rambus would have us conclude that it can continue to reap the royalty rates it is now charging (and demanding in pending litigation).[39] Rambus asserts that this conclusion is supported by the Supreme Court's decision in *FTC v. Ruberoid Co.*,[40] in which the Court held that the Commission cannot order compensatory or

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Hearings on S.2246, et al., before the Consumer Subcomm. of the Comm. on Commerce, 91st Cong. 57 (1969). Rambus also incorrectly relies on other former FTC commissioners' statements, which do not address the Commission's authority to restore competitive conditions after a finding of liability under Section 2. *See* RRBR at 3, n.4; *Agriculture-Environmental and Consumer Protection Appropriations for 1974: Hearings before a Subcomm. of the House Comm. on Appropriations*, 93rd Cong. 99 (1974); S. Rep. No. 93-151, at 10 (1973).

[37] Ekco Products Co., 65 F.T.C. 1163, 1216 (1964), *aff'd*, 347 F.2d 745 (7th Cir. 1965).

[38] RBR at 6.

[39] *Id.* at 2, 16.

[40] 343 U.S. at 473 (1952).

[41] RBR at 5 n.3.

[42] Jacob Siegel Co. v. FTC, 327 U.S. 608, 613 (1946). *See also Colgate-Palmolive Co.*, 380 U.S. at 394-95; *FTC v. Nat'l Lead Co.*, 352 U.S. at 428-29; *Ruberoid Co.*, 343 U.S. at 473.

criminal punishment or exact compensatory damages for past acts"[43] is not contrary authority. The Court in that case emphasized the Commission's wide discretion in its choice of remedy, and stated the expectation that the Commission would "exercise Charl

United States v. Nat'l

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[43] 343 U.S. at 473.

[44] *Id*.

[45] United States v. Microsoft Corp., 253 F.3d 34, 105 (D.C. Cir. 2001) (*en banc*).

[46] United States v. Glaxo Group, 410 U.S. 52, 64 (1973). *See also* Besser Mfg. Co. v. United States, 343 U.S. 444, 447 (1952) ("compulsory patent licensing [on a fair royalty basis] is a well-recognized remedy where patent abuses are proved in antitrust actions and it is required for effective relief"); Am. Cyanamid Co., 72 F.T.C. 623, 690 (1967) (requiring licensing at a specified, non-zero royalty rate), *aff'd,* Charles Pfizer & Co. v. FTC, 401 F.2d 574 (6th Cir. 1968).

[47] *See* United States v. Nat'l Lead Co., 332 U.S. 319, 349 (1947) (upholding compulsory licensing remedy); United States v. United Shoe Mach. Corp., 110 F. Supp. 295, 351 (D. Mass. 1953) (same).

[48] Am. Cyanamid Co v. FTC, 363 F.2d 757, 772 (6th Cir. 1966) ("assuming the facts found by the Commission to be supported by substantial evidence, the Commission had jurisdiction to require as a remedy the compulsory licensing of tetracycline and aureomycin on a reasonable royalty basis.").

[49] *See* Grand Calliou Packing Co., Inc., 65 F.T.C. 799 (1960), *rev'd in part on other grounds sub nom*., La Peyre v. FTC, 366 F.2d 117 (5th Cir. 1966); Am. Cyanamid Co., 63 F.T.C. 1747 (1963) – an early ruling in the series of *American Cyanamid* cases cited in footnotes 46 and 48.

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[50] CCBR at 1-2.

[51] CCBR at 2.

[52] CCBR at 3, 11.

[53] RBR at 7-8; RRBR at 3-4.

[54] 323 U.S. 386 (1945).

[55] *Id*. at 41

disparate cases.”).

[59] *See, e.g.*, New York v. Microsoft Corp., 224 F. Supp. 2d 76, 186, 244 (D.D.C. 2002) (analogizing the proposed remedy, which included a requirement for royalty-free licensing of software, to a divestiture of assets and therefore as “structural” in nature), *aff’d sub nom.* Massachusetts v. Microsoft Corp., 373 F.3d 1199 (D.C. Cir. 2004). We note that the royalty-free compulsory licensing remedy that we are contemplating here would be more limited because it would apply only to certain JEDEC-compliant technologies; Rambus would be free to charge

appropriate.[64] Thus, the Commission has previously declared, and we agree, that "where the circumstances justify such relief, the Commission has the authority to require royalty-free licensing."[65]

Although the Commission has the authority to require royalty-free licensing, the exercise of that power is subject to important limits. The courts, speaking in varying terms, have insisted on "special proof" for such remedies. This requirement is not well-specified in the cases. In the formative decision on this point, *United States v. Nat'l Lead*, the Supreme Court found that the "special proof" needed to justify royalty-free licensing was lacking, but the Court did not elaborate upon the meaning of this term.[66] Although the parties' briefs provide no insights on this point, Complaint Counsel stated at oral argument that "special proof" means "proof of the competitive conditions [that] would have existed absent the conduct in question that would not have resulted in any enforcement of the patent."[67] Accordingly, Complaint Counsel ask us to find that the "special proof" requirement is satisfied here by evidence that they believe demonstrates that Rambus would have received no royalties at all in the "but for" world. Without embracing a precise definition of "special proof," we agree that, before ordering royalty-free licensing, Complaint Counsel must show that this form of relief is necessary to restore the competitive conditions that would have prevailed absent Rambus's misconduct. We discuss whether Complaint Counsel have met that burden in Part III of this Opinion.

Rambus, on the other hand, argues that "the burden to justify a remedy that would restrict Rambus's ability to license its patents is heavier than the burden to establish liability."[68] In

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64 *United States v. Nat'l Lead*, 332 U.S. at 349. *Compare Schine Chain Theatres*, 334 U.S. at 128-30 (endorsing the availability of structural remedies of divestiture or dissolution to cure illegal monopolization).

65 *Am. Cyanamid Co., supra* at n.46. In a number of consent orders, the Commission has accepted the prohibition of enforcement of patents as a remedy. For example, in *Dell Computer Corp.*, 121 F.T.C. 616, 620-22 (1996) and *Chevron Corp.*, 140 F.T.C. 100 (2005), *available at* http://www.ftc.gov/os/decisions/docs/volume140.pdf (Aug. 2, 2005), the Commission approved consent orders that prohibited enforcement of patents against those practicing a standard. *See also* Eli Lilly & Co., 95 F.T.C. 538, 546-52 (1980) (ordering royalty-free licensing of patents); Xerox Corp., 86 F.T.C. 364, 373-83 (1975) (same). In addition, in the context of alleged violations of Section 7 of the Clayton Act, the Commission has approved consent orders that require divestiture or licensing of, or place other limitations on, patent rights. *See, e.g.*, Cephalon, Inc., 138 F.T.C. 583, 604 (2004), *available at* http://www.ftc.gov/os/decisions/docs/volume138.pdf.

66 In *United States v. Nat'l Lead,* the Court observed that the growing strength of royalty-paying licensees demonstrated that royalty-free licenses were not essential to their ability to compete. 332 U.S. at 351. In contrast, the district court in *General Electric*, 115 F. Supp. at 844, found that, in light of GE's vast arsenal of patents and the narrow cost margins that prevailed in the market for lamps and related parts, smaller firms would be unable to gain a foothold in the market if they had to bear any licensing fees. Therefore, the court determined that royalty-free licensing was necessary to restore competition. *Id.*

67 Oral Argument before the Commission on the Issue of Remedy (Nov. 15, 2006), at 23.

68 RBR at 7; *see also* RRBR at 6.

[69] 253 F.3d 34 (D.C. Cir. 2001).

[70] *Id*. at 111 (*quoting* 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION, ¶ 653b at 91-92) (2d ed. 2002) (emphasis in o

alternative technologies – including alternatives with inferior performance – in lieu of paying royalties, thus leaving Rambus with no claim to royalties.[74]

Rambus, however, contends that there is no basis for the Commission to assume that Rambus – had it disclosed its patents – would have been left with no claim to royalties. According to Rambus, JEDEC selected, and thereby showed a preference for, Rambus technologies after serious and searching consideration of the alternatives.[75] Furthermore, Rambus contends, JEDEC also would have preferred Rambus's technologies in the "but for" world in which Rambus had disclosed its patent position.[76] At most, according to Rambus, JEDEC would have requested a commitment to license on reasonable and nondiscriminatory ("RAND") terms, and Rambus would have had no real choice but to comply.[77] Thus, according to Rambus, because Rambus would have received royalties for its patented technologies, Complaint Counsel lack adequate support for their contention that "a zero-royalty remedy flows directly from Rambus's misconduct."[78]

We recognize that Rambus's unlawful conduct makes it difficult to reconstruct the "but for" world, as is typically the case when a party has violated the antitrust laws. We conclude, however, that Complaint Counsel have not satisfied their burden of demonstrating that a royalty-free remedy is necessary to restore the competition that would have existed in the "but for" world – *i.e.*, that absent Rambus's deception, JEDEC would not have standardized Rambus technologies, thus leaving Rambus with no royalties.

We have examined the record for the proof that the courts have found necessary to impose royalty-free licensing, but do not find it. Our liability opinion identified two realistic possibilities for what would have occurred had Rambus not engaged in deception of JEDEC members: either (i) JEDEC would have chosen alternative technologies, or (ii) JEDEC would have incorporated Rambus's technologies into the standard but would have demanded, as a pre-condition of adopting Rambus's technology, that Rambus agree to license the technology on RAND terms.

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74 CCBR at 4-5.

75 RBR at 8, 11.

76 RBR at 10; RRBR at 9.

77 RRBR at 10.

78 CCRBR at 6.

79 Op. at 74.

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been costless. Because Rambus's cost analysis was faulty,[80] and Complaint Counsel did not provide a cost-benefit comparison of the available technologies, we do not know what the costs might have been. We do know, however, that without knowledge that payment of royalties to Rambus would be required, JEDEC found the Rambus technologies desirable and chose them for the JEDEC DRAM standards. On the current record, we can neither confirm nor reject the possibility that JEDEC would have preferred Rambus's technologies over the alternatives, even with some reasonable royalty. Yet, for purposes of supporting the need for a zero-royalty remedy, it was Complaint Counsel's burden to show that Rambus would not have received reasonable royalties in the "but for" world.

Complaint Counsel suggest that the evidentiary gap can be closed because Rambus would not have issued the commitment to license on RAND terms required by JEDEC and EIA regulations. Complaint Counsel point to evidence that shows that Rambus did not want to license technology on RAND terms and that it even made statements that offering RAND terms was contrary to its business model.[81] Rambus, however, had not disclosed its patents at the time of these statements. An unwillingness to comport with JEDEC policy while pursuing a hold-up strategy is not necessarily indicative of how Rambus would have acted after disclosure, when hold up no longer was attainable.

It is hardly surprising that Rambus would rather have the freedom to choose what license fees to charge than to be required to license on RAND terms. Indeed, Rambus was so desperate to avoid having to license on RAND terms that it chose to deceive JEDEC rather than to succumb. But that also shows how desperate Rambus was to have its technology incorporated into the standard. Rambus does not manufacture anything; it innovates, obtains patents, and then

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[80] Although Rambus presented its analysis of relative costs and performance characteristics of the relevant Rambus technologies and their alternatives, the Commission found Rambus's calculations "fraught with uncertainty and potential for error" and concluded that Rambus had failed to demonstrate that alternatives would have been more expensive or that JEDEC would have standardized Rambus's technologies even if Rambus had disclosed its patent position. Op. at 94.

With respect to these and other evaluations of the evidence in the record – both here and in the July 31, 2006, liability opinion – the Commission, "to the extent necessary or desirable, exercise[s] all the powers which it could have exercised if it had made the initial decision." 16 C.F.R. 3.54(a). Thus, in particular, any Commission citation to any trial testimony, exhibit, or deposition segment – either in this opinion or in the July 31, 2006, opinion – constitutes a determination by the Commission that the cited testimony, exhibit, or deposition segment is relevant, material, and reliable evidence, and therefore admitted into the record of this proceeding. 16 C.F.R. 3.43(b). Each such determination shall be conclusive, with respect to determining the contents of the record of this proceeding, notwithstanding any objection or response thereto registered by either Complaint Counsel or Counsel for Respondent. The Commission also has determined that all exhibits listed on the Joint Exhibit Index filed by Complaint Counsel and Counsel for Respondent on September 29, 2003, whether or not marked as "pending," are admitted into the record of this proceeding, with any objections and responses thereto as to any exhibit marked "pending" going to the weight to be accorded that exhibit, rather than to its admissibility.

[81] CCRBR at 10.

[82] Op. at 7.

[83] *See* Teece, Tr. 10740-46.

[84] CX 2106 at 221 (deposition transcript at 220) (Farmwald FTC Dep.) (*in camera*). *See also* Farmwald, Tr. 8095, 8150, 8248; RX 82 at 18.

[85] CX 5110 at 2.

[86] For example, Rambus licensed its RDRAM technology at rates quite favorable to Samsung, a significant market participant. In the Samsung RDRAM license, the applicable royalty rate drops to zero five years after shipment of the 500,000th unit, provided that more than 10 million units had been shipped. CX 1592 at 23.

[87] *See* Op. at 78-79 (noting "the historical record of the predominant market position of DRAMs compliant with the JEDEC standards"). JEDEC was a "broad

[91] *See, e.g.*, CX 1267 (1995 Rambus document, identified at Diepenbrock, Tr. 6129-31, headed "IP Strategy" announcing, with equal weight, in one column a "Defensive" strategy built around protecting RDRAM and in the other column an "Offensive" strategy based on "[f]ind[ing] key areas of innovation in our IP that are essential to creating a competing device to [RDRAM]" and "claim[ing] these areas as broadly as possible within the scope of what we invented"); CX 543 at 16-17 (June 1992 Rambus business plan identifying the marketing of RDRAM as the number one strategy while simultaneously articulating a strategy of capturing royalties from SDRAMs by "be[ing] in a position to request patent licensing (fees and royalties) from any manufacturer of Sync DRAMs").

[92] Op. at 74-75.

[93] JX 5 at 4 (emphasis added).

[94] *See* CX 208 at 19 (JEDEC's Manual of Organization and Procedure, JEP 21-I) (stating that "committees should ensure that no program of standardization shall refer to a product on which there is a known patent *unless* all the releva) (st ating that

DRAM Task Group chairman, Gordon Kelley

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[98] G. Kelley, Tr. 2708-09.

[99] *See* Op. at 74 n.403 (describing JEDEC's reaction to a proposal for a "loop-back" clock system).

[100] CCBR at 5.

[101] Rambus argues that "if the Commission wishes now to replicate the conditions that would have existed in the but-for world, it should enter an order requiring Rambus to license the four relevant technologies to manufacturers of SDRAM or DDR SDRAM-compliant devices on RAND terms – that is, the terms on which Rambus would have been obligated to license those technologies if it had given a RAND commitment when it was a member of JEDEC." RBR at 14. To simply order Rambus to henceforth license on RAND terms undoubtedly would be fruitless, however. We already know that Rambus's views about what RAND terms would be differs from the views of the licensees. Consequently, if we do not set the maximum rate now, we will simply invite more disputes that we likely will have to resolve eventually.

[102] Even if we had a more complete record, we would not be able to apply a simple formula to predict "but for" royalties. In a "but for" world, the parties would have arrived at a rate on the basis of a number of factors that are not easily quantifiable – *e.g.*, the respective negotiating skills and strengths of the parties and their respective business plans. *Cf.* Georgia Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1121 (S.D.N.Y. 1970)

The adoption of Rambus's technologies for the standard shows that JEDEC believed that – putting royalties aside – Rambus's technologies were superior to alternatives. JEDEC members likely would have been willing to pay some amount reasonably reflecting that superiority. It is also true, however, that the record does not permit us precisely to quantify the closeness of substitution between Rambus's technologies and the alternatives and the degree to which those alternatives would have entailed higher costs to achieve the same level of DRAM performance, higher costs in the form of decreased DRAM performance, or both.[108]

Lacking this information, we nevertheless consider and balance evidence that:

1. Alternative technologies were available, and it likely would have been possible for members to design around Rambus's patents, albeit possibly with some higher cost;[109]

2. Absent any royalties, JEDEC members preferred Rambus's technology;

3. JEDEC had a stated preference for open, patent-free standards,[110] and its members were highly cost-sensitive;[111] and

4. Rambus, despite its preference to avoid RAND commitments, had a strong economic incentive to do what was necessary to ensure that its technology was incorporated into JEDEC's standards.[112]

In determining what royalty rates likely would have resulted from *ex ante* SDRAM negotiations, the h80 0.0000 cm0.00c.080may 0.T108.0000 356.e1L1mna48Trts to ac646.9200 0.0000 Te rexam

108 As discussed in our liability opinion, the evidence that Rambus provided was flawed and unreliable. Op. at 82-96.

109 *Id.* at 76, 82-96.

110 *See, e.g.*, JX 5 at 4; CX 203a at 11; CX 207a at 8; CX 208 at 19.

111 *Id.* at 74-75.

112 *See, e.g.,* Teece, Tr. 10341-46. *See also* CX 2106 at 221 (deposition transcript at 220) (Farmwald FTC Dep.) (*in camera*) ("[r]oyalties are the lifeblood of Rambus"); CX 5110 at 2-3 (Rambus's business objective was "get[ting] royalties from competitive memory").

113 RBR at 16. As discussed below, Rambus disagrees with our specific application of the approach taken herein, but it nonetheless endorses the general methodology.

[120] *See, e.g.*, G. Kelley, Tr. 2504; Kellogg, Tr. 5053; Bechtelsheim, Tr. 5828-29, 5841-42; Lee, Tr. 6610-11; RX 279 at 8.

[127] *See also* CX 1751 (*in camera*), a 1997 Rambus compilation in Rambus Vice President for Intellectual Property Joel Karp's notebook, showing high-volume RDRAM rates **[redacted redacted]**.

[128] *See* CX 527-30 (*in camera*) (identified in the Joint Exhibit List as "Rambus spreadsheet re: 2000-2005 Royalty scenarios"). Rambus also argues that RDRAM rates were artificially constrained because an agreement giving Intel any proceeds from RD

[143] *See, e.g.*, CX 1592; CX 1600; CX 1609; CX 1612.

[144] *See* RX 538 at 22.

[145] The SDRAM/DDR SDRAM licenses define "Controllers" broadly to include **[redacted redacted**

redacted]. *See, e.g.*

We also find it appropriate to define the scope of Rambus royalties when products such as memory controllers become integrated into larger products.[147] Absent some limitation, our remedy could have unintended consequences if product integration were to markedly raise the selling price of the unit subject to the percentage royalty. This is best avoided by articulating a rule that specifies controller royalties in terms of dollars per unit, based on historical experience. Using terms derived from existing RDRAM licenses, our Order limits Rambus to the controller royalties per unit that would result from applying the .5% or 1% royalty rate to the average net sales per unit for SDR Controllers and DDR Controllers, respectively, **[redacted**
[redacted **redacted**
redacted **]**. Such an approach places a cap on these royalties consistent with historical experience and based on reported and verifiable information.[148]

Rambus points out that its RDRAM licenses entailed long-run, co-development efforts with licensees and argues for further compensation on that basis.[149] Given the importance that SDRAM and DDR SDRAM achieved in the market, and the retention of Rambus technologies in DDR2 SDRAM, Rambus already has largely secured the outcome sought by licensees' support without the *ex ante* risk that those efforts might fail.[150] No adjustment on this account appears necessary.

Rambus's RDRAM licenses provided additional compensation in the form of non-exclusive cross licenses and grant-backs.[151] These provisions, however, typically were limited to (i) patented technologies that would block Rambus from using its proprietary RDRAM technologies, and (ii) the licensee's improvements on RDRAM technologies.[152] Given the limited nature of these terms, and subject to those limitations, we will permit Rambus to include comparable provisions in any SDRAM/DDR SDRAM licenses entered under the Commission's remedial Order.

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[147] *See* CCBR at 15.

[148] *See, e.g.*, CX 1687 at 29 (showing licensees' **[redacted]** requirements) (*in camera*).

[149] RBR at 22.

[150] The RDRAM licenses also imposed corresponding duties on Rambus to ensure full technology transfer. *See, e.g.*, CX 1592 at 19-21 (Samsung license stating Rambus technology transfer obligations); CX 1646 at 8-10 (Micron license stating Rambus technology transfer obligations). These obligations would be unnecessary given the long-established nature of the SDRAM and DDR SDRAM standards.

[151] *See, e.g.*, CX 1600 at 16; CX 1609 at 14; CX 1646 at 15.

[152] *See* CX 1600 at 4-5; CX 1609 at 3-4; CX 1646 at 4.

IV.

A.

As discussed above, the Commission has "wide latitude for judgment" in selecting a remedy, subject to the constraint that it must be reasonably related to the violation.[153] Furthermore, the Commission is not limited to merely proscribing unlawful conduct "in the precise form in which it [was] found to have existed in the past."[154] The Commission is authorized to both prohibit the practices that it has found unlawful and – in order to prevent future unlawful conduct – to "fence-in" the violator with provisions that are broader in scope.[155] So long as the remedy has a reasonable relationship to the violation that the Commission has found, the Commission may "close all roads to the prohibited goal," including proscribing conduct that is lawful.[156]

As we explained most recently in *Telebrands Corp.*,[157] in determining the appropriate scope of fencing-in relief, the Commission considers three factors: (1) the seriousness and deliberateness of the violation; (2) the ease with which the violation may be transferred to other products; and (3) whether the respondent has a history of prior violations. No single factor is determinative, but "the more egregious the facts with respect to a single element, the less important is it that another negative factor be present."[158]

We find that Rambus's intentional and willful deception,[159] described in detail in the Commission's liability opinion, is sufficient, without more, to justify broad fencing-in relief. Furthermore, factors such as Rambus's large portfolio of intellectual property and the company

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[153] *Jacob Siegel Co.*, 327 U.S. at 612-13; *see FTC v. Nat'l Lead Co.*, 352 U.S. at 428; *Ruberoid Co.*, 343 U.S. at 473.

[154] *Colgate-Palmolive Co.*, 380 U.S. at 395 (quoting *Ruberoid Co.*, 343 U.S. at 473).

[155] *See, e.g.*, *Colgate-Palmolive Co.*, 380 U.S. at 395; Kraft, Inc. v. FTC, 970 F.2d 311, 326-27 (7th Cir. 1992).

[156] *Ruberoid Co.*, 353 U.S. at 473.

[157] Telebrands Corp., 140 F.T.C. 278, 334 (2005), *available at* http://www.ftc.gov/os/decisions/docs/volume140.pdf, *aff'd*, 477 F.3d 354 (4th Cir. 2006).

[158] Sears, Roebuck & Co. v. FTC, 676 F.2d 385, 392 (9th Cir. 1982).

[159] In our liability opinion, we found that Rambus's deceptive course of conduct was "intentionally pursued," Op. at 51, and that Rambus "intentionally and willfully engaged in deceptive conduct." Op. at 68.

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inadequate incentive for it to put into place the procedures and policies that are necessary to ensure that its future participation in SSOs is conducted in an honest and forthright manner and that it does not simply circumvent the Commission's Order. The Order provisions described below represent the Commission's efforts to prohibit Rambus from engaging in the practices that we found in our liability opinion to violate Section 5 of the FTC Act, as well as to prevent future related conduct.

B.

Paragraph II of the Commission's Order prohibits Rambus from making any misrepresentations concerning its patents, or applications for patents, to any SSO, or its members, and constrains Rambus from taking any action, or refraining from taking any action, that would lead the SSO, or any of its members, to unknowingly infringe any current or future Rambus patent. Additionally, Paragraph II requires Rambus to abide by any requirement or policy of an SSO in which it participates to make complete, accurate, and timely disclosures. These prohibitions are substantially the same as those set forth in Rambus's proposed order, but the scope of our Order is drawn more broadly to protect the public against a repetition of the same deceptive conduct with respect to other products.

Paragraph III of the Order requires Rambus to employ a compliance officer, who shall be responsible for communicating Rambus's intellectual property rights relating to any standard that is under consideration by an SSO in which Rambus participates. The compliance officer shall also be responsible for verifying the contents of Rambus's periodic reports to the Commission, and to supplement such reports when it is necessary to provide a complete and accurate picture of the status of Rambus's compliance with the terms of this Order. We believe that such a provision is necessary and appropriate to ensure that Rambus will adhere to SSO rules and policies, and to facilitate the Commission's efforts to monitor its compliance with the instant Order.

Paragraphs IV-VII are designed to restore – to the extent possible – the competitive conditions that would have existed but for Rambus's unlawful conduct. Our remedy covers all technologies used in JEDEC-compliant products and protected by patents derived from applications that Rambus filed while it was a member of JEDEC. Rambus contends that our remedy must be limited to the four technology markets that are identified in the Commission's liability decision.[160] However, claims of infringement based on JEDEC-compliant use of any of these technologies would take advantage of the same deceptive conduct – indeed, the same intentional failure to disclose – identified in the Commission's liability decision.[161] That is, the same violation condemned with regard to the four relevant technologies at issue in the liability

160 *See* RBR at 9-10.

161 Op. at 28-68.

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[162] This would include both patents derived from Rambus's original '898 application and those derived from any other applications filed by Rambus prior to its withdrawal from JEDEC. Rambus was hard at work during the period of its JEDEC membership to obtain patent rights on technologies other than those directly at issue in the liability opinion. *See, e.g.*, CX 1949 at 5, CX 711 at 58, and Crisp, Tr. 3247-48 (all relating to source synchronous clocking); CX 1932, CX 3125 at 279-80, (Vincent *Infineon* Dep.) (*in camera*

C.

We do not believe that the Commission's remedy should extend to Rambus's patents used in products that are compliant with JEDEC's DDR2 SDRAM or succeeding generations of JEDEC standards. There is no doubt that some relationship exists between Rambus's deceptive conduct and its position in the DDR2 SDRAM market. Nevertheless, in our liability decision, we concluded that Complaint Counsel had not proved a sufficient causal link between Rambus's deceptive course of conduct and the DDR2 standard and, indeed, between the issuance of the SDRAM and DDR SDRAM standards and the DDR2 standard (because there was insufficient evidence of lock in).[168] Absent a sufficient causal link, extending our remedy to cover DDR2 SDRAM would not restore competition lost because of Rambus's deceptive conduct. Nor do we believe that "fencing in" justifies extending our remedy to the DDR2 standard (or subsequent generations of JEDEC DRAM standards) under these circumstances. Indeed, absent the necessary causal links, applying our remedy to DDR2 SDRAM could conflict with the warnings in *Jacob Siegel, National Lead,* and *Ruberoid,* discussed above, that the Commission cannot issue an order that is not sufficiently related to the violation.

Commissioner Harbour's dissent emphasizes that the relief ordered – confined to products compliant with JEDEC's SDRAM and DDR SDRAM standards but not reaching products compliant with JEDEC's DDR2 SDRAM standard – will have declining impact as the market progressively shifts to DDR2. This follows not from any policy choice, but rather from the timing of underlying events. Rambus revealed its patents well before the DDR2 SDRAM standard was set, and we were unable to conclude in our liability opinion that in the relevant time frame lock in conferred durable monopoly power over DDR2.[169] Had the evidence demonstrated a sufficient causal link between Rambus's deceptive conduct and JEDEC's standardization of Rambus technologies in DDR2 SDRAM, our relief would have covered products compliant with that standard. The evidence, however, does not carry us that far, and we limit our order accordingly.

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[168] Op. at 110, 114.

[169] Op. at 110-14.