What Is the Standard of Causation of Monopoly?

BY ANKUR KAPOOR

COURTS AND COMMENTATORS have struggled for over a century to delimit precisely what conduct may run afoul of Section 2 of the Sherman Act.[1] One facet of this struggle that has received much less attention is the standard for proving causation of monopoly, i.e., how strongly must one show that the challenged conduct in fact created or maintained a monopoly in violation of Section 2.[2] Although the U.S. Supreme Court has never addressed this question,[3] the D.C. Circuit has. In *United States v. Microsoft*,[4] the D.C. Circuit held en banc that the government need only have made the relatively weak showing that Microsoft's conduct reasonably appeared capable of significantly contributing to monopoly power. By contrast, a panel of the court held, in *Rambus Inc. v. FTC*,[5] that the government's case failed precisely because it did not show that Rambus's conduct was a but-for cause of monopoly.

The court's answers appear contradictory, but the decisions in these cases provide a valuable lens through which to sharpen the focus on how standards of proof for this critical element of monopolization can advance antitrust policy without unduly interfering with normal competitive processes.

Microsoft

In *Microsoft*, the D.C. Circuit affirmed the trial court's holding that Microsoft unlawfully maintained its monopoly in personal computer operating systems by engaging in numerous anticompetitive acts preventing the effective distribution of Netscape's Navigator Web browser and Java programming language, which might have threatened Microsoft's monopoly by creating a software platform independent of the computer's operating system.[6] The unlawful practices included: licensing restrictions on PC manufacturers, Internet access providers, and software developers; deceiving software developers into writing Java programs that ran properly only on Windows; and threatening Intel with withdrawal of Windows from Intel-based PCs if it continued to work on Java development.[7]

Microsoft contended on appeal that the government had failed to establish the causal link between foreclosure of Navigator/Java and the reinforcement of Microsoft's operating system monopoly. Specifically, Microsoft argued that Navigator/Java did not pose a serious threat to Windows as a software platform. On this point, Microsoft was on solid ground, for the trial court had found insufficient evidence that Navigator/Java "would have ignited genuine competition in the market for Intel-compatible PC operating systems," let alone sufficient competition to threaten Microsoft's dominant position. The D.C. Circuit agreed,[8] but rejected the premise of Microsoft's argument: that the government was required to prove, as a matter of fact and by a preponderance of the evidence, that Navigator/Java would have challenged the Windows operating system monopoly over software platforms but for Microsoft's restrictions on Navigator/Java's distribution. Rather, the D.C. Circuit held:

> We may *infer* causation when exclusionary conduct is aimed at producers of nascent competitive technologies as well as when it is aimed at producers of established substitutes . . . [N]either plaintiffs nor the court can confidently reconstruct a product's hypothetical technological development in a world absent the defendant's exclusionary conduct. To some degree, "the defendant is made to suffer the uncertain consequences of its own undesirable conduct."[9]

In other words, the mere possibility that competitive technologies could threaten Microsoft's monopoly at some unknown future date was sufficient to uphold a finding of monopoly maintenance.

In effect, the court required only an inference of causation, and a weak inference at that, which the court described as a "rather edentulous test for causation" (literally, toothless): does the conduct "'reasonably appear capable of making a significant contribution to [creating or] maintaining monopoly power'"?[10] When the question posed is whether it is reasonable to infer that conduct with some tendency to exclude appears to be capable of making some significant contribution to monopoly, the answer virtually presents itself:

> [T]he question in this case is not whether Java or Navigator would actually have developed into viable platform substitutes, but (1) whether as a general matter the exclusion of nascent threats is the type of conduct that is reasonably capable of contributing significantly to a defendant's continued monopoly power and (2) whether Java and Navigator reasonably constituted nascent threats at the time Microsoft engaged in the anticompetitive conduct at issue. As to the first, suffice it to say that it would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash

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> nascent, albeit unproven, competitors at will—particularly in industries marked by rapid technological advance and frequent paradigm shifts. *Findings of Fact* ¶¶ 59–60. As to the second, the District Court made ample findings that both Navigator and Java showed potential as middleware platform threats.[11]

The D.C. Circuit grounded its weak standard of causation in a strong policy of maintaining environments that protect and nurture development of nascent technologies free from restraint—even where those technologies are, in the court's words, "unproven." Yet the court's reasoning is likely sound as a matter of antitrust law's overriding economic objective of enhancing consumer welfare. Many have noted that advances in consumer welfare have resulted more from technological innovation than from lower prices in the short term.[12] And a rule of law protecting technological innovation with the mere potential to challenge monopoly might be the only workable rule, because it is impossible to determine ex ante whether a particular technology will threaten monopoly; and ex post, the monopolistic conduct may have irrevocably destroyed the nascent technological threat or delayed its development sufficiently that one cannot yet see its emergence on the horizon.

Rambus

In *Rambus*, the D.C. Circuit reversed the FTC's finding of liability after the Commission's exhaustive examination of the administrative trial record. Rambus had been a participant in the JEDEC standards-setting organization (SSO), which set industry-wide technical standards for, among other things, interoperability of computer memory components. In order for computer memory to work with multiple manufacturers' computers, the memory had to be "JEDEC-compliant." The FTC found that JEDEC had a policy that its members were to disclose whether they had patent interests covering standards under consideration by JEDEC so that JEDEC's members could attempt to avoid standardizing a proprietary technology, or at least avoid being held subject to licensing demands after the standard had been set and implemented. Once that happens, the costs to memory manufacturers of changing the standard dramatically increase. Patent owners know this, and thereby may be able to extract higher royalties than otherwise, to the extent of the switching costs avoided by taking a license to the patents.[13]

The FTC found that Rambus intentionally deceived JEDEC into believing that certain memory standards under consideration were not subject to Rambus's patents. After JEDEC adopted the standards and JEDEC's members had devoted substantial resources to the standards' implementation, Rambus filed patent infringement suits. The Commission unanimously held that Rambus had thereby unlawfully monopolized the four memory technology markets covered by Rambus's patents.

The D.C. Circuit premised its analysis on findings that JEDEC did have a policy of patent disclosure, that Rambus had violated the policy, and that Rambus's conduct had indeed been deceptive, although the court expressed serious concerns as to the strength of the evidence on all three points.[14] But the court of appeals held that, notwithstanding Rambus's allegedly deceptive conduct, the FTC had failed to prove that Rambus's conduct was a cause of Rambus's monopoly. The D.C. Circuit's holding was based on the Commission's remedy opinion, in which the Commission had held that there was insufficient evidence from which to conclude that, but for Rambus's deception, "JEDEC would have standardized non-proprietary technologies instead of Rambus's" "had [JEDEC] known the full scope of Rambus's intellectual property."[15] Yet the D.C. Circuit expressly acknowledged that Rambus's non-disclosure was a contributing factor in JEDEC's adoption of the patented standards: "[W]e can assume that Rambus's nondisclosure made the adoption of its technologies somewhat more likely than broad disclosure would have."[16] Thus, the D.C. Circuit's but-for causation analysis in *Rambus* appears at odds with its analysis in *Microsoft*, where the court rejected Microsoft's but-for causation argument and upheld liability for acts that "reasonably appear capable of making a significant contribution" to monopoly.[17]

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In addition, the D.C. Circuit's reliance on the Commission's remedy opinion appears to implicitly endorse, for liability, the higher causation standard required for imposition of structural remedies. Structural remedies like divestiture of property—which was sought in both *Microsoft* and *Rambus*—require "a clearer indication of a significant causal connection between the conduct and creation or maintenance of the market power."[18] The reasons are both fundamental fairness and competition policy. Structural relief is a drastic remedy—whether cleaving the Microsoft corpus in two or divesting Rambus of its only asset, intellectual property, by imposing royalty-free licenses. Fairness requires a more substantial causal connection for such drastic measures.

From a competition policy perspective, if, "but for" the monopolistic conduct, there would have been no monopoly, then the monopolist's position in the marketplace is the result of an unlawful act, and strong medicine to restore competition is both justified and required.[19] As the Commission reasoned in its remedy opinion, "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 royalties in the 'but for' world," i.e., that JEDEC would have chosen another firm's technology. This logic of a but-for causation standard in selecting a remedy, however, does not necessarily apply to establishing liability.

Reconciliation?

The D.C. Circuit rulings in *Microsoft* and *Rambus* may be reconciled by focusing on the two distinct links in the chain of causation from conduct to monopoly. The first causal link is between conduct and exclusion; the second is between exclusion and the acquisition or maintenance of monopoly power.

In cases involving explicit, legally enforceable contracts, such as Microsoft's licensing restrictions,[20] the causal link between conduct and exclusion is readily apparent, and courts need not dwell on it. In other cases, such as *Rambus*, the more subtle nature of the alleged conduct may necessitate deeper analysis. It is at this stage in the chain of causation where the D.C. Circuit held that Rambus's conduct fell short. According to the court, "the Commission expressly left open the likelihood that JEDEC would have standardized Rambus's technologies even if Rambus had disclosed its intellectual property,"[21] i.e., other technologies would have been excluded from the standard anyway. Although the Commission found that Rambus's failure to disclose its patent interests was a factor in JEDEC's decision, the Commission made no finding—and it would have been an impossible finding to make—that Rambus's nondisclosure was the most significant factor among the myriad technological issues in the case.

Had this first causal link between conduct and exclusion been established, however, the second link, between exclusion and monopoly, would have followed much more readily. The intent and effect of the standards-setting function is to make a particular technology the industry standard, and Rambus had achieved a 90 percent market share after the JEDEC standards were issued and adopted. Indeed, the D.C. Circuit "assume[d] without deciding" that, had Rambus's nondisclosure caused JEDEC to incorporate Rambus technologies in the standard instead of others, "then its failure to disclose harmed competition and would support a monopolization claim."[22]

Distinguishing between the link from conduct to exclusion and the link from exclusion to monopoly also reconciles a seemingly internally contradictory passage in *Rambus*, where the D.C. Circuit stated, citing *Microsoft*: "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."[23] Pointing to Microsoft's deception of independent Java software developers, the *Rambus* court was speaking of the weaker causal link to acquire or maintain monopoly power, not the stronger causal link for excluding rivals.[24] Although this deception did not involve a legally enforceable contract as with Microsoft's other anticompetitive practices, the causal link between deceptive conduct and exclusion was nevertheless deemed established, based largely on Microsoft's admissions that the intent and effect of the deception was to create Windows-specific programs.[25]

In *Rambus*, the Commission admitted uncertainty about whether JEDEC would have selected alternative technologies even if Rambus had disclosed its patent rights. Thus, these rulings can be reconciled on the basis that *Rambus* applied a stronger but-for causation standard to the link between conduct and exclusion, but not to the link between exclusion and monopoly. The following chart shows the essential differences between the court's causation findings in each case:

	Causal link between conduct and exclusion	Causal link between exclusion and monopoly	Result
Microsoft	Strong	Weak[26]	Liability
Rambus	Weak	Assumed Without Deciding	No Liability

Should Stronger Proof of Causation Be Required for Exclusion than for Monopoly?

Although there is certainly room for debate about whether the *Rambus* court's ultimate conclusion was correct,[27] there are policy reasons supporting the court's use of a more rigorous standard to show exclusion of rivals.

First, the causal link from exclusion to monopoly is dependent on the strength of the causal link from conduct to exclusion. If the conduct is not a but-for cause of the exclusion, i.e., other benign market factors contribute substantially to the exclusion, then the exclusion is less likely to cause monopoly. The antitrust laws encourage competitors to overcome acts with some exclusionary tendency by competing on the merits. Primarily for this reason, but also to serve as a check on false positive identification of conduct that is less likely to culminate in monopoly, a stronger showing is warranted that the challenged conduct caused exclusion of rivals.

Second, the standard for monopoly causation applied in *Microsoft* is justifiable to protect nascent technological development. Technology markets are characterized by rapid paradigm shifts where competition occurs not merely *in* the market, but *for* the market.[28] Welfare-enhancing, monopoly-breaking innovation can arise suddenly from unforeseen sources, such as digital music players and handheld e-mail devices, which makes it difficult, if not impossible, to predict which restraint or which exclusion of potential rivals may reinforce or create monopoly power.[29] Although the *Microsoft* standard is admittedly weak, it is checked by the strong but-for standard applied earlier in the chain of causation. Once conduct has been identified as exclusionary, there is much less justification for allowing the conduct to continue, and less risk of false positive identification of monopoly power wrongfully acquired or maintained.

Third, the problem with requiring but-for causation for the link between exclusion and monopoly in addition to requiring it for the link between conduct and exclusion is that, "because monopoly will almost certainly be grounded in part in factors other than a particular exclusionary act, no government seriously concerned about the evil of monopoly would condition its intervention solely on a clear and genuine chain of causation from exclusionary act to the presence of monopoly."[30] Exclusionary conduct that contributes to monopoly maintenance or creation should not be allowed simply because market circumstances may prevent clear proof that the defendant would not have achieved or maintained monopoly power but for its challenged conduct. A rule requiring proof of but-for causation for the link between conduct and exclusion is more workable, because it is generally more feasible in hindsight to prove exclusion than it is to establish future monopoly creation or maintenance.[31]

Conclusion

While the D.C. Circuit in *Microsoft* and *Rambus* has addressed the standards of proof for causation of monopoly, absent more case law it is too early to tell whether *Microsoft*'s "edentulous" standard or *Rambus*'s stronger but-for test will prevail as the governing standard for monopoly causation or whether each will be applied, but at different stages of the causal chain. ■

[1] *See, e.g.*, *Symposium—Identifying Exclusionary Conduct Under Section 2*, 73 Antitrust L.J. 311 (2006); Eleanor M. Fox, *What Is Harm to Competition? Exclusionary Practices and Anticompetitive Effect*, 70 Antitrust L.J. 371 (2002).

[2] *See, e.g.*, J. Thomas Rosch, Commissioner, Fed. Trade Comm'n, Section 2 and Standard Setting: Rambus, N-Data & the Role of Causation, Remarks at the LSI 4th Antitrust Conference on Standard Setting & Patent Pools, *available at* http://www.ftc.gov/speeches/rosch/081002section2rambusndata.pdf ("The link between anticompetitive conduct on the one hand and the creation or acquisition of monopoly power as a basis for Section 2 liability is little explored in the case law and commentary.").

[3] Petition for Writ of Certiorari at 15, FTC v. Rambus Inc., No. 08-694 (U.S. Nov. 28, 2008), *available at* http://www.ftc.gov/os/caselist/0110017/081124rambuspet.pdf.

[4] 253 F.3d 34 (D.C. Cir. 2001).

[5] 522 F.3d 456 (D.C. Cir. 2008), *cert. denied*, 129 S. Ct. 1318 (2009).

[6] 253 F.3d at 58.

[7] *Id.* at 58–78.

[8] *Id.* at 78.

[9] *Id.* at 79 (quoting 3 Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law ¶ 651c, at 78 (1996)); *accord* Areeda & Hovenkamp ¶ 651g, at 124 (3d ed. 2008); *see also id.* ¶ 650a, at 90–91 ("the conduct in question must be capable of making a significant contribution to the creation, maintenance, or expansion of monopoly power. This entails that, in a government equity action: (A) the causal connection between conduct and power can be relatively modest").

[10] 253 F.3d at 79 (quoting Areeda & Hovenkamp, *supra* note 10, ¶ 651c (1996)). The D.C. Circuit also cited then-Circuit Judge Breyer's opinion in *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 227, 230 (1st Cir. 1984), in which Judge Breyer also cited the Areeda & Hovenkamp formulation as stating the test for causation "nicely." Judge Breyer did not further address causation because the First Circuit held that the challenged conduct was not anticompetitive.

[11] 253 F.3d at 79.

[12] 2B Areeda & Hovenkamp, *supra* note 10, ¶ 407a & n.1, at 34 (3d ed. 2007) (collecting sources).

[13] The problem of patent "hold-up" likely will be mitigated somewhat by *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006), and its progeny. *See* J. Clayton Everett, Jr. & Nathan W. McCutcheon, *Patents and the Roberts Court: An Antitrust Lawyer's Guide to Recent Supreme Court Patent Decisions*, Antitrust, Fall 2008, at 80, 81 (by limiting patent owners' right to exclude others from practicing the patented invention—instead allowing only reasonable royalties—*eBay* and its progeny likely will limit the royalties that patentees will be able to extract).

[14] *See* 522 F.3d at 467.

[15] *Id.* at 462, 463–64.

[16] *Id.* at 463–64.

[17] *See also* Rosch, *supra* note 2, at *10 ("The D.C. Circuit's decision in *Rambus* is potentially a dramatic shift away from *Microsoft* and towards a much more demanding standard in terms of establishing causation.").

[18] *Microsoft*, 253 F.3d at 80 (quoting Areeda & Hovenkamp, *supra* note 10, ¶ 653b, at 91–92 (1996)).

[19] *See* United States v. Microsoft Corp., 231 F. Supp. 2d 144, 163–64 (D.D.C. 2002) ("structural relief is 'designed to eliminate the monopoly altogether'" (quoting Areeda & Hovenkamp, *supra* note 10, ¶ 650a, at 67 (1996))).

[20] 253 F.3d at 60–61, 68–69, 75–76.

[21] 522 F.3d at 466 (emphasis omitted).

[22] *Id.* at 463.

[23] *Id.* at 464 (emphasis added).

[24] *Id.* (citing *Microsoft*, 253 F.3d at 76).

[25] *Microsoft*, 253 F.3d at 76; *accord Rambus*, 522 F.3d at 464 ("The deceit *had caused* 'developers who were opting for portability over performance . . . unwittingly [to write] Java applications that [ran] only on Windows.'"; emphasis added).

[26] One commentator has gone so far to note that, in *Microsoft*, the causal link between exclusion and monopoly was never even forged at all. Fox, *supra* note 1, at 390.

[27] The FTC had also found that, even if JEDEC ultimately would have adopted Rambus's proprietary standard, Rambus's nondisclosure enabled it to charge higher royalties than it would have in the but-for world. By disclosing its patent rights only after JEDEC had adopted the standard and the standard had been implemented by the industry, Rambus was able to capitalize on the after-the-fact certainty of its standard's adoption and on the switching costs that would be incurred by memory manufacturers' having to change the standard to avoid Rambus's patents. Both these advantages derived from JEDEC's exclusion of competing technologies from the standard. The D.C. Circuit rejected this theory, stating that "an otherwise lawful monopolist's use of deception simply to obtain higher prices normally has no particular tendency to exclude rivals and thus to diminish competition." 522 F.3d at 464 (citing *NYNEX Corp. v. Discon, Inc.*, 525 U.S. 128 (1998)). First, the D.C. Circuit appears to have looked at causation backwards: the question is not whether higher prices exclude rivals—higher prices actually encourage entry—but whether exclusion causes higher prices. Second, *NYNEX* did not broadly reject liability for a monopolist's use of deception to obtain higher prices. Rather, *NYNEX* turned on the absence of a causal chain from conduct to exclusion to monopoly. *See* 525 U.S. at 138–39; Discon Inc. v. NYNEX Corp., 86 F. Supp. 2d 154, 165 (W.D.N.Y. 2000) (on remand) ("[T]here was no shortage of other removal-services suppliers besides Discon."). The higher prices in *NYNEX* were the result of an independent cause, namely, the regulatory regime. *See* 525 U.S. at 136.

[28] Fox, *supra* note 1, at 384.

[29] *See id.*

[30] Areeda & Hovenkamp, *supra* note 10, ¶ 651g, at 124 (3d ed. 2008).

[31] Although that was not the case in the particular circumstances of *Rambus*. The Commission's 120-page opinion spends 47 pages discussing causation and technology, 44 pages discussing exclusionary conduct, and one page on monopoly power.