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Consistently Wrong: The Single Product Issue and the Tying Claims Against Microsoft

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CONSISTENTLY WRONG: THE SINGLE PRODUCT ISSUE AND THE TYING CLAIMS AGAINST MICROSOFT

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> A blatant hard-core tie would occur if Microsoft told customers, "You cannot buy Windows 95 unless you also buy Internet Explorer."[1]
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> Microsoft has clearly met the burden of ascribing facially plausible benefits to [bundling Windows 95 and Internet Explorer] as compared to an operating system with a stand-alone browser.[2]
>
> I am at a loss to understand how a consent decree that is clearly intended to limit Microsoft's conduct could be read to impose so little scrutiny of that conduct.[3]

For the better part of this decade, the federal government has investigated allegations that Microsoft Corporation (Microsoft) has violated the antitrust laws. After the Federal Trade Commission (FTC) deadlocked on whether to file charges against Microsoft, the Antitrust Division of the Department of Justice (DOJ) began its own investigation. Shortly thereafter, the DOJ filed a consent decree against Microsoft focusing on Microsoft's requirement that original equipment manufacturers (OEMs) pay Microsoft a royalty for every personal computer (PC) they sold regardless of whether the PC had Microsoft operating system software (OS) installed and, to a lesser extent, the nondisclosure agreements Microsoft entered into with independ-

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1. Samuel R. Miller, *Does Netscape Really Have Antitrust Claims Against Microsoft?*, COMPUTER LAW, Nov. 1996, at 7.

2. United States v. Microsoft Corp., 147 F.3d 935, 950 (D.C. Cir. 1998).

3. *Id.* at 959 n.5 (Wald, J., dissenting).

ent software vendors (ISVs).[4] A relatively obscure provision of the consent decree prohibited Microsoft from requiring its customers to license "any other product" as a condition for licensing Microsoft's OS with the proviso that this restriction "in and of itself shall not be construed to prohibit Microsoft from developing integrated products."[5]

Although the consent decree was widely criticized as too weak,[6] two years later, the DOJ seemed to prove the critics wrong when the District Court entered a preliminary injunction against Microsoft after finding that the software behemoth had violated an obscure provision of the consent decree by requiring OEMs to install Microsoft's internet web browser, Internet Explorer (IE), as a condition for licensing Microsoft's then current OS, Windows 95.[7] In a stunning set back, however, a split decision of the Court of Appeals reversed the District Court, holding that Internet Explorer and the OS were "integrated products" protected by a proviso in the consent decree's general prohibition against bundling the OS with other products.[8] In

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4. *See* United States v. Microsoft Corp., 56 F.3d 1448, 1451-52 (D.C. Cir. 1995). *See also* Abraham Perlstein, *Microsoft and Its Anititrust Violations*, 11 J. SUFFOLK ACAD. L. 85, 100-03 (1996) (describing the consent decree as focused on Microsoft's non-disclosure agreements with ISVs and per processor licensing agreements with OEMs).

5. United States v. Microsoft Corp., 1995-2 Trade Cas. (CCH) ¶ 71,096 (D.D.C. Aug. 21, 1995).

6. The District Court initially refused to enter the consent decree partly because it found that the decree would not "pry open" markets illegally closed by Microsoft's conduct. United States v. Microsoft Corp., 159 F.R.D. 318, 333 (D.D.C. 1995), *rev'd*, 56 F.3d 1448 (D.C. Cir. 1995). *See also* Kenneth C. Baseman et al., *Microsoft Plays Hardball: The Use of Exclusionary Pricing and Technical Incompatibility to Maintain Monopoly Power in Markets for Operating System Software*, 40 ANTITRUST BULL. 265, 299 (1995) ("the remedies prescribed in the consent decree are likely to be inadequate"); John Markoff, *Microsoft's Future Barely Limited*, N.Y. TIMES, July 18, 1994, at D1. Although the consent decree focused on ending Microsoft's restrictive OS licensing practices, the damage from these practices had already been done. *See* Jane Morrissey, *DOJ Accord Fosters "Too Little, Too Late" Perception*, PC WEEK, July 25, 1994, at 29. Two years earlier, for example, Apple Computer abandoned efforts to make a version of its Macintosh OS that would run on IBM compatible PCs partly because Microsoft OS licensing practices effectively prevented OEMs from using competing OS software. *See* Jodi Mardesich, *The Secret Weapon Apple Threw Away: Deep-cover Project Ran Mac OS on Intel Processors*, SAN JOSE MERCURY NEWS (Nov. 1, 1997) <http://www.sjmercury.com/business/apple/startrek 110197.html>.

7. *See* United States v. Microsoft Corp., 980 F. Supp. 537 (D.D.C. 1997).

8. *Microsoft*, 147 F.3d at 952. One of the things that made the reversal so stunning was the widespread perception that Microsoft's claim that Windows 95 and Internet Explorer constituted a single integrated product was "so transparently untrue that you have to wonder what the company is up to." James Gleick, *Justice Delayed*, N.Y. TIMES, Nov. 23, 1997, § 6, at 40. *See also* Robert X. Cringely, *Sure, Microsoft Is Guilty (There, I Said It!), But That's Not the Problem: The Software Industry is Sick*, PBS ONLINE (Oct. 30, 1997) <http://www.pbs.org/cringely/archive/oct2397_text.html> ("The fact that they [Microsoft] are guilty is clear, at least to me."); Walt Mossberg, *The Meaning Behind Jargon in Microsoft's Antitrust Battle*, WALL ST. J., Oct. 30, 1997, at B1 ("[I]n practical terms, I don't think Internet Explorer is an integrated feature of Windows 95.").

the final analysis, suggested the Court of Appeals,[9] Microsoft had "clearly met the burden of ascribing facially plausible benefits" to the combination of Windows 95 and Internet Explorer.[10]

Described as "a major victory for Microsoft" in the press,[11] a consensus immediately formed that not only had the Court of Appeals dealt the DOJ a setback in its effort to enforce the consent decree, but that it had also established an important precedent for the antitrust law of tying generally[12] and for the separate lawsuit filed by the DOJ alleging that Microsoft had tied Internet Explorer to its new OS, Windows 98.[13] Microsoft wasted no time in gloating over its victory, and joined in the general chorus that the Court of Appeals had also gutted the DOJ's Windows 98 tying claims.[14] The Court of Appeals itself added to this perception by emphasizing that its integrated product test under the consent decree was "consistent with tying law"[15] and grounded, "as are the related antitrust doctrines, in a realistic assessment of the institutional limits of the judiciary."[16] Judge Wald's dissent sharply, however, argued that the Court of Appeals' test for integration conflicted with the antitrust law test for separate products,[17] and she proposed her own test that would balance the synergies from tying against consumer percep-

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9. Unless otherwise specified, this article will refer to the majority opinion in *Microsoft*, 147 F.3d 935, as the "Court of Appeals."

10. *Microsoft*, 147 F.3d at 950.

11. Edward G. Biester, III, *What Lessons Result from the Appeals Court in Microsoft Case?*, LEGAL INTELLIGENCER, July 2, 1998, at 7.

12. *See* Kelly Flaherty, *DOJ's Microsoft Strategy Gutted*, THE RECORDER, June 24, 1998, at 1 ("The court has held that product design and integration is effectively exempt from tie-in claims.") (quoting Daniel Wall); *Appeals Court Calls Injunction Improper in Microsoft Case*, LEGAL INTELLIGENCER, June 24, 1998, at 4 ("The decision will make it harder for the Justice Department and 20 states to win broader lawsuits filed in May against the world's largest software maker, antitrust experts said.").

13. *See* Elizabeth Corcoran, *Microsoft Scores a Court Victory in Fight with Justice*, WASH. POST, June 24, 1998, at C09 ("[L]egal experts said the ruling would force Justice to rework the strategy in its broader antitrust case against Microsoft's next version, Windows 98, which bundles the operating system more tightly with the browser.").

14. *See* Elinor Mills, *Microsoft Says Win95 Appeals Ruling Sets Precedent*, INFOWORLD ELECTRIC, (June 23, 1998) <http://www.infoworld.com/cgiûbin/displayStory.pl?980623.wcprecedent.htm> ("Microsoft executives gloated during conference calls with analysts and reporters, insinuating that the core argument of the U.S. Justice Department's case against it involving Windows 98 is gutted"). *See also* Bob Trott, *Gates: Ruling on Windows 95 Applies to Windows 98 Case*, INFOWORLD ELECTRIC, (June 26, 1998) <http://www.infoworld.com/cgiûbin/displayStory.pl?980626.ehgatesdoj.htm>; Naftali Bendavid, *A Big Win for Microsoft*, CHI. TRIB., (June 23, 1998) <http://chicagotribune.com/version1/article/0,1575,ART-10926,00.html> ("Microsoft officials reacted with predictable jubilation. William Neukom, Microsoft's vice president and general counsel, asserted that the decision is a bad sign for the government's broad case as well as the one at hand.").

15. *Microsoft*, 147 F.3d at 950 n.14.

16. *Id.* at 955.

17. *See id.* at 956 (Wald, J., dissenting) ("[A]lthough the majority claims to have rooted its interpretation in antitrust law, [it] is in fact, inconsistent.").

tions of the items as separate products.[18]

The consistent problem with the analysis of the press, Microsoft, the Court of Appeals and, ultimately, even Judge Wald's dissent, is that they are all wrong. Only the District Court correctly articulated and applied the antitrust law's definition of a single product.[19] The answer to the single product issue under antitrust law does not turn on whether there are plausible claims of synergies or whether the synergies outweigh consumer preferences to purchase the products separately. Rather, as the District Court stated, under antitrust law "whether two products are involved depends on whether the arrangement links two distinct product markets that are 'distinguishable in the eyes of buyers.'"[20]

This article provides an antitrust analysis of the single product issue with respect to Microsoft's bundling of Internet Explorer web browser software with Windows 95 and Windows 98. First, this article will look at the test developed by the Court of Appeals under the terms of the 1994 consent decree. Since the primary question addressed by this article is whether the test employed by the Court of Appeals for an "integrated product" is consistent with the test for a "single product" under antitrust law, this article assumes that the Court of Appeals correctly interpreted the consent decree even though the Court of Appeals failed to follow antitrust law. Consent decrees, after all, are generally interpreted as contracts between the parties without direct reference to the underlying claims.[21] This article will then outline the test applied in antitrust tying cases to determine whether two items constitute a single product. Next, this article will contrast the approaches of the Court of Appeals and Judge Wald's dissent for determining whether Internet Explorer and Windows 95 constituted an integrated product with the antitrust approach to the single product issue. Finally, this article offers a tentative conclusion based on the evidence available to date as to whether Internet Explorer and Windows 98 constitute a single product under each of the three approaches.

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18. *See id.* at 959.

19. *See Microsoft*, 980 F. Supp. at 542-44.

20. *Id.* at 542 (quoting Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 19-21 (1984)). *See also* PHILLIP E. AREEDA ET AL., ANTITRUST LAW 194 (1996) (Two products are separate under antitrust law if there is sufficient consumer demand "to induce competitive markets to provide them unbundled.").

21. As the Court of Appeals noted, interpretation of a consent decree is akin to contract interpretation. *See Microsoft*, 147 F.3d at 946. ("The court's task is to discern the bargain that the parties struck; this is the sense behind the proposition that consent decrees are to be interpreted as contracts."). *See also* United States v. ITT Continental Baking Co., 420 U.S. 223, 236-37 (1975) ("[S]ince consent decrees have many of the attributes of ordinary contracts, they should be construed basically as contracts, without reference to the legislation the Government sought to enforce but never proved applicable through litigation."); United States v. Armour & Co., 402 U.S. 673, 682-83 (1971) (discussing construction of contracts).

I. THE TEST FOR INTEGRATION UNDER THE CONSENT DECREE

Section IV(E)(i) of the consent decree provides:

> IV. Microsoft is enjoined and restrained as follows:
> E. Microsoft shall not enter into any License Agreement in which the terms of that agreement are expressly or impliedly conditioned upon:
> (i) the licensing of any other Covered Product,[22] Operating System Software[23] Product or other product (provided, however, that this provision in and of itself shall not be construed to prohibit Microsoft from developing integrated products).

Given the ambiguity inherent in the term "integrated products,"[24] the District Court refused to hold Microsoft in contempt for violating the consent decree by forcing OEMs to install Internet Explorer with Windows 95.[25] Ironically, the DOJ may have deliberately created this problem. It appears that the DOJ agreed to the language in the consent decree so that treatment of Microsoft's inclusion of new features in the OS would be decided on a case by case basis rather than through broad injunctive relief.[26] The District

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22. Section II(1) of the consent decree provides:

> "Covered Products" means the binary code of (i) MS-DOS 6.22, (ii) Microsoft Windows 3.11, (iii) Windows for Workgroups 3.11, (iv) predecessor versions of the aforementioned products, (v) the product currently code-named "Chicago" [Windows 95], and (vi) successor versions of or products marketed as replacements for the aforementioned products, whether or not such successor versions or replacement products could also be characterized as successor versions or replacement products of other Microsoft Operating System Software products that are made available (a) as stand-alone products to OEMs pursuant to License Agreements, or (b) as unbundled products that perform Operating System Software functions now embodied in the products listed in subsections (i) through (v). The term "Covered Products" shall not include "Customized" versions of the aforementioned products developed by Microsoft; nor shall it apply to Windows NT Workstation and its successor versions, or Windows NT Advanced Server.

United States v. Microsoft Corp., 1995-2 Trade Cas. (CCH) ¶ 71,096 (D.D.C. Aug. 21, 1995).

23. Section II(14) of the consent decree provides:

> "Operating System Software" means any set of instructions, codes, and ancillary information that controls the operation of a Personal Computer System and manages the interaction between the computer's memory and attached devices such as keyboards, display screens, disk drives, and printers.

Id.

24. As one commentator noted, "the problem with this prohibition is that integrating products at bottom is a tying arrangement." Bryce J. Jones, II & James R. Turner, *Can an Operating System Vendor Have a Duty to Aid Its Competitors?*, 37 JURIMETRICS J. 355, 362 (1997).

25. *See Microsoft*, 980 F. Supp. at 541.

26. *See* Response of the United States to Public Comments Concerning the Proposed Final Judgment and Notice, 56 Fed. Reg. 59,426, at 59,428 (1994). In response to a comment that the consent decree did not prevent Microsoft from stifling competition in markets for complementary software products by including them with Windows, the DOJ pointed to section IV(E)(i) in the consent decree and said that activity of this sort "requires case by

Court also rejected Microsoft's argument that an integrated product included any "product that 'combines' or 'unites' functions that, although capable of functioning independently, undoubtedly complement one another"[27] because this "interpretation would appear to render section IV(E)(i) essentially meaningless."[28] Noting that "[d]isputed issues of technological fact, as well as contract interpretation abound,"[29] the District Court tentatively found that the Windows 95 and Internet Explorer did not constitute an integrated product because "there exists sufficient independent consumer demand for operating systems and Internet access software 'so that it is efficient for a firm to provide' those products 'separately' as Microsoft has concededly done."[30]

The Court of Appeals took an entirely different tact. It accepted Microsoft's argument that section IV(E)(i) resolved a complaint filed by Novell with the European Union.[31] Windows was originally an application that provided a graphical user interface (GUI) on IBM compatible computers. Although Novell's OS, DR-DOS, could run Windows, Microsoft required OEMs who wanted to install Windows to also install Microsoft's OS, MS-DOS, effectively excluding Novell from the OEM distribution channel.[32] The Court of Appeals also noted that the consent decree seemed to treat Microsoft's Windows 95 OS as a single product.[33] From this, the Court of Ap-

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case analysis, and a broad injunction against such behavior generally would not be consistent with the public interest." *Id.*

27. *Microsoft*, 980 F. Supp. at 541.

28. *Id.* at 543.

29. *Id.*

30. *Id.* at 544 (quoting Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 451, 462 (1992)).

31. The District Court had noted the same argument by Microsoft, but did not pass on its veracity or draw any conclusions from it. *See Microsoft*, 980 F. Supp. at 540 n.6. There is reason to believe that this provision had its genesis with the FTC investigation. *See* Stuart Taylor, Jr., *What to Do With the Microsoft Monster*, AMERICAN LAWYER, Nov. 1993, at 72, 80. Nonetheless, it seems clear that section IV(E)(i) had its origins in the complaint filed by Novell with the European Union. *See* Quentin Archer, *Transatlantic Cooperation and the Microsoft Case*, 12 COMPUTER L. & SECURITY REP. 101 (1996).

32. *See Microsoft*, 147 F.3d at 945. *See also* Taylor, *supra* note 31, at 77 ("[The] most devastating of Microsoft's allegedly predatory tactics was use of 'CPU licenses' (which competitors call 'CPU lockout contracts') to pressure PC makers to deal exclusively with Microsoft and shun [Novell's] DR DOS").

33. *See id.* at 946. The Court of Appeals stated that "the decree explicitly recognizes [Windows 95] as a single product" simply because the decree's definition of Covered Products included Windows 95. Nothing in the definition, however, necessarily precludes the possibility that the DOJ perceived Windows 95 as two separate products, but chose to exercise its prosecutorial discretion not to pursue the matter. As to the idea that Windows 95 did not constitute tying, one should consider the antitrust lawsuit filed by the current owner of DR-DOS, Caldera Corp., against Microsoft alleging, *inter alia*, that Windows 95 illegally ties MS-DOS and Windows. *See* John R. Wilke, *Microsoft Ordered to Give Company Windows 95 Code*, WALL ST. J., July 31, 1998, at B5 ("'We want to use this code to show a jury that Windows 95 was nothing more than an illegal tie of DOS and Windows,' said Bryan Sparks, Caldera's chief executive."). *See also* Michael Moeller, *Caldera to File Amended Antitrust Complaint Against Microsoft*, PC WEEK (Feb. 10, 1998) <http://www.zdnet.com/pcweek/news/0209/10ecald.html>; First Amended Complaint ¶

peals concluded that the parties must have understood Windows 95 OS/GUI combination to be an "integrated product" as defined by section IV(E)(i).[34] Thus, concluded the Court of Appeals, whether the consent decree treated the combination of Windows 95 and Internet Explorer as an integrated product should turn on whether the Windows 95 and Internet Explorer bundle was more like the permitted OS/GUI combination of Windows 95 or the prohibited Windows 3.11/MS-DOS combination.[35]

With its OS/GUI analogy in mind, the Court of Appeals said that an integrated product under the consent decree "combines functionalities (which may also be marketed separately and operated together) in a way that offers advantages unavailable if the functionalities are bought separately and combined by the purchaser."[36] The test utilized by the Court of Appeals has two components. First, the bundle must have some degree of unity[37] that the customer cannot create by combining the two products himself.[38] Second, the bundle must create some type of synergy, i.e., the items "must also be better in some respect"[39] when they are combined than when they are separated.[40]

The Court of Appeals said that combining early versions of Windows with MS-DOS in one package would fail the first prong of the test because the combination "offered purchasers nothing that they could not get by buying the separate products and combining them on their own."[41] Windows 95, however, passed because "the two functionalities DOS and graphical interface do not exist separately."[42] Likewise, the Windows 95/Internet Ex-

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79(e), Caldera, Inc. v. Microsoft Corp., No. 2:96CV645B (D. Utah).

34. *See Microsoft*, 147 F.3d at 946 ("Whatever else § IV(E)(i) does, it must forbid a tie-in between Windows 3.11 and MS-DOS, and it must permit Windows 95").

35. *See id.* (If "the relation between Windows 95 and IE is similar to the relation between Windows 3.11 and MS-DOS, the link is presumably barred by § IV(E)(i). On the other hand, [i]f the Windows 95/IE combination is like the MS-DOS/graphical interface combination that comprises Windows 95 itself, then it must be permissible.").

36. *Id.* at 948. In other words, "integration may be considered genuine if it is beneficial when compared to a purchaser combination." *Microsoft*, 147 F.3d at 949.

37. *See id.* ("[Integration] suggests a degree of unity, something beyond merely placing the disks in the same box.").

38. *See id.* at 949 ("the combination offered by the manufacturer must be different from what the purchaser could create from separate products on his own").

39. *Id.*

40. *See id.*

41. *Id.* at 948.

42. *Id.* at 949. The Court of Appeals asserted that the same code which provided the functions of MS-DOS also provided the GUI functions in Windows 95. *See id.* ("the code that is required to produce one also produces the other"). Rather than citing evidence in support of this proposition, the Court of Appeals simply asserted that separation of the two functions would be "odd" and that it would result in two "disabled version[s] of Windows 95" requiring the customer to "repair" the software by installing both sets of "largely overlap[ping]" code on his computer. *Id.* One wonders how the Court of Appeals could reach this conclusion without any evidence in the record as to the actual content and structure of the source code for Windows 95.

plorer combination also passed the first prong of the test because "Windows 95 without IE's code will not boot, and adding a rival browser will not fix this."[43]

The Court of Appeals felt that it did not have to apply the second prong of the test to the Windows 95 OS/GUI combination because the existence of synergy was implicit in the consent decree's "evident embrace of Windows 95 as a permissible single product."[44] With respect to the Windows 95/Internet Explorer combination, the Court of Appeals emphasized that the "evaluation should be narrow and deferential"[45] to Microsoft because the judiciary had "limited competence to evaluate high-tech product designs."[46] Thus, the issue of whether the combined product was "better in some respect,"[47] should not turn on whether the "integrated product is superior to its stand alone rivals"[48] or even "whether . . . [there] is a net plus"[49] from the combination, but "merely whether there is some *plausible* claim that it brings some advantage."[50] Not surprisingly, Microsoft easily passed this test simply by asserting some "facially plausible benefits"[51] such as allowing "applications to avail themselves of [browser] functionality without starting up a separate browser."[52] Whether this or any other of the "facially plausible benefits" identified by Microsoft actually exist is simply irrelevant.

The Court of Appeals rejected Judge Wald's contention that its test gave Microsoft boundless discretion to bundle other products with the OS because, the Court of Appeals insisted, there must be "some reason Microsoft, rather than the OEMs or end users, must bring the functionalities together."[53] Although one might think that this would have resolved the issue

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43. *Microsoft*, 147 F.3d at 948 n.11. As a factual matter, this claim is highly suspect. *See* Russ Mitchell, *Should Microsoft Be Able to Define What an "Operating System" Is?*, U.S. NEWS & WORLD REPORT (Dec. 15, 1997) <http://www.usnews.com/unews/news/russ.html>. As to the claim that Windows 95 would break without Internet Explorer, "'[y]ou probably can't use the word bullshit in print, right?' says Albert Woodhull, a computer science professor." *Id.*

44. *Microsoft*, 147 F.3d at 949.

45. *Id.* at 949-50.

46. *Id.* at 950 n.13. *See also id.* at 949 ("In antitrust law, the courts have recognized the limits of institutional competence and have on that ground rejected theories of 'technological tying.'").

47. *Id.* at 949.

48. *Id.* at 950.

49. *Id.*

50. *Id.* (emphasis added).

51. *Id.*

52. *Id.* at 951.

53. *Id.* at 952. This "limitation" appears to be based on the Court of Appeals' misinterpretation of commentary by Professor Elhauge in one the leading antitrust law treatises. *See* Lisa M. Bowman, *Professor: IE, Windows Are Separate Products*, ZDNET (June 29, 1998) <http://www.zdnet.com/zdnn/stories/zdnn_smgraph_display/0,3441,2116055,00.html> ("Elhauge argues that because a user can install Windows 95 with a series of separate disks and a user may in fact want to purchase the OS without Internet Explorer the products should be considered separate.").

in favor of distinct products (Microsoft, after all, distributes Internet Explorer as a separate product that users can install on their own), the Court of Appeals found that the bundling occurred not with installation, but with the "inter-penetrating design" of Windows 95 and Internet Explorer.[54] In other words, the plausible, albeit unproven, benefits of the Windows 95/Internet Explorer bundle could only result from Microsoft's access to the Windows 95 source code.[55]

II. ANTITRUST LAW AND THE SINGLE PRODUCT ISSUE

Under antitrust law, tying occurs when a seller agrees "to sell one product [the tying product] only on the condition that the buyer also purchases a different (or tied) product."[56] Tying violates section 1 of the Sherman Act[57] "if the seller 'has appreciable economic power' in the tying product and if the arrangement affects a substantial volume of commerce in the tied market."[58] Antitrust law condemns tying under these circumstances because "competition on the merits in the market for the tied item is restrained."[59]

Since a single product may have many component parts, tying analysis requires a determination of whether there are, in fact, two distinct products.[60]

The treatise argues that bundling a previously separate software package with the OS does not result in a single new product unless the OS and software package "operate better when bundled together by the seller than they would if they were distributed on different diskettes and installed by the buyer." AREEDA ET AL., *supra* note 20, at 229 (1996) (Professor Elhauge apparently was the co-author responsible for this portion of the treatise). This argument does not support Microsoft's contention that Windows 95 and Internet Explorer constituted a single product because Microsoft actually placed Windows 95 and Internet Explorer on separate disks which were then combined by Microsoft's main customers, the OEMs. *See* Einer Elhauge, *Microsoft Gets an Undeserved Break*, N.Y. TIMES (June 29, 1998) <http://archives.nytimes.com/archives/search/fastweb?getdoc+arch365+db365+164137+0++>.

Although Professor Elhauge's analysis does not support the Court of Appeals' contention that Windows 95 and Internet Explorer constitute a single product, it is not entirely consistent with antitrust law either. As will be shown in the next section, the test for whether two items make up a single product under antitrust law depends on whether consumers want to buy them separately.

54. *Microsoft*, 147 F.3d at 952.

55. *See id.* ("[OEMs] could not, for example, make the operating system use the browser's HTML reader to provide a richer view of information on the computer's hard drive without changing the code to create an integrated browser.")

56. Northern Pac. Ry. Co. v. United States, 356 U.S. 1, 5 (1958).

57. 15 U.S.C. § 1 (1997).

58. Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 451, 462 (1992) (citing Fortner Enter., Inc. v. United States Steel Corp., 394 U.S. 495, 503 (1969)).

59. Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 12 (1984). *Accord* Lisa M. Judson, Note, *Kodak v. Image Technical Services: The Taming of Matsushita and the Chicago School*, 1993 WIS. L. REV. 1633, 1635 ("[A] seller should not be allowed to use power enjoyed in one product market to advance its position in a quite distinct product market on a basis other than the seller's competitive merits.").

60. *See* Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 451, 462

The Supreme Court addressed the single product issue in *Jefferson Parish Hospital District No. 2 v. Hyde*.[61] The plaintiff in that case alleged that the defendant hospital had engaged in illegal tying by requiring its surgery patients to purchase anesthesiology services from a single firm of anesthesiologists.[62] The hospital argued that the arrangement did not involve two distinct products, but rather "a functionally integrated package of services."[63] The Supreme Court squarely rejected this approach, holding that "the answer to the question of whether one or two products are involved turns not on the functional relation between them, but rather on the character of the demand for the two items."[64] In other words, the single product issue turns on whether the products "were distinguishable in the eyes of buyers."[65] Thus, the Court found that two products existed in that case because the "consumers differentiate between anesthesiological services and the other hospital services."[66]

The Supreme Court reaffirmed its commitment to the consumer demand test in *Eastman Kodak Co. v. Image Technical Services, Inc.*[67] The plaintiffs in *Kodak* provided maintenance and repair services for photocopiers manufactured by the defendant.[68] The defendant also provided parts and repair services for the copiers.[69] The lawsuit challenged the defendant's decision to stop selling parts separately from services.[70] The defendant argued that parts and service constituted a single product "because there is no demand for parts separate from service."[71] Again the Court squarely rejected the functional approach, reiterating that it had often condemned product bundles as tying arrangements when one of the bundled products was useless without the other.[72] Whether there are two distinct products depends on whether there is "sufficient consumer demand so that it is efficient for a firm to provide service separately from parts."[73]

(1992) ("[T]o defeat a motion for summary judgment on [a] claim of a tying arrangement, a reasonable trier of fact must be able to find, first, that [there] are two distinct products."). *See also* Fortner Enter., Inc. v. United States Steel Corp., 394 U.S. 495, 507 (1969) ("There is, at the outset of every tie-in case, the problem of determining whether two separate products are in fact involved.").

61. 466 U.S. 2 (1984).

62. *See id.* at 5-7.

63. *Id.* at 18-19.

64. *Id.* at 19. *See also* Kurt A. Strasser, *An Antitrust Policy for Tying Arrangements*, 34 EMORY L.J. 253, 256 n.12 (1985) ("[T]he majority opinion's emphasis on consumer demand behavior is central to its finding that two separate products were involved.").

65. *Id.*

66. *Id.* at 23.

67. 504 U.S. 451 (1992).

68. *See id.* at 455.

69. *See id.*

70. *See id.* at 463.

71. *Id.*

72. *See id.* (quoting *Jefferson Parish*, 466 U.S. at 21 n.30).

73. *Kodak*, 504 U.S. at 462 (citing *Jefferson Parish*, 466 U.S. at 21-22). In other

The type of evidence relied on in *Kodak* and *Jefferson Parish* is particularly instructive. In both instances, the Supreme Court looked to evidence of actual market practices, rather than engineering models or cost accounting techniques or presumptions based on economic theory.[74] In *Jefferson Parish*, the Court noted that the hospital billed anesthesiological services separately from its other services.[75] Furthermore, the hospital's own anesthesiologist testified that consumers do in fact "differentiate between hospital services and anesthesiological services, and request specific anesthesiologists."[76] The Court in *Kodak* relied on the fact that the defendant had sold service and parts separately in the past and continued to sell parts separately to customers who serviced their own equipment.[77] The Court went so far as to point to the plaintiff's very existence as proof "of the efficiency of a separate market for services."[78]

III. APPLICATION OF ANTITRUST DOCTRINE TO WINDOWS 95 AND INTERNET EXPLORER

A. Comparison to the Court of Appeals' Integrated Product Test

The Court of Appeals seemed to reject altogether antitrust law's test for distinct products when it stated that the consent decree's integration proviso should be read "as permitting any genuine technological integration, regardless of whether the elements of the integrated package are marketed separately."[79] Nonetheless, the Court of Appeals characterized its test for integration as "consistent with the antitrust laws."[80] Careful examination of the issue reveals that the Court of Appeals' test for integration is not con-

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words, the existence of two products is established by proof of "an independent demand and a market generated by that demand" for the each of the two items. Lawrence T. Festa, III, Comment, Eastman Kodak Co. v. Image Technical Services, Inc.: *The Decline and Fall of the Chicago Empire?*, 68 NOTRE DAME L. REV. 619, 646 (1993).

74. *See* AREEDA ET AL., *supra* note 20, at 207 ("the single product inquiry does not judge this policy question directly (by assessing cost efficiencies) but *indirectly* with more easily obtained evidence regarding actual market practices"). *See also id.* at 208 ("[N]either *Jefferson Parish* nor *Kodak* inquired directly into the actual costs or quality of the items bundled versus unbundled. Instead, the Court inferred the nature of consumer demand *indirectly* from such more readily observed facts as actual consumer requests and market practices."). *Compare* Judson, *supra* note 59, at 1633 ("[*Kodak*] shift[ed] the focus of antitrust [law] away from an assessment of economic plausibility and toward the use of economic theory as a tool to explain market realities.").

75. *See Jefferson Parish*, 466 U.S. at 23.

76. *Id.* at 23 n.36.

77. *See Kodak*, 504 U.S. at 462 ("Evidence in the record indicates that service and parts have been sold separately in the past and still are sold separately to self-service equipment owners.").

78. *Id.*

79. *Microsoft*, 147 F.3d at 948.

80. *Id.*

sistent with either the methodology used or the results that would be produced by antitrust law.

The DOJ had argued to the Court of Appeals that the test for integration under the consent decree, like the test for distinct products under antitrust law, was whether "consumer demand exists for each separately,"[81] but the Court of Appeals basically ignored the consumer demand test articulated in *Kodak* and *Jefferson Parish* stating that it was "not convinced that these indicia necessarily point to separateness."[82] This appears to be nothing less than a direct assault on the *Kodak* and *Jefferson Parish* decisions.

The Court of Appeals tried rather unconvincingly to reconcile its definition of integrated products under the consent decree with the Supreme Court's consumer demand test. On the one hand, the Court of Appeals acknowledged that the Supreme Court in *Kodak* "found parts and service separate products because sufficient consumer demand existed to make separate provision efficient."[83] On the other hand, the Court of Appeals doubted that the Supreme Court "would have subjected a self-repairing copier to the same analysis."[84] Even if consumers still sought to purchase parts separately from the self-service feature of the copier, the Court of Appeals believed that the existence of "separate markets for parts and service would not suggest that such an innovation was really a tie-in."[85]

The Court of Appeals is correct, of course, that a self-repairing copier would not constitute illegal tying, but the reason has nothing to do with whether parts and service are separate products. The manufacturer in *Kodak* had monopoly power in the aftermarket for parts, but not service.[86] In the Court of Appeals' hypothetical, service is not being bundled with parts, but with the copier equipment. The manufacturer in *Kodak*, however, did not have monopoly power in the equipment market.[87] Without monopoly power in either the service or equipment market, bundling these two products could not constitute an illegal tie-in.[88]

Conditioning the purchase of the Court of Appeals' hypothetical copier on the purchaser's agreement to purchase parts from the manufacturer pres-

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81. *Id.* at 946.

82. *Id.* at 947.

83. *Id.* at 950.

84. *Microsoft*, 147 F.3d at 950.

85. *Id.*

86. *See* Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 451, 464-65 (1992).

87. Although the plaintiffs in *Kodak* disputed the manufacturer's lack of monopoly power in the equipment market, the Supreme Court explicitly decided the case based on the premise that "competition exists in the equipment market." *Id.* at 466 n.10.

88. *See id.* at 464 ("appreciable economic power in the tying market" is a "necessary feature of an illegal tying arrangement"). *See also* Northern Pac. Ry. Co. v. United States, 356 U.S. 1, 6 (1958) ("[W]here the seller has no control or dominance over the tying product any restraint of trade attributable to such tying arrangements would obviously be insignificant.").

ents a somewhat more problematic case. This seems much like a requirement that consumers purchase their toner and paper from the manufacturer. The Supreme Court condemned a similar agreement as an illegal tying.[89] Nevertheless, bundling parts with a self-service copier may not violate the antitrust law, but as with the service/copier bundle, the arrangement's legality would have nothing to do with the single product issue. Since the manufacturer in *Kodak* did not have monopoly power in the copier market, it could not violate the law by tying repair parts to its copier sales. Furthermore, the manufacturer in *Kodak* only had monopoly power over parts in the *aftermarket* because of the high information and switching costs that locked consumers in to the manufacturer's parts *after* they purchased the equipment.[90] In other words, the manufacturer did not have appreciable economic power in the parts market with respect to customers who had not already purchased equipment. Therefore, if the parts were the tying product and the self-repairing copier the tied product, then there would be no illegal tie-in because the manufacturer would not have monopoly power in the tying product.

Simply because the Court of Appeals failed to reconcile its methodology with antitrust law does not mean that the two are necessarily incompatible. Nonetheless, closer examination of the Court of Appeals' integrated product test[91] and the consumer demand test used in antitrust law reveals that the two methods do indeed suffer from irreconcilable differences. First, the Court of Appeals said that products may be integrated even if the two items are also "marketed separately."[92] Thus, the Court of Appeals squarely refused to examine the very issue that proved essential to finding distinct products in both *Jefferson Parish* and *Kodak*, i.e., whether sufficient consumer demand existed to make it efficient to market the products separately.[93] This was not just so much rhetoric by the Supreme Court. In both cases the Supreme Court placed heavy reliance on empirical evidence of the separate marketing of the two items in question to support its holdings that the items were distinct products.[94]

Second, the Court of Appeals' definition focuses on the functional relationship between the two items. Yet functionally integrated products may still be separate products for tying purposes.[95] For example, the first prong of

89. *See* Int'l Bus. Mach. Corp. v. United States, 298 U.S. 131 (1936) (IBM required lessees of its punch machines to purchase their punch cards from IBM).

90. *See Kodak*, 504 U.S. at 473-78.

91. The Court of Appeals defined an integrated product as one that "combines functionalities (which may also be marketed separately and operated together) in a way that offers advantages unavailable if the functionalities are bought separately and combined by the purchaser." *Microsoft*, 147 F.3d at 948. In other words, "integration may be considered genuine if it is beneficial when compared to a purchaser combination." *Id.* at 949.

92. *Id.* at 948.

93. *See Kodak*, 504 U.S. at 462. *See also Jefferson Parish*, 466 U.S. at 21-22.

94. *See supra* notes 61-74 and accompanying text.

95. *See* Allan M. Soobert, *Antitrust Implications of Bundling Software and Support*

the Court of Appeals' test looks for the degree of unity which it found in Windows 95's combining MS-DOS with Windows's graphical user interface, i.e., "the code that is required to produce one also produces the other."[96] This does not answer the single product question under antitrust law. Simply because two items were "created together does not mean it is efficient and desirable to sell them bundled."[97]

Similarly, the Court of Appeals relied on its rather dubious assertion that "the full functionality of the operating system when upgraded by [Internet Explorer] and 'the browser functionality' of [Internet Explorer] do not exist separately."[98] The Court of Appeals repeatedly emphasized its belief that Windows 95 would not function properly without Internet Explorer[99] as the "essential point" for finding that Microsoft had "not combined two distinct products."[100] Both *Jefferson Parish* and *Kodak* rejected this argument that functional linkage determined the existence of distinct products. *Jefferson Parish* specifically stated that two distinct products could exist even if

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Services: Unfit to Be Tied?, 21 U. DAYTON L. REV. 63, 79 (1995) ("Even though products are functionally integrated or otherwise dependent on one another, such products nevertheless may be considered 'separate' for tying purposes.").

96. *Microsoft*, 147 F.3d at 949.

97. AREEDA ET AL., *supra* note 20, at 215 .

98. *Microsoft*, 147 F.3d at 951-52. The Court of Appeals' characterization of the functional relationship between Internet Explorer and Windows 95 is dubious at best. The District Court had found that the DOJ contested "Microsoft's claim that IE and Windows 95 are functionally integrated as a matter of software engineering." United States v. Microsoft Corp., 980 F. Supp. 537, 542. *See also* Memorandum of the United States in Support of Petition for an Order to Show Cause Why Respondent Microsoft Corporation Should Not Be Found in Civil Contempt at 27, United States v. Microsoft Corp., 980 F. Supp. 537 (D.D.C. 1997) (No. 94-1564) (citing evidence that the absence of Internet Explorer does not affect the performance or functioning of Windows 95); Reply Brief of Petitioner United States of America at 17, United States v. Microsoft Corp., 980 F. Supp. 537 (D.D.C. 1997) (No. 94-1564) (citing evidence that although Internet Explorer contains a file called "COMCTL32" which is required for the Windows 95 to operate, COMCTL32 can be and often is installed without the necessity of installing the entire Internet Explorer application). As the DOJ pointed out, what Microsoft called Internet Explorer actually consisted of a number of items, including both Microsoft's web browser and a number of shared libraries. *See* Brief of Appellee United States at 22, United States v. Microsoft Corp., 147 F.3d 935 (D.C. Cir. 1998) (No. 97-5343). Although at least some of the shared libraries installed by Internet Explorer are required for Windows 95 to work, the web browser feature is not essential. According to the DOJ, Microsoft's own witnesses testified that version 3 of Internet Explorer had been designed so that customers could "uninstall" the web browser. *See id.* at 13. *See also id.* at 8 ("Microsoft advertises that Internet Explorer 3 'uninstalls easily if you want to simply get rid of it.'"). Furthermore, Microsoft did not require installation of version 4 of Internet Explorer as part of Windows 95 for five months after the version 4 was released. *See id.* at 5. It is a little difficult to understand how Internet Explorer is essential for Windows 95 to work if Windows 95 works (1) after one version of Internet Explorer is removed and (2) without the installation of another version of Internet Explorer.

99. *See Microsoft*, 147 F.3d at 948 n.11 ("Windows 95 without [Internet Explorer's] code will not boot.").

100. *Id.*

"at least one is useless without the other."[101] Not only did *Jefferson Parish* state that the single product issue does not depend "on the functional relation between" the items in question,[102] the Court also found that a strong functional relationship between two items might exacerbate the anticompetitive effects of bundling.[103]

Numerous lower courts have rejected the Court of Appeals' functional approach and applied the consumer demand test in a wide variety of antitrust tying cases. In *Digital Equipment Corp. v. System Indus., Inc.*,[104] for example, Digital manufactured computers, peripheral storage devices for its computers, and related items. System Industries, Digital's competitor in the peripheral market, alleged that Digital had tied the sale of its patented interconnect products to its peripheral products.[105] The court rejected Digital's claim that the interconnect and peripheral products constituted a single product simply because "the two products are technologically interrelated."[106] Under *Jefferson Parish*, the *Digital* court said, "there can be 'prohibited tying devices' even where products are 'functionally linked.'"[107]

Similarly, the Fourth Circuit found that diagnostic software used in computer repairs and the repair service did not form a single product in *Service & Training, Inc. v. Data General Corp.*,[108] even though the software was useless without the repair service. As the Fourth Circuit noted, "inquiry into purpose and use is indistinguishable from the inquiry into the 'functional relationship' between products that was rejected in *Jefferson Parish*."[109] Instead, the determination rested on "whether there are customers who would, absent an illegal agreement, purchase the tied product without the tying product, and the tying product without the tied product."[110] Con-

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101. *Jefferson Parish*, 466 U.S. at 21 n.30. *Accord*, AREEDA ET AL., *supra* note 20, at 270-71 ("A related test finds one product when the buyer needs both items . . . [but this test] departs greatly from precedent and would immunize our paradigmatic [anticompetitive] tie."); Festa, *supra* note 73, at 646 n.160 ("The fact that one product is useless without the other does not necessarily ensure that the court will find that there is only one product.").

102. *See also Jefferson Parish*, 466 U.S. at 19; Festa, *supra* note 73, at 646 n.158 ("[T]he *Jefferson Parish* court explicitly rejected the use of the functional approach.").

103. *See id.* at 21 n.30 ("[I]n some situations the functional link between two items may enable the seller to maximize its monopoly return on the tying item as a means of charging a higher rent or purchase price to a larger user of the tying item.").

104. 1990-1 Trade Cas. (CCH) ¶ 68,901 (D. Mass. Jan. 16, 1990).

105. *See id.*

106. *Id.*

107. *Id.* (quoting *Jefferson Parish*, 466 U.S. at 19 n.30).

108. 963 F.2d 680 (4th Cir. 1992).

109. *Id.* at 684.

110. *Id. See also* Allen-Myland, Inc. v. Int'l Bus. Mach. Corp., 33 F.3d 194, 211 (3d Cir. 1994). Two distinct products exist if "there is sufficient demand for the purchase of the tied product separate from the purchase of the tying product so as to identify a market structure in which it is efficient to offer the tied product separately from the tying product." *Id.*

sistent with the analysis in *Jefferson Parish* and *Kodak*, the Fourth Circuit examined actual marketing practices and deposition testimony as to whether computers actually distinguished between the diagnostic software and the repair service.[111]

The Eleventh Circuit decision in *Thompson v. Metropolitan Multi-List, Inc.*[112] provides further support for this analysis. At issue in *Thompson* was whether the defendant had tied membership in its realtor association with access to its multi-list service.[113] The defendant in *Thompson* expressly argued that the two services "are in fact one product because they function as one product,"[114] were useless without each other, and could have been structured so that membership was a "direct part of the multilist service."[115] The Eleventh Circuit pointed out that "such a functional argument is irrelevant to the question of whether there are or are not, separate markets."[116] Instead of arguments based on product design and functionality, the Eleventh Circuit insisted on seeing evidence of actual "billing practices, consumer preferences, consumer impressions, [and] the cross-elasticity of the markets" to resolve the single product question.[117]

Since *Jefferson Parish*, courts have consistently rejected functional approaches to the single product issue in favor of the consumer demand test. Prior to *Jefferson Parish*, however, some antitrust cases did use a functional approach. Even so, the Court of Appeals applied the functional test in a manner inconsistent with these pre-*Jefferson Parish* decisions. For example, in *In re Data General Corp. Antitrust Litigation*,[118] the defendant had developed both a computer CPU and an OS for the CPU. The plaintiffs, who were rival CPU manufacturers, alleged that defendant had tied sales of its CPU to its OS.[119] The defendant argued that the OS and CPU constituted a single product.[120] Under the functional test for integration used by the Court of Appeals, the OS and CPU surely would have formed a single product because "neither item can function without the other."[121] *Data General*, however, rejected this argument since the court looked to the "function of the aggregation" because "the relevant inquiry is not whether they must be used together but whether they must come from the same seller."[122]

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111. *See Service & Training*, 963 F.2d at 684.
112. 934 F.2d 1566 (11th Cir. 1991).
113. *See id.* at 1574.
114. *Id.* at 1582 n.6.
115. *Id.* at 1575.
116. *Id.* at 1582 n.6.
117. *Id.* at 1575.
118. 490 F. Supp. 1089 (N.D. Cal. 1980).
119. *See id.* at 1097.
120. *See id.* at 1104-07.
121. *Id.* at 1104. *Compare Microsoft*, 147 F.3d at 948 n.11 ("Windows 95 without IE's code will not boot.").
122. *Data General*, 490 F. Supp. at 1104. The Court of Appeals would undoubtedly suggest that the Windows 95/Internet Explorer combination satisfied this test because the

Third, the Court of Appeals wrongly associates product separateness with a lack of synergy from bundling. *Jefferson Parish*, however, implicitly rejected this analysis, insofar as the dissent argued that when "the economic advantages of joint packaging are substantial[,] the package is not appropriately viewed as two products."[123] Even more troubling is the incredibly low threshold that the Court of Appeals set for proof of the alleged synergies. Although the Court of Appeals said that "commingling of code alone is not sufficient evidence of true integration,"[124] it refused to consider whether the "facially plausible benefits" of bundling Windows 95 and Internet Explorer actually existed.[125] Thus, the Court of Appeals effectively eliminated any chance of determining whether the bundle actually produced any synergies, or whether it simply amounted to a prohibited commingling of code. As Judge Wald pointed out in her dissent, it "is difficult to imagine how Microsoft could not conjure up some technological advantage for any currently

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Court of Appeals believed that not only was Internet Explorer required for Windows 95 to boot, but also "adding a rival browser will not fix this." *Microsoft*, 147 F.3d at 948 n.11. The problem with this argument is that the Court of Appeals refused to consider the type evidence relied on in *Data General* to assess the veracity of this claim by Microsoft.

Although Internet Explorer did install "shared libraries" used by Windows 95, the shared libraries could be, and in fact often were, installed "by third party Independent Software Vendors." Brief of Appellee United States at 45 n.3, United States v. Microsoft Corp., 147 F.3d 935 (D.C. Cir. 1998) (No. 97-5343). The Court of Appeals acknowledged that it was a "relatively common practice" for ISVs to install this software. *Microsoft*, 147 F.3d at 951 n.16. But the Court of Appeals dismissed this evidence as irrelevant because it apparently believed that ISVs were installing the entire Internet Explorer set of files, i.e., both the shared libraries and the web browser, and because "there are some inefficiencies associated with application vendors' redistribution of IE code." *Id.*

123. Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 40 (1984) (O'Connor, J., concurring). *See also* Jack Walters & Sons Corp. v. Morton Building, Inc., 737 F.2d 698, 703-04 (7th Cir. 1984) (explaining the differences and similarities between the consumer demand/separate markets test and the synergy/economies of joint provision test). It is possible, of course, that the synergies from bundling would be so great that there would no longer be sufficient consumer demand for the products separately. The Court of Appeals, however, did not explore this possibility with respect to the Windows 95/Internet Explorer bundle. Rather than looking into the effect that synergy had on consumer demand, the Court of Appeals treated Microsoft's claim of synergy as proof that the bundle was a single product.

124. *Microsoft*, 147 F.3d at 949 n.12 ("Thus of course we agree with the separate opinion that 'commingling of code . . . alone is not sufficient evidence of true integration.' Commingling for an anticompetitive purpose (or no purpose at all) is what we refer to as 'bolting.'").

The Court of Appeals also said that the consent decree would prohibit Microsoft from artificially rigging Windows 95 to crash if Internet Explorer were deleted. *See id.* at 949. ("The concept of integration should exclude a case where the manufacturer has done nothing more than to metaphorically 'bolt' two products together, as would be true if Windows 95 were artificially rigged to crash if IEXPLORE.EXE were deleted"). But by failing to inquire into actual content and operation of the software code, the Court of Appeals provided no way of determining whether or not Microsoft had in fact "rigged" Windows 95 to fail without Internet Explorer.

125. *Microsoft*, 147 F.3d. at 961 (Wald, J., dissenting). The court's test is not whether the benefits exist, but whether "there is a 'plausible claim'" that benefits exist. *Id.*

separate software product it wished to 'integrate' into the operating system."[126]

Note that even if the dissent had prevailed in *Jefferson Parish*, the dissenters would have required a proof of "substantial" economic advantages from bundling, a much higher standard than a "plausible claim" of "some advantage" from bundling required by the Court of Appeals.[127] Similarly, pre-*Jefferson Parish* antitrust case law utilizing a synergies test required evidence, not just "facially plausible claims," that such synergies existed. Again, *Data General* is instructive. Although *Data General* focused primarily on the functional relationship between the CPU and the OS, it also applied a synergy test as a "subsidiary consideration."[128] The defendant claimed that bundling hardware and software together achieved synergies in terms of "cost savings attributable to coordinated research and development."[129] *Data General* rejected this claim, despite its facial plausibility, on grounds that "the record lacks *factual* support."[130] Unlike the Court of Appeals, *Data General* demanded a "factual showing, beyond vague and conclusory references . . . of measurable economic benefits."[131] Thus, the Court of Appeals misapplied the now discarded synergy test by failing to allow evidence as to the veracity of Microsoft's synergy claims.[132]

The Court of Appeals adopted such a low threshold for synergy because it felt that courts have "limited competence to evaluate high-tech product designs and the high cost of error."[133] While the difficulty of implementing an-

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126. *Id.* It is equally difficult to believe that the DOJ would have agreed to a standard that prohibited the DOJ from offering evidence that Microsoft had violated the standard.

127. *Microsoft*, 147 F.3d at 950 ("The question is not whether the integration is a net plus but merely whether there is a plausible claim that it brings some advantage."). Thus the Court of Appeals has achieved the remarkable feat of developing a test that is inconsistent with both the winning and losing arguments in *Jefferson Parish*. The *Jefferson Parish* dissent found that surgery and anesthesia constituted one product because patients would not consent to undergo surgery without anesthesia and vice versa. *See* 466 U.S. at 43. The dissent treated this as a factual conclusion that should normally rest on evidence in the record, except that in the case of surgery and anesthesia, the truth of the assertion was so obvious that evidentiary support was not required. *See id.* at 43 n.12.

128. *In re* Data General Corp. Antitrust Litigation, 490 F. Supp. 1089, 1104 (1980).

129. *Id.* at 1105.

130. *Id.* (emphasis added).

131. *Id.* at 1106.

132. This is especially appalling given that antitrust law generally holds that "a given restriction is not reasonable, that is, its benefits cannot outweigh its harm to competition, if a reasonable, less restrictive alternative exists that would provide the same benefits as the current restraint." Sullivan v. Nat'l Football League, 34 F.3d 1091, 1103 (1st Cir. 1994) (citing L.A. Memorial Coliseum Comm'n v. N.F.L., 726 F.2d 1381, 1396 (1984)). *See also* Metrix Warehouse, Inc. v. Daimler-Benz Aktiengesellschaft, 828 F.2d 1033, 1040 (4th Cir. 1987) ("An asserted business justification cannot salvage a tying arrangement that is otherwise per se unlawful without proof that means less restrictive than the tie-in were not feasible . . . ."). By refusing to consider evidence that casts doubt on the veracity of Microsoft's claims, the Court of Appeals seemed to foreclose inquiry into whether the benefits claimed by Microsoft could have been achieved in a less restrictive manner.

133. *Microsoft*, 147 F.3d at 950 n.13.

titrust standards in high technology fields is not to be doubted under some circumstances, separation of the browser code from the rest of the OS should be a relatively simple matter.[134] Furthermore, there is no basis for assuming that the Supreme Court would carve out an exception so large as to exempt software products almost entirely from tying claims.[135] Such an exception would hardly serve the purposes of the antitrust law of tying: to ensure that competitors are not denied free access to the market for the tied product and that consumers are not "forced to forego their free choice between competing products."[136] Bundling of applications and OS software has no obvious procompetitive effect.[137] Unbundling, therefore, offers little risk of harm and can "create real and substantial benefit in terms of increased competition and innovation in the industry."[138]

Other courts, moreover, have successfully applied the standard articulated in *Jefferson Parish* and *Kodak* to high technology fields. In addition to the cases discussed *supra*, the Ninth Circuit successfully applied the consumer demand test in a case where a manufacturer had created a "computer system" that consisted of both the manufacturer's own computer and an OS specifically designed by the manufacturer to run the computer.[139] There is also something duplicitous about claiming that courts are incompetent to evaluate whether Microsoft has bundled what are really two separate products for purposes of antitrust law, when courts do not hesitate to delve into the mysteries of software engineering for other purposes.[140] Indeed, Micro-

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134. *See* Jay Dratler, Jr., *Microsoft as an Antitrust Target: IBM in Software?*, 25 SW. U. L. REV. 671, 736 (1996) ("For several years, Microsoft has touted its modular software development and object-oriented software design, which ought to make extrication of the Internet browser a relatively simple matter."). What Microsoft called Internet Explorer actually consisted of a number of items, including both Microsoft's web browser and a number of shared libraries. *See* Brief of Appellee United States at 22, United States v. Microsoft Corp., No. 97-5343, 1998 U.S. App. LEXIS 13242 (D.C. Cir. June 23, 1998). The Court of Appeals ignored considerable evidence that the web browser could be separated from the rest of the OS, including the facts that version 3 of Internet Explorer had been designed so that customers could "uninstall" the web browser. *Id.* at 13. *See also id.* at 8 ("Microsoft advertises that Internet Explorer 3 'uninstalls easily if you want to simply get rid of it.'") Microsoft did not require installation of version 4 of Internet Explorer as part of Windows 95 for five months after version 4 was released. *See id.* at 5.

135. *See* PSI Repair Services, Inc. v. Honeywell, Inc., 104 F.3d 811, 817 (6th Cir. 1997) ("While we are mindful of the various efficiency gains that can accrue to both suppliers and customers from bundling certain products together, we are confident that the antitrust laws provide the tools to distinguish between meritorious and non-meritorious claims.").

136. Northern Pac. Ry. Co. v. United States, 356 U.S. 1, 6 (1958).

137. *See* Dratler, *supra* note 134, at 737 ("[T]he case for the procompetitive effect of bundling application software with operating systems appears shaky.").

138. *Id.* at 738.

139. Digidyne Corp. v. Data General Corp., 734 F.2d 1336, 1339 (9th Cir. 1984) ("[T]he district court's analysis of defendant's 'single product' claim is supported by the Supreme Court's recent discussion in *Jefferson Parish* . . . . [A] demand existed for NOVA instruction set CPUs separate from defendant's RDOS.").

140. *See generally* Mitel, Inc. v. Iqtel, Inc., 124 F.3d 1366 (10th Cir. 1997) (copyright

soft itself benefitted from judicial willingness to "dissect" computer code in a copyright infringement lawsuit brought by Apple Computer.[141]

Nor does the Court of Appeals' desire to avoid enmeshing the courts in an inquiry "into the justifiability of product innovations" create an exception to the consumer demand test for distinct products.[142] The Court of Appeals purports to rely on the Fifth Circuit opinion in *Response of Carolina, Inc. v. Leasco Response, Inc.*,[143] a case decided nearly a decade before *Jefferson Parish*. The Fifth Circuit, moreover, rested its holding that no tying occurred, not on the proposition that the items in question constituted a single product, but on grounds that the agreements involved in *Response* did not require the consumers to purchase both items.[144] Although the Fifth Circuit expressed concern about judicial scrutiny of product innovations, the Fifth Circuit did not suggest that labeling the combination of two previously separate products a "product innovation" automatically exempted the manufacturer's conduct from the usual standards of antitrust law. Indeed, the Fifth Circuit specifically stated that "two products might be illegally tied through the technological relationship between them."[145] The Fifth Circuit would simply limit an inquiry into whether the technological relationship between two items constituted tying to cases where the record contained evidence that the manufacturer had designed the technological relationship "for the purpose of tying the products, rather than to achieve some technologically beneficial result."[146] Unlike the Court of Appeals, which would cut off inquiry whenever the manufacturer makes a "plausible claim" of consumer benefits from bundling,[147] the Fifth Circuit would require actual "evidence"

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law); Computer Assoc. Int'l, Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992) (copyright law); Arrhythmia Research Tech., Inc. v. Corazonix Corp., 958 F.2d 1053 (Fed. Cir. 1992) (patent law); Sun Microsystems, Inc. v. Microsoft Corp., No. C 97-20884 RMW(PVT), 1998 U.S. Dist. LEXIS 4461 (N.D. Cal. Mar. 24, 1998) (trademark law). *See also* James W. Morando & Christian H. Nadan, *Do Software Patents 'Stac' the Deck Against Competition*, COMPUTER LAW., Apr. 1994, at 1 (discussing Microsoft's loss of a patent infringement lawsuit alleging that Microsoft copied portions of the defendant's software into MS-DOS).

141. *See* Apple Computer, Inc. v. Microsoft Corp., 35 F.3d 1435, 1439 (9th Cir. 1994).

142. *Microsoft*, 147 F.3d at 950 (citing Response of Carolina, Inc. v. Leasco Response, Inc., 537 F.2d 1307, 1330 (5th Cir. 1976)).

143. 537 F.2d 1307 (5th Cir. 1976).

144. *See id.* at 1327 ("We find no evidence of coercion on the part of Leasco and thus affirm the directed verdict on the issue of tying."). There is reason to believe that had the Fifth Circuit applied the consumer demand test, it would have found that the two items at issue—computer hardware and a franchise agreement—constituted a single product, not because of the functional relationship between the two products or because of an exception for product innovations but because the evidence indicated that consumers viewed the computer hardware and the franchise as a single product. *Id.* at 1330 ("We can find no proof that any of the franchisees desired to purchase or lease the hardware from someone other than Leasco, or conversely, that any of them ever envisioned the purchase of the franchise without the lease of the hardware.").

145. *Id.* at 1330.

146. *Id.*

147. *Microsoft*, 147 F.3d at 950.

as to the manufacturer's purpose for creating the technological interrelationship.[148]

The recent decision of the Tenth Circuit in *Multistate Legal Studies, Inc. v. Harcourt Brace Jovanovich Legal & Professional Publications, Inc.*,[149] provides a more appropriate analogy for determining the effect of product innovation on the single product issue under antitrust law than *Response*. The defendant in *Multistate* sold bar exam review courses.[150] Historically, the defendant had offered two products. The first, a full service course, covered all of the components of the bar exam, but gave relatively limited coverage of the multistate portion of the exam.[151] The second, a supplemental multistate workshop, gave extensive coverage of the multistate portion of the exam.[152] The plaintiff competed with the defendant in the workshop market and alleged that the defendant had begun to illegally tie the defendant's workshop to the full service course.[153] Using reasoning strikingly similar to that of the Court of Appeals, the District Court in *Multistate* held that "any effort to improve the full service course by adding elements to it could not possibly constitute the bundling of a second product."[154] The Tenth Circuit squarely rejected the idea of an automatic exception for product innovations, stating that "[p]roduct improvements may be the cause and/or effect of changes in consumer demand, but the nature of

148. *Response*, 537 F.2d at 1330. The Court of Appeals also seemed to place some reliance on two opinions by District Court Judge Conti in litigation involving IBM: ILC Peripheral Leasing Corp. v. International Business Machines Corp., 448 F. Supp. 228 (N.D. Cal. 1978), and ILC Peripheral Leasing Corp. v. International Business Machines Corp., 458 F. Supp. 423 (N.D. Cal. 1978). *See Microsoft*, 147 F.3d at 949-50. Neither of Judge Conti's opinions have any bearing on whether the Court of Appeals subjected Microsoft's Windows 95/Internet Explorer bundle to a test that was consistent with antitrust law. Both were issued six years before the Supreme Court adopted the consumer demand test in *Jefferson Parish*. In the first opinion, Judge Conti applied the functional test, stating that "the court must . . . review the evidence with an eye to the 'function' of the aggregation," 448 F. Supp. at 231, but the Supreme Court rejected this functional test later in *Jefferson Parish* and *Kodak*.

In the second opinion, Judge Conti urged some deference to the manufacturer's choice in product design monopolization case where "there is a difference of opinion as to the advantages of two alternatives which can both be defended from an engineering standpoint." 458 F. Supp. at 439. As the Tenth Circuit has noted, whatever merit the "product improvement" defense may have under section 2, it does not apply to the determination of whether two items are separate products for tying analysis. *See* Multistate Legal Studies, Inc. v. Harcourt Brace Jovanovich Legal & Professional Publications, Inc., 63 F.3d 1540, 1577 nn.9-10 (10th Cir. 1995).

149. 63 F.3d 1540 (10th Cir. 1995).

150. *See id.* at 1544.

151. *See id.* at 1546.

152. *See id.* at 1544 ("Two types of bar review courses are relevant to this litigation: 'full-service' courses, designed to prepare students for all components of a jurisdiction's bar examination, and 'supplemental multistate workshops,' which prepare students only for the MBE portion of a jurisdiction's bar exam.").

153. *See id.* at 1545-46.

154. *Id.* at 1547.

that demand is what counts."[155] Under section 1 of the Sherman Act,[156] the Tenth Circuit insisted, "a product improvement motivation will not save otherwise illegal tying arrangements."[157] Thus, the Tenth Circuit, unlike the Court of Appeals, did not abandon the consumer demand test mandated by *Jefferson Parish* and *Kodak*, even though it required inquiry into the justifiability of the defendant's product design and innovation.[158]

Since the methodology used by the Court of Appeals to determine the existence of an "integrated product" differs completely from that used by antitrust law, the question arises as to whether the Court of Appeals' integrated product test is consistent with antitrust law, at least insofar as it produces the same result. Because the Court of Appeals' test focuses on functionality and synergy instead of consumer demand, the Court of Appeals' opinion contains little information relevant to the antitrust inquiry. The closest the Court of Appeals itself came to evaluating evidence of consumer demand was its repeated observation that Netscape had characterized Internet Explorer as an OS upgrade.[159] Assuming that the Court of Appeals correctly understood Netscape's remark,[160] this evidence does suggest that consumers do not distinguish between web browser and OS software. What really matters, however, is not how the manufacturer's competitors view the items, but how consumers perceive them. Furthermore, most of the evidence of consumer demand that can be gleaned from the Court of Appeals' opinion suggests that consumers do in fact perceive Internet Explorer and Windows 95 as distinct products.

The DOJ argued that Microsoft treated Internet Explorer as a separate product, pointing out that Microsoft (1) provides Internet Explorer separately to end users, (2) sells versions of Internet Explorer for different OSs, (3) advertises Internet Explorer as a distinct product, (4) tracks Internet Explorer's performance in a "browser market," and (5) distributes Internet Ex-

155. *Id.* at 1556 n.4.

156. 15 U.S.C. § 1 (1998).

157. *See Multistate*, 63 F.3d at 1557 n.9.

158. The Tenth Circuit did indicate that product improvements might constitute a defense to certain types of monopolization and attempted monopolization claims under section 2 of the Sherman Act. *See id.* at 1551 ("Product improvement can sometimes be a defense to a section 2 claim."). Even so, this would require an inquiry into "[b]oth the purpose and results of a product change, including customers reception of the change, [to determine] whether a claimed product improvement is pro- or anticompetitive." *Id.* Although the Tenth Circuit conceded that the "difficulties and dangers" of subjecting product improvements to this analysis in cases of "complex technological integration of previously separate functions" might justify some "degree of deference to product designers" in section 2 cases, the Tenth Circuit insisted that whatever test was appropriate for section 2 cases had nothing to do with the need to apply the consumer demand test to tying claims under section 1. *Id.* at 1557 nn.9-10.

159. *See Microsoft*, 147 F.3d at 946, 952.

160. The Court of Appeals gives no context for this statement. It is difficult to believe that Netscape actually asserted a belief that there is no distinction between web browsers and OS since Netscape sells web browser software but does not sell an OS.

plorer on a separate CD-ROM from Windows 95.[161]

As the Court of Appeals noted, the fact that Microsoft has shipped Internet Explorer to consumers on a separate disk may have more to do with the storage capacity of the disk than with whether the products are distinct.[162] Also, the Court of Appeals' suggestion that versions of Internet Explorer "developed for different operating systems may be better understood as different products altogether"[163] is not entirely without merit, but extrinsic evidence that top Microsoft officials take pride in the fact that the versions of Internet Explorer for other OSs have "the same features as the Windows version, the same command structure, the same user interface, [and] THE SAME CODE BASE"[164] substantially weakens the validity of this inference. More importantly, the remainder of the evidence put forward by the DOJ strongly suggests that Internet Explorer is a distinct product.[165]

Courts have always relied heavily on actual sales of the tied product, separate from the tying product, in finding distinct products.[166] In *Kodak*, for instance, the Court pointed to evidence indicating that the tied and tying products had been "sold separately in the past and still are sold separately."[167] In *Thompson v. Metropolitan Multi-List, Inc.*,[168] the Eleventh Circuit noted that consumers could obtain the tied product (the Realtor membership) without purchasing the tying product (access to the multilist).[169] Consequently, the separate provision and sales of the Windows 95 version of Internet Explorer (the tied product) by Microsoft strongly suggests that Internet Explorer and Windows 95 are distinct products.

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161. *See Microsoft*, 147 F.3d at 946.

162. *See id.* at 947 ("Distribution of software code on a separate CD-ROM shows nothing at all about whether the code is integrated into an operating system (software for an operating system that is clearly a single product may take up many disks).").

163. *Id.* at 948.

164. Cringely, *supra* note 8 (emphasis in original). Microsoft now claims that "software programs providing web browsing functionality created for use with non-Microsoft operating systems have different features and functionality and are built on different code bases from software providing web browsing functionality in Windows." Defendant Microsoft Corporation's Answer to the Complaint Filed by the U.S. Department of Justice ¶ 21(b)(i), United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

165. *See Microsoft*, 147 F.3d at 946.

166. *See PSI Repair Services*, 104 F.3d at 816 (finding evidence the manufacturer "itself sells components" separately to certain customers tends to show circuit board repair services and components are distinct products). *See also* Data Gen. Corp. v. Grumman Sys. Corp., 36 F.3d 1147, 1179-80 (1st Cir. 1994) (licensing of diagnostic software without sales of computer repair services suggests that software and service are separate products); Allen-Myland, Inc. v. Int'l Bus. Mach. Corp., 33 F.3d 194 (3d Cir. 1994) (finding that computer upgrades and labor for installation are distinct products).

167. Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 451, 462 (1992).

168. 934 F.2d 1566 (11th Cir. 1991).

169. *See id.* at 1575 ("[A]ll of the relevant evidence . . . indicates that the market for professional affiliation is separate from the market for multilist services. For example, there is evidence . . . that a broker can join the Realtors and choose not to use the multilist service.").

Evidence that Microsoft advertised and tracked Internet Explorer separately from Windows 95 does not directly prove two distinct products (it is, after all, consumers' perception, not Microsoft's, that matters), but it shows that Microsoft not only believed consumers separately demanded Internet Explorer—such evidence also shows that Microsoft attempted to stimulate consumer demand for Internet Explorer as a distinct product.

Courts applying antitrust's consumer demand test have also relied on the historical existence of competitors in the tied product market as evidence that the tying and tied products are distinct.[170] Therefore, the Court of Appeals' acknowledgement of Netscape as Microsoft's rival[171] also tends to establish that separate consumer demand exists for Internet Explorer and Windows 95.

The Court of Appeals simply ignored the most compelling evidence offered by the DOJ to prove that Windows 95 and Internet Explorer are separate products, i.e., testimony from Microsoft's own witnesses acknowledging "corporate customer demand for a version of Windows 95 that did not permit employees to 'access the Internet and spend all their time surfing the web.'"[172] The DOJ's brief also cited a 1998 study of 200 information technology managers by *Infoweek* magazine which showed that "34% 'want the browser to remain separate' from Windows and that only 28% want the browser to be included with Windows."[173]

Application of the consumer demand test to the relevant evidence discussed in the Court of Appeals' opinion, as well as the additional evidence cited in the DOJ's brief, leaves little doubt that Internet Explorer and Windows 95 are distinct products under the antitrust law of tying. Thus, whatever merit the Court of Appeals' opinion may have as precedent for interpretation of similar language in other consent decrees, it has nothing to say about whether Microsoft's decision to combine Internet Explorer with Windows 95 constitutes illegal tying under section 1 of the Sherman Act.[174]

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170. *See PSI Repair Services*, 104 F.3d at 816 (the "very existence" of a competitor in the service market who does not manufacture parts suggests that parts and service are distinct products). *See also Thompson*, 934 F.2d at 1575-76 (existence of competitor Realtor groups who do not offer multilist services suggests that Realtor membership and multilist service are separate products).
Again, *Kodak* exemplifies this point with the Court stating that the existence of development competitors in the tied product "is evidence of the efficiency of a separate market for service." *Kodak*, 504 U.S. at 462.

171. *See Microsoft*, 147 F.3d at 947.

172. Brief of Appellee United States at 13, United States v. Microsoft Corp., No. 975343, 1998 U.S. App. LEXIS 13242 (D.C. Cir. June 23, 1998).

173. *Id.* at 45 n.6.

174. In fact, Microsoft's bundling of Internet Explorer and the Windows OS would seem to present exactly the type of case where tying should be condemned as illegal per se. In Grappone, Inc. v. Subaru of New England, Inc., 858 F.2d 792 (1st Cir. 1988), then Judge, now Justice, Breyer surveyed some of the harms caused by tying and noted:

> [A] Seller, possessing significant market power with respect to Product A, may cause anticompetitive harm by tying as follows: by reducing the price of Product

B. Comparison to Judge Wald's Integrated Product Test

The Court of Appeals' decision sparked a rather sharp and cogent dissent by Judge Wald. She disagreed with the apparent holding that the consent decree was susceptible to only one interpretation, especially in light of the fact that the Court of Appeals had remanded the case back to the District Court "for further factual development that may well be relevant to the most

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> A slightly (or by otherwise not fully exploiting its power with respect to Product A), the Seller may induce the Buyer to accept the tie; by doing so, the Seller may build a strong market position in Product B; and *that position* in Product B, in turn, may increase its power to charge high prices in respect to Product A. If a monopolist of patented can-closing machinery, for example, insists, as a condition of selling his machines, that their purchasers buy his cans, he will likely soon have a monopoly in cans as well as machines. And, that fact—the fact that he controls *both* cans and machines—may make his monopoly safer from competitive attack when his patent on the can-closing machinery expires. A new competitor would then have to enter *both* levels of the business (cans and machines) to deprive him of monopoly profits. And, this added security may enable the machinery monopolist to charge higher prices. The tie, by permitting the Seller to extend its market power from one level to two, may thereby raise entry barriers, providing security that helps a monopolist-seller further harm the consumer.

Id. at 795-96.

Microsoft is essentially in the position of Judge Breyer's can-closing monopolist. Microsoft has a monopoly in OS software for personal computers, Product A. *See Microsoft*, 56 F.3d at 145 ("Microsoft dominates the world market for operating systems software that runs on IBM-compatible personal computers"); *Microsoft*, 980 F. Supp. at 539 ("Microsoft has enjoyed for some time a virtual monopoly in the sale of PC operating system software, and presently possesses a market share approaching eighty percent."). Consequently, if Microsoft insists, as a condition of selling its OS, that consumers purchase its web browser, Product B, Microsoft will likely soon have a monopoly in *both* OS and web browsing software. The only way Netscape or some other web browser manufacturer could hope to compete successfully with Microsoft is if the competitor simultaneously entered both the OS and web browser market.

Just as the can-machine monopolist is preparing for the day its machine patent expires, so too Microsoft's monopolization of the web browser market serves as preparation for and maybe even avoids the day when browsers reach their potential as an alternative to the OS for running application software. As the Court of Appeals noted:

> Browsers have the potential to serve as user interfaces and as platforms for applications (which could then be written for the APIs of a particular browser rather than of a particular operating system), providing some of the traditional functions of an operating system. Widespread use of multi-platform browsers as user interfaces has some potential to reduce any monopoly-increasing effects of network externalities in the operating system market. Browsers can enable the user to access applications stored on the Internet or local networks, or to operate applications that are independent of the operating system.

Microsoft, 147 F.3d at 939-40. With a monopoly in both the OS and browser markets, therefore, Microsoft can maintain its position as the platform that all OEMs must install and all applications must be written for. In other words, purchasing Microsoft's platform (be it the Windows OS or Internet Explorer) is the price all consumers must pay to use a personal computer.

faithful interpretation of the section."[175] More importantly, and not surprisingly, Judge Wald found that the Court of Appeals' interpretation conflicted with antitrust law. She then offered her own interpretation as "more consonant with the intent of the drafters [of the consent decree] and the weight of antitrust law."[176] Nonetheless, Judge Wald's interpretation of section IV(E)(i) is not entirely consistent with antitrust law either.

Judge Wald's dissatisfaction with the Court of Appeals' interpretation rested largely on the fact that it renders the consent decree's ban on bundling all but meaningless.[177] The Court of Appeals' "considerable deference to Microsoft's plausible claims of advantage, coupled with Microsoft's privileged knowledge of the inner workings of its operating system, barely raises the bar of section IV(E)(i) above ground level."[178] The Court of Appeals, argued Judge Wald, would "permit Microsoft to 'integrate' word-processing software programs, spreadsheets, financial management software, and virtually any other now-separate software product into its operating system by identifying some minimal synergy associated with such 'integration.'"[179] Indeed, nothing in the Court of Appeals' opinion would prevent Microsoft from conditioning its license of Windows 95 on the OEM's purchase of Microsoft brand mice "so long as Microsoft had the prescience to include code in Windows 95 that made the cursor more responsive to the end user's touch than it would be with other mice."[180] As to the concern that Windows 95

175. *See Microsoft*, 147 F.3d at 956 (Wald, J., dissenting).

176. *Id.*

177. *Id.* at 957 (arguing the majority's "reading does not impose nearly enough scrutiny on 'integration' and renders the central prohibition of section IV(E)(i) largely useless.").

178. *Id.* at 961.

179. *Id.* at 962.

180. *Id.* at 957. The Court of Appeals agreed that it would apply the same analysis to bundling mice with the OS that it did to bundling web browser software with the OS. Nonetheless, the Court of Appeals thought it "unlikely that a plausible claim could be made that a mouse and an operating system were integrated in the sense that neither could be said to exist separately." *Id.* at 948 n.11. Windows 95 and Internet Explorer were different than the mouse/OS combination, the Court of Appeals claimed, because "Windows 95 without IE's code will not boot." *Id.* Contrary to the Court of Appeals' suggestion, Microsoft could put code into its OS which check to see if a Microsoft mouse had been installed and if a Microsoft was not found, the OS would then refuse to boot. Indeed, Microsoft has a well-established history of designing its products to inhibit the use of competitors' software. *See* Kathleen Murphy, *A Reluctant Witness Against Microsoft*, INTERNET WORLD, July 27, 1998, at 1, 4 ("Glaser's specific contention is that Microsoft has deliberately programmed its own Windows player expected to be bundled in future versions the Windows operating system in a way that disables RealNetworks's player."). *See also* Jones & Turner, *supra* note 24, at 361 (Microsoft's tactics include modifying Windows to give a warning when Windows was loaded from a non-Microsoft OS); Baseman, *supra* note 6, at 277-78 (arguing that Microsoft sabotaged competitors' products); James Gleick, *Making Microsoft Safe for Capitalism*, NY. TIMES, Nov. 5, 1995, § 6, at 50 (describing how installation of Internet Explorer disables competing browsers, including Netscape, and how Windows 95 "carefully and explicitly replaces" certain types of non-Microsoft software previously installed by the user). Thus, as Judge Wald pointed out, the mouse and OS would be a single product under the

would not boot without Internet Explorer, Judge Wald suggested that this might be nothing but a sham.[181] Although she sympathized with the concern about involving the courts in product design, she would not endorse "judicial abdication in the face of complexity."[182]

Judge Wald also criticized the Court of Appeals for failing to adhere to antitrust law.[183] The test under *Jefferson Parish*, Judge Wald correctly stated, looks to "whether the arrangement tied two distinct markets for products that are separate from the buyer's perspective,"[184] but the Court of Appeals departed "from this precedent by accepting any 'plausible claim' that the combination (i.e., the design) offers 'some advantage.'"[185] Internet Explorer may share code with Windows 95 in a way that others browsers do not, but "the fact that parts of Internet Explorer share code with the operating system and thus with other applications should not end the analysis any more than did the fact that the anesthesiologists in *Jefferson Parish* shared hospital equipment and personnel with the hospital and its staff."[186] Separate product analysis under antitrust law requires consideration of whether "consumers desire to purchase—and hence that manufacturers desire to supply—a substitute for Internet Explorer from another manufacturer."[187] The Court of

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majority's test because "the full functionality of the patented mouse and Microsoft's mouse-friendly operating system would not exist separately and their full functionality would only exist when combined." *Id.* at 957 n.1.

The majority also suggested that the mouse/OS combination differed from the Windows95/Internet Explorer bundle "because their physical existence makes it easier to identify the act of combination." *Id.* at 948 n.11. As Judge Wald noted, this seems "to misstate the majority's own test." *Id.* at 957 n.1. The majority had said that Windows 95 and Internet Explorer were a single product even if they shipped on separate disks and the customer installed them. *Id.* at 949 ("in such a case it would not be meaningful to speak of the customer 'combining' two products"). Furthermore, as Judge Wald pointed out, "the majority's test would consider whether the design that 'knits together' Microsoft's mouse and the operating system offers advantages unavailable through the combination of a competitor's mouse and the operating system." *Id.* at 957 n.1. Since only Microsoft has access to the source code for Windows 95, Microsoft and Microsoft alone could design the OS to look for and only boot upon finding (or otherwise take advantage of the special features of) Microsoft's mouse. Thus, mouse/OS combination would be something "OEMs cannot do," *Id.* at 952, and, therefore, the combination would be a single product under the majority's test.

181. "An operating-system designer who wished to turn two products into one could easily commingle the code of two formerly separate products, arranging it so that 'Windows 95 without IE's code will not boot,' so that Windows 95 without Internet Explorer would 'represent a disabled version of Windows 95,' and so that Internet Explorer instructs the Add/Remove function to leave so much of that program in place that 'four lines of programming' will suffice to activate it." *Microsoft*, 147 F.3d at 958 (Wald, J., dissenting) (quoting from the majority opinion, *id.* at 949 n.11, 952 n.17).

182. *Microsoft*, 147 F.3d at 959 n.3 (Wald, J., dissenting).

183. *See id.* at 956 ("[A]lthough the majority claims to have rooted its interpretation in antitrust law, it interprets section IV(E)(i) in a way that is, in fact, inconsistent with at least some governing precedent.").

184. *Id.* at 960 (Wald, J., dissenting).

185. *Id.* at 961.

186. *Id.* at 962.

187. *Id.*

Appeals "effectively exempts software products from antitrust analysis,"[188] even though other courts have applied *Jefferson Parish*'s consumer demand test "in the technological realm."[189] Indeed, the ease with which one could divide and recombine software code as compared to physical products calls for "closer, rather than more relaxed, scrutiny of Microsoft's claims of integration."[190]

Having correctly identified the antitrust test for distinct products and noting its applicability to technological products, Judge Wald departed from it by calling for application of a two factor balancing test.[191] Consistent with antitrust doctrine, Judge Wald would require "independent evidence that a genuine market exists for the two products provided separately."[192] While antitrust law would resolve the single product issue with this evidence alone, Judge Wald would also look for synergies from bundling as a second factor.[193] Judge Wald would then balance these two factors such that the "greater the evidence of distinct markets, the more of a showing of synergy Microsoft must make in order to justify incorporating what would otherwise be an 'other' product into an 'integrated' whole."[194] *Jefferson Parish* implicitly rejected the idea that synergies could trump actual consumer demand when Justice O'Connor advocated this idea in dissent.[195] Nonetheless, even "if there are clearly two distinct markets" for OS and web browser software, Judge Wald would treat Windows 95 and Internet Explorer as a single product provided that "substantial synergies" resulted from the combination.[196]

It is especially ironic that Judge Wald felt the need to add synergies as a factor to the antitrust test since she went out her way to state that "traditional antitrust analysis and the usual methods of the law" provided adequate tools for resolving the single product issue.[197] Judge Wald's apparent belief that "antitrust analysis requires balancing" consumer demand against synergies may have resulted from a misunderstanding of the role that efficiency plays in the analysis.[198] After observing that *Kodak* stated the test in terms of whether sufficient consumer demand exists to make it "efficient" to provide separately, Judge Wald indicated that the "difficulty in this case is that technological evolution can change the boundaries of what is efficient."[199] It is true that if bundling creates significant synergies, as in the case of belts and

188. *Id.* at 958.
189. *Id.* at 960 (Wald, J., dissenting).
190. *Id.* at 958.
191. *See id.* at 959.
192. *Id.* at 958.
193. *See id.* at 957 ("... evidence that there are real benefits to the consumer associated with integrating two software products; I call these benefits 'synergies'").
194. *Id.* at 959.
195. *See Jefferson Parish*, 466 U.S. at 40 (O'Connor, J., concurring).
196. *Microsoft*, 147 F.3d at 959 (Wald, J., dissenting).
197. *Id.* at 958.
198. *Id.* at 959 n.5.
199. *Id.* at 958.

buckles, sufficient consumer demand for them as separate items will cease, i.e., most, if not all, consumers will no longer want to purchase belts and buckles from separate vendors.[200] Thus, the efficiency considerations are implicit in the consumer demand test. There is simply no need for judicial balancing of synergies against consumer demand. The best way to account for synergy is to let consumers decide the single product issue by providing them with the products in both bundled and unbundled form.

Perhaps Judge Wald feared that courts would erroneously condemn competitive product innovations as illegal tying arrangements. In an effort to illustrate the difficulty that she found with applying the consumer demand test to technological innovations, Judge Wald suggested that digital cameras do not constitute two distinct products even though cameras and film have traditionally been sold as separate items.[201] A digital camera, however, entirely eliminates the need for film altogether. Microsoft's combination of Windows 95 with Internet Explorer, however, does not eliminate the need for browser software, it simply mixes that software code with other bits of code. Disposable cameras would provide a much closer analogy to the Windows 95/Internet Explorer bundle since "disposable" cameras require the consumer to purchase the camera and the film together in much the same way that Microsoft's mixing of web browser and OS software code requires consumers to purchase both. Since consumers still demand and manufacturers still provide cameras and film separately, the disposable camera consists of two separate products under antitrust law.[202] This does *not* mean, however, that the sale of disposable cameras violates antitrust law. Given the prevalence of multiple sources of traditional cameras and film, it would be nonsense to suggest that a disposable camera constituted an illegal tying arrangement. Not only because a disposable camera manufacturer would lack the necessary market power to force consumers to accept the tie, but also because antitrust law does not condemn bundling when both items are also available separately. Although only the narrow question of whether Windows 95 and Internet Explorer were distinct products was at issue, Judge Wald need not have feared that a finding of distinct products would necessarily have prohibited Microsoft from the two pieces of software. So long as Microsoft also offered Windows 95 without Internet Explorer, antitrust law

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200. *Compare* Jack Walters & Sons Corp. v. Morton Bldg., Inc., 737 F.2d 699, 703-04 (1984) (finding that *Jefferson Parish* advocated a "separate markets" approach). Nonetheless, if despite the synergies a sufficient number of consumers idiosyncratically desire to purchase the two items separately so that it is profitable for some firms to sell only belts or only buckles, belts and buckles would remain separate products for antitrust purposes. *Cf. id.* at 704.

201. *See Microsoft*, 147 F.3d at 958 (Wald, J., dissenting).

202. This assumes, of course, that consumers' demand is not such that disposable cameras make up their own relevant market, distinct from traditional cameras. If the cross-elasticities of demand between traditional and disposable cameras are such that they are two separate markets, then it is probable that consumers in the disposable camera market would not view the camera and the film as distinct products.

would not prohibit Microsoft from also offering them in combination.

As previously noted, significant synergies from combination may eliminate consumer demand for the items as two separate products, transforming the two items into a single product. Thus, the question arises whether Judge Wald's two factor balancing test would produce the same result as antitrust law with respect to the Windows 95/Internet Explorer bundle. The specific evidence that Judge Wald would consider suggests that her test, like antitrust law, would treat Windows 95 and Internet Explorer as separate products. Both Judge Wald and antitrust law would examine "(1) whether manufacturers of other operating systems require OEMs to include a particular browser; (2) whether Microsoft's own actions reflect a perception of a competitive market for 'Internet Explorer' separate from the market for Windows 95; and even (3) the very existence of competitor browser manufacturers."[203] Consistent with the available evidence on these points, Judge Wald seemed inclined to believe that the typical consumer regards Internet Explorer "as a particular vehicle for accessing information on the Internet, regardless of the underlying code associated with that process."[204] As to the existence of synergies, Judge Wald seems highly skeptical. For example, she indicated that the fact Internet Explorer "distributes certain code to the operating system may simply suggest that some or all of this code should not be considered part of 'Internet Explorer' at all but part of the operating system."[205] To the extent that there are no synergies, only the first factor would apply and the result produced by Judge Wald's balancing test would produce the same result as antitrust law. Judge Wald did, however, acknowledge that the record contained some evidence of synergies.[206] Since synergies can outweigh even the clearest evidence of consumer demand under Judge Wald's test, one cannot know whether her test will find one product where antitrust law finds two until the balance is struck.

The Court of Appeals objected to Judge Wald's balancing test not because of its inconsistency with antitrust law, but because they felt that synergies and consumer perceptions were incommensurable and because courts "are ill equipped to evaluate the benefits of high-tech product design."[207] The latter objection is predictable given the rest of the Court of Appeals' opinion. Again, this concern is unfounded given the ability of courts to deal with complex technological issues in other contexts, and the success that other courts have had in applying antitrust law to high-tech industries. The former objection sweeps too broadly since it could be made to every judicial balancing test.

The real problem with Judge Wald's test is that it adds an unnecessary

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203. *Id.* at 962 (Wald, J., dissenting) (citations omitted).
204. *Id.* at 964 (citations omitted).
205. *Id.*
206. *See id.* at 964 (Wald, J., dissenting).
207. *Microsoft*, 147 F. at 952.

degree of complexity that may produce the wrong result in some cases. As previously noted, the efficiency effects of synergy are already accounted for in the consumer demand test, i.e., if there are overwhelming efficiencies to joint provision, consumers will stop demanding separate provision and the consumer perception of the two items will change from two distinct products to a single integrated product. If the synergies are insignificant, then consumer demand will not change. Balancing the manufacturers' evidence of synergies against consumer demand creates the risk that what a manufacturer wants can overrule the realities of consumer demand. This is particularly true in a case like Microsoft's where high barriers to entry effectively prevent consumers from turning to other manufacturers for alternative product combinations.

IV. IMPLICATIONS FOR WINDOWS 98 TYING CLAIMS LITIGATION

On May 18, 1998, the DOJ filed a new lawsuit under the Sherman Act seeking an injunction to prevent Microsoft from, *inter alia*, tying Internet Explorer to the Windows 98 OS.[208] The Court of Appeals acknowledged this lawsuit, stating that in light of its holding regarding the consent decree, the DOJ "may well regard further pursuit of the [tying] case as unpromising."[209] The Court of Appeals' point would be well taken if the Court of Appeals had interpreted the consent decree in a manner consistent with antitrust law. Since the Court of Appeals interpreted the consent decree in a manner wholly inconsistent with antitrust law, its decision should have no bearing on Windows 98 litigation.

Nonetheless, Microsoft has moved for summary judgment of the Windows 98 antitrust litigation based in large part on the Court of Appeals' consent decree decision.[210] Microsoft also incorporated some of the Court of

208. *See* Complaint at 50-51, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

209. *Microsoft*, 147 F.3d at 953. The Court of Appeals' statement is vague about precisely which "case" the DOJ might want to re-consider. The Court of Appeals may have been referring to the consent decree case in particular, as opposed to the tying claims against Microsoft in general. Nonetheless, it would appear that the Court of Appeals meant the tying claims in general since the Court of Appeals contrasted the "unpromising case" with the "alternate avenues" in the Windows 98 litigation. *Id.*

210. *See* Defendant Microsoft Corporation's Memorandum in Support of Its Motion for Summary Judgment at 22, United States v. Microsoft Corp., No. 98-1232 (D.D.C.) ("[T]he Court of Appeals expressly stated that its analysis was 'consistent with tying law'. Accordingly, the Court of Appeals' analysis is fully applicable to this case."). *See also* Rajiv Chandrasekaran, *Microsoft to Move for Dismissal*, WASH. POST, Aug. 7, 1998, at F01. In support of its motion for summary judgment, Microsoft actually goes beyond the Court of Appeals and argues that "technologically interconnected products are immune from tying claims as long as the physical interconnection of the two products achieves some technologically beneficial result." Defendant Microsoft Corporation's Memorandum in Support of Its Motion for Summary Judgment at 20, United States v. Microsoft Corp., No. 98-1232 (D.D.C.). In support of its assertion, Microsoft relies on a bevy of lower court decisions, most of which were decided before *Jefferson Parish* and which may no longer be valid. For example, Microsoft places a great deal of weight on pre-*Jefferson Parish* decisions from

Appeals' language into its Answer, asserting, for example, that "the incorporation of Internet Explorer technologies into Windows is efficient and produces benefits that users could not otherwise obtain themselves."[211] Nonetheless, Microsoft's pleadings specifically deny that "there is a separate demand for operating systems that lack web browsing functionality,"[212] a position framed in terms consistent with antitrust law.

The Court of Appeals' decision also appears to have influenced the DOJ. For instance, the failure to identify exactly which parts of the software code constituted the Internet Explorer presented the DOJ with one of its most significant problems in enforcing the consent decree. Microsoft seized on this ambiguity first to ship an inoperable version of Windows 95[213] and then to obtain a stipulation that Microsoft could comply with the District Court's order to remove Internet Explorer by hiding the code, but otherwise still leaving it in place on the PC.[214] The Court of Appeals placed a great deal of weight on this in holding that Internet Explorer and the OS had no separate existence.[215] The DOJ has apparently learned from this mistake and has obtained a court order compelling Microsoft to produce evidence which may allow the DOJ to specify which parts of the software code make up the

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the Ninth Circuit, including, *Foremost Pro Color, Inc. v. Eastman Kodak*, 703 F.2d 534 (9th Cir. 1983), *Memorex Corp. v. IBM*, 636 F.2d 1188 (9th Cir. 1980), and *California Computer Prods., Inc. v. IBM*, 613 F.2d 727 (9th Cir. 1979). Subsequent to these decisions, however, the Ninth Circuit upheld the application of tying law as outlined by *Jefferson Parish* to technologically interconnected products in *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336 (9th Cir. 1984).

Microsoft relies on two obscure post-*Jefferson Parish* lower court cases, *Condesa Del Mar, Inc. v. White Way Sign & Maintenance Co.*, No. 86 C 9116, 1987 U.S. Dist. LEXIS 8618 (N.D. Ill. Sept. 24, 1987), and *Innovation Data Processing, Inc. v. Int'l Bus. Mach. Corp.*, 585 F. Supp. 1470 (D.N.J. 1984). *Condesa Del Mar* does support Microsoft's position, but the fact that it is an unpublished district court opinion that fails to cite *Jefferson Parish* or any U.S. Supreme Court tying cases in support of its tying analysis strongly suggests that *Condesa Del Mar* should not have any bearing the Windows 98 litigation. *Innovation Data Processing*, although a published decision, is so obscure that Microsoft's brief repeatedly misstates the case name as *International Data Processing*. Although Microsoft says that *Innovation Data Processing* is "squarely on point," the defendant in *Innovation Data Processing* sold the products in both bundled and unbundled form. 585 F. Supp. at 1474. As *Innovation Data Processing* pointed out, "on that basics [sic] alone there is no illegal tying." *Id.* at 1475. Consequently, the comments in *Innovation Data Processing* about "a lawful package of technologically interrelated components" constitutes mere dicta. *Id.* at 1476. Finally, it is dubious to refer to *Innovation Data Processing* as a post-*Jefferson Parish* case since it was decided a scant three days after *Jefferson Parish* and contains no reference to the U.S. Supreme Court decision.

211. Defendant Microsoft Corporation's Answer to the Complaint Filed by the U.S. Department of Justice ¶ 119, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

212. *Id.* ¶ 104.

213. *See* WENDY ROHM GOLDMAN, THE MICROSOFT FILE 277 (1998).

214. *See* 1998 U.S. App. LEXIS 13242, at 10-11.

215. *See Microsoft*, 147 F.3d at 952 n.18 (Having an OEM "hide the allegedly tied product suggests the oddity of treating as separate products the functionalities that are integrated in the way that Windows 95 and [Internet Explorer] are.").

web browser.[216]

The outcome of any lawsuit turns upon the court's evaluation of the conflicting evidence, as well as the legal tests applied to those findings of fact; the same will be true in the DOJ's current lawsuit against Microsoft.[217] Nevertheless, it is possible to see how the decision to use the Court of Appeals' test versus antitrust law's consumer demand test may affect the outcome of the DOJ's tying claims. Application of the Court of Appeals' test will make it virtually impossible for the DOJ to prove that Windows 98 and Internet Explorer are separate products. Microsoft alleges that the OS and Internet Explorer have a greater degree of unity than Windows 95 and Internet Explorer,[218] which should satisfy the first prong of the Court of Appeals' test. Although the Microsoft pleadings do not identify the specific benefits achieved from bundling Windows 98 and Internet Explorer, Microsoft identified two benefits from bundling the web browser and the OS.[219] First, Microsoft represents that Windows 98 creates a new user interface by allowing users to access applications and documents on their hard drive through the web browser.[220] Second, the "Help" feature of Windows 98 is written in html code, and therefore requires use of a web browser.[221] Any evidence that the DOJ might offer to contradict the veracity of Microsoft's proffered claims is irrelevant under the Court of Appeals' analysis, since the issue is not whether Microsoft's claims are true but whether they are plausible.

Judge Wald's balancing test could prove attractive insofar as it provides

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216. *See* Joel Brinkley, *U.S. Judge Orders Microsoft to Turn Over Operating System Code*, N.Y. TIMES (Aug. 7, 1998) <http://www.nytimes.com/library/tech/98/08/biztech/articles/07microsoft.html>.

217. This is reflected in Judge Jackson's deep ambivalence over which test to apply in response to Microsoft's motion for summary judgment. United States v. Microsoft Corp., 1998 U.S. Dist. LEXIS 1431, *33 (D.D.C. 1998). Ultimately, he decided that there was conflicting evidence as to whether the Windows/IE combination produced a synergy, *id.* at *39, thereby reserving judgment for trial.

218. *See* Defendant Microsoft Corporation's Answer to the Complaint Filed by the U.S. Department of Justice ¶ 116, United States v. Microsoft Corp., No. 98-1232 (D.D.C.) ("[B]ecause Internet Explorer technologies pervade numerous aspects of Windows 98, the ready means of accessing the web browsing functionality provided by these technologies cannot be 'hidden' from end users in Windows 98 as they could be in certain version of Windows 95 by using an Add/Remove Programs utility.").

219. Microsoft's brief identifies a total of five benefits from Windows 95, but at least two—the Internet Connection Wizard and technologies "not directly Internet-related," Defendant Microsoft Corporation's Memorandum in Support of Its Motion for Summary Judgment at 7-8, United States v. Microsoft Corp., No. 98-1232 (D.D.C.)—clearly are not benefits from bundling the web browser software with the OS. A third, the exposure of "a large number of application programming interfaces ('APIs') that ISVs use to obtain operating system services," *id.* at 8, is more problematic since some or all of these APIs may come from the web browser source code. The Internet Explorer web browser undoubtedly contains APIs. Yet it would be misleading to say that these APIs result from bundling, since other web browsers, including Netscape, also include APIs.

220. *See* Defendant Microsoft Corporation's Memorandum in Support of Its Motion for Summary Judgment at 7-8, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

221. *See id.* at 6-7.

something of a middle ground between antitrust law and the Court of Appeals' unquestioning deference to Microsoft. Since Judge Wald would weigh the strength of the evidence of consumer demand for separate products against the synergies *actually* achieved from bundling, the DOJ would have an opportunity to challenge the veracity of Microsoft's claimed synergies from bundling. The first, that Internet Explorer creates a new user interface, is highly dubious given the fact that users were able to achieve this with Windows 95 by installing Internet Explorer as a separate application if they wanted the new interface.[222] As to the second synergy, "Help" files written in html, any web browser can read html files. Web pages, after all, are written in html code. So this is hardly a synergy from bundling.

As discussed *infra*, the DOJ appears to have a very strong case to support consumer demand for separate provision of the web browser and the OS. In addition to the weak evidence of synergy offered by Microsoft in support of its motion for summary judgment, the available extrinsic evidence suggests that consumers do not place much value on the "improved" interface allegedly created by bundling.[223] Indeed, one can turn off the new interface,[224] which suggests that a significant number of consumers do not want it. Microsoft will have shipped an enormous number of copies of Windows 98 by the time of trial, not because consumers necessarily perceive any synergy from bundling the web browser with the OS, but because Microsoft no longer offers consumers the option of purchasing the OS without the web browser.[225]

Assuming that antitrust law's consumer demand is applied, it appears likely that the DOJ will prevail on the single product issue. As previously noted, Microsoft claims that all OSs incorporate web browsers,[226] and Mi-

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222. *See Windows 98: Interface*, FAMILY PC (June 1998) <http://www1.zdnet.com/familypc/content/9805/win98/interface.html> ("Windows 98 is basically Windows 95 with Internet Explorer 4.0."). *See also* Ed Bott, *Windows 98: Worth the Wait?*, PC COMPUTING (July 1998) <http://www.zdnet.com/products/content/pccg/1107/20070.html> ("If you've already upgraded Windows with Internet Explorer 4.0, you won't find any surprises in the Windows 98 user interface.").

223. *See* Jim O'Brien, *Value Is Relative for Windows 98 Upgrade*, COMPUTER SHOPPER (June 25, 1998) <http://www.zdnet.com/netbuyer/edit/smartshopper/buy_perspective/062598bp.html> ("Nobody should feel compelled to upgrade to Windows 98."). *See also* Stephanie Miles, *Win 98: Minor Upgrade, Forced March*, CNET NEWS.COM (June 25, 1998) <http://www.news.com/News/Item/0,4,23534,00.html> ("Few corporations will find Windows 98 features compelling enough to go to the time and expense of upgrading right away.").

224. *See 20 Questions on Win98*, FAMILY PC (June 1998) <http://www1.zdnet.com/familypc/content/9805/win98/20ques1-4.html> ("You can set Windows 98 to what it calls 'classic style' so you can work the desktop and view folders in familiar Windows 95 fashion.").

225. As of June 25, 1998, "computer vendors are going to stop loading Windows 95 on consumer machines and only offer Windows 98." Miles, *supra* note 223.

226. *See* James Niccolai, *Microsoft's Antitrust Defense Revealed in Subpoena to Novell*, INFOWORLD ELECTRIC (July 24, 1998) <http://www.infoworld.com/cgiûbin/displayStory.pl?980724.ehmsoftnovell.htm> ("Microsoft will try to show the court that every

crosoft has attempted to obtain evidence from a number of OS vendors to support this contention.[227] Evidence that other vendors require installation of their web browser with their OS software would indicate that the browser is part of the OS, but whether this evidence exists is questionable. For example, when Apple Computer, Inc., one of the vendors subpoenaed by Microsoft, released the current version of its Macintosh OS (OS 8), Apple included three different browsers on the installation CD-ROM.[228] Apple wrote only one of the three web browsers, an application called Cyberdog. A user who chose the default settings would install either Netscape or Internet Explorer,[229] not Apple's Cyberdog. Furthermore, Apple gives its users the option of not installing any web browser. In short, Apple's OS 8 seems to support the DOJ's case that the web browser is a separate product that can be provided by different vendors or simply dispensed with.

Because the DOJ requested a preliminary injunction, it filed a considerable amount of evidence with its complaint.[230] How well this evidence will hold up under the scrutiny of trial only time will tell, but the DOJ appears to have put together an unusually strong case that consumers view the OS and the web browser as separate products. The DOJ has produced testimony and documentary evidence from within Microsoft showing that Microsoft itself treats Internet Explorer as a separate product. For example, evidence obtained by the DOJ from within Microsoft shows, among other things, that Microsoft (1) advertises and promotes Internet Explorer as a separate product to Windows OS customers, (2) separately tracks web browser market share from OS market share, and (3) plans to release Internet Explorer specific software updates so that consumers may use the latest version of Internet Explorer without also switching to the latest version of the Windows OS.[231] Furthermore, despite advice from its legal counsel not to refer to

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other developer of operating system software has incorporated support for Internet standards including Web functionality into their products."). *See also* Defendant Microsoft Corporation's Answer to the Complaint Filed by the U.S. Department of Justice ¶ 104, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

227. *See* Microsoft Corporation's Memorandum in Support of Its Motion to Compel Novell, Inc. to Comply with the Subpoena Dated June 10, 1998, United States v. Microsoft Corp., No. 98-1232(C.D. Utah) <http://www. microsoft.com/presspass/doj/7-23novell.htm>.

228. Ironically, an injunction requiring Microsoft to include browsers from alternate vendors is one of the forms of relief sought by the DOJ. Complaint at 51, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

229. When Apple first released OS 8, Netscape was the default web browser. In exchange for Microsoft's agreement to purchase $150 million of Apple stock, the default web browser for OS 8 was changed to Internet Explorer.

230. As one would expect, given that Microsoft has filed a motion for summary judgment, Microsoft has not really challenged the DOJ's evidence, except to say that it is legally insufficient based on the Court of Appeals' opinion. *See* Defendant Microsoft Corporation's Memorandum in Support of Its Motion for Summary Judgment at 39-41, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

231. *See* Memorandum of the United States in Support of Motion for Preliminary Injunction at 48-50, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

Internet Explorer as a separate product,[232] Microsoft never referred to Internet Explorer as anything but a separate product until the DOJ formally challenged Microsoft's bundling practices under the consent decree.[233] In addition to the DOJ's evidence, Microsoft admitted in its pleadings that "there are limited sources of separate demand for standalone web browsing software."[234]

Although Microsoft all but concedes the lack of demand for web browsers apart from the OS, its pleadings deny the existence of "separate demand for operating systems that lack web browser functionality."[235] The DOJ, however, has amassed considerable evidence from OEMs of significant consumer demand for the OS without the web browser functionality.[236] Business consumers, in particular, sometimes prefer not have web browsers installed in order "to prevent [their] employees from accessing or attempting to access the Internet or World Wide Web."[237] One of Microsoft's executives, for example, has already testified in the consent decree proceedings that Microsoft disseminated instructions on how to remove Internet Explorer from Windows 95 in response to demand from corporate customers who wanted Windows without the Internet Explorer web browser.[238]

Although it would go a long way toward establishing the existence of distinct products, the DOJ does not need to prove that consumers want the OS without any web browser. Hospital patients clearly do not demand surgery without anesthesia, yet *Jefferson Parish* still found that surgery and anesthesia were separate products because patients desired to purchase these services from separate vendors.[239] *Kodak* suggests the existence of competitors, such as Netscape, in the web browser market tends to establish product separateness.[240] So too does the DOJ's evidence from OEMs that some consumers want a web browser other than Internet Explorer installed with the Windows OS.[241] For example, at least one OEM has tried to configure its

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232. *See id.* at 8 n.3.

233. *See id.* at 8 n.3, 49.

234. Defendant Microsoft Corporation's Answer to the Complaint Filed by the U.S. Department of Justice, United States v. Microsoft Corp. ¶ 104, No. 98-1232 (D.D.C.).

235. *Id.*

236. *See* Memorandum of the United States in Support of Motion for Preliminary Injunction at 52-55, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

237. *Id.* at 52 (*quoting* Declaration of Joseph J. Kanicki, 4/29/98, ¶ 2).

238. *See id.* at 51.

239. *See* Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 1, 23-25 (1984).

240. In its pleadings, Microsoft states that "other companies have entered and will continue to enter the business of supplying software providing web browsing functionality," Defendant Microsoft Corporation's Answer to the Complaint Filed by the U.S. Department of Justice, United States v. Microsoft Corp. ¶ 11, No. 98-1232 (D.D.C.), thereby providing further support for the DOJ's argument that the browser and the OS are separate products.

241. *See* Memorandum of the United States in Support of Motion for Preliminary Injunction at 52, United States v. Microsoft Corp., No. 98-1232 (D.D.C.) ("Some business and government customers prefer not to have Internet Explorer preinstalled on their com-

PCs so that end users can choose a browser, "a process that would include having Internet Explorer automatically removed if the user selected Netscape."[242]

Perhaps the strongest evidence that consumers distinguish between the OS and the web browser comes from outside the evidence in the DOJ's pleadings. Shortly after the DOJ filed its lawsuit, at least one OEM stopped installing Internet Explorer[243] and another began to install both Internet Explorer and Netscape so that "users will be able to choose which browser they want."[244]

It is always hazardous to predict a court's findings of fact before the trial has even begun, but given the evidence cited by the DOJ in its pleadings, one would be remiss in not concluding that application of antitrust law will lead to a finding that Microsoft's OS and its web browser are distinct products. At the same time, it is almost a forgone conclusion that application of the Court of Appeals' test would lead to an inconsistent result.

V. CONCLUSION

Since neither the Court of Appeals nor Judge Wald in dissent interpreted section IV(E)(i) in a manner consistent with antitrust law, one might ask whether the language of the consent decree precludes application of antitrust law's consumer demand test? The answer is no. Given the fairly vague language used in the consent decree and the almost total lack of "evidence of any kind in the record as to what the parties to the consent decree intended,"[245] any number of interpretations are plausible. So while the Court of Appeals' interpretation and Judge Wald's interpretation certainly fall within the range of reasonable meanings, an interpretation consistent with antitrust law is also possible. For example, section IV(E)(i) could mean that Microsoft may create OSs which include features of other products, so long as Microsoft also gives OEMs the option of installing the OS without the added features. In other words, Microsoft did not violate the consent decree by adding Internet Explorer to Windows 95, but Microsoft did violate the

puters because: (1) the customer may have its own software; (2) the customer may wish to install a competitive browser instead of Internet Explorer.") (quoting Declaration of Joseph J. Kanicki, 4/29/98, ¶ 2). *See also id.* at 53-54 ("Our corporate customers do not like to have choices forced upon them, but would rather choose themselves which [web browser] they use.") (quoting Jon Kies Dep. p. 11, lines 13-22); *id.* at 54-55 (citing evidence that Microsoft had refused to allow at least one major OEM's request for permission to ship Windows 98 without Internet Explorer because its customers "prefer a different browser").

242. Memorandum of the United States in Support of Motion for Preliminary Injunction at 23 n.15, United States v. Microsoft Corp., No. 98-1232 (D.D.C.).

243. *See* Dan Briody, *NEC to Stop Pre-loading Browsers with Systems*, INFOWORLD ELECTRIC, (May 22, 1998) <http://www.infoworld.com/cgiûbin/displayStory.pl?980522.wcnec.htm>.

244. *Id.*

245. *Microsoft*, 147 F.3d at 961 n.8.

consent decree when it refused to offer Windows 95 without Internet Explorer.[246] Antitrust law does not prohibit a manufacturer from bundling two distinct products provided consumers are given the alternative of purchasing them separately.[247] If, of course, the synergies from "integrating" Internet Explorer into the OS are real and significant, then consumer demand for web browser software separate from the OS will cease and the two will become one product. But the merger of two products into one will occur because of genuine benefits actually valued by consumers, rather than Microsoft's preference to offer the browser and OS as a single package.[248]

This leads to the final and perhaps most important issue: should antitrust law adopt either of the tests put forward by the Court of Appeals and Judge Wald as the test for separate products? Here again the answer must be no. It bears repetition that tying arrangements threaten competition because tying denies competitors "free access to the market for the tied product" and denies consumers "free choice among competing products."[249] Both the Court of Appeals and Judge Wald ignore these goals to the extent that they allow Microsoft, rather than market forces, to define what constitutes a single product.[250] Current antitrust doctrine, however, is consistent with the

246. This is essentially the interpretation made by the District Court and the DOJ.

247. *See* Northern Pac. Ry. Co. v. United States, 356 U.S. 1, 6 n.4 (1958) ("Of course where the buyer is free to take either product by itself there is no tying problem even though the seller may also offer the two items as a unit at a single price.").

248. Professor Dratler offers essentially this same justification for condemning Microsoft's bundling of Windows 95 and Internet Explorer under section 1 of the Sherman Act:

> [T]he marketplace itself determines the business consequences of the legal decision [that the OS and web browser are distinct products]. If the court is wrong and the products at issue do not really enjoy separate consumer demand, consumers may continue to buy them together, and no harm to competition will result. But if the court is right, and there really is separate demand for the products, whole new vistas of competition, previously foreclosed by the tie, will be opened. Thus, a holding that a tie is illegal does no harm. [I]t is therefore a no-lose proposition.

Dratler, *supra* note 134, at 729 (footnotes omitted). *Compare* AREEDA ET AL., *supra* note 20, at 206 ("[O]ffering items separately furthers no anticompetitive goal."). Not only is the risk of harm from an erroneous finding of tying low, the OS market has a number of unusual characteristics that make it unusually likely that Microsoft would use tying to restrain competition. *See* Baseman et al., *supra* note 6, at 295-98.

249. *Northern Pac. Ry.*, 356 U.S. at 6. *Accord* Karen L. Hunt, Comment, *Product Separability: A Workable Standard to Identify Tie-In Arrangements Under the Antitrust Laws*, 46 S. CAL. L. REV. 160, 164 n.22 (1972) ("[T]he Court seeks to protect two interests in tie-in cases: (1) to protect buyers from coerced purchases; (2) [t]o protect competitors' (of tied products) access to the consuming market."); Festa, *supra* note 73, at 643-44.

250. There is no end in sight to what Microsoft may want to require consumers to accept under the guise of product innovation and integration. For example, Judge Wald warned that under the Court of Appeals' test Microsoft could condition the purchase of the OS on the purchase of "word-processing programs, spreadsheets, and virtually any other now-separate software product by identifying some minimal synergy associated with such 'integration.'" *Microsoft*, 147 F.3d at 962 n.9. It now appears that Microsoft intends to do precisely that by "integrating" its Office suite of business software (which includes word

goals of antitrust law and leaves the determination of the single product issue where it belongs, in the hands of consumers.[251]

This does not mean that every time Microsoft or any other manufacturer decides to combine two products a per se violation of antitrust law will occur. As the Supreme Court stated in *Jefferson Parish*, the fact that consumers "are required to purchase two separate items is only the beginning of the appropriate inquiry."[252] Indeed, *Jefferson Parish* exemplifies the fact that not all packaged sales of distinct products constitute illegal tying. Although the hospital had packaged two distinct products, the Court refused to hold that the package was illegal per se because the hospital lacked the requisite market power in the tying product.[253] Ultimately, the question of illegal tying depends on whether the manufacturer has sufficient market power in the tying product to force consumers to purchase the tied product.[254] Without this power, one cannot presume that the packaged sales are anticompetitive.

The Court of Appeals unquestionably handed Microsoft a significant public relations and psychological victory in its ongoing dispute with the DOJ. Whatever the merits of either the majority or the dissent as interpretations of the consent decree, neither opinion has, or should have, anything to do with the ultimate question of whether Microsoft, or anyone else for that matter, has violated the antitrust law prohibition on tying. Microsoft would like to portray its dispute with the DOJ as a battle over whether the government will dictate the terms of product innovation; but from an antitrust law perspective, it is a battle over whether Microsoft or consumers will control the future of information technology.

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processing and spreadsheet applications) with the next version of Internet Explorer. *See* Paula Rooney, *Microsoft Marries IE 5.0, Office 2000 Interface*, COMPUTER RETAIL WEEK, (Aug. 10, 1998) <http://207.240.177.145/news/1998/weekending080798/aug07dig08.asp>. Since Microsoft claims that Internet Explorer is an integrated part of the OS, this means that Microsoft will undoubtedly claim that the Office package is also an integral part of the OS.

251. *See* Strasser, *supra* note 64, at 257 ("[The consumer demand test] is consistent with tying law's goal of avoiding foreclosure and entry barriers. Defining product markets by buyer demand will direct attention to whether any competitive harms are occurring.").

252. Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 25 (1984).

253. *See id.* at 26-29.

254. *See id.* at 28 ("Tying arrangements need only be condemned if they restrain competition on the merits by forcing purchases that would not otherwise be made.").