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Smart Companies, Foolish Choices - Product Designs That Harm Competitors

Rachel V. Leiterman

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SMART COMPANIES, FOOLISH CHOICES?
PRODUCT DESIGNS THAT HARM COMPETITORS*

by Rachel V. Leiterman†

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I. INTRODUCTION

The antitrust laws in the U.S. are designed to protect competition
and punish behavior that damages competition.¹ Innovation, invention,
and the development of new products are vital to competition. Some
companies, hiding behind the strong policy favoring innovation, have
made changes to their products that are at least as damaging to com-

petitors as they are innovative. These actions may harm competition and innovation in a given market, an effect that is contrary to the purposes of antitrust law.

This Comment looks at the courts’ handling of the problem of design changes that harm competitors, especially design changes to high technology products, where courts claim to be ill-equipped to evaluate the merits of the changes. It examines the U.S. federal antitrust laws and relevant case law that have determined the extent to which a company can make design changes that damage competition. It also examines whether the US antitrust laws, passed to handle anticompetitive behavior in markets vastly different from the high technology and information markets of today, and not significantly altered since, are capable of effectively regulating anticompetitive design behavior in these new markets. This Comment then applies those laws to Microsoft’s integration of Internet Explorer into Windows 95 and 98. Finally, it examines whether there is a better way to separate anticompetitive design behavior from acceptable design behavior.

II. BACKGROUND

A. History of American Antitrust Laws

Laws regulating trade can be traced to the reign of Hammurabi in Babylon, whose famous law code “protected the populace from the unscrupulous who might seek unreasonable profit at the expense of the weak.” In 1773 in Boston, colonists protested the King’s grant of a monopoly to the East India Company by dumping tea into Boston Harbor. The events in Boston eventually led to the American Revolution, “causing many historians to cite antimonopoly sentiments as one of the roots of the struggle for American independence.” Indeed, the Constitution, like the antitrust laws, is based on a fundamental dislike and distrust of centralized power.

2. See, e.g., Northeastern Tel. Co. v. American Tel. and Tel. Co., 651 F.2d 76, 94 (2d. Cir. 1981) (noting support existed for the argument that AT&T purposely incorporated significant and unnecessary disadvantages into a coupler to prevent Northeastern from competing).
5. See id., at 5.
6. Id.
7. See U.S. CONST. arts. I, II, and III (implying a system of checks and balances to prevent any one branch of government from gaining too much power). See also U.S. CONST. art. I, § 8 and amend. X (granting Congress only the enumerated powers, reserving the remaining powers to the states).
Years later, the Civil War caused massive industrial growth which eventually led to consolidation.\(^8\) Consolidation, in turn, gave rise to a growing fear of the impact of the new monopolies on the country.\(^9\) By 1884, a party known as the Anti-Monopoly Party ran a candidate for President.\(^10\) In 1888 the Republican Party included in its platform the "opposition to all combinations of capital organized in trusts or otherwise to control arbitrarily the condition of trade among our citizens."\(^11\) Also in 1888, Ohio Senator John Sherman introduced an antitrust bill in Congress, expressing alarm at the potential unrest threatened by outrage expressed for the trusts.\(^12\) In 1890 the Sherman Act, a compromise bill, passed unanimously in the House and with one dissenting vote in the Senate.\(^13\) Twenty-five years later, the Clayton Act was passed to strengthen and extend the scope of the Sherman Act by making illegal some acts Congress feared the Sherman Act left uncovered.\(^14\)

B. The Sherman Act and the Clayton Act

Section 2 of the Sherman Act deals with monopolization and attempted monopolization by a single firm: "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony."\(^15\) In order to establish monopolization under section 2, case law has held that a plaintiff must prove possession of monopoly power in the relevant market and willful acquisition or maintenance of that power.\(^16\) The willful acquisition or maintenance requirement has been interpreted to mean the use of one's monopoly power to "foreclose competition, to gain a competitive advantage, or to destroy a competitor."\(^17\) However, section 2 does not prevent acquiring monopoly status by virtue of a "superior product, business acumen, or historical accident."\(^18\) Thus, in many cases where plaintiffs

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8. See 1 THE ANTITRUST IMPULSE, supra note 4, at 7.
9. See id.
10. See id.
11. Id, at 8.
13. See 1 THE ANTITRUST IMPULSE, supra note 4, at 8.
14. See id, at 11-12.
had charged anticompetitive design conduct, defendants successfully
defended design changes as necessary for a superior product.\textsuperscript{19}

Many plaintiffs charging anticompetitive design conduct complain
that the design unlawfully ties two products together with technology.\textsuperscript{20}
These tying arrangements are forbidden by sections 1 and 2 of the
Sherman Act and by section 3 of the Clayton Act.\textsuperscript{21} Section 1 states
that "[e]very contract, combination in the form of a trust or otherwise,
or conspiracy, in restraint of trade or commerce among the several
States . . . is hereby declared to be illegal."\textsuperscript{22} Section 3 of the Clayton
Act states:

It shall be unlawful for any person engaged in commerce . . . to
lease or make a sale or contract for sale in goods, wares, mer-
chandise, machinery, supplies, or other commodities . . . on the
condition, agreement, or understanding that the lessee or pur-
chaser thereof shall not use or deal in the goods, . . . of a com-
petitor . . . where the effect of such lease, sale, or contract for
sale . . . may be to substantially lessen competition or tend to cre-
ate a monopoly in any line of commerce.\textsuperscript{23}

There appears to be no difference between a Sherman Act unlaw-
ful tying arrangement and a Clayton Act unlawful tying arrangement.\textsuperscript{24}
The Supreme Court has held that a plaintiff must show three elements
in order to establish a per se tying violation.\textsuperscript{25} First, there must be two
separate products, the purchase of one conditioned on the purchase of
the other. Courts frequently refer to this as the coercion element.\textsuperscript{26}
Second, the seller must possess economic power in the tying product
market sufficient to restrain competition in the tied product market.\textsuperscript{27}
Third, more than an insubstantial amount of commerce in the tied
product market must be affected.\textsuperscript{28}

\textsuperscript{19} See, e.g., Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 286 (2d Cir. 1979);
on other grounds, 510 F.2d 894 (10th Cir.) (per curiam).
\textsuperscript{20} See, e.g., Telex Corp., 367 F. Supp. at 268.
\textsuperscript{24} See In re Data Gen. Corp. Antitrust Litig., 490 F. Supp. 1089, 1100 (N.D. Cal. 1980)
("The requisite elements under the two statutes are now 'virtually identical.'") (quoting Moore v.
Jas H. Matthews & Co., 550 F.2d 1207, 1214 (9th Cir. 1977)).
\textsuperscript{26} See, e.g., Foremost Pro Color, Inc. v. Eastman Kodak Co., 703 F.2d 534, 541-542 (9th
Cir. 1983).
\textsuperscript{27} See Northern Pac. Ry. Co., 356 U.S. at 6.
\textsuperscript{28} See id.
The court in *In re Data General* noted that the inquiry into whether there is a per se tying violation does not end when the three elements are met.\(^{29}\) Courts have recognized exceptional circumstances in which legitimate business justifications may save a tying arrangement that otherwise possesses the requisite elements of a per se violation.\(^{30}\) In many cases, courts have allowed design changes which allegedly tie two products with technology because the new integrated product offers better performance or costs less.\(^{31}\)

In addition, an alleged tying arrangement that does not meet the requirements of a per se violation may still be condemned under a rule of reason test under Section 1 of the Sherman Act.\(^{32}\) "Where a per se claim fails, plaintiff does not necessarily fail altogether in his claim. He simply loses the benefit of the presumption of harm provided by the per se rule and must show the actual effect of the alleged anticompetitive practice on the market."\(^{33}\) However, one court has held that even to reach a rule of reason analysis, the plaintiff must first satisfy the first element of a per se violation: the existence of a tie-in.\(^{34}\)

### C. Statement of the Problem:

**Are the Sherman Act and the Clayton Act Suitable to Decide Whether Design Choices Made by High Technology Companies are Anticompetitive?**

Congress passed the Sherman Act to manage problems such as the sugar trust and the famous Standard Oil Trust.\(^{35}\) Oil and sugar are industries well described by traditional economics because they are fungible. If the supply of these products increases, prices decrease. In the 108 years since the passage of the Sherman Act, business has changed dramatically. Information-based businesses are now a signifi-

\(^{29}\) See *In re Data Gen. Corp.*, 490 F. Supp. at 1101.

\(^{30}\) See id.

\(^{31}\) See, e.g., Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 286 (2d Cir. 1979); Telex Corp. v. International Bus. Machs. Corp., 367 F. Supp. 258, 342 (N.D. Okla. 1973), rev'ed on other grounds, 510 F.2d 894 (10th Cir. 1975) (per curiam). The court in *Data General* also notes that some courts look at legitimate business justifications when deciding whether the elements of a per se tying violation are met and some courts treat legitimate business justifications as a defense after a per se violation has been established. The distinction is not important because the result is the same under each treatment. See *In re Data Gen. Corp.*, 490 F. Supp. at 1101 n.12.


\(^{34}\) See id.

\(^{35}\) See PERITZ, supra note 12.
PRODUCT DESIGNS THAT HARM COMPETITORS

cient sector of the economy. These businesses are not well modeled by
the traditional economic theories on which the Sherman Act was
based. With these new industries, "innovation and standard design
will be more important to antitrust analysis than the traditional pricing
and output considerations." For example, when a person chooses what brand of sugar to pur-
chase, that person is probably not influenced by the brand his neighbor
uses. Rather, he makes his decision based on such things as price and
quality. However, when a person chooses computer software, the
software her neighbor uses and whether his software is compatible
with hers may be more of an important factor than the price and the
quality of the software because she desires to exchange information
with her neighbor via computer. Economists refer to this phenomenon
as "network externalities." That is, "the value of some products in-
creases as more people use the product and, with broad use, the prod-
uct becomes in effect an industry standard, which can in some in-
stances make it exceedingly difficult for non-conforming products to
enter the market even if they are technologically 'superior'."

Accordingly, antitrust laws designed to deal with sugar and Stan-
ard Oil may be ill-equipped to regulate new technology and informa-
tion-based businesses, which are subject to network externalities. This
comment analyzes whether the veracity of this proposition by examin-
ing the scope of the legitimate business justification defense for design
conduct that damages competitors.

III. ANALYSIS

Several courts have analyzed circumstances where design changes
made by high technology companies damaged competitors. The cases analyzed in this comment are Berkey Photo, Inc. v. Eastman Kodak Co., 603
F.2d 263 (2d Cir. 1979); California Computer Prods., Inc. v. International Bus. Machs. Corp., 613
F.2d 727 (9th Cir. 1979); Foremost Pro Color, Inc. v. Eastman Kodak Co., 703 F.2d 534 (9th Cir.
Corp. Antitrust Litig., 490 F. Supp. 1089 (N.D. Cal. 1980); Innovative Data Processing, Inc. v.
Tel. and Tel. Co., 651 F.2d 76 (2d Cir. 1981); Response of Carolina, Inc. v. Leasco Response, Inc.,
537 F.2d 1307 (5th Cir. 1976); In re IBM Peripheral EDP Devices Antitrust Litig., 481 F. Supp.
ally, plaintiffs allege either tying, prohibited by section 1 of the Sherman Act and section 3 of the Clayton Act; or monopolization, prohibited by section 2 of the Sherman Act; or both. These two types of antitrust complaints are analyzed separately.

A. Tying Arrangements

The three elements necessary for a finding of an illegal tying arrangement are coercion to buy the tied product, market power in the tying product market, and an effect on more than an insubstantial amount of commerce. Generally, the first element, customer coercion, is the most problematic for plaintiffs alleging technological ties. The courts have evolved an analysis of these elements over the years.

1. The Early Cases: The IBM Cases

The courts first addressed the problem of anticompetitive design behavior in the 1970s with a series of cases challenging IBM's introduction of a new computer system that integrated memory, which was previously plugged-in externally, into the central processing unit ("CPU"). The change in the design of the CPU prevented users from choosing memory made by companies other than IBM.

IBM is a manufacturer of computers which has been "deeply involved in the phenomenal growth of the electronic data processing industry since almost the beginning of the industry." In 1964, IBM introduced system 360, which was technically superior to anything on the market, and suited to a variety of scientific and commercial


42. See supra notes 20-34 and accompanying text.

43. See, e.g., Foremost Pro Color Inc., 703 F.2d at 542.


45. See Telex Corp., 367 F. Supp. at 305.

46. Telex Corp., 367 F. Supp. at 270.

Machines of the system 360 era had a central processing unit (CPU) into which an end-user plugged peripheral machines to perform specific data storage, input, and output functions. The peripherals, which attached to the CPUs, were a lucrative part of IBM's business and attracted competition from other companies. These companies made peripherals which could be plugged into IBM CPUs, and thus became known in the industry as plug-compatible manufacturers (PCMs). IBM responded to competition from PCMs by reducing prices on the peripherals where it faced the heaviest competition, and by offering discounted leases to customers who agreed to use IBM peripherals. IBM also integrated memory, the disk drive, and some control functions previously done by peripherals into the CPU of the system 370, the next generation computer.

In 1973, the Northern District of Oklahoma faced the problem of an alleged technological tie in Telex v. IBM. Telex filed suit against IBM challenging IBM's integration of the memory and the CPU in the system 370. Telex complained that IBM's integration of memory and memory control into the CPU was an unlawful tying arrangement. The court noted at the trial that "[b]y 1970, some plug compatible devices offered... by PCMs were, in fact, functionally superior to, and were regarded by IBM as superior to, their corresponding IBM products." In addition, at least one IBM employee testified that one of the motivations for the bundling of memory and memory control with the CPU was to reduce exposure to plug compatible competition because their low-cost and often superior products would likely continue to chip away at IBM's share of the peripheral market. In spite of this evidence, the court concluded that IBM had not behaved anti-competitively because IBM's integrated product was technologically...

50. See In re IBM Peripheral EDP Devices, 481 F. Supp. at 973.
51. See id.
52. See id.
53. See 3 AREEDA & HOVENKAMP, supra note 47, at 40.
55. See id.
56. Id. at 291.
57. See id. at 306.
superior since it ran faster than the non-integrated version and was less expensive. "While... there is some evidence [IBM's] actions... were designed to help stem the growth of its plug compatible competition, we conclude that the predominant evidence demonstrates that they really represented technological advancements..." Thus, the court formulated the following rule on technological ties: if the new product is technologically superior to the old, the issue is beyond the reach of the antitrust laws. The design is not anticompetitive, regardless of the intent of the designer.59

The court was spared from determining whether this actually was a tying arrangement because IBM continued to offer CPUs without integrated memory.60 However, in the discussion of whether the products were tied, the court showed extensive deference to the arguments by IBM that its product integration was technologically superior, a common theme in opinions involving anticompetitive design conduct.61 In concluding there could be no tying arrangement, the court was apparently persuaded by the fact that the memory control and the CPU were in the same box: "where a court is dealing with what is physically and in fact a single product, Section 3 does not contemplate judicial dissection of that product into parts and the reconstitution of these parts into a tying agreement."62 The court also noted this was not a tying arrangement because IBM was merely following the industry standard, noting that "[c]ontrol of memory function has been integrated with processing functions over a long period of time in varying degrees."63 The court's comment ignores the fact that IBM's dominance in the CPU market allowed it to essentially dictate the industry standards.64

The court concluded that

[i]t the integration of which plaintiffs complain involves in form or substance no tying of the sale or lease of one product to that of another. To rule otherwise would enmesh the courts with technical and uncertain inquiry into the technological justifiability of func-

58. Id. at 342.
59. See id.
60. See id. at 347 ("The integrated control in the System 370 is wholly optional. IBM continues to offer central processing units and to lease independent controllers from IBM, Telex, or whomever they choose.").
61. See id.
62. Id.
63. Id.
64. The court itself noted, "this extraordinary industry [has been] dominated... by IBM's influence." Id. at 278.
tional integration and cast unfortunate doubt on the legality of product innovations in serious detriment to the industry and without legitimate antitrust purpose.65

Thus the Northern District of Oklahoma signaled its preference for deferring to the judgment of the litigants on technical matters instead of insisting that the technical merits of a particular product be vigorously litigated and decided by the court.

Telex was reversed on other grounds by the Tenth Circuit in 1975.66

2. The Fifth Circuit Approach: An Intent-Based Test

Soon after Telex, the Fifth Circuit decided Response of Carolina, Inc. v. Leasco Response, Inc.67 Leasco was a computer time-sharing company68 that leased computer time to small businesses.69 Customers had terminals they used to dial in to Leasco’s to perform tasks such as inventory control and payroll.70 Response of Carolina bought a franchise from Leasco to provide Leasco time-sharing services in the southeastern United States.71 Response of Carolina complained Leasco forced Response of Carolina to lease a particular hardware configuration as a condition of its purchase of a Leasco franchise because it would be technologically impossible for Response of Carolina to configure other hardware for the Leasco software.72 Response of Carolina argued this was an illegal tying arrangement, in violation of section 1 of the Sherman Act.73

The court found no evidence of the coercion necessary to satisfy the first element of a per se tying arrangement violation because there was no evidence suggesting Leasco would have declined to turn over the necessary technical information to properly configure hardware purchased from someone other than Leasco.74 Though the court found no tying arrangement in this situation, it noted a willingness to condemn technological relationships between products if a design was

65. Id. at 347.
66. See Telex Corp., 510 F.2d at 897.
68. See id. at 1310.
69. See id. at 1328.
70. See id.
71. See id. at 1310.
72. See id. at 1329.
73. See id.
74. See id.
chosen solely for an illegal purpose, such as to effectuate a tying arrange-
ment, and not because it was technologically superior:

In some instances, two products might be illegally tied through
the technological relationship between them. If, for example, the
systems software was designed to only be compatible with a spe-
cific hardware configuration, and that specific hardware configu-
ration, because it is based on information held only by the seller,
is only available from that seller, then a violation might be found.
But such a violation must be limited to those instances where the
 technological factor tying the hardware to the software has been
designed for the purpose of tying the products, rather than to
achieve some technologically beneficial result. 75

In effect, the court ruled that if a plaintiff shows that a design
change was motivated solely by anticompetitive intent of the defendant,
the design change violates section 1 of the Sherman Act. 76

3. The Ninth Circuit Approach

a. A District Court Interpretation

The Northern District of California tackled a technological tying
case in 1980 in In re Data General. 77 The defendant Data General
sold computer systems. 78 The plaintiffs 79 competed with Data Gen-
eral’s CPUs, memory boards, and software used with the CPUs. 80 The
plaintiffs complained that Data General tied the licensing of its soft-
ware to the sale of its CPUs, and one plaintiff, Ampex Corp., also
claimed that Data General unlawfully tied the sale of its CPUs to the
sale of its memory boards. 81 The court rejected Data General’s argu-
ment that the CPU/memory and the CPU/software ties were techno-
logically superior and cheaper because Data General failed to show
that any technological benefits would be lost if the CPU, memory, and
software were sold separately, and failed to show that any cost savings
from integration was passed on to the consumer. 82 The court held is-

75. Id. at 1330.
76. See id.
78. See id. at 1097.
79. Fairchild Camera & Instrument Corp., SCI Systems, Inc., Digidyne Corp, Bytronix
    Corp., Ampex Corp., and Data Compass Corp.
81. See id. at 1097.
82. See id. at 1105 (software tie), 1109 (memory tie and cost savings), 1110.
therefore denied cross motions for summary judgment. The court essentially adopted the simple rule of Telex: any design that is faster or cheaper cannot be anticompetitive.

b. *The Ninth Circuit Speaks: Foremost Pro Color*

The Ninth Circuit addressed technological ties in 1983 in *Foremost Pro Color v. Eastman Kodak Co.* Foremost Pro Color was one of a series of cases challenging Kodak's introduction of a new camera, the 110 Instamatic system, which required "a remarkable new film," Kodacolor II. Kodacolor II essentially rendered obsolete Kodak's previous color film, Kodacolor X, because Kodacolor II was a less grainy film, and therefore a superior product to most consumers. Kodacolor II had to be developed using a different process than Kodacolor X, thus independent film developers had to make large investments in new equipment to compete with Kodak in the photofinishing market. Foremost Pro Color alleged that Kodak's design changes forced it to purchase an entire new supply of film, chemicals, and paper. Thus, Foremost Pro Color alleged that Kodak tied cameras to film, film to chemicals, and chemicals to paper and film, in violation of section 1 of the Sherman Act and section 3 of the Clayton Act.

The Ninth Circuit decided there was no coercion, however, because Kodak required no additional products to be purchased as a condition of a sale. Rather, buying the additional products was simply a prerequisite to practical and effective use of the tying product. Perhaps expressing its irritation with technological tying arrangement cases, the *Foremost Pro Color* court adopted the harsh rule that design conduct alone can never form an illegal tying arrangement. Rather, additional anticompetitive conduct is required to support a violation: "[w]e do not believe that, standing alone, such technological interrela-

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83. See id. at 1124.
84. Compare Telex Corp., 367 F. Supp. at 305-06, with In re Data Gen. Corp., 490 F. Supp. at 1105, 1109 (denying motion for summary judgment because defendant failed to show integrated product was technologically superior or cheaper to consumers).
85. See Foremost Pro Color, Inc. v. Eastman Kodak Co., 703 F.2d 534, 537 (9th Cir. 1983).
86. Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 278 (2d Cir. 1979).
87. See id. at 277.
88. See id. at 290.
89. See id.
89. See *Foremost Pro Color Inc.*, 703 F.2d at 537.
90. See id.
91. See id. at 542.
92. See id.
93. See id.
tionship among complementary products is sufficient to establish the coercion essential to a *per se* unlawful tying arrangement." The court reasoned "such a rule could become a roadblock to the competition vital for an ever expanding and improving economy. Product innovation, particularly in such technologically advancing industries as the photographic industry, is in many cases the essence of competitive conduct." Incredibly, the court went on to say that a design choice that is incompatible with competitor’s products does not foreclose competition; rather, it increases competition by providing consumers with a choice among differing technologies, advanced and standard, and by providing competing manufacturers the incentive to enter the new product market by developing similar products of advanced technology. Any short-run absence of competition in the market for the technologically tied product could just as likely be due to the unwillingness or inability of competitors to devote sufficient economic resources to match the pace of technological development set by the industry’s leader, as to the abuse of market power by that dominant firm.

*Foremost Pro Color* decided: “[a]s a general rule, therefore, we hold that the development and introduction of a system of technologically interrelated products is not sufficient alone to establish a *per se* unlawful tying arrangement...” Thus, designs that are technically superior or less expensive can still be deemed anticompetitive if they are accompanied by associated anticompetitive conduct, but design conduct alone will never constitute a *per se* unlawful tying arrangement.

4. The Third Circuit Adopts *Foremost Pro Color* Ruling

Additional anticompetitive conduct is difficult to show, as demonstrated by application of a rule similar to the *Foremost Pro Color* rule in *Innovation Data Processing v. IBM*. In addition to the CPUs at issue in *Telex*, IBM also sold operating systems to operate

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94. *Id.*
95. *Id.*
96. *Id.*
97. *Id.* at 542-3.
98. *See id.*
99. *See id.*
the CPUs. At issue in the case was IPO "J", a release that integrated another software program called Data Facilities Data Set Services (DFDSS), which had previously been licensed separately, into IPO "J". Innovation sold Fast Dump Restore, a program that competed with DFDSS. Innovation alleged that IBM had unlawfully tied IPO "J" and DFDSS, the program necessary to load IPO "J". IBM asserted technological reasons for the integration. IBM also argued that IPO "J" was available without DFDSS, or the customer could use DFDSS to load IPO "J" then cancel the DFDSS license without penalty.

The court, ignoring the immense technical and administrative burden associated with canceling the DFDSS license and switching to Innovation's program, was persuaded by IBM's arguments: "The integrated IPO 'J' rather than constituting an illegal tying arrangement instead constitutes ... a lawful package of technologically interrelated components." The court held that "as a general rule ... the development [and] introduction of a system of technologically interrelated products is not sufficient alone to establish a per se unlawful tying arrangement even if the new products are incompatible with the products then offered by the competition and effective use of any one of the new products necessitates purchase of some or all of the others." Innovation Data Processing was unable to show the required additional anticompetitive conduct necessary for a finding of a per se tying arrangement, but the court remanded for determination of whether IBM had violated "general standards of the Sherman and Clayton Acts."

Innovation Data Processing is an interesting case because the court noted in dicta, without explanation, that continuing to offer the components separately to avoid a finding of a tie was not necessary, as

103. See id. at 1473.
104. See id. at 1471, 1473.
105. See id. at 1471.
106. See id. at 1474.
107. See id.
108. See id.
109. See id. at 1475.
110. Id. at 1476.
111. Id. at 1476-77.
it had been in *Telex.*

"Even if the components of IPO 'J' were not priced separately and available individually, there would still be no unlawful 'tie.'" In spite of this comment, prudence dictates when integrating two products together, a company should always continue to offer them separately, at least initially.

5. Summary of the Tying Arrangement Cases

*Foremost Pro Color* and *Innovation Data Processing* signal courts' wariness of condemning engineering decisions as anticompetitive. These cases held that design changes alone will never establish the coercion element of a per se tying arrangement. Even the less stringent test of *Telex* and *Response of Carolina* is ominous to plaintiffs. These cases held that any design change that results in a faster or cheaper product will not be condemned as a per se illegal tying arrangement.

This rule allows a company to make performance neutral design without fear of antitrust liability, provided they cut their profit margin. As long as the end result is a product that is cheaper to consumers, there is no violation.

B. *The Ninth Circuit's Treatment of Design Conduct as Monopolization*

In order to recover for monopolization in violation of section 2 of the Sherman Act, a plaintiff must show that the defendant has monopoly power in the relevant market and that the defendant has willfully acquired or maintained its monopoly power. Generally, the second

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118. See *Foremost Pro Color Inc.*, 703 F.2d at 542-43; *Innovation Data Processing*, 585 F. Supp. at 1476.


121. See *Telex Corp.*, 367 F. Supp. at 342; *Response of Carolina, Inc.*, 537 F.2d at 1330.

122. See *supra* notes 15-19 and accompanying text.
element, willful acquisition and maintenance, is most problematic to plaintiffs alleging monopolization.\textsuperscript{123}

1. An Early Rule: \textit{CalComp}

The Ninth Circuit decided the issue of anticompetitive design as monopolization in 1979 in \textit{California Computer Products v. IBM} ("CalComp").\textsuperscript{124} \textit{CalComp} was another of the IBM CPU cases.\textsuperscript{125} \textit{CalComp} claimed that the integration of disk drive control functions into the CPU was anticompetitive.\textsuperscript{126} \textit{CalComp} characterized this integration as a "technological manipulation which did not improve performance."\textsuperscript{127} The \textit{CalComp} court bluntly stated "IBM, assuming it was a monopolist, had the right to redesign its products to make them more attractive to buyers—whether by reason of lower manufacturing cost and price or improved performance.... IBM need not have...constricted its product development so as to facilitate sales of rival products."\textsuperscript{128} Not only did the reasonableness of IBM's conduct not present a jury issue, the court complained that CalComp's challenges to the integration of peripherals into the CPU were really claims that product innovation violated antitrust law.\textsuperscript{129}

The holding of \textit{CalComp} is probably an oversimplification. It is probably false that all changes reducing price are not anticompetitive. For example, IBM could have made a cost- and performance-neutral design change that shut out competitors, then lowered prices, knowing that they would recoup profits lost per unit by selling more units. This would have been providing equivalent performance at a lower price, and thus would have been allowed by the \textit{CalComp} court.\textsuperscript{130} The Ninth Circuit in \textit{CalComp} thus ruled that no design change that improves performance or provides equivalent function at lower cost is anticompetitive.\textsuperscript{131}

\textsuperscript{123} See, e.g., \textit{California Computer Prods., Inc. v. International Bus. Machs. Corp.}, 613 F.2d 727, 744 (9th Cir. 1979).
\textsuperscript{124} See \textit{California Computer Prods., Inc. v. International Bus. Machs. Corp.}, 613 F.2d 727 (9th Cir. 1979).
\textsuperscript{125} See supra notes 44 - 53 and accompanying text.
\textsuperscript{126} See \textit{California Computer Prods., Inc.}, 613 F.2d at 731.
\textsuperscript{127} \textit{Id.} at 744.
\textsuperscript{128} \textit{California Computer Prods. Inc.}, 613 F.2d at 744.
\textsuperscript{129} See \textit{Id.}.
\textsuperscript{130} See \textit{Id.} (noting equivalent function at lower cost is a superior product from the buyer's point of view and accordingly not an antitrust violation).
\textsuperscript{131} See \textit{Id.}.
2. A District Court Adopts a Rule of Reason: *Transamerica*

The Northern District of California decided yet another IBM case, *In re IBM Peripheral EDP Devices Antitrust Litigation*[^132] (*Transamerica*) a few months after *CalComp.* Unlike *Calcomp*, *Transamerica* indicated a willingness to find design behavior anticompetitive if it had no purpose and effect other than to preclude others from competing.[^133] However, the court noted "[i]t is more difficult to formulate a legal standard for design conduct than it is to imagine clearly illegal situations."[^134] Indeed, the situation the court imagined, where IBM changed the interfaces "with such frequency that PCMs would have been unable to attach and unable to economically adapt their peripherals to the ever-changing . . . designs,"[^135] is so nakedly anticompetitive that it did not offer any realistic guidance on what design choices would be considered anticompetitive. Though the situation the court described as clearly anticompetitive definitely involved an anticompetitive intent, the court considered then discarded using intent as the touchstone of anticompetitive design conduct. Because strong policy reasons favoring innovation trumped reasons for punishing anticompetitive intentions; "usually many results are intended, and if only one, even the predominating, intent is illegal, and thus punished, legitimate incentives will be imperiled."[^136] The court also questioned the practicality of such a rule, noting that it is often quite difficult to discern corporate intent.[^137]

The *Transamerica* court settled ultimately on the following test: "[i]f the design choice is unreasonably restrictive of competition, the monopolist’s conduct violates the Sherman Act."[^138] It then analyzed the three design changes at issue: a change in the interface made between a tape drive and controller called Aspen, a change in the interface between a disk drive and controller called Mallard, and changes made to a multiplexor.[^139]


[^134]: *In re IBM Peripheral EDP Devices*, 481 F. Supp. at 1002.

[^135]: *Id.* at 1003.

[^136]: *See id.*

[^137]: *Id.*

[^138]: *See id.* at 1003-07.
The Aspen interface was conceded by Transamerica to be a superior product, thus there was no anticompetitive behavior in modifying it. The Mallard design was adopted primarily to preclude PCM competition, the court decided it was a superior design, noting that the market segment affected by the change was too small for any serious precluding effect. In the case of the multiplexor, however, the court found that IBM had purposely degraded the performance of the device so that certain competitors’ peripherals could not be attached: "The only purpose served and the only effect of the degradation was the preclusion of competition . . . . The law need not tolerate deliberate acts where the only purpose and effect is to use monopoly power to gain a competitive advantage." Slowing down the multiplexor unreasonably restricted competition and was a violation of the Sherman Act.

Transamerica ruled that a design change that degrades performance unreasonably restricts competition and is therefore anticompetitive, but it did not answer whether design conduct unreasonably restricts competition if it leads to performance that is no better and no worse than the previous design. Transamerica was affirmed by the Ninth Circuit in 1983.

3. Foremost Pro Color

In Foremost Pro Color v. Eastman Kodak Co., Foremost Pro Color alleged monopolization under section 2 of the Sherman Act in addition to illegal tying arrangements. After deciding that Kodak’s simultaneous introduction of the Instamatic 110 camera and Kodacolor II film was not an illegal tying arrangement, the court quickly disposed of Foremost Pro Color’s monopolization allegations. The court

140. See id. at 1004. Perhaps in reliance on Telex, the court viewed integration of certain functions into the control unit as evidence of technological superiority.
141. See id. at 1005.
142. Id. at 1007-08.
143. See id. at 1008. The court noted in footnote 109 that the market excluded by this design change was insignificant, thus a finding of a violation of the Sherman Act must be accompanied by a finding that Transamerica suffered no injury as a result. See id. at 1008 n.109.
144. See id. at 1003.
146. See supra notes 85-98 and accompanying text.
147. See Foremost Pro Color Inc., 703 F.2d at 537.
148. See id. at 544-45.
stated that the only other anticompetitive design behavior alleged, the
introduction of incompatibilities with then existing products and fin-
ishing equipment, was nothing more than part of the process of inno-
vation and invention.\textsuperscript{149}

The Ninth Circuit initially decided in \textit{CalComp} that design con-
duct that lowered price or improved performance could never be an
antitrust violation.\textsuperscript{150} Then, the court affirmed the rule in \textit{Trans-
america} that any design conduct that is unreasonably restrictive of
competition is an antitrust violation.\textsuperscript{151} Finally, in \textit{Foremost Pro
Color}, the Ninth Circuit signaled its unwillingness ever to find design
conduct in violation of section 2 of the Sherman Act, by holding that
the plaintiff must show associated anticompetitive conduct in addition
to a product introduction.\textsuperscript{152}

\textbf{C. Monopoly Leveraging and the Second Circuit's Treatment
of Monopolization}

\textbf{1. Monopoly Leveraging Under Berkey Photo}

In \textit{Berkey Photo, Inc. v. Eastman Kodak Company}, the Second
Circuit first recognized a separate form of liability under section 2
known as monopoly leveraging.\textsuperscript{153} Monopoly leveraging occurs when
"a seller who has a monopoly in one product . . . uses a tie-in to obtain
a competitive advantage in a second market, 'even if there has not been
an attempt to monopolize the second market.'"\textsuperscript{154} Like \textit{Foremost Pro
Color}, Berkey involved Kodak's release of the 110 instamatic camera
system and Kodacolor II film.\textsuperscript{155} Berkey claimed the introduction was
anticompetitive because it required independent photo developers to
make expensive equipment changes to continue to be able to develop
Kodak film.\textsuperscript{156} Berkey claimed that Kodak was unlawfully using its

\textsuperscript{149} See id. at 544-45. Foremost Pro Color also alleged that Kodak had violated section 2 of
the Sherman Act by withholding new products until competition forced their introduction. The
court decided this was not a violation of section 2 because a company, even a monopolist, can bring
products to market whenever it wishes. \textit{See id.}

\textsuperscript{150} See California Computer Prods. Inc., 613 F.2d at 744.

\textsuperscript{151} \textit{See In re IBM Peripheral EDP Devices}, 481 F. Supp. at 1003.

\textsuperscript{152} \textit{See Foremost Pro Color, Inc.}, 703 F.2d at 545.

\textsuperscript{153} Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263 (2d Cir. 1979). \textit{See United

\textsuperscript{154} United States v. Microsoft Corp., No. CIV. A. 98-1232, 1998 WL 614485 at *23

\textsuperscript{155} \textit{Berkey Photo Inc.}, 603 F.2d at 268.

\textsuperscript{156} \textit{See id. at 290.}
monopoly in the film market to gain an advantage in the photofinishing and photofinishing equipment markets.

The court noted "it is clear that Kodak did not monopolize or attempt to monopolize the photofinishing or [photofinishing] equipment markets."  However, "the use of monopoly power attained in one market to gain a competitive advantage in another is a violation of section 2, even if there has not been an attempt to monopolize the second market. . . . But, . . . a large firm does not violate section 2 simply by reaping the competitive rewards attributable to its efficient size. . . ."  "Only the wielding of power will support recovery in this context; advantages inuring . . . by virtue of membership in an integrated firm will not."  The Court was unable to determine if Kodak's introduction of the new photofinishing process was permissible, or a violation of section 2: "Kodak's ability to gain a rapidly diminishing competitive advantage with the introduction of the 110 system may have been attributable to its innovation of a new system of photography, and not its monopoly power."  On the other hand, we cannot dismiss the possibility that Kodak's monopoly power in other markets was at least a partial root of its ability to gain an advantage over its photofinishing competitors . . . ."  The court ultimately decided a new trial was necessary to decide this issue.

Monopoly leveraging is very similar to tying. A plaintiff alleging monopoly leveraging must satisfy a two prong test substantially similar to the last two prongs of the per se tying arrangement test.  The monopoly leveraging plaintiff must show a monopoly in one market, analogous to the economic power in the tying market prong of the per se tying arrangement.  The monopoly leveraging plaintiff must also show a competitive advantage gained in a second market, analogous to the effect on not an insubstantial amount of commerce prong of the per se tying arrangement test.  Under both the monopoly leveraging test and the per se tying arrangement test, the effect in the second market

157.  Id. at 291.
158.  Id. at 276.
159.  Id. at 291.
160.  *Berkey Photo Inc.,* 603 F.2d at 292.
161.  See id.
162.  Compare *Berkey Photo Inc.,* 603 F.2d at 276, with *Northern Pac. Ry. Co.,* 356 U.S. at 5-6.
163.  Compare *Berkey Photo Inc.,* 603 F.2d at 276, with *Northern Pac. Ry. Co.,* 356 U.S. at 5-6.
164.  Compare *Berkey Photo Inc.,* 603 F.2d at 276, with *Northern Pac. Ry. Co.,* 356 U.S. at 5-6.
need not rise to the level of monopolization. The difference between monopoly leveraging and tying appears to be in the first prong of the per se tying arrangement test: the existence of two products, the purchase of one conditioned on the purchase of the other. The monopoly leveraging theory of liability under section 2 does not appear to require the plaintiff to show two products tied together, a difficulty that has plagued plaintiffs in many technological tying cases.

Since Berkey Photo, however, the theory of monopoly leveraging as a separate section 2 violation has had limited success. In Alaska Airlines, Inc. v. United Airlines Inc., the Ninth Circuit rejected monopoly leveraging as an independent theory of liability under section 2.

"Even in the two market situation, a plaintiff cannot establish a violation of section 2 without proving that the defendant used its monopoly power in one market to obtain, or attempt to attain, a market in the downstream, or leveraged market. We believe Berkey Photo misapplied the elements of section 2 by concluding that a firm violates section 2 merely by obtaining a competitive advantage in the second market, even in the absence of an attempt to monopolize the leveraged market."

In addition, United States v. Microsoft noted substantial academic criticism of monopoly leveraging as a separate violation of section 2.

2. Monopolization Under Berkey Photo

On Berkey's other section 2 claims, the court was not persuaded that the design changes at issue were anticompetitive because though they rendered Kodacolor X and its associated developing equipment and chemicals obsolete. The "use of Kodacolor II did not in itself create any incompatibilities with an existing camera." Also, the court noted that "Kodak's new format was primarily a camera development" not a film development. Thus, introducing a new camera and a new

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165. See Berkey Photo Inc., 603 F.2d at 276.
168. See Alaska Airlines Inc. v. United Airlines Inc., 948 F.2d 536, 547 (9th Cir.1991).
169. Id. at 547.
171. Berkey Photo Inc., 603 F.2d at 283.
172. Id.
film to match the camera simultaneously could probably not be anti-
competitive to businesses that competed with Kodak’s film and film
processing. However, the court did note that Kodak’s unwillingness to
produce Kodacolor II in the old film formats could be customer coer-
cion, anticompetitive behavior sufficient to show an unlawful tying ar-
rangement. However, Berkey showed no evidence that customers who
would have bought Berkey cameras bought Kodak cameras instead so
they could use the new Kodacolor II film.173

3. Northeastern Telephone

Northeastern Telephone Company v. AT&T tackled the question
of how to handle alleged monopolization by design conduct that does
not involve a product integration.174 At issue in the case was the de-
sign of a device by AT&T that would allow customers to use non-Bell
devices on Bell communication networks.175 When the FCC invali-
dated AT&T’s practice of preventing customers from connecting their
own terminal equipment into Bell communications networks, North-
eastern attempted to compete in the terminal equipment market.176 To
protect the Bell networks from electrical harm, the FCC approved an
AT&T plan to require devices called protective couplers.177 North-
eastern charges AT&T overdesigned the couplers to make them expen-
sive and subject to break down, hampering Northeastern’s efforts to
compete in the business terminal equipment market.178 The district
court returned a verdict for Northeastern.179

The Second Circuit noted at the outset its desire not to have to de-
cide the merits of design choices. “In Berkey Photo, . . . this Court
plumbed the crosscurrents of Section 2 of the Sherman Act . . . , hold-
ing that dominant firms, having lawfully acquired monopoly power,
must be allowed to engage in the rough and tumble of competition.”180
Relying on a National Academy of Sciences panel which found
AT&T’s coupler’s reliance on an external power source to be “a sig-
nificant and probably unnecessary disadvantage”, the court found that

173. See id. at 288.
175. See id. at 81.
176. See id. at 80.
177. See id. at 81.
178. See id.
179. See id. at 82.
180. Id. at 79.
the jury could have considered this to be anticompetitive behavior. The case was remanded on the issue of whether the coupler design was anticompetitive because the jury had not specified its reasons for finding for Northeastern. The Court concluded that AT&T's disadvantageous design could be considered anticompetitive. Thus, any design that does not pose disadvantages, or in other words, is technologically advantageous or superior will not be anticompetitive. The Northeastern court appears to adopt a rule similar to the CalComp rule that no superior or cheaper design will be deemed anticompetitive.183

Northeastern essentially held that where there is a design change that does not involve integration, the defendant need only show that its new design is technologically superior to or cheaper than the previous design.184

4. The Differences between Berkey and Northeastern Telephone: GAF v. Kodak

A District Court noted the differences between Berkey and Northeastern in GAF Corp. v. Eastman Kodak Co. The facts were similar to Berkey and Foremost Pro Color. The court noted a difference between the monopoly leveraging and monopolization rules and the rule for other design conduct: "[the] use of monopoly power in one market to gain an advantage in another market, as well as use of monopoly power in the same market, is condemned by [the Sherman Act]. Less clear is the scrutiny to be afforded design conduct." The court then added to the rule articulated in Northeastern. It reasoned that because the FCC had granted AT&T the exclusive right to make the couplers, there was no competition in the market, and thus the holding of Northeastern should be limited to those situations where market

181. Id. at 94-95. The coupler's reliance on an external power source was found to be unnecessary because there was power available from the phone lines that could be used to supply power to the coupler. The external power source was a serious disadvantage because it meant customers using equipment that required couplers lost the use of the equipment when the power went out, while Bell customers did not lose the use of their equipment because their equipment was powered by the telephone lines. See id. at 81 n.5.
182. See id. at 94-95.
183. See supra notes 124-131 and accompanying text.
184. See Northeastern Tel. Co., 651 F.2d at 94.
186. See supra notes 86-90, 155-156 and accompanying text.
188. See Northeastern Tel. Co., 651 F.2d at 94.
forces cannot operate. However, the court decided that market forces are constrained not just where there is a government-granted monopoly, as in *Northeastern*, but also where there is coercive conduct that affects consumer choice.

In addition, the court decided that the design chosen need only be reasonable, not necessarily the design alternative least restrictive of competition. The court came down to the following rule: “the ‘reasonableness’ of the design of a monopolist’s new products . . . may be scrutinized . . . in cases in which ‘market forces cannot operate’—that is, . . . [when] a single firm controls the entire market or in which a monopolist engages in coercive conduct to affect consumer choice.”

5. Summary of the Ninth and Second Circuit Rules on Monopolization

The Ninth Circuit in *CalComp* decided that design conduct that lowers price or improves performance can never constitute a violation of section 2 of the Sherman Act. *Transamerica* backed away from that absolute rule and decided that design changes that are unreasonably restrictive of competition violate section 2.

The Second Circuit’s stand on section 2 monopolization by design conduct is not as clear. The Second Circuit may still recognize monopoly leveraging as an independent section 2 violation. In addition, *Northeastern* held any design change that results in a superior cheaper product does not violate section 2. *GAF* approved of the rule in *Northeastern*, but held that design conduct can only be scrutinized under that rule when market forces cannot operate; that is, where a monopolist coerces consumers.

The Supreme Court has not yet heard a case that involves anticompetitive design conduct.

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189. See *GAF Corp.*, 519 F. Supp. at 1228.
190. See *GAF Corp.*, 519 F. Supp. at 1228.
191. See id.
192. Id. Applying the rule to the facts of the case, the court dismissed Kodak’s summary judgment motion, stating that an issue of fact existed as to whether Kodak coerced film developers to convert to a new processing method. See id. at 1229.
193. See *California Computer Prods Inc.*, 603 F.2d at 744.
194. See *In re IBM Peripheral EDP Devices.*, 481 F. Supp. at 1002.
195. See *Berkey Photo Inc.*, 603 F.2d at 276.
196. See *Northeastern Tel. Co.*, 651 F.2d at 94.
197. See *GAF Corp.*, 519 F. Supp. at 1228.
IV. United States v. Microsoft

A. Introduction

Microsoft Corp. markets the Windows operating system. “An operating system is, so to speak, the central nervous system of the computer, controlling the computer’s interaction with peripherals such as keyboards and printers. . . . Operating systems also serve as ‘platforms’ for application software such as word processors”\(^{198}\) by providing general functions available for use by application software programs.\(^{199}\) The structure of these general functions differ for every operating system.\(^{200}\) As a result, application programs are not platform independent; that is, they are specific to a particular operating system.\(^{201}\) Microsoft has acquired a significant market share in the operating system market due to IBM’s decision in the early 1980s to install Microsoft's operating system on its personal computers.\(^{202}\)

The Internet is a global computer network.\(^{203}\) The World Wide Web is a interactive graphical interface to the Internet.\(^{204}\) A browser is a software program that can be used to search for, retrieve, and view documents on the World Wide Web.\(^{205}\) Netscape currently makes the most widely used Internet browser.\(^{206}\) Microsoft responded to Netscape’s success by developing Internet Explorer ("IE"), a competing browser.\(^{207}\)

The development of Internet browsers may threaten Microsoft’s dominance of the operating system market, because browsers can provide general functions to application programs like an operating system and thus function as a platform.\(^{208}\) The United States alleged that in order to protect its operating system monopoly, Microsoft attempted to use its dominance in the operating system market to leverage into and

\(^{198}\) United States v. Microsoft Corp., 147 F.3d 935, 938 (D.C. Cir. 1998).
\(^{199}\) See id. at 938-39.
\(^{200}\) See id.
\(^{201}\) See id.
\(^{202}\) See id.
\(^{203}\) See United States Department of Justice, 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 7, United States v. Microsoft Corp., 147 F.3d 935 (D.C. Cir. 1998) (No. 94-1564) [hereinafter DOJ Memorandum].
\(^{204}\) See id. at 7-8.
\(^{205}\) See id. at 8.
\(^{206}\) See id.
\(^{207}\) See id. at 9.
\(^{208}\) See Microsoft Corp., 147 F.3d at 939.
control the browser market, so that a Microsoft product would remain the preferred software platform.209

B. Procedural History

1. United States v. Microsoft I, Filed 1994

In 1994, the United States filed suit against Microsoft for unlawfully maintaining a monopoly in the personal computer operating system market.210 Microsoft consented to entry of judgment against it. Final judgment was entered in 1995.211 The Final Judgment consent decree prevented Microsoft from using its monopoly power by conditioning operating system licenses on either licenses for other Microsoft products or promises to not license or distribute any non-Microsoft products. Specifically, section IV(E) of the consent decree states

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, Operating System Software product or other product, (provided, however, that this provision in and of itself shall not be construed to prohibit Microsoft from developing integrated products) . . . .212

After the entry of the consent decree, the Department of Justice learned that beginning in February 1998, Microsoft intended to require original equipment manufacturers ("OEMs") to install Microsoft’s Internet browser, IE, as part of the Windows 95 operating system.213 The Department of Justice (DOJ) felt this was a violation of section IV(E) of the consent decree, and subsequently petitioned for an order to show cause why Microsoft should not be found in civil contempt.214

The district court entered a preliminary injunction forbidding Microsoft from licensing the use of Windows 95 or any successor Microsoft operating system on the condition that the licensee also license and install Internet Explorer or any successor Microsoft Internet browser software.215 The D.C. Circuit clarified section IV(E) and reversed the injunction, holding that the district court erred in granting the injunction because it did not find that there would be irreparable injury with-

209. See DOJ Memorandum at 6-11.
210. See id. at 6.
211. See id.
212. *Microsoft Corp.*, 147 F.3d at 939.
213. See id. at 940.
214. See DOJ Memorandum at 2.
215. See Microsoft Corp., 147 F.3d at 940.
out the injunction. In reversing the injunction, the D.C. Circuit reiterated courts' distaste for evaluating product designs: "Antitrust scholars have long recognized the undesirability of having courts oversee product design, and any dampening of technological innovation would be at crosspurposes with antitrust law. Thus, [we] . . . read . . . section IV(E) as permitting any genuine technological integration." The court went on to attempt to give substantive meaning to the concept of integration. "We think that an ‘integrated product’ is most reasonably understood as a product that combines functionalities . . . in a way that offers advantages unavailable if the functionalities are bought separately and combined by the purchaser." The court then concluded that Windows 95 and IE were an integrated product.

2. United States v. Microsoft II, Filed May 1998

On May 18, 1998, the United States Department of Justice and twenty states' attorney's general filed complaints against Microsoft alleging violations of federal and state antitrust laws. The complaints alleged, among other things, that Microsoft unreasonably restrained competition by "tying" its Internet browser to Windows 98. Microsoft moved for summary judgment on all counts.

Citing Telex and Response of Carolina, Microsoft argued that courts considering alleged tying arrangements involving questions of product design and product integration, like the Windows 98/Internet Explorer integration at issue, should apply a more deferential standard that other tying cases. The Court stated, "this Court is not convinced that either the IBM cases or Foremost Pro Color dictate that Microsoft's licensing practices should be evaluated by a more lenient standard . . . simply because the case involves 'physically integrated products or questions of product design,' as Microsoft puts it."
The Court noted that the Court of Appeals for the District of Columbia, in reversing the District Court’s preliminary injunction which prevented Microsoft from requiring original equipment manufacturers to take Internet Explorer as a condition of licensing Windows 95, seemed to have adopted Microsoft’s proposed more lenient technological tying standard.\textsuperscript{225} The Court of Appeals wrote that the ultimate issue in technological tying cases is whether the “integrated design offers benefits when compared to a purchaser’s combination of corresponding stand-alone functionalities.”\textsuperscript{226} A court analyzes these integration benefits to determine if an alleged technological tie is really a tying arrangement of separate products.\textsuperscript{227} In addition to the integration benefits, the Court of Appeals held, Microsoft must also show “some reason Microsoft, rather than the OEMs or end users, must bring the functionalities together.”\textsuperscript{228}

Applying these tests, the Court denied most of Microsoft’s summary judgment motion.\textsuperscript{229} The Court concluded it needed more facts to determine if the integration benefits claimed by Microsoft were unique to the Windows/Internet Explorer combination, and thus evidence of a truly integrated product, not a tying arrangement.\textsuperscript{230} In addition, the court needed more facts to determine whether Microsoft’s integration was more beneficial than an integration by an OEM or the consumer.\textsuperscript{231}

The Court also distinguished Microsoft’s behavior from the behavior of the defendants in the cases Microsoft cited in support of its more lenient technological tying standard: “The allegations in the present case differ from the IBM allegations in one critical respect: plaintiffs allege that Microsoft did not just bundle IE into Windows 98, but took the further step of contractually prohibiting OEMs from unbundling the two . . . . In contrast, in Telex, there was no forced tie of memory and control functions. The integration was ‘wholly optional,’ and IBM continued to offer the two products separately.”\textsuperscript{232} The court noted: “neither the U.S. nor the States challenges Microsoft’s right to bundle Internet Explorer and Windows. Instead, they challenge the

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{225} Id.
\item \textsuperscript{226} Id. at *10 (citing United States v. Microsoft Corp., 147 F.3d 935, 949 (D.C. Cir. 1998)).
\item \textsuperscript{227} Id. at *11.
\item \textsuperscript{228} Id. (citing United States v. Microsoft Corp., 147 F.3d 935, 951 (D.C. Cir. 1998)).
\item \textsuperscript{229} Id.
\item \textsuperscript{230} Id.
\item \textsuperscript{231} Id.
\item \textsuperscript{232} Id. at *8.
\end{itemize}
\end{footnotesize}
contractual prohibitions against unbundling, and Microsoft's refusal to offer what plaintiffs allege are two products separately."\(^{233}\)

The Microsoft II trial started October 19, 1998.\(^{234}\)

\[\text{C. Analysis under Monopolization and Tying Arrangement Rules}\]

Microsoft's relevant behavior alleged in Microsoft I and Microsoft II is substantially the same: the integration of IE into the Windows operating system. This behavior is analyzed under the above case law, considering the facts alleged in the DOJ's Memorandum in Support of an Order to Show Cause in Microsoft I\(^{235}\) and Microsoft's Memorandum in Opposition.\(^{236}\)

The DOJ alleges that Microsoft went beyond legitimate competition by trying to use its Windows operating system monopoly to coerce computer manufacturers to license and distribute Internet Explorer ("IE"). Microsoft's behavior suggests that it treats IE as a separate product. Microsoft has distributed IE as a separate product, it has developed IE for non-Windows platforms, and it has described IE as a separate product in internal memoranda. In addition, Microsoft has treated IE differently from other Windows updates. With other updates, Microsoft does not advertise the new feature, it does not track the new feature in a market separate from the operating system market, it does not make the new feature available separately from the operating system, and it does not make the new feature available for non-Microsoft systems. In contrast, Microsoft has done all of these things with IE. In addition to Microsoft's apparent belief that IE is a separate product, it is well accepted in the industry that browsers are separate products from operating systems. Finally, it is possible to physically separate Windows and IE.\(^{237}\)

Microsoft claims that integration has created technological benefits that would be lost if Microsoft allowed computer manufacturers to install Windows without IE. Also, Microsoft does not prevent com-

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\(^{233}\) Id. at *9.

\(^{234}\) Joel Brinkley, As Microsoft Trial Gets Started, Gates' Credibility is Questioned, N.Y. TIMES at A1, Oct. 20, 1998.

\(^{235}\) DOJ Memorandum.

\(^{236}\) Microsoft, Memorandum in Opposition to Petition of the United States for an Order to Show Cause Why Respondent Microsoft Corporation Should Not be Found in Civil Contempt, United States v. Microsoft Corp., 147 F.3d 935 (D.C. Cir. 1998) (No. 94-1564) [hereinafter Microsoft Memorandum].

\(^{237}\) DOJ Memorandum, 19-27.
puter manufacturers from installing Netscape Navigator or any other browser in addition to the IE element of Windows. Finally, Microsoft does not prevent end users from deleting any portion of Windows if they choose not to use it, though Microsoft points out that if the user chooses to delete any portion of Windows, including IE, she runs the risk that Windows will not function properly.238

1. Hypothetical: If the DOJ Alleged a Tying Arrangement

a. The Associated Conduct Rule of Innovation:
Data Processing and Foremost Pro Color

Microsoft’s integration of IE and Windows is analogous to the situation in Innovation Data Processing v. IBM.239 Innovation Data Processing and Foremost Pro Color held that design changes alone will never establish the coercion element of a per se tying arrangement.240 The DOJ will probably not be able to show the required associated anticompetitive conduct to establish a violation under this test. Microsoft presented a unified front on the question whether IE was a separate product. There were no task forces convened for the specific purpose of finding a way to reduce exposure to competition, as there were in the IBM cases.241 Even the memos that the DOJ used to show Microsoft considered IE a separate product show a desire only to develop a competitive browser, not to leverage into the browser market by using Microsoft’s operating system monopoly.242 Thus, under the Third and Ninth Circuit associated anticompetitive conduct rules, Microsoft’s behavior would probably not be a violation.

b. The Cheaper and Faster Rule of Response of Carolina and Telex

Applying the rule of Response of Carolina and Telex, that a cheaper or better product can never be a tying arrangement, would not likely change this result.243 The DOJ has offered no evidence that Mi-
Microsoft combined the products with no technological benefit. Indeed, Microsoft has alleged that the integration created a superior product.\(^{244}\) Also, the DOJ offered no evidence of a specific anticompetitive intent. Anticompetitive intent and lack of a technological benefit are required by the Fifth Circuit rule in Response of Carolina v. Leasco Response.\(^{245}\) Thus, the DOJ would probably not prevail under either Response of Carolina or Telex.

2. Hypothetical: If the DOJ Alleged Monopolization

   a. The Ninth Circuit

   According to Transamerica, as long as a design is not unreasonably restrictive of competition, it is not a violation of section 2.\(^{246}\) It is unlikely that the Ninth Circuit would consider the integration of IE and Windows to be any different from the integrations the court accepted in Transamerica.\(^{247}\) In addition, CalComp decided that design conduct that reduces price or improves performance can never constitute a violation of section 2.\(^{248}\) As Microsoft has alleged improved performance from the integration, the DOJ would probably not prevail under the CalComp rule.\(^{249}\) Thus, it is unlikely the DOJ would prevail in the Ninth Circuit.

   b. The Second Circuit

   If monopoly leveraging under Berkey Photo is still a viable theory of recovery under section 2, Microsoft has probably violated section 2 according to the second circuit rule. Under Berkey Photo, monopoly leveraging occurs when a seller with a monopoly uses a tie-in to gain an advantage in a second market.\(^{250}\) Microsoft no doubt has a monopoly in the operating system market, and there is no question Microsoft used any market power it had in the operating system market to secure a competitive advantage, a favorable spot on the desktop for IE, in the Internet browser market.\(^{251}\) Whether Windows and IE is one integrated

\(^{244}\) See Microsoft Memorandum at 7.

\(^{245}\) See Response of Carolina Inc. v. Leasco Response Inc., 537 F.2d 1307 (1976), supra notes 67-76 and accompanying text.

\(^{246}\) See In re IBM Peripheral EDP Devices, 481 F. Supp. at 1003.

\(^{247}\) See California Computer Prods. Inc., 613 F.2d at 744.

\(^{248}\) See In re IBM Peripheral EDP Devices, 481 F. Supp. at 1003-07, supra notes 138-143 and accompanying text.

\(^{249}\) See Microsoft Memorandum at 7.

\(^{250}\) See Berkey Photo Inc., 603 F.2d at 276.

\(^{251}\) See Microsoft Corp., 147 F.3d at 938-39.
product or two tied products appears to be irrelevant to the question whether Microsoft unlawfully leveraged its operating system monopoly.252 Thus, under the second circuit monopoly leveraging rule, Microsoft has violated section 2.

3. Conclusion

Application of existing case law, with the exception of the heavily criticized monopoly leveraging rule of Berkey Photo,253 would probably have brought a court to the same conclusion to which the D.C. Circuit tentatively came, that Windows and IE are an integrated product, not an antitrust violation.254 Under existing antitrust law, this is almost certainly the proper result.

The question remains, is this the best result? Even if Microsoft’s bundling of Windows and IE is not a violation of the antitrust laws, there is no doubt that bundling stifles innovation. “While bundling sometimes seems to provide free goods to the user, those goods are never truly free if the effect is to drive out or discourage innovative competitors for the bundled product. . . . Once rivals are blocked from the market or knocked out of it, those erstwhile rivals will obviously never innovate there again. Nor can they push the bundler to improve its own product (like Netscape apparently did for Microsoft) in order to retain its market position.”255

Microsoft’s dominance in the operating system market will no doubt make IE successful in the Internet browser market. While the usual parade of horribles that is forecast for a market with only one dominant player; no innovation, high prices, inferior products; has not occurred yet in either market, the specter looms. Thus, if Microsoft has not broken the law, perhaps the law needs to be changed.

V. ALTERNATIVES

There are several alternatives to the courts’ current approach to analyzing design choices for anticompetitive behavior. The simplest choice is more judicial scrutiny of engineering decisions. The courts should no longer defer to the litigants on issues of technical merit. In cases scrutinizing design conduct, courts continually voice their oppo-

252. See supra notes 162-167 and accompanying text.
254. See Microsoft Corp., 147 F.3d at 952.
sition to overseeing product design, but this is more likely fear of the technology itself, not fear of having courts oversee design, as courts already decide the merits of product design in product liability case. There is, of course, no way to predict whether increased judicial scrutiny of the technical merits of a product design would change the result in any of the cases analyzed. However, more judicial scrutiny would even the scales of justice by removing the apparent presumption that a defendant’s self-serving declarations of the benefits of a design are true. Accordingly, the Supreme Court should decide whether the legal standards for product design cases are more lenient than for other antitrust cases.

In addition, to avoid stifling innovation, courts could create safeguards that a company can follow to ensure that a design alternative will not be deemed anticompetitive, such as requiring that companies continue to offer the parts of an integrated product separately.

Also, there is always the alternative of new legislation or regulation. “[A]ntitrust [law] was not intended to rule the world, nor is it well suited for that task.” Congress can correct any market failure caused by anticompetitive design choices through regulation. However, the problems with various courts’ approaches to anticompetitive design conduct are not serious enough to warrant new legislation or regulation.

VI. CONCLUSION

Though there are some problems with the way courts have used the antitrust laws to regulate design conduct of today that damages a monopolist’s competitors, the laws can still effectively regulate design conduct with more judicial scrutiny of technical decisions. With clear

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256. See Disner, supra note 255, at 11 (noting that the Court of Appeals opinion in the Microsoft case, while admonishing that courts not second-guess a manufacturer’s design decisions, betrayed a deep understanding of the technology issues in the case).

257. 3 AREEDA & HOVENKAMP, supra note 47 at 98.
rules companies can continue to innovate without fear of antitrust involvement. Thus the 108 year old Sherman Act can effectively regulate high technology and information based businesses. "[T]he Sherman Act has a basic effective vitality which emerges from time to time in an effort to safeguard competition in America. Those who believe that the antitrust laws have lost their vitality had best beware."258