

F.T.C. v. Whole Foods Market, Inc.

502 F.Supp.2d 1 (D.D.C. 2007)

PAUL L. FRIEDMAN, District Judge: This matter is before the Court on plaintiff's motion for a preliminary injunction. Plaintiff, the Federal Trade Commission ("FTC"), filed this lawsuit on June 6, 2007 seeking to enjoin defendant Whole Foods Market, Inc. from acquiring defendant Wild Oats Markets, Inc. during the pendency of an administrative proceeding to be commenced by the FTC pursuant to Sections 7 and 11 of the Clayton Act, 15 U.S.C. §§ 18, 21, and Section 5(b) of the Federal Trade Commission Act ("FTCA"), 15 U.S.C. § 45(b). The FTC believes that the acquisition of Wild Oats by Whole Foods "would violate Section 7 of the Clayton Act and Section 5 of the Federal Trade Commission Act because [it] may substantially lessen competition and/or tend to create a monopoly in the operation of premium natural and organic supermarkets across the United States." Complaint ¶ 15. ***

For the reasons set forth in this Opinion, the Court will deny plaintiff's motion for a preliminary injunction.

I. BACKGROUND

Defendant Whole Foods Market, Inc. ("Whole Foods") is a Texas corporation which opened its first store in 1980. Whole Foods operates approximately 194 stores in North America and the United Kingdom. Defendant Wild Oats Markets, Inc. ("Wild Oats") is a Delaware corporation founded in 1987 and headquartered in Colorado. Wild Oats operates approximately 110 stores in the United States and Canada. Both firms are engaged in the business of selling grocery products, with an emphasis on natural and organic foods. In February 2007, the defendants announced that Whole Foods planned to acquire Wild Oats, and the two companies entered into a formal merger agreement on February 21, 2007.

The FTC alleges that the "operation of premium natural and organic supermarkets is a distinct 'line of commerce' within the meaning of Section 7 of the Clayton Act." Complaint ¶ 34. The FTC further alleges that Whole Foods and Wild Oats are "the only two nationwide operators of premium natural and organic supermarkets in the United States[,] and "are one another's closest competitor in twenty-one geographic markets." *Id.* ¶¶ 37-38. According to the FTC, "[c]onsumers in those markets have reaped price and non-price benefits of competition between Whole Foods and Wild Oats." *Id.* ¶ 38. "[T]hose benefits will be lost if the acquisition occurs in the markets where the two currently compete and they will not occur in those markets where each is planning to expand." *Id.* ¶ 42.

II. LEGAL FRAMEWORK

Section 13(b) of the Federal Trade Commission Act provides:

Whenever the Commission has reason to believe ... that any person, partnership, or corporation is violating, or is about to violate, any provision of law enforced by the Federal Trade Commission, and ... that the enjoining thereof pending the issuance of a complaint by the Commission and until such complaint is dismissed by the Com-

mission or set aside by the court on review, or until the order of the Commission made thereon has become final, would be in the interest of the public ... the Commission ... may bring suit in a district court of the United States to enjoin any such act or practice.

15 U.S.C. § 53(b). “Upon a proper showing that, weighing the equities and considering the Commission’s likelihood of ultimate success, such action would be in the public interest, and after notice to the defendant, a temporary restraining order or a preliminary injunction may be granted...” *Id.*; see also *FTC v. Libbey, Inc.*, 211 F.Supp.2d 34, 43 (D.D.C. 2002). In contrast to the four-part equity standard for the granting of a preliminary injunction in other contexts, “[i]n deciding whether to grant preliminary injunctive relief under section 13(b), the court evaluates whether it is in the public interest to enjoin the proposed merger.” *FTC v. H.J. Heinz Co.*, 246 F.3d 708, 713 (D.C. Cir. 2001). ***

“This standard is broader than the traditional equity standard that is normally applicable to requests for injunctive relief and is consistent with Congress’ intention that injunctive relief be broadly available to the FTC.” *FTC v. Libbey, Inc.*, 211 F.Supp.2d at 44 (quoting and citing *FTC v. Weyerhaeuser*, 665 F.2d 1072, 1080-81 (D.C.Cir.1981)) (internal quotations omitted).

*** As Chief Judge Hogan has noted, “[a]s with many antitrust cases, the definition of the relevant product market in this case is crucial. In fact, to a great extent, this case hinges on the proper definition of the relevant product market.” *FTC v. Staples, Inc.*, 970 F.Supp. 1066, 1073 (D.D.C. 1997). The general rule when determining a relevant product market is that “[t]he outer boundaries of a product market are determined by the reasonable interchangeability of use [by consumers] or the cross-elasticity of demand between the product itself and substitutes for it.” *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962).

Interchangeability of use and cross-elasticity of demand look to the availability of substitute commodities, i.e. whether there are other products offered to consumers which are similar in character or use to the product or products in question, as well as how far buyers will go to substitute one commodity for another. *E.I. du Pont de Nemours*, 351 U.S. [377, 393 (1956)]. In other words, the general question is “whether two products can be used for the same purpose, and if so, whether and to what extent purchasers are willing to substitute one for the other.” *Hayden Pub. Co. v. Cox Broadcasting Corp.*, 730 F.2d 64, 70 n. 8 (2d Cir. 1984).

FTC v. Staples, Inc., 970 F.Supp. at 1074 (parallel citations omitted).

In addition to cross-elasticity of demand, courts also consider “practical indicia” such as “industry or public recognition of the [] market as a separate economic entity, the product’s peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes and specialized vendors” when defining the relevant market. *Brown Shoe Co. v. United States*, 370 U.S. at 325. ***

In this case, if the relevant product market is, as the FTC alleges, a product market of “premium natural and organic supermarkets” consisting only of the two defendants and two other non-national firms, there can be little doubt that the acquisition of the second largest

firm in the market by the largest firm in the market will tend to harm competition in that market. If, on the other hand, the defendants are merely differentiated firms operating within the larger relevant product market of “supermarkets,” the proposed merger will not tend to harm competition. As in *Staples*, “this case hinges”—almost entirely—“on the proper definition of the relevant product market.” *FTC v. Staples, Inc.*, 970 F.Supp. at 1073.

The government also has the burden of proving the relevant geographic market. *FTC v. Tenet Health Corp.*, 186 F.3d at 1052. “A geographic market is that geographic area to which consumers can practically turn for alternative sources of the product and in which the anti-trust defendant faces competition.” *FTC v. Staples, Inc.*, 970 F.Supp. at 1073 (internal quotations omitted). It is the geographic area that would be adversely affected by the proposed acquisition. *United States v. Philadelphia Nat’l Bank*, 374 U.S. 321, 357-58 (1963). As Judge Bates put it in *Arch Coal*:

The relevant geographic market in which to examine the effects of a merger is “the region in which the seller operates, and to which the purchaser can practicably turn for supplies.” *FTC v. Cardinal Health, Inc.*, 12 F.Supp.2d 34, 49 (D.D.C. 1998) (citing *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320 (1961)). The Supreme Court has emphasized that the relevant geographic market must both “correspond to the commercial realities of the industry and be economically significant.” *Brown Shoe [Co. v. United States]*, 370 U.S. at 336-37 (internal citations omitted). The *Merger Guidelines* also provide guidance for determining the relevant geographic market. The geographic market should be delineated as “a region such that a hypothetical monopolist that was the only present or future producer of the relevant product at locations in that region would profitably impose at least a ‘small but significant and nontransitory’ increase in price, holding constant the terms of sale for all products produced elsewhere.” *Merger Guidelines* § 1.21. If buyers would respond to the SSNIP by shifting to products produced outside the proposed geographic market, and this shift were sufficient to render the SSNIP unprofitable, then the proposed geographic market would be too narrow. *Id.*

FTC v. Arch Coal, Inc., 329 F.Supp.2d at 123 (parallel citations omitted). If the FTC shows that the merger may lessen competition in any one of the alleged geographic markets, it is entitled to injunctive relief. *See* 15 U.S.C. § 18.

*** The FTC generally can establish a *prima facie* case of anticompetitive effect by showing that “the merged entity will have a significant percentage of the relevant market.” *FTC v. Swedish Match*, 131 F.Supp.2d at 166. In addition to market share, courts also must examine “market concentration and its increase as a result of the proposed acquisition.” *Id.* As noted, the defendants can then rebut the presumption of anticompetitive effect by showing that the statistical data doesn’t reflect reality in the relevant market. One factor that is an important consideration when analyzing possible anti-competitive effects is whether the acquisition “would result in the elimination of a particularly aggressive competitor in a highly concentrated market ...” *FTC v. Libbey, Inc.*, 211 F.Supp.2d at 47 (quoting *FTC v. Staples, Inc.*, 970 F.Supp. at 1083 (citation omitted)).

III. WHOLE FOODS, WILD OATS, AND THE PROPOSED MERGER

A. Whole Foods and Wild Oats

Whole Foods first opened its doors in 1980. Today it operates 194 stores in the United States, with a broad array of conventional, natural, organic, gourmet, prepared and specialty product offerings. It also operates three stores in Canada; and six stores in the United Kingdom. Whole Foods currently employs over 39,000 people across its U.S. stores. Its operations in the United States are divided into eleven regions. Each region is headed by a regional president. Each regional president reports to one of the two Whole Foods' Co-Presidents and Chief Operating Officers.

Over two decades, Whole Foods has expanded by opening new stores and by acquiring several other premium natural and organic supermarkets: Blue Bonnet Natural Foods Grocery in 1984, Whole Food Company in 1988, Wellspring Grocery in 1991, Bread & Circus in 1992, Mrs. Gooch's in 1993, Bread of Life (San Francisco) in 1995, Unicorn Village in 1995, Oak Street Market in 1995, Fresh Fields in 1996, Granary Market in 1997, Bread of Life (Florida) in 1995, Merchant of Vino in 1997, Nature's Heartland in 1999, Food 4 Thought Natural Food Market and Deli in 2000, Harry's Farmers Market in 2001, and Whole Grocer in 2006.

Most competitive decisions at Whole Foods—including decisions with respect to pricing—are made at the regional level under the supervision of Whole Foods' regional presidents.

Whole Foods has articulated five "Core Values" that it emphasizes "reflect what is truly important to us as an organization." Among these is "selling the highest quality natural and organic products available." Its stores typically stock around 30,000 stock keeping units ("SKUs") of natural and organic products. Whole Foods has evolved from a health food store into a supermarket. Whole Foods' new stores typically range in size between 50,000 and 60,000 square feet. Its 92 stores in development average 54,500 square feet. Whole Foods currently operates four stores in excess of 65,000 square feet and has an additional 17 stores of that size in development. Whole Foods' stores now carry a wide variety of conventional products, everyday value private label items, and premium and gourmet offerings. Many of these items are not organic, including more than half of the produce Whole Foods sells and a significant portion of its prepared foods, bakery, and specialty items.

Wild Oats is headquartered in Boulder, Colorado and operates 115 stores in the United States, under three different banners: Wild Oats Marketplace (nationwide), Henry's Farmers Market (in Southern California), and Sun Harvest (in Texas). It also has stores in British Columbia, Canada, under the name Capers Community Market. Wild Oats says it is committed to selling the "best variety of high-quality products made with wholesome ingredients." Wild Oats sells a large array of natural and organic products that appeal to "health-conscious shoppers," and include "dry groceries, produce, meat, poultry, seafood, dairy, frozen, prepared foods, bakery" offered in a manner "that emphasizes customer service."

Wild Oats has expanded over the past two decades by opening new stores and acquiring several other premium and organic supermarkets: Alfalfa's Markets in 1996, Henry's Marketplace stores in 1999, Sun Harvest stores in 1999, and Natures stores in 1999. PX04449 at 047; PX04449 at 002. The average square footage of Wild Oats' stores today are less than 25,000 square feet.

B. The Proposed Merger and the FTC's Response

On February 21, 2007, Whole Foods and Wild Oats executed an Agreement and Plan of Merger ("Agreement"), pursuant to which Whole Foods would commence a tender offer for all of Wild Oats stock at a price of \$18.50 per share. At this share price, the total price of the transaction would be approximately \$565 million. The parties have agreed to close the transaction contemplated by the Agreement on or before August 31, 2007. After the merger, Whole Foods plans to close a number of Wild Oats stores. It also will sell off all 35 Henry's and Sun Harvest stores (located in California and Texas) to be acquired from Wild Oats.

On February 26, 2007, Whole Foods filed its Premerger Notification and Report Forms with the Federal Trade Commission and the Department of Justice. On June 5, 2007, the FTC authorized its staff to seek both a temporary restraining order and a preliminary injunction to prevent Whole Foods from acquiring Wild Oats pending the outcome of an administrative trial under Section 7 of the Clayton Act and Section 5 of the Federal Trade Commission Act.

On June 6, 2007, the FTC filed a complaint in this Court seeking a temporary restraining order and preliminary injunction to halt the transaction pending an administrative trial on the merits. On June 7, 2007, with the consent of the parties, the Court entered a temporary restraining order to delay completion of the transaction until the Court could rule on the motion for a preliminary injunction.

IV. THE EXPERT WITNESSES

The Federal Trade Commission proffered two expert witnesses: Dr. Kevin M. Murphy, an economist, and Dr. Kent Van Liere, a sociologist. The defendants proffered three expert witnesses: Dr. David T. Scheffman, Jr., an economist; Dr. John L. Stanton, an expert in food marketing; and Ms. Kellyanne Conway, a polling expert.

Dr. Murphy is the George J. Stigler Distinguished Service Professor of Economics at the University of Chicago Graduate School of Business. *** Dr. Scheffman is an Adjunct Professor of Business Strategy and Marketing, Owen Graduate School of Management, Vanderbilt University, and a Director with LECG, LLC. He has twice served as Director of the Bureau of Economics at the Federal Trade Commission, most recently from 2001 to 2003. *** Dr. Stanton is Professor of Food Marketing at Saint Joseph's University in Philadelphia, Pennsylvania. *** Dr. Stanton teaches a variety of food marketing courses in both the B.S. and M.S. programs including Food Marketing Strategy, Target Marketing in the Food Industry, Segmentation and Positioning, and Food Marketing Advertising. ***

V. RELEVANT PRODUCT MARKET

*** The FTC believes the relevant product market is premium natural and organic supermarkets (“PNOS”), of which it alleges there are four in the entire country—Whole Foods (the largest), Wild Oats (the second largest), Earth Fare (with 13 stores in only four states), and New Seasons (with eight stores, all in Oregon). Defendants Whole Foods and Wild Oats believe that the relevant product market is one that includes all supermarkets. “[O]nly examination of the particular market—its structure, history, and probable future”—how it operates in the real world—can provide the appropriate setting for determining the relevant product (and geographic) market and for judging the probable anticompetitive effects of a merger or acquisition. *FTC v. Arch Coal, Inc.*, 329 F.Supp.2d at 116-17. Antitrust theory “cannot trump facts, and even Section 13(b) cases must be resolved on the basis of the record evidence relating to the market and its probable future.” *Id.*

The Court looks first at the Horizontal Merger Guidelines and the testimony and reports of the economic experts and then examines what the evidence shows is really happening in the marketplace.

A. The Horizontal Merger Guidelines and the Economic Evidence

*** In order to determine which products should be included in the relevant product market, the Guidelines methodology begins with each of the products sold by the two firms in question and then performs the hypothetical monopolist test. *** Because the FTC contends that the relevant market is “premium and natural organic supermarkets” (“PNOS”), Dr. Scheffman applied the hypothetical monopolist test by focusing on how consumers likely would behave if the price of grocery products in PNOS rose relative to the price of grocery products in other supermarkets. He stated that the economic implication of this framework is that product market definition must focus its attention on “consumers at the margin” rather than consumers who are “inframarginal.”

A marginal consumer is someone who would switch where he or she shops in response to a small but significant and nontransitory increase in price (“SSNIP”)—that is, if his supermarket of choice imposed a small but significant and nontransitory price increase. According to Dr. Scheffman, in the context of supermarkets—including premium natural and organic supermarkets—such marginal consumers can switch or divert their purchases in any of three ways. First, they can reduce the size of their shopping basket at one supermarket and substitute by buying the same or similar items at another retailer—if that other retailer offers similar products for sale. Second, from the set of supermarkets that the consumer currently frequents, the consumer can switch a particular shopping trip from one supermarket to another. Third, the consumer can change retailers by deciding to no longer frequent a particular supermarket that the consumer no longer believes offers good quality for value.

Dr. Scheffman concludes that firms compete to retain existing business and win new business by competing for marginal consumers. It is these consumers who are susceptible to being won or retained by offering better prices, improved service, higher quality or more diverse product offerings. Supermarket retailers make their pricing, quality and service decisions in ways designed to retain and attract marginal consumers. While businesses value

“core” customers, they simply “cannot survive—let alone grow and remain profitable—solely by catering to this small segment of customers.” The appropriate focus for defining the relevant product (and geographic) market therefore is those marginal consumers. Dr. Scheffman concludes that the “marginal” consumer, not the so-called “core” or “committed” consumer, must be the focus of any antitrust analysis. He believes that this is consistent with the analytical framework set out in the Merger Guidelines. The Court agrees.

Dr. Scheffman used critical loss analysis to analyze the FTC’s proposed product market. As the FTC acknowledges, this is a widely accepted analytical tool in antitrust cases both to analyze market definition and competitive effects. That is because critical loss is implicit in the hypothetical monopolist test. The latter tests whether a SSNIP would be profitable over a candidate product; critical loss analysis assesses how much substitution in response to a SSNIP could occur before a SSNIP becomes unprofitable. To put it another way, SSNIP tests at what price increase a consumer will switch where he or she shops; critical loss tests at what point a purveyor’s price increases lead to a sufficient amount of lost sales (and lost customers) that the economic loss exceeds the gain from having raised prices (the “critical” loss).

Critical loss analysis stems from the recognition that for almost any product, a price increase results in some lost sales as consumers make do with less, switch to other suppliers, or substitute other products. There is a profit detriment to the price increase equal to the product of the per unit gross margin and the number of units lost. But there is also an economic gain from the increased gross margin earned from the higher price on each remaining unit sold. The “critical loss” is the amount of lost sales at which the economic detriment equals the economic gain. It is a “critical” loss because any greater loss will result in the economic detriment exceeding the economic gain, thereby rendering the price increase unprofitable.

The application of the critical loss technique to market definition is a three step process. The first step is to estimate the incremental margin (gross margin) and determine the volume the hypothetical monopolist (or merged entity) would have to lose to render the price increase unprofitable (*i.e.*, the critical loss). The second step is to separately estimate what the actual loss in volume is likely to be as a result of the hypothesized price increase (*i.e.*, the estimated “actual loss”). The last step is to compare the estimate of the actual loss with the critical loss. If the actual loss is greater than the critical loss, the product market definition must be expanded.

In calculating critical loss, Dr. Scheffman originally used a SSNIP of 5% across all products sold by “premium natural and organic supermarkets.” *** Whole Foods has an average gross margin at the store level of approximately [Redacted] A 5% price increase implies a critical loss for Whole Foods of about [Redacted] in volume. Wild Oats stores typically have a gross margin at the store level of about [Redacted] or less. A 5% price increase implies a critical loss for Wild Oats of about [Redacted] in volume. In response to Dr. Murphy’s report and the FTC’s criticism of his use of a 5% SSNIP, Dr. Scheffman also did exactly the same analysis again but this time calculated critical loss for a 1% SSNIP. Critical loss for Whole Foods at that price increase would be a little over [Redacted] in volume—that is, if

the hypothetical monopolist lost a little over [Redacted] of its sales, then a 1% SSNIP would not be profitable.

Critical loss analysis next considers what the actual loss is likely to be if prices increase. Actual loss depends on how many marginal customers are likely to exist and how likely they are to shift purchases in response to a SSNIP. There is no evidence in the record from which to determine cross-elasticity of demand between premium natural and organic supermarkets and other supermarkets and grocery retailers. Nor is there statistical evidence of actual loss, as the SSNIP is hypothetical rather than actual. Therefore, Dr. Scheffman based his estimate of actual loss on weighing the evidence in the case, including the 47 market studies he reviewed.

Dr. Scheffman summarized (and then discussed in detail) what the market studies show: (1) grocery shopping is a relatively highly price sensitive category of retail; (2) Whole Foods and Wild Oats customers are shifting purchases between PNOS and other supermarkets, and can further shift purchases costlessly, *i.e.*, without having to change their shopping patterns; (3) most Whole Foods and Wild Oats shoppers shop frequently at other supermarkets and grocery retailers; (4) other supermarkets compete vigorously for the patronage of customers who also shop at Whole Foods and Wild Oats; and (5) Whole Foods (and to a lesser degree Wild Oats) regularly and extensively price check other supermarkets and food retailers in order to gauge their pricing, their assortments, and other strategies that these competitors are using to attract Whole Foods shoppers and other customers into their stores.

Dr. Scheffman concluded that a substantial portion of Whole Foods and Wild Oats business is at the margin such that in the event of a PNOS price increase, the actual loss would substantially exceed the critical loss. ***

Even accepting the possibility that certain products are sold only at Whole Foods or Wild Oats, or that certain consumers perceive that the quality they want is only available at those stores, Dr. Scheffman concluded that critical loss analysis shows that, particularly with a small SSNIP, a relatively small sales loss would make a price increase unprofitable. The record evidence, including market research studies and evidence of how both consumers and retailers are actually acting in the marketplace, suggests that because so many people are cross-shopping for natural and organic foods and are marginal rather than core customers, the actual loss from a SSNIP would exceed the critical loss. The Court agrees with Dr. Scheffman.

Dr. Scheffman's critical loss analysis demonstrates that the relevant product market must be broader than the market proposed by the FTC: "If all PNOS raised prices, there would be a substantial loss in business," and the loss necessarily would be to other supermarkets. "Based on this qualitative and quantitative evidence, I have concluded that the relevant product market must encompass at least all supermarkets." Evidence of the significant amount of sales that are "at the margin" shows that it is not plausible that a 5% increase in prices attempted by the proposed merged entity would be profitable, since the actual loss in sales arising from such a price increase is likely to far exceed the critical loss. Actual loss would also defeat a 1% price increase.

Applying the product market definition framework of the case law and the Merger Guidelines, it follows that the relevant product market within which to evaluate the proposed transaction must be at least as broad as the retail sale of food and grocery items in supermarkets. As a result, the FTC's proposed relevant product market of PNOS fails.

Dr. Scheffman also reviewed data regarding the sales at newly opened Whole Foods stores in certain markets where Whole Foods had no other stores, so-called "banner" entries. According to Dr. Scheffman, a study of these store opening events is relevant to product market definition because it provides a natural experiment regarding how consumers react to a change in their options. His analysis demonstrates that when Whole Foods enters a new local area, Whole Foods generates substantial sales that are overwhelmingly captured from the local traditional or conventional supermarkets and grocery retailers regardless of whether there are other PNOS in the area. Dr. Scheffman concludes from this analysis that premium natural and organic supermarkets compete directly with other supermarkets.

In an area in which there are no other PNOS, all the sales for the new Whole Foods store necessarily come from other grocery retailers. Dr. Scheffman nevertheless found that these new Whole Foods stores succeeded even though they had to draw all of their customers from other grocery retailers and supermarkets. It is obvious that when Whole Foods opens a new store in an area with no other PNOS it does not create new demand for groceries; rather, consumers divert some of their grocery purchases from other grocery retailers to Whole Foods.

On the other hand, when a Whole Foods store opens in an area already served by a Wild Oats store (or other PNOS), clearly Wild Oats stores can be expected to lose sales. But combined Whole Foods and Wild Oats revenues after entry of the Whole Foods store average more than [Redacted] times the revenues of the Wild Oats store prior to entry. Reviewing Whole Foods entry events in areas where Wild Oats also operated, Dr. Scheffman found that the reduction in Wild Oats sales was only about [Redacted] in most areas-in some less than [Redacted] In other words, when a Whole Foods enters an area that has a Wild Oats store, its sales do not overwhelmingly come from Wild Oats, but primarily from other supermarkets; the main competitive interaction is between Whole Foods and "other" grocery retailers.

Dr. Scheffman found that: (1) on average, the opening of a new Whole Foods store generated substantially more sales of natural and organic products than existed in the area prior to the opening, and (2) in every instance, the new Whole Foods store generated substantially more in sales than the Wild Oats store previously had. He observed, "[c]ontrary to the prediction implied by the FTC's product market, in all cases ... [Whole Foods'] sales are much larger than the reduction in sales of ... [Wild Oats]." Thus, when Whole Foods opens a new store in an area that has a Wild Oats, the data shows that Whole Foods gains a lot of sales, "and most of those sales by far did not come from Wild Oats." From the data, it is clear that most of the sales are coming from non-PNOS supermarkets. Whole Foods is "overwhelmingly ... picking up its sales from non-PNOS markets and of course necessarily has to be ... competitive with those supermarkets to attract those sales and keep them."

Dr. Scheffman made calculations that showed that the combined revenue at a new Whole Foods store and an existing area Wild Oats store was, on average, [Redacted] times the revenue that the Wild Oats store had attracted before the Whole Foods store opened. These facts show that most of Whole Foods' sales came from non "premium natural and organic" supermarkets and other grocery retailers. It follows that most of the customers who frequent the new Whole Foods store come not from Wild Oats but from other competitors. These facts lead to the inevitable conclusion that Whole Foods' and Wild Oats' main competitors are other supermarkets, not just each other.

Dr. Murphy conducted a number of economic analyses. He concluded, among other things, that the estimated impact of banner entry by Whole Foods on Wild Oats' existing-store dollar sales indicates that the entry by Whole Foods into a geographic area reduces sales at nearby Wild Oats stores by [Redacted]. He further concluded that the introduction of competition from Whole Foods has a larger effect on Wild Oats than does the introduction of competition from other sources.

Dr. Murphy studied five entry events in which a Whole Foods banner store entry occurred within five miles of an existing Wild Oats store. Of the five entry events studied, he focused on two—West Hartford, Connecticut, and Fort Collins, Colorado—because he believed they were the only ones that offered sufficient post-entry price and volume data to discern a long run time-pattern of effects.

Compared to Wild Oats stores that did not face entry, Dr. Murphy found that prices in Wild Oats' West Hartford store were [Redacted] six months immediately following entry by Whole Foods, [Redacted] 7 to 12 months following entry, and [Redacted] one year or more. The corresponding percentage reductions in sales in West Hartford were [Redacted] and [Redacted] for these time intervals. The initial (0-6 months) price effect in Fort Collins is [Redacted] and remains about [Redacted] its pre-entry level even after a year. In the second year post-entry, sales in Wild Oats' Fort Collins store had [Redacted] compared to control stores. The Fort Collins Wild Oats store was closed in December 2006. Dr. Murphy did not analyze what happened to Whole Foods prices in Fort Collins in the months after the Wild Oats store closed in December 2006.

From his study of these Whole Foods entry events and his estimate for the effects on Wild Oats and Whole Foods store-wide margins from the banner entries of Whole Foods, Dr. Murphy reached certain conclusions by analogy to the likely exit events that will occur after the merger when Whole Foods closes Wild Oats stores in many markets where they overlap. The Court concludes that these "assumptions" cannot form the basis of a legitimate analysis of effects on competition from the proposed transaction. The Court is unwilling to accept the assumption that the effects on Wild Oats from Whole Foods' entries provide a mirror from which predictions can reliably be made about the effects on Whole Foods from Wild Oats' future exits if this transaction occurs.

Despite the fact that their own expert, Dr. Scheffman, also studied certain banner entry events by Whole Foods and reached conclusions about the success of the new Whole Foods stores and from whom they drew their customers, the defendants vigorously criticize Dr.

Murphy's study of banner entry events because they say Dr. Murphy studied the "wrong events"—banner entries by Whole Foods instead of banner exits by Wild Oats. The FTC acknowledges that Dr. Murphy's study is a study of only those individual markets and "not itself a study beyond those markets." It nevertheless is an important study, according to the FTC, because this information when merged with other studies "casts additional light on what's going on in the marketplace." While the Court is troubled that Dr. Murphy's pricing analysis is based on only two entry events and no exit events, the Court considers it, as the FTC suggests it should, to the extent it "casts additional light on what's going on in the marketplace."

The problem is that "what's going on in the marketplace," according to the credible evidence before the Court, is that (1) Wild Oats prices are higher than Whole Foods prices where the two companies compete, (2) Whole Foods prices are essentially the same at all of its stores in a region, regardless of whether there is a Wild Oats store nearby, and (3) when Whole Foods does enter a new market where Wild Oats operates Whole Foods takes most of its business from other retailers, not from Wild Oats. Furthermore, the market studies and other evidence show that Whole Foods competes vigorously with other supermarkets to retain the business of its many marginal customers.

B. Product Differentiation or Separate Product Market; Consumer Demand for Natural and Organic Products

The complaint alleges that Whole Foods and Wild Oats are both supermarkets. According to the defendants' food marketing expert, Dr. John Stanton, a "supermarket" is a well-defined and widely accepted term within the food retailing industry—it is a retail food store that carries a full-line and wide variety of food and non-food grocery items, and it typically maintains the selection and depth of products to provide one-stop shopping for a customer's food and grocery needs. Whole Foods and Wild Oats are supermarkets, but ones that have focused on high-quality perishables, specialty and natural organic produce, prepared foods, meat, fish, and bakery goods, rather than on dry goods.

The evidence also shows that a typical Whole Foods store carries all the traditional categories of products: fresh produce (both conventional and organic), frozen foods (including ice cream), shelf-stable food and beverage products (including certain popular brands), bread and bakery items, dairy, refrigerated foods, fresh and prepared meats and poultry, fresh seafood, deli, prepared foods, as well as health and beauty aids, cleaning supplies, paper products and other general merchandise, including pet products, kitchen tools, and magazines. While Whole Foods and Wild Oats had and still have as a primary focus the sale of natural and organic fruits, vegetables, meats and other perishables of high quality, Whole Foods and Wild Oats each target a large base of supermarket shoppers who shop for larger categories of food products in competition with other supermarkets.

Whole Foods and Wild Oats also emphasize high levels of customer service; they are "mission driven," with an emphasis on "social and environmental responsibility;" they provide the customer with the confidence of a "lifestyle brand" and a "unique environment," in stores that satisfy "core values" of a lifestyle of health and ecological sustainability and pro-

vide a “superior store experience.” Whole Foods and Wild Oats traditionally have offered a higher level of service than do the majority of conventional supermarket retailers.

The FTC distinguishes between consumers who shop “casually” for natural and organic foods and “customers that have decided that natural and organic is important, lifestyle of health and ecological sustainability is important.” The question, according to the FTC, is where will this latter group shop after the merger and the closure of Wild Oats stores. As explained *supra* at ---- - ---- and *infra* at ----, however, the Court concludes that the effect of the proposed merger on marginal consumers is more important than the effect on such core consumers, as it is the marginal consumers for whom the stores must and do compete most vigorously. ***

Dr. Stanton observed that in today’s world of differentiation, most successful supermarkets have developed certain benefits that distinguish them from the “average” supermarket and give customers a reason for shopping their stores. Differentiating factors can include such things as low prices, ethnic appeal, quality prepared foods, expanded variety within a specific category or department, customer service, or perishable departments such as meats or produce. The question is whether this differentiation creates “sub-markets” or separate product markets for purposes of analyzing competitive impact. Dr. Stanton believes that as the consumer’s desires for various benefits change, supermarket operators will continue to change with them, and that supermarkets modify, re-define and reformat themselves all the time to meet the trends in consumer demand and the trends in competition.

No one can doubt that consumer demand for natural and organic products has sky rocketed in recent years. *** Traditional or conventional supermarkets have responded to this increased demand for natural and organic products. Supermarket chains throughout the country have been expanding and growing their natural and organic offerings, and most are steadily increasing their offerings of these products. While this may not have been the case some years ago, the growth in consumer demand for these natural and organic products now has made them part of the mainstream. Manufacturers and distributors of these products no longer rely on “natural food” stores for distribution of their products.

The evidence also shows that Whole Foods’ supermarket competitors have paid attention to Whole Foods’ success and to the changing consumer demands for fresh, natural and organic foods. Many conventional supermarkets have been refocusing their strategies and repositioning their formats to respond to the changes in consumer demands.

Whole Foods’ internal documents, prepared in the ordinary course of business, indicate that Whole Foods believes it faces “eroding product differentiation” as other supermarkets continue to stock many of the same products that Whole Foods offers. *** Most of the major supermarket chains (regional and national) are improving perishable departments and offering an increased selection of natural and organic foods. ***

Many supermarket companies have invested significant resources into developing and opening new stores some of which mimic Whole Foods’ store designs and product offerings. Many supermarkets have modeled the look and feel of their stores, as well as many of their current competitive strategies, on Whole Foods. Thus, remodeled competitors’ stores often

include expanded produce and organic selection, pro-active customer service, in-store demonstrations and promotions, and attractive, high quality fixtures and product cases.

Nearly every national supermarket chain now carries a wide array of natural and organic products, and many have significantly expanded their offerings of prepared and specialty foods. In addition, many competing supermarket chains have launched their own private label store brands of natural and organic products. These private labels are intended in part to allow other supermarkets to begin competing with Whole Foods in terms of product offerings and price. ***

C. Whole Foods and Wild Oats Customers Cross-Shop at Conventional Supermarkets and Retailers

The evidence shows that many Whole Foods' customers also shop at other supermarkets and retailers, splitting their purchases and looking for the best price on a variety of different grocery items that they might purchase either at Whole Foods or elsewhere. A significant number of Whole Foods customers "cross-shop" between Whole Foods and other supermarkets, such as Delhaize, Kroger, Safeway, Albertsons, Ahold, Publix, and H-E-B. Wild Oats customers also cross-shop at conventional supermarkets.

While cross-shopping has always existed—a customer may have bought organic fruits and vegetables at Whole Foods and milk, coffee and cereal at Safeway—cross-shopping has become particularly prevalent as the different types of distribution channels for natural and organic goods have blurred. Whole Foods' points of differentiation from other stores has eroded because consumers now can purchase natural and organic foods from the same stores where they traditionally bought their milk, coffee and cereal. The evidence shows that some Whole Foods' customers shop in other stores as often as once a week. Research by other supermarket chains also shows that their customers are cross-shopping at Whole Foods. ***

As other retailers move more and more aggressively into the sale of organic and natural foods, market research indicates that a substantial percentage of shoppers at Whole Foods and Wild Oats purchase "healthy," organic and natural products (as well as other products) at other supermarkets. In fact, today, the majority of natural and organic goods sold in the United States are sold by so-called "conventional" supermarkets. Market research also demonstrates Whole Foods shoppers cross-shop for private label products with other supermarkets and grocery retailers.

The FTC argues that whatever cross-shopping may occur, the customers at Whole Foods and Wild Oats—or at least their "core" customers—do not shop at other, more conventional supermarkets routinely and certainly not for premium natural and organic food products. That is because (at least) these "core" customers and perhaps others are looking not just for the premium products but also for the service and unique atmosphere that Whole Foods and Wild Oats provide. ***

Dr. Scheffman *** concluded that people shop at these stores for a variety of reasons, and that there is no clearly definable "core" Whole Foods or Wild Oats shopper. His conclusion is supported by market research that shows that there is no definable "core customer" for

Whole Foods and that Wild Oats and that Whole Foods and Wild Oats customers cannot be characterized by a unique set of descriptors. Whole Foods shoppers “cannot be slotted into coherent categories because they shop at WFM or WO for such a wide variety of reasons.” ***

D. Whole Foods and Wild Oats Compete with Other Supermarkets and Other Supermarkets Compete with Them

The FTC acknowledges that there is competition between Whole Foods and conventional supermarkets to some extent. But “[t]he question is what are the dimensions of that competition, and what are consumers looking for when they shop at Whole Foods and Wild Oats.”

Whole Foods checks its prices against the prices of other supermarkets, and “comp shops” their stores. Whole Foods has offered evidence that it price checks or comp shops against other supermarkets in every area in which it operates. *** The evidence also shows that other supermarkets routinely price check Whole Foods’ stores and adjust prices based on their assessment of Whole Foods’ prices. ***

Whole Foods has three national private label programs: 365 Everyday Value (“365”), 365 Organic, and Whole Brands. Whole Foods’ private label program is intended to be competitive with the natural and organic private label products of many supermarkets. A 2006 study by the Natural Marketing Institute shows that there is a significant overlap of private label offerings between Whole Foods, Safeway, Kroger, Costco, and Ahold, although each retailer has put “effort into diversifying their product line.” (Natural Marketing Institute Private Label Product Analysis). For many of these overlapped SKUs, “[Whole Foods’] prices are very competitive, and in many cases better than those of other stores (with the exception of Costco, most likely due to volume discounts, lower margins, and distribution structure).” *Id.* at 2.

According to Linda Boardman, Senior Coordinator for Private Label for Whole Foods, “[b]ecause more than [Redacted] of Whole Foods shoppers cross-shop at Trader Joe’s, other supermarkets, and mass market stores, we want customers to purchase from Whole Foods more of the products they purchase from competing stores.” Indeed, Whole Foods specifically designed its private label program to compete against other supermarkets. The private label acts as “the entry point for crossover shoppers” and, according to Whole Foods internal documents, it faces competition from Trader Joe’s and supermarket brands. ***

The evidence shows that, when Whole Foods reviews a potential location for a store, it systematically considers every significant supermarket chain in the area a potential competitor for the new store. Sales projections presume that the Whole Foods store will draw the vast majority of its sales from other large supermarket chains. Before Whole Foods decides whether to open a new supermarket in a proposed area, it does a demographic study. The study lists all competitors in the expected draw area and presents key data for each competing store to understand the potential competitive implications of competitor proximity. There is evidence in the record that shows that in reviewing competitors, the study computes the sales of all supermarkets in the area, not just those of so-called premium natural and organic supermarkets. ***

Dr. Stanton's conclusions concerning the competition by Whole Foods and Wild Oats with other, more conventional supermarkets can best be summarized by Paragraph 3 of his Expert Report:

Whole Foods and Wild Oats each compete in the supermarket industry with a plethora of other supermarket businesses. All supermarket retailers, including Whole Foods, attempt to differentiate themselves so as to give customers a reason to shop its stores over its competitors. *This does not, however, indicate that differentiated supermarkets do not compete with each other; to the contrary, it is how they compete with each other.* As consumer demand for fresh, healthy, organic and natural products has increased, more and more supermarket competitors have expanded their product offerings and store formats to more effectively compete for customers; the same customer base that Whole Foods is targeting. This trend has been dramatic, and will continue as consumer demand for these products, and competitor responses, continue to evolve. Whole Foods and Wild Oats face robust competition today in all the cities in which they compete, and Whole Foods will continue to face robust competition in the future after acquiring Wild Oats.

Stanton Report ¶ 3 (emphasis added).

As for the future, Dr. Stanton testified that "I believe that Wild Oats or Whole Foods and/or Wild Oats will face robust competition just about any major area that they go into." When asked to explain what he meant by "robust competition," Dr. Stanton testified, "I mean that other supermarket chains will fight tooth and nail for those customers." When asked if this competition includes price competition, Dr. Stanton testified "It certainly does."

In sum, the evidence before the Court demonstrates that other supermarkets, including Safeway, Wegmans and Delhaize, compete today for the food purchases of customers who shop at Whole Foods and Wild Oats and that Whole Foods' customers already turn for some of their food purchases to the full range of supermarkets. All of these stores carry many of the same products and, increasingly, many offer some of the same ambiance as well. Customers who shop at one of these stores usually shop at others as well.

Today more supermarkets offer more natural and organic products, more high-quality perishables, and some even have more and improved service departments. *** Post-merger, all of these existing competitive alternatives will remain. If the combined firm raised prices or permitted quality to slide, many customers could and would readily shift more of their purchases to any of these alternative sources of natural and organic foods, often stores where they already shop. The evidence of substitutability or "interchangeability of use" is striking.

E. Whole Foods and Wild Oats Do Not Uniquely Compete with Each Other

The evidence shows that Whole Foods' does not have any specific competitive policies, practices, or strategies directed specifically at Wild Oats—its approach towards competing in a geographic area is the same whether Wild Oats is present or not.

The evidence shows that Wild Oats' prices are generally higher than Whole Foods' prices. Furthermore, Whole Foods price checks or comp shops Wild Oats' stores less than it price checks or comp shops other supermarket competitors.

Whole Foods does not regard Wild Oats as a significant competitor in areas where they both operate. Kenneth Meyer, the Whole Foods Mid-Atlantic Regional President, described Whole Foods' view of Wild Oats as follows:

Our experience with Wild Oats in Louisville, and most other areas in my region where we both operate, is that their prices are usually higher than ours, and that our true competition on price and other factors is the multitude of other grocery retailers in those areas-and not Wild Oats.

Meyer Decl. ¶ 13.

Sales data confirm the lack of competitive rivalry between Whole Foods and Wild Oats in Louisville, Kentucky. Whole Foods' stores averaged \$423,900 in weekly sales in 2006. By comparison, Wild Oats' weekly sales in 2006 averaged [Redacted]. Mr. Meyer explained that sales at Whole Foods' Louisville store are sufficiently high that the majority of its sales must be coming from grocery retailers other than Wild Oats, because otherwise "Wild Oats would have closed its doors by now." ***

The lack of meaningful competition between Whole Foods and Wild Oats—at least in the Mid-Atlantic region headed by Kenneth Meyer and in the North Atlantic region headed by David Lannon—is confirmed by the absence of specific pricing comparisons against Wild Oats. Stores in the North Atlantic region were directed to compare the prices of a "market basket" of items against the same basket purchased from its lowest priced competitor. But the Whole Foods store in [Redacted] like other Whole Foods in that region, has "never targeted a Wild Oats [store]" and has never even requested to do so. ***

F. Conclusions Concerning Relevant Product Market

The economic evidence, market research studies, and evidence concerning the realities on the ground—the "practical indicia" discussed by the Supreme Court in *Brown Shoe* and the facts concerning the structure, history and probable future of the particular market alluded to by Judge Bates in *Arch Coal*—all lead to the conclusion that the relevant product market in this case is not premium natural and organic supermarkets ("PNOS") as argued by the FTC but, as Dr. Scheffman has said, at least all supermarkets.

Applying the SSNIP test of the Horizontal Merger Guidelines, the evidence shows that there are many alternatives to which customers could readily take their business if Whole Foods and Wild Oats merged and Whole Foods imposed small but significant and nontransitory price increases—so that such price increases would not be profitable. It follows under this test, as explicated by the critical loss analysis done by Dr. Scheffman, that the product market proposed by the FTC is thus too narrow even under its own Merger Guidelines.

Furthermore, Dr. Scheffman's analysis of banner entries shows that when a new Whole Foods store opens—both in areas where there are no other PNOSs like Wild Oats and in areas where there are one or more Wild Oats stores—Whole Foods sales do not come primarily

from Wild Oats (or other PNOs) but overwhelmingly from other supermarkets operating in the area. The competitive interaction is between Whole Foods and all supermarkets, not just, or even primarily, with Wild Oats. Indeed, the evidence shows that Whole Foods and Wild Oats do not uniquely compete with each other, but with all other supermarkets in areas where both Whole Foods and Wild Oats operate.

Preliminary studies show that after the merger Whole Foods would capture less than [Redacted] (perhaps only [Redacted] of Wild Oats' sales, meaning that [Redacted] would go to other supermarkets and other food retailers, not to Whole Foods. It follows that customers view natural and organic food products at many stores other than Whole Foods as adequate substitutes for those they can obtain at Wild Oats. Most consumers therefore would take their business elsewhere if prices at Whole Foods increased significantly after the merger.

The Court also concludes, along with Dr. Scheffman, Dr. Stanton and others, that the FTC is wrong to focus only on so-called "core" consumers or "committed" customers of Whole Foods. The economic analysis and other evidence show that the proper focus is on "marginal" customers. A fundamental problem with the FTC's reasoning is that it addresses whether Whole Foods has *any* customers who are so dedicated to that store's product array and other qualities that they would not switch *any* of their purchases to another supermarket if Whole Foods began to compete less vigorously by raising prices or decreasing quality. The question is whether *enough* customers would switch *enough* of their purchases that a post-merger price increase or quality decline would be unprofitable for Whole Foods. The evidence presented persuades the Court that certainly beyond the point of critical loss, enough customers would answer this question in the affirmative and switch some or all of their purchases to other food retailers, thus rendering unprofitable any post-merger effort by Whole Foods to increase prices beyond a certain point.

The FTC is also wrong in looking to differentiation or uniqueness as the basis on which to define a product market. The fact that supermarkets seek to differentiate themselves from one another by emphasizing certain products or services does not address the relevant question for product market definition. The real question is whether the differences and points of uniqueness are so substantial that Whole Foods could retain most of its customers even if it were to raise prices or reduce quality after the merger. Because supermarket chains throughout the country now have recognized the interest of a broad range of consumers in natural and organic foods, conventional supermarkets and other retailers have increased and expanded their offerings of such food products and will continue to do so. Consumers therefore now have the practical ability to switch from Whole Foods to other supermarkets to obtain these products.

*34 The fact is that a large number of Whole Foods and Wild Oats customers today shop frequently at other supermarkets for the same products they sometimes also buy at Whole Foods and Wild Oats-so-called cross-shopping. At the same time, other supermarkets now sell many, and an increasing variety of, natural and organic products. Together, these facts further support the conclusion that the relevant product market for evaluating this merger includes, at a minimum, all supermarkets. While "cross-shopping" has always existed, as other

retailers have moved more aggressively into the sale of natural and organic foods, market research shows that a substantial percentage of these cross-shoppers will purchase their natural and organic foods at stores other than Whole Foods more and more frequently, particularly if prices at Whole Foods increase. If, after the merger, Whole Foods raised its prices or permitted its quality to decline, customers could and would easily shift their purchases of natural and organic products from Whole Foods to other supermarkets.

There is yet another factor that leads to the conclusion that the relevant product market in this case must be broader than premium and organic supermarkets and, indeed, that it must be at least as broad as supermarkets: how the players in the marketplace view each other and how their conduct reflects those views. Whole Foods and Wild Oats view other, more conventional supermarkets as their primary competitors, and they plan their strategies accordingly—through “comp” shopping, price checking, and real estate site selection, among other things. The same is true in reverse. Conventional supermarkets like Delhaize, Publix, Safeway and Wegmans consider Whole Foods to be a significant competitor in the marketplace. In attempting to compete with Whole Foods for consumers interested in natural and organic products, stores like Safeway, Kroger and even Trader Joe’s have developed so-called private labels—Safeway’s “O” organic label being prime among them. Whole Foods has responded in kind and designed its own private label programs, primarily to compete against other supermarkets, particularly for the kind of cross-over shoppers previously discussed.

In sum, while all supermarket retailers, including Whole Foods, attempt to differentiate themselves in some way in order to attract customers, they nevertheless compete, and compete vigorously, with each other. The evidence before the Court demonstrates that conventional or more traditional supermarkets today compete for the customers who shop at Whole Foods and Wild Oats, particularly the large number of cross-shopping customers—or customers at the margin—with a growing interest in natural and organic foods. Post-merger, all of these competing alternatives will remain. Based upon the evidence presented, the Court concludes that many customers could and would readily shift more of their purchases to any of the increasingly available substitute sources of natural and organic foods. The Court therefore concludes that the FTC has not met its burden to prove that “premium natural and organic supermarkets” is the relevant product market in this case for antitrust purposes.

VI. RELEVANT GEOGRAPHIC MARKET

The Merger Guidelines delineate the relevant geographic market to be a region such that a hypothetical monopolist that was the only present or future producer of the relevant product at locations in that region would profitably impose a “small but significant and nontransitory increase in price.” Merger Guidelines § 1.21. The question is what would happen if a hypothetical monopolist of the relevant product at that point imposed a SSNP in that region. *Id.* If the FTC shows that the merger may lessen competition in any one of the alleged geographic markets, it is entitled to injunctive relief. *See* 15 U.S.C. § 18.

The FTC has identified 17 areas where there is a Whole Foods store and a Wild Oats store within a six mile radius of the other (“overlapping draw areas”) or within a 16-minute drive

of each other. In an eighteenth area, Portland, Oregon, the FTC applies the same test, but there is also a New Seasons store in the area-another PNOS alleged by the FTC.

The defendants criticize the FTC for defining geographic markets by reference only to distance and driving time because it has failed to consider a myriad of other factors, such as traffic, demographics, locations of other supermarkets, projected population growth, and geography-all factors that likely would limit or expand the store's draw in various directions. Whole Foods notes that it considers these factors and more in siting its stores. In addition, according to the defendants, because of local variations in traffic and geography, the 16-minute driving distances in each direction from a store are highly unlikely to be equal, and, if plotted on a map, are highly unlikely to produce an even circle at any distance around the store.

The FTC responds that defendants' business records and testimony establish that they generally focus on customers within a distance of three to six miles of their stores-and roughly 16 minutes driving time-when selecting site locations and making other competitive assessments.

The Court agrees with the FTC that, in the context of this case and the evidence presented, this is a reasonable way to define the relevant geographic market. See *United States v. General Dynamics Corp.*, 415 U.S. 486, 521 (1974) (markets need not be delineated by "metes and bounds"); *United States v. Pabst Brewing Co.*, 384 U.S. 546, 549 (1966) (the geographic market need not be identified with scientific precision or "by metes and bounds as a surveyor would lay off a plot of ground").

Applying its six-mile overlapping draw area and 16-minute tests, the FTC maintains that the proposed merger will eliminate Whole Foods' only premium natural and organic supermarket competitor (Wild Oats) in defined areas within the following 17 localities: Albuquerque, New Mexico; Boston, Massachusetts; Boulder, Colorado; Hinsdale, Illinois (suburban Chicago); Evanston, Illinois (suburban Chicago); Cleveland, Ohio; Denver, Colorado; West Hartford, Connecticut; Henderson, Nevada; Kansas City-Overland Park, Kansas; Las Vegas, Nevada; Los Angeles, California; Louisville, Kentucky; Omaha, Nebraska; Pasadena, California; Portland, Maine; and St. Louis, Missouri. In an eighteenth market, Portland, Oregon, the FTC maintains that because of the continuing presence of New Seasons, the proposed merger will reduce the number of competitors from three to two in a defined area within Portland, Oregon. While it identifies these 18 overlap markets, the FTC has provided data concerning what percentage of Wild Oats' revenues would transfer from Wild Oats to Whole Foods upon closure of the Wild Oats stores for only nine of the 18 markets in which it says the acquisition and subsequent closure of the Wild Oats stores by Whole Foods would have anti-competitive effect.

In addition, the FTC maintains that the proposed transaction will also eliminate future competition in seven local areas in which Whole Foods has plans in the works to open stores and where Whole Foods and Wild Oats had planned to compete with one another. These areas are located within: Fairfield County, Connecticut; Miami, Florida; Naples, Florida;

Nashville, Tennessee; Palo Alto, California; Reno, Nevada; and Salt Lake City, Utah. PX04357. But the FTC has offered no evidence to support this assertion.

Because the Court already has concluded that the relevant product market is not premium natural and organic supermarkets but, rather, all supermarkets, none of this matters. That is, since the FTC has not met its burden with respect to the relevant product market, the Court need not closely examine the alleged relevant geographic market.

VII. HARM TO COMPETITION

A. General Principles/Market Share and Concentration

Mergers that significantly increase market concentration are presumptively unlawful because the fewer the competitors and the larger the respective market shares, the greater the likelihood that a single firm or group of firms could raise prices above competitive levels. *United States v. Philadelphia Nat'l Bank*, 374 U.S. at 363; *Hospital Corp. of Am. v. FTC*, 807 F.2d 1381, 1389 (7th Cir. 1986); *FTC v. Cardinal Health, Inc.*, 12 F.Supp.2d at 52; Merger Guidelines § 2.0.

Concentration typically is measured by market share and by the Herfindahl-Hirschman Index ("HHI"). The HHI is calculated by summing the squares of the market shares of each market participant, so that greater weight is given to market shares of larger firms, consistent with their relative importance in competitive interactions. Merger Guidelines § 1.5. Where the pre-acquisition HHI exceeds 1800 points, it "is presumed that mergers producing an increase in the HHI of more than 100 points are likely to create or enhance market power or facilitate its exercise." Merger Guidelines § 1.51.

The FTC argues in this case that the combined shares of Whole Foods and Wild Oats in the premium natural and organic supermarkets would be 100% in 17 of the 18 alleged relevant geographic markets, as they are the only premium natural and organic supermarkets in those geographic markets. This reaches the theoretical maximum HHI of 10,000 points.

The premise of the FTC's argument, however, is that premium natural and organic supermarkets constitute the relevant product market, that Whole Foods and Wild Oats are unique price competitors, that Wild Oats' presence in a market has a constraining effect on Wild Oats, and that the consumer will lose the availability of significant choices in one or more of the 17 relevant geographic markets. As discussed earlier, however, the evidence does not support these arguments. Thus, any presumption of likely anticompetitive effects has been overcome both by the testimony of the defendants' economic expert and by the realities of the marketplace as reflected in credible evidence presented in this proceeding. Accordingly, there is no need to analyze specific HHI calculations. ***

CONCLUSION

As noted at the very outset of this Opinion, under Section 13(b) of the Federal Trade Commission Act, the FTC must demonstrate a likelihood of success on the merits—that is, that the effect of the Whole Foods/Wild Oats merger under Section 7 of the Clayton Act "may be substantially to lessen competition or tend to create a monopoly" in properly defined rele-

vant product and geographic markets. 15 U.S.C. §§ 18, 53(b). The FTC also has the burden of showing that the balance of the equities warrants entry of an injunction in the public interest. 15 U.S.C. § 53(b).

For all of these reasons discussed herein, the Court concludes that the FTC has not proven that it is likely to prevail on the merits at an administrative proceeding and subsequent appeal to the court of appeals. Considering the voluminous factual record taken as a whole, the FTC has not “raise[d] questions going to the merits so serious, substantial, difficult, and doubtful as to make them fair ground for thorough investigation, study, deliberation, and determination by the FTC in the first instance and ultimately by the Court of Appeals.” *FTC v. H.J. Heinz Co.*, 246 F.3d at 714-15. There is no substantial likelihood that the FTC can prove its asserted product market and thus no likelihood that it can prove that the proposed merger may substantially lessen competition or tend to create a monopoly. ***

For all the forgoing reasons, the Court will deny plaintiff Federal Trade Commission’s motion for a preliminary injunction. An appropriate Order will be issued this same day. ***

Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.

429 U.S. 477 (1977)

Mr. Justice MARSHALL delivered the opinion of the Court: This case raises important questions concerning the interrelationship of the antimerger and private damages action provisions of the Clayton Antitrust Act.

I

Petitioner is one of the two largest manufacturers of bowling equipment in the United States. Respondents are three of the 10 bowling centers owned by Treadway Companies, Inc. Since 1965, petitioner has acquired and operated a large number of bowling centers, including six in the markets in which respondents operate. Respondents instituted this action contending that these acquisitions violated various provisions of the antitrust laws.

In the late 1950's, the bowling industry expanded rapidly, and petitioner's sales of lanes, automatic pinsetters, and ancillary equipment rose accordingly.¹ Since this equipment requires a major capital expenditure \$12,600 for each lane and pinsetter, most of petitioner's sales were for secured credit.

In the early 1960's, the bowling industry went into a sharp decline. Petitioner's sales quickly dropped to preboom levels. Moreover, petitioner experienced great difficulty in collecting money owed it; by the end of 1964 over \$100,000,000, or more than 25%, of petitioner's accounts were more than 90 days delinquent. Repossessions rose dramatically, but attempts to sell or lease the repossessed equipment met with only limited success.² Because petitioner had borrowed close to \$250,000,000 to finance its credit sales, it was, as the Court of Appeals concluded, "in serious financial difficulty." *NBO Industries Treadway Cos., Inc. v. Brunswick Corp.*, 523 F.2d 262, 267 (CA3 1975).

To meet this difficulty, petitioner began acquiring and operating defaulting bowling centers when their equipment could not be resold and a positive cash flow could be expected from operating the centers. During the seven years preceding the trial in this case, petitioner acquired 222 centers, 54 of which it either disposed of or closed. These acquisitions made petitioner by far the largest operator of bowling centers, with over five times as many centers as its next largest competitor. Petitioner's net worth in 1965 was more than eight times greater, and its gross revenue more than seven times greater, than the total for the 11 next largest bowling chains. Nevertheless, petitioner controlled only 2% of the bowling centers in the United States.

At issue here are acquisitions by petitioner in the three markets in which respondents are located: Pueblo, Colo., Poughkeepsie, N.Y., and Paramus, N.J. In 1965, petitioner acquired one defaulting center in Pueblo, one in Poughkeepsie, and two in the Paramus area. In 1969, petitioner acquired a third defaulting center in the Paramus market, and in 1970 petitioner

¹ Sales of automatic pinsetters, for example, went from 1,890 in 1956, to 16,288 in 1961.

² Repossessions of pinsetters increased from 300 in 1961 to 5,996 in 1965. In 1963, petitioner resold over two-thirds of the pinsetters repossessed; more typically, only one-third were resold, and in 1965, less than one-quarter were resold.

acquired a fourth. Petitioner closed its Poughkeepsie center in 1969 after three years of unsuccessful operation; the Paramus center acquired in 1970 also proved unsuccessful, and in March 1973 petitioner gave notice that it would cease operating the center when its lease expired. The other four centers were operational at the time of trial.

Respondents initiated this action in June 1966, alleging, inter alia, that these acquisitions might substantially lessen competition or tend to create a monopoly in violation of § 7 of the Clayton Act, 15 U.S.C. § 18. Respondents sought damages, pursuant to § 4 of the Act, 15 U.S.C. § 15, for three times “the reasonably expectable profits to be made (by respondents) from the operation of their bowling centers.” Respondents also sought a divestiture order, an injunction against future acquisitions, and such “other further and different relief” as might be appropriate under § 16 of the Act, 15 U.S.C. § 26. ***

Trial was held in the spring of 1973, following an initial mistrial due to a hung jury. To establish a § 7 violation, respondents sought to prove that because of its size, petitioner had the capacity to lessen competition in the markets it had entered by driving smaller competitors out of business. To establish damages, respondents attempted to show that had petitioner allowed the defaulting centers to close, respondents’ profits would have increased. At respondents’ request, the jury was instructed in accord with respondents’ theory as to the nature of the violation and the basis for damages. The jury returned a verdict in favor of respondents in the amount of \$2,358,030, which represented the minimum estimate by respondents of the additional income they would have realized had the acquired centers been closed. As required by law, the District Court trebled the damages. It also awarded respondents costs and attorneys’ fees totaling \$446,977.32, and, sitting as a court of equity, it ordered petitioner to divest itself of the centers involved here, *Treadway Cos. v. Brunswick Corp.*, 389 F.Supp. 996 (N.J. 1974). Petitioner appealed. ***

II

The issue for decision is a narrow one. Petitioner does not presently contest the Court of Appeals’ conclusion that a properly instructed jury could have found the acquisitions unlawful. Nor does petitioner challenge the Court of Appeals’ determination that the evidence would support a finding that had petitioner not acquired these centers, they would have gone out of business and respondents’ income would have increased. Petitioner questions only whether antitrust damages are available where the sole injury alleged is that competitors were continued in business, thereby denying respondents an anticipated increase in market shares.

To answer that question it is necessary to examine the antimerger and treble-damages provisions of the Clayton Act. Section 7 of the Act proscribes mergers whose effect “may be substantially to lessen competition, or to tend to create a monopoly.” It is, as we have observed many times, a prophylactic measure, intended “primarily to arrest apprehended consequences of intercorporate relationships before those relationships could work their evil” *United States v. E.I. du Pont de Nemours & Co.*, 353 U.S. 586, 597 (1957).

Section 4, in contrast, is in essence a remedial provision. It provides treble damages to “(a)ny person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws” Of course, treble damages also play an important role in penalizing

wrongdoers and deterring wrongdoing, as we also have frequently observed. *Perma Life Mufflers v. International Parts Corp.*, 392 U.S. 134, 139 (1968). It nevertheless is true that the treble-damages provision, which makes awards available only to injured parties, and measures the awards by a multiple of the injury actually proved, is designed primarily as a remedy.

Intermeshing a statutory prohibition against acts that have a potential to cause certain harms with a damages action intended to remedy those harms is not without difficulty. Plainly, to recover damages respondents must prove more than that petitioner violated § 7, since such proof establishes only that injury may result. Respondents contend that the only additional element they need demonstrate is that they are in a worse position than they would have been had petitioner not committed those acts. The Court of Appeals agreed, holding compensable any loss “causally linked” to “the mere presence of the violator in the market.” 523 F.2d, at 272-273. Because this holding divorces antitrust recovery from the purposes of the antitrust laws without a clear statutory command to do so, we cannot agree with it.

Every merger of two existing entities into one, whether lawful or unlawful, has the potential for producing economic readjustments that adversely affect some persons. But Congress has not condemned mergers on that account; it has condemned them only when they may produce anticompetitive effects. Yet under the Court of Appeals’ holding, once a merger is found to violate § 7, all dislocations caused by the merger are actionable, regardless of whether those dislocations have anything to do with the reason the merger was condemned. This holding would make § 4 recovery entirely fortuitous, and would authorize damages for losses which are of no concern to the antitrust laws.

Both of these consequences are well illustrated by the facts of this case. If the acquisitions here were unlawful, it is because they brought a “deep pocket” parent into a market of “pygmies.” Yet respondents’ injury the loss of income that would have accrued had the acquired centers gone bankrupt bears no relationship to the size of either the acquiring company or its competitors. Respondents would have suffered the identical “loss” but no compensable injury had the acquired centers instead obtained refinancing or been purchased by “shallow pocket” parents as the Court of Appeals itself acknowledged. Thus, respondents’ injury was not of “the type that the statute was intended to forestall,” *Wyandotte Co. v. United States*, 389 U.S. 191, 202 (1967).

But the antitrust laws are not merely indifferent to the injury claimed here. At base, respondents complain that by acquiring the failing centers petitioner preserved competition, thereby depriving respondents of the benefits of increased concentration. The damages respondents obtained are designed to provide them with the profits they would have realized had competition been reduced. The antitrust laws, however, were enacted for “the protection of competition not competitors,” *Brown Shoe Co. v. United States*, 370 U.S., at 320. It is inimical to the purposes of these laws to award damages for the type of injury claimed here. ***

We therefore hold that the plaintiffs to recover treble damages on account of § 7 violations, they must prove more than injury causally linked to an illegal presence in the market. Plaintiffs must prove antitrust injury, which is to say injury of the type the antitrust laws

were intended to prevent and that flows from that which makes defendants' acts unlawful. The injury should reflect the anticompetitive effect either of the violation or of anticompetitive acts made possible by the violation. It should, in short, be "the type of loss that the claimed violations . . . would be likely to cause." *Zenith Radio Corp. v. Hazeltine Research*, 395 U.S., at 125.

This does not necessarily mean, as the Court of Appeals feared, 523 F.2d at 272, that § 4 plaintiffs must prove an actual lessening of competition in order to recover. The short-term effect of certain anticompetitive behavior predatory below-cost pricing, for example may be to stimulate price competition. But competitors may be able to prove antitrust injury before they actually are driven from the market and competition is thereby lessened. Of course, the case for relief will be strongest where competition has been diminished.

III

We come, then, to the question of appropriate disposition of this case. At the very least, petitioner is entitled to a new trial, not only because of the instructional errors noted by the Court of Appeals that are not at issue here, but also because the District Court's instruction as to the basis for damages was inconsistent with our holding as outlined above. Our review of the record, however, persuades us that a new trial on the damages claim is unwarranted. Respondents based their case solely on their novel damages theory which we have rejected. While they produced some conclusory testimony suggesting that in operating the acquired centers petitioner had abused its deep pocket by engaging in anticompetitive conduct, they made no attempt to prove that they had lost any income as a result of such predation. Rather, their entire proof of damages was based on their claim to profits that would have been earned had the acquired centers closed. Since respondents did not prove any cognizable damages and have not offered any justification for allowing respondents, after two trials and over 10 years of litigation, yet a third opportunity to do so, it follows that, petitioner is entitled, in accord with its motion made pursuant to Rule 50(b), to judgment on the damages claim notwithstanding the verdict.

Respondents' complaint also prayed for equitable relief, and the Court of Appeals held that if respondents established a § 7 violation, they might be entitled to an injunction against "those practices by which a deep pocket market entrant harms competition." 523 F.2d, at 279. Because petitioner has not contested this holding, respondents remain free, on remand, to seek such a decree.

The judgment of the Court of Appeals is vacated, and the case is remanded for further proceedings consistent with this opinion.

It is so ordered.

Kansas v. Utilicorp United, Inc.

497 U.S. 199 (1990)

Justice KENNEDY delivered the opinion of the Court: Section 4 of the Clayton Act, 15 U.S.C. § 15, authorizes any person injured by a violation of the antitrust laws to sue for treble damages, costs, and an attorney's fee. We must decide who may sue under § 4 when, in violation of the antitrust laws, suppliers overcharge a public utility for natural gas and the utility passes on the overcharge to its customers. Consistent with *Hanover Shoe, Inc. v. United Shoe Machinery Corp.*, 392 U.S. 481 (1968), and *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977), we hold that only the utility has the cause of action because it alone has suffered injury within the meaning of § 4.

I

The respondent, UtiliCorp United, Inc., an investor-owned public utility operating in Kansas and western Missouri, purchased natural gas from a pipeline company for its own use and for resale to its commercial and residential customers. Together with a second utility and several other gas purchasers, the respondent sued the pipeline company and five gas production companies in the United States District Court for the District of Kansas. The utilities alleged that the defendants had conspired to inflate the price of their gas in violation of the antitrust laws. They sought treble damages, pursuant to § 4 of the Clayton Act, for both the amount overcharged by the pipeline company and the decrease in sales to their customers caused by the overcharge.

The petitioners, the States of Kansas and Missouri, initiated separate § 4 actions in the District Court against the same defendants for the alleged antitrust violation. Acting as *parens patriae*, the petitioners asserted the claims of all natural persons residing within Kansas and Missouri who had purchased gas from any utility at inflated prices. They also asserted claims as representatives of state agencies, municipalities, and other political subdivisions that had purchased gas from the defendants. The District Court consolidated all of the actions.

The defendants, in their answer, asserted that the utilities lacked standing under § 4. They alleged that, pursuant to state and municipal regulations and tariffs filed with state regulatory agencies, the utilities had passed through the entire wholesale cost of the natural gas to their customers. As a result, the defendants contended, the utility customers had paid 100 percent of the alleged overcharge, and the utilities had suffered no antitrust injury as required by § 4.

The utilities moved for partial summary judgment with respect to this defense, and the District Court granted their motion. The court ruled that our decisions in *Hanover Shoe* and *Illinois Brick* controlled its interpretation of § 4. It read these cases to hold that a direct purchaser from an antitrust violator suffers injury to the full extent of an illegal overcharge even if it passes on some or all of the overcharge to its customers. The District Court concluded that utilities, as direct purchasers, had suffered antitrust injury, but that their customers, as indirect purchasers, had not.

In light of its ruling, the District Court chose to treat the partial summary judgment motion as a motion to dismiss the petitioners' *parens patriae* claims. It then granted this motion

but allowed the petitioners to take an interlocutory appeal under 28 U.S.C. § 1292(b). It certified the following question to the Court of Appeals:

“In a private antitrust action under 15 U.S.C. § 15 involving claims of price fixing against the producers of natural gas, is a State a proper plaintiff as *parens patriae* for its citizens who paid inflated prices for natural gas, when the lawsuit already includes as plaintiffs those public utilities who paid the inflated prices upon direct purchase from the producers and who subsequently passed on most or all of the price increase to the citizens of the State?” *In re Wyoming Tight Sands Antitrust Cases*, 695 F.Supp. 1109, 1120 (Kan. 1988).

The Court of Appeals answered the question in the negative. ***

II

Section 4 of the Clayton Act provides in full:

“[A]ny person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney’s fee.” 15 U.S.C. § 15(a).

As noted by the District Court and the Court of Appeals, we have applied this section in two cases involving allegations that a direct purchaser had passed on an overcharge to its customers.

In *Hanover Shoe, Inc. v. United Shoe Machinery Corp.*, *supra*, Hanover alleged that United had monopolized the shoe manufacturing machinery industry in violation of § 2 of the Sherman Act. It sought treble damages under § 4 of the Clayton Act for overcharges paid in leasing certain machinery from United. United defended, in part, on the ground that Hanover had passed on the overcharge to its customers and, as a result, had suffered no injury. We rejected the defense for two reasons. First, noting that a wide range of considerations may influence a company’s pricing decisions, we concluded that establishing the amount of an overcharge shifted to indirect purchasers “would normally prove insurmountable.” 392 U.S., at 493. Second, we reasoned that a pass-on defense would reduce the effectiveness of § 4 actions by diminishing the recovery available to any potential plaintiff.

In *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977), we applied these considerations to reach a similar result. The State of Illinois sued Illinois Brick and other concrete block manufacturers for conspiring to raise the cost of concrete blocks in violation of § 1 of the Sherman Act. We ruled that the State had suffered no injury within the meaning of § 4 because Illinois Brick had not sold any concrete blocks to it. The company, instead, had sold the blocks to masonry subcontractors, who in turn had sold them to the State’s general contractors. We decided that, because Illinois Brick could not use a pass-on defense in an action by direct purchasers, it would risk multiple liability to allow suits by indirect purchasers. We declined to overrule *Hanover Shoe* or to create exceptions for any particular industries.

Like the State of Illinois in *Illinois Brick*, the consumers in this case have the status of indirect purchasers. In the distribution chain, they are not the immediate buyers from the alleged antitrust violators. They bought their gas from the utilities, not from the suppliers said to have conspired to fix the price of the gas. Unless we create an exception to the direct purchaser rule established in *Hanover Shoe* and *Illinois Brick*, any antitrust claim against the defendants is not for them, but for the utilities to assert.

The petitioners ask us to allow them to press the consumers' claims for three reasons. First, they assert that none of the rationales underlying *Hanover Shoe* or *Illinois Brick* exist in cases involving regulated public utilities. Second, they argue that we should apply an exception, suggested in *Illinois Brick*, for actions based upon cost-plus contracts. Third, they maintain that § 4C of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, 15 U.S.C. § 15c, authorizes them to assert claims on behalf of utility customers even if the customers could not assert any claims themselves. Affirming the Court of Appeals, we reject each of these contentions in turn.

III

The petitioners assert that we should allow indirect purchaser suits in cases involving regulated public utilities that pass on 100 percent of their costs to their customers. They maintain that our concerns in *Hanover Shoe* and *Illinois Brick* about the difficulties of apportionment, the risk of multiple recovery, and the diminution of incentives for private antitrust enforcement would not exist in such cases. We disagree. Although the rationales of *Hanover Shoe* and *Illinois Brick* may not apply with equal force in all instances, we find it inconsistent with precedent and imprudent in any event to create an exception for regulated public utilities.

A

The direct purchaser rule serves, in part, to eliminate the complications of apportioning overcharges between direct and indirect purchasers. The petitioners find the rule unnecessary, in this respect, when a utility passes on its costs to its customers pursuant to state regulations or tariffs filed with a utility commission. In such cases, they assert, the customers pay the entire overcharge, obviating litigation over its apportionment. They maintain that they can prove the exact injury to the residential customers whom they represent because the respondent made periodic public filings showing the volume and price of gas that it sold to these consumers. They ask us to allow them to sue for the entire amount of the overcharge and to limit the respondent's recovery to damages for its lost business.

The petitioners have oversimplified the apportionment problem in two respects. First, an overcharge may injure a utility, apart from the question of lost business, even if the utility raises its rates to offset its increased costs. As we explained in *Hanover Shoe*:

“The mere fact that a price rise followed an unlawful cost increase does not show that the sufferer of the cost increase was undamaged. His customers may have been ripe for his price rise earlier; if a cost rise is merely the occasion for a price increase a businessman could have imposed absent the rise in his costs, the fact that he was earlier not enjoying the benefits of the higher price should not permit the supplier who

charges an unlawful price to take those benefits from him without being liable for damages. This statement merely recognizes the usual principle that the possessor of a right can recover for its unlawful deprivation whether or not he was previously exercising it.” 392 U.S., at 493, n. 9.

In other words, to show that a direct purchaser has borne no portion of an overcharge, the indirect purchaser would have to prove, among other things, that the direct purchaser could not have raised its rates prior to the overcharge.

In *Hanover Shoe*, however, we decided not to allow proof of what the direct purchaser might have done because of the “nearly insuperable difficulty” of the issue. *Id.*, at 493. The petitioners assume that the presence of state regulation would make the proof less difficult here. We disagree. The state regulation does not simplify the problem but instead imports an additional level of complexity. To decide whether a utility has borne an overcharge, a court would have to consider not only the extent to which market conditions would have allowed the utility to raise its rates prior to the overcharge, as in the case of an unregulated business, but also what the state regulators would have allowed. In particular, to decide that an overcharge did not injure a utility, a court would have to determine that the State’s regulatory schemes would have barred any rate increase except for the amount reflected by cost increases. Proof of this complex preliminary issue, one irrelevant to the liability of the defendant, would proceed on a case-by-case basis and would turn upon the intricacies of state law.

From the certified question in this case, we do not know whether the respondent could have raised its prices prior to the overcharge. Its customers may have been willing to pay a greater price, and the Kansas and Missouri regulators may have allowed a rate increase based on factors other than strict costs. To the extent that the respondent could have sought and gained permission to raise its rates in the absence of an overcharge, at least some portion of the overcharge is being borne by it; whether by overcharge or by increased rates, consumers would have been paying more for natural gas than they had been paying in the past. Because of this potential injury, the respondent must remain in the suit. If we were to add indirect purchasers to the action, we would have to devise an apportionment formula. This is the very complexity that *Hanover Shoe* and *Illinois Brick* sought to avoid.

Second, difficult questions of timing might necessitate apportioning overcharges if we allowed indirect suits by utility customers. Even if, at some point, a utility can pass on 100 percent of its costs to its customers, various factors may delay the passing-on process. Some utilities must seek approval from the governing regulators prior to raising their rates. Other utilities, pursuant to purchase gas adjustment clauses (PGA’s) filed with state regulators, may adjust their rates to reflect changes in their wholesale costs according to prearranged formulas without seeking regulatory approval in each instance. Yet, even utilities that use PGA’s often encounter some delay. During any period in which a utility’s costs rise before it may adjust its rates, the utility will bear the costs in the form of lower earnings. Even after the utility raises its rates, moreover, the pass-through process may take time to complete. During this time, the utility and its customers each would pay for some of the increased costs.

In this case, we could not deprive the respondent of its § 4 action without first determining that the passing-on process in fact had allowed it to shift the entire overcharge to its customers. The certified question, however, leaves unclear whether the respondent had passed on “most or all” of its costs at the time of the suit. In addition, even the means by which the passthrough occurred remain unsettled. The petitioners allege that, pursuant to formulas in PGA’s filed with the Kansas Corporation Commission and the Missouri Public Service Commission, the respondent “automatically” adjusted some of its rates to reflect increases in the wholesale cost of gas. The respondent, however, maintains that PGA’s did not govern all of its sales. The difficulties posed by issues of this sort led us to adopt the direct purchaser rule, and we must decline to create an exception that would require their litigation. As we have stated before: “[T]he task of disentangling overlapping damages claims is not lightly to be imposed upon potential antitrust litigants, or upon the judicial system.” *McCready*, 457 U.S., at 475, n. 11.

In addition to these complications, the regulation of utilities itself may make an exception to *Illinois Brick* unnecessary. Our decisions in *Hanover Shoe* and *Illinois Brick* often deny relief to consumers who have paid inflated prices because of their status as indirect purchasers. Although one might criticize *Illinois Brick* for this consequence in other circumstances, the criticism may have less validity in the context of public utilities. Both the Court of Appeals in this case and the Seventh Circuit in *Illinois ex rel. Hartigan v. Panhandle Eastern Pipe Line Co.*, 852 F.2d 891 (1988), have suggested that state regulators would require the utilities to pass on at least some of the recovery obtained in a § 4 suit. State regulators have followed this approach elsewhere. See, e.g., *Louisiana Power & Light Co., Ex Parte, Nos. U-17906, U-12636, U-17649*, 1989 La. PUC LEXIS 3, 31-32 (Mar. 1, 1989) (requiring Louisiana Power & Light Co., which won a \$190 million judgment against United Gas Pipe Line Co., to flow the proceeds back to ratepayers through reduced rates over a 5-year period). If Kansas and Missouri impose similar requirements, then even if the customers cannot sue the alleged antitrust violators, they may receive some of the compensation obtained by the respondent. Creating an exception to allow apportionment in violation of *Illinois Brick* would make little sense when, in light of all its difficulty, its practical significance is so diminished.

B

The *Illinois Brick* rule also serves to eliminate multiple recoveries. The petitioners assert that no risk of multiple recovery would exist here, if we allowed them to sue, because the direct and indirect purchasers would be seeking different, not duplicative, damages; the petitioners would recover the amount of the overcharge and the utilities would recover damages for their lost sales. Leaving aside the apportionment issue, we reject the argument in this case, just as we did in *Illinois Brick*. Bringing all classes of direct and indirect purchasers together in a single lawsuit may reduce the risk of multiple recovery, but the reduction comes at too great a cost.

This case already has become quite complicated. It involves numerous utilities and other companies operating in several States under federal, state, and municipal regulation and, in some instances, under no rate regulation at all. Even apart from gas sold to customers, the

utilities seek damages for lost sales and for gas purchased for their own use. The petitioners, in addition to their *parens patriae* claims, are asserting direct claims on behalf of numerous state agencies. Other direct purchasers also seek several measures of damages. Allowing the petitioners to proceed on behalf of consumers would complicate the proceedings further. Even if they could represent consumers residing in Kansas and Missouri, they could not represent industrial and commercial purchasers or consumers from other States. See 15 U.S.C. § 15c(a)(1) (extending *parens patriae* representation only to resident natural persons). These unrepresented consumers might seek intervention and further delay the prompt determination of the suit. The expansion of the case would risk the confusion, costs, and possibility of error inherent in complex litigation. At the same time, however, it might serve little purpose because, as noted above, state regulatory law may provide appropriate relief to consumers even if they cannot sue under § 4. As in *Illinois Brick*, we continue to believe that “even if ways could be found to bring all potential plaintiffs together in one huge action, the complexity thereby introduced into treble-damages proceedings argues strongly for retaining the *Hanover Shoe* rule.” 431 U.S., at 731, n. 11.

C

We have maintained, throughout our cases, that our interpretation of § 4 must promote the vigorous enforcement of the antitrust laws. If we were convinced that indirect suits would secure this goal better in cases involving utilities, the argument to interpret § 4 to create the exception sought by the petitioners might be stronger. On balance, however, we do not believe that the petitioners can prevail in this critical part of the case. The petitioners assert that utilities, such as the respondent, lack the incentive to prosecute § 4 cases for two reasons. First, they state that utilities, by law, may pass on their costs to customers. Second, they surmise that utilities might have to pass on damages recovered in a § 4 action. In other words, according to the petitioners, utilities lose nothing if they do not sue and gain nothing if they do sue. In contrast, the petitioners maintain, the large aggregate claims of residential consumers will give state attorneys general ample motivation to sue in their capacity as *parens patriae*.

The petitioners’ argument does not persuade us that utilities will lack incentives to sue overcharging suppliers. Utilities may bring § 4 actions in some instances for fear that regulators will not allow them to shift known and avoidable overcharges on to their customers. In addition, even if state law would require a utility to reimburse its customers for recovered overcharges, a utility may seek treble damages in a § 4 action. The petitioners have cited no authority indicating that a victorious utility would have to pay the entire exemplary portion of these damages to its customers.

Utilities, moreover, have an established record of diligent antitrust enforcement, having brought highly successful § 4 actions in many instances. The well-known group of actions from the 1960’s involving overcharges for electrical generating equipment provides an excellent example. In these cases, which involved “a series of horizontal price-fixing conspiracies characterized as the most shocking in the history of the Sherman Act, plaintiff utilities ... recover[ed] in unprecedented sums” even though some of the utilities “passed on to their own

customers whatever higher costs they incurred as a consequence of the alleged conspiracies.” Pollock, *Standing to Sue, Remoteness of Injury, and the Passing-On Doctrine*, 32 A.B.A. Antitrust L.J. 5, 10-11 (1966). The courts in these suits, even before the *Hanover Shoe* and *Illinois Brick* decisions, considered the pass-on issue and held that the causes of action were for the utilities to assert. Various factors may have prompted these and other utility actions. For example, in addition to the reasons stated above, the respondent asserts that, like any business, an investor-owned utility has an interest in protecting its market. But whatever the motivation for their § 4 suits, this history makes us quite hesitant to take from the utilities the responsibility for enforcing the antitrust laws.

Relying on indirect purchaser actions in utility cases might fail to promote antitrust enforcement for other reasons. Consumers may lack the expertise and experience necessary for detecting improper pricing by a utility’s suppliers. Although state attorneys general have greater expertise, they may hesitate to exercise the *parens patriae* device in cases involving smaller, more speculative harm to consumers. And even when state attorneys general decide to bring *parens patriae* actions, they may sue only on behalf of resident natural persons. See 15 U.S.C. § 15c(a)(1). All others, including nonresidents and small businesses, might fail to enforce their claims because of the insignificance of their individual recoveries. For these reasons, we remain unconvinced that the exception sought by the petitioners would promote antitrust enforcement better than the current *Illinois Brick* rule.

D

The preceding conclusions bring us to a broader point. The rationales underlying *Hanover Shoe* and *Illinois Brick* will not apply with equal force in all cases. We nonetheless believe that ample justification exists for our stated decision not to “carve out exceptions to the [direct purchaser] rule for particular types of markets.” *Illinois Brick*, 431 U.S., at 744. The possibility of allowing an exception, even in rather meritorious circumstances, would undermine the rule. As we have stated:

“[T]he process of classifying various market situations according to the amount of pass-on likely to be involved and its susceptibility of proof in a judicial forum would entail the very problems that the *Hanover Shoe* rule was meant to avoid. The litigation over where the line should be drawn in a particular class of cases would inject the same ‘massive evidence and complicated theories’ into treble-damages proceedings, albeit at a somewhat higher level of generality.” *Id.*, at 744-745.

In sum, even assuming that any economic assumptions underlying the *Illinois Brick* rule might be disproved in a specific case, we think it an unwarranted and counterproductive exercise to litigate a series of exceptions. Having stated the rule in *Hanover Shoe*, and adhered to it in *Illinois Brick*, we stand by our interpretation of § 4.

IV

The suggestion in *Hanover Shoe* and *Illinois Brick* that a departure from the direct purchaser rule may be necessary when an indirect purchaser buys under a pre-existing cost-plus contract does not justify an exception in this case. In *Hanover Shoe*, we stated:

“We recognize that there might be situations—for instance, when an overcharged buyer has a pre-existing ‘cost-plus’ contract, thus making it easy to prove that he has not been damaged—where the considerations requiring that the passing-on defense not be permitted in this case would not be present.” 392 U.S., at 494.

We observed further in *Illinois Brick*:

“In [a cost-plus contract] situation, the [direct] purchaser is insulated from any decrease in its sales as a result of attempting to pass on the overcharge, because its customer is committed to buying a fixed quantity regardless of price. The effect of the overcharge is essentially determined in advance, without reference to the interaction of supply and demand that complicates the determination in the general case.” 431 U.S., at 736.

The petitioners argue that the regulations and tariffs requiring the respondent to pass on its costs to the consumers place this case within the cost-plus contract exception. We disagree.

The respondent did not sell the gas to its customers under a pre-existing cost-plus contract. Even if we were to create an exception for situations that merely resemble those governed by such a contract, we would not apply the exception here. Our statements above show that we might allow indirect purchasers to sue only when, by hypothesis, the direct purchaser will bear no portion of the overcharge and otherwise suffer no injury. That certainty does not exist here.

The utility customers made no commitment to purchase any particular quantity of gas, and the utility itself had no guarantee of any particular profit. Even though the respondent raised its prices to cover its costs, we cannot ascertain its precise injury because, as noted above, we do not know what might have happened in the absence of an overcharge. In addition, even if the utility customers had a highly inelastic demand for natural gas, the need to inquire into the precise operation of market forces would negate the simplicity and certainty that could justify a cost-plus contract exception. Thus, although we do not alter our observations about the possibility of an exception for cost-plus contracts, we decline to create the general exception for utilities sought by the petitioners.

V

The petitioners, in their final argument, contend that § 4C of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, 15 U.S.C. § 15c, authorizes them to sue on behalf of consumers even though the consumers, as indirect purchasers, have no cause of action of their own. Section 4C(a)(1) provides in relevant part:

“Any attorney general of a State may bring a civil action in the name of such state as parens patriae on behalf of natural persons residing in such State ... to secure monetary relief as provided in this section for injury sustained by such natural persons to their property by reason of any violation of sections 1 to 7 of this title.” 15 U.S.C. § 15c(a)(1).

Because the Act, in their view, has the clear purpose of protecting consumers, the petitioners contend that it must allow the States to sue on behalf of consumers notwithstanding their status as indirect purchasers.

We have rejected this argument before. We stated in *Illinois Brick* that § 4C did not establish any new substantive liability. Instead, “[i]t simply created a new procedural device—parens patriae actions by States on behalf of their citizens—to enforce existing rights of recovery under § 4 [of the Clayton Act.]” 431 U.S., at 734, n. 14. Section 4, as noted above, affords relief only to a person “injured in his business or property by reason of anything forbidden in the antitrust laws.” 15 U.S.C. § 15(a). State attorneys general may bring actions on behalf of consumers who have such an injury. But here the respondent is the injured party under the antitrust laws, and the predicate for a parens patriae action has not been established. We conclude that the petitioners may not assert any claims on behalf of the customers.

Affirmed. ***

United States v. Glaxo Group Ltd.

410 U.S. 52 (1973)

Mr. Justice WHITE delivered the opinion of the Court. The United States appeals pursuant to § 2 of the Expediting Act, as amended, 62 Stat. 989, 15 U.S.C. § 29, from portions of a decision by the United States District Court for the District of Columbia in a civil antitrust suit. We are asked to decide whether the Government may challenge the validity of patents involved in illegal restraints of trade, when the defendants do not rely upon the patents in defense of their conduct, and whether the District Court erred in refusing certain relief requested by the Government.

I

Appellees, Imperial Chemical Industries Ltd. (ICI) and Glaxo Group Ltd. (Glaxo), are British drug companies engaged in the manufacture and sale of griseofulvin. Griseofulvin is an antibiotic compound that may be cut with inert ingredients and administered orally in the form of capsules or tablets to humans or animals for the treatment of external fungus infections. There is no substitute for dosage-form griseofulvin in combating certain infections. Griseofulvin itself is unpatented and unpatentable. ICI owns various patents on the dosage form of the drug. Glaxo owns various patents on a method for manufacturing the drug in bulk form, as well as a patent on the finely ground, “microsize” dosage form of the drug.

On April 26, 1960, ICI and Glaxo entered into a formal agreement pooling their griseofulvin patents. At the time of the execution of the agreement, ICI held patents on the dosage form of the drug, and Glaxo held bulk-form manufacturing patents. Pursuant to the agreement, ICI acquired the right to manufacture bulk-form griseofulvin under Glaxo's patents, to sell bulk-form griseofulvin, and to sublicense under Glaxo's patents. Glaxo was authorized to manufacture dosage-form griseofulvin and to sublicense under ICI's patents. As part of the agreement, ICI undertook "not to sell and to use its best endeavors to prevent its subsidiaries and associates from selling any griseofulvin in bulk to any independent third party without Glaxo's express consent in writing."

Subsequent to the pooling of the griseofulvin patents, ICI granted a sublicense to American Home Products Corp. (AMHO), ICI's exclusive distributor in the United States. ICI agreed to sell bulk-form griseofulvin to AMHO. AMHO was authorized to process the bulk form into dosage form and to sell the drug in that form. With respect to bulk sales the agreement stated: "You (AMHO) will not, without first obtaining our (ICI's) consent, resell, or redeliver in bulk supplies of griseofulvin." Glaxo had previously entered into similar sublicensing agreements with two United States companies—Schering Corp. (Schering) and Johnson & Johnson (J & J). The agreements contained a covenant on the part of the licensees "not to sell or to permit its Affiliates to sell any griseofulvin in bulk to any independent third party without Glaxo's express consent in writing."

On March 4, 1968, the United States filed a civil antitrust suit against ICI and Glaxo, pursuant to § 4 of the Sherman Act, 15 U.S.C. § 4, to restrain alleged violations of § 1 of the Act, 26 Stat. 209, as amended, 15 U.S.C. § 1. The Government charged that the restrictions on the sale and resale of bulk-form griseofulvin, contained in the 1960 ICI-Glaxo agreement and the various sublicensing agreements, were unreasonable restraints of trade. The Government also challenged the validity of ICI's dosage-form patent.

The District Court, citing this Court's decision in *United States v. Arnold, Schwinn & Co.*, 388 U.S., 365 (1967), held that the bulk-sales restrictions contained in the ICI-AMHO agreement were *per se* violations of § 1 of the Sherman Act. Because ICI had filed an affidavit disclaiming any desire to rely on its patent in defense of the antitrust claims, the District Court struck the claims of patent invalidity from the Government's complaint, ruling that the Government could not challenge ICI's patent when it was not relied upon as a defense to the antitrust claims. The District Court also denied the Government's motion to amend its complaint to allege the invalidity of Glaxo's patent on "microsize" griseofulvin.

Subsequently, in separate, unreported orders, the bulk-sales restrictions in the Glaxo-J & J, the Glaxo-Schering, and the Glaxo-ICI agreements were found to be *per se* violations of § 1. The court enjoined future use of the bulk-sales restrictions, but refused the Government's request to order mandatory, nondiscriminatory sales of the bulk form of the drug and reasonable-royalty licensing of the ICI and Glaxo patents as part of the relief. The United States took a direct appeal under the Expediting Act and we noted probable jurisdiction.

II

The major issue before us is whether the District Court erred in ruling that the United States could challenge the validity of a patent in the course of prosecuting an antitrust action only when the patent is relied on as a defense, which was not the case here. We agree with the United States that this was an unduly narrow view of the controlling cases.

United States v. American Bell Telephone Co., 167 U.S. 224 (1897), acknowledged prior decisions permitting the United States to sue to set aside a patent for fraud or deceit associated with its issuance, but held that the federal courts should not entertain suits by the Government “to set aside a patent for an invention on the mere ground of error of judgment on the part of the patent officials,” at least where the United States “has no proprietary or pecuniary (interest) in the setting aside of the patent (and) is not seeking to discharge its obligations to the public . . .” 167 U.S., at 265, 269. Subsequently, *United States v. United States Gypsum Co.*, 333 U.S. 364 (1948), referred to *American Bell Telephone* as holding that the United States was “without standing to bring a suit in equity to cancel a patent on the ground of invalidity,” *id.*, at 387, but went on to declare that, to vindicate the public interest in enjoining violations of the Sherman Act, the United States is entitled to attack the validity of patents relied upon to justify anticompetitive conduct otherwise violative of the law. The Court noted that because of the public interest in free competition, it had repeatedly held that the private licensee-plaintiff in an antitrust suit may attack the validity of the patent under which he is licensed even though he has agreed not to do so in his license. The authorities for this proposition were *Sola Electric Co. v. Jefferson Electric Co.*, 317 U.S. 173 (1942); *Edward Katzinger Co. v. Chicago Metallic Mfg Co.*, 329 U.S. 394 (1947); and *MacGregor v. Westinghouse Electric & Mfg. Co.*, 329 U.S. 402 (1947). The essence of those cases is best revealed in *Katzinger* where the Court held that, although a patent licensee (under the then-controlling law) was normally foreclosed from questioning the validity of a patent he is privileged to use, the bar is removed when he alleges conduct by the patentee that would be illegal under the antitrust laws, absent the patent. The licensee was free to challenge the patent in these circumstances because the “federal courts must, in the public interest, keep the way open for the challenge of patents which are utilized for price-fixing . . .” 329 U.S., at 399.

We think that the principle of these cases is sufficient authority for permitting the Government to raise and litigate the validity of the ICI-Glaxo patents in this antitrust case. According to the record, appellees had issued licenses under their patents that unreasonably restrained trade by prohibiting the licensees from selling or reselling bulk-form griseofulvin and had included in the pooling agreement a covenant to impose such restrictions on licensees. These charges were sustained, the court concluding that the covenant and the patent license provisions were *per se* restraints of trade in the griseofulvin product market.

The District Court was then faced with the Government’s attack on the pertinent patents as well as its demand for mandatory sales and reasonable-royalty licensing, the latter being well-established forms of relief when necessary to an effective remedy, particularly where patents have provided the leverage for or have contributed to the antitrust violation adjudi-

cated. See for example, *Besser Mfg. Co. v. United States*, 343 U.S. 444 (1952); *United States v. United States Gypsum Co.*, 340 U.S. 76 (1950); *International Salt Co. v. United States*, 332 U.S. 392 (1947); *Hartford-Empire Co. v. United States*, 323 U.S. 386 (1945). Appellees opposed mandatory sales and compulsory licensing, asserting that the Government would “deny defendants an essential ingredient of their rights under the patent system,” and that there was no warrant for “such a drastic forfeiture of their rights.” In this context, where the court would necessarily be dealing with the future enforceability of the patents, we think it would have been appropriate, if it appeared that the Government’s claims for further relief were substantial, for the court to have also entertained the Government’s challenge to the validity of those patents.

In arriving at this conclusion, we do not recognize unlimited authority in the Government to attack a patent by basing an antitrust claim on the simple assertion that the patent is invalid. Nor do we invest the Attorney General with a roving commission to question the validity of any patent lurking in the background of an antitrust case. But the district courts have jurisdiction to entertain and decide antitrust suits brought by the Government and, where a violation is found, to fashion effective relief. This often involves a substantial question as to whether it is necessary to limit the rights normally vested in the owners of patents, which in itself can be a complex and difficult issue. The litigation would usually proceed on the assumption that valid patents are involved, but if this basic assumption is itself challenged, we perceive no good reason, either in terms of the patent system or of judicial administration, for refusing to hear and decide it.

The District Court, therefore, erred in striking the allegations of the Government’s complaint dealing with the patent validity issue and in refusing to permit the Government to amend its complaint with respect to this issue. On remand, the District Court should consider the validity of the ICI dosage-form patent and the Glaxo microsize patent.

III

The question remains whether the Government’s case for additional relief was sufficient to provide the appropriate predicate for a consideration of its challenge to the validity of these patents. For this purpose, as we have said, its case need not be conclusive, but only substantial enough to warrant the court’s undertaking what could be a large inquiry, one which could easily obviate other questions of remedy if the patent is found invalid and which, if the patent is not invalidated, would lend substance to a defendant’s claim that a valid patent should not be limited, absent the necessity to provide effective relief for an antitrust violation to which the patent has contributed. Here, we think not only that the United States presented a substantial case for additional relief, but that it was sufficiently convincing that the District Court, wholly aside from the question of patent validity, should have ruled favorably on the demand for mandatory sales and compulsory licensing.

In the first place, it is clear from the evidence that the ICI dosage-form patent, along with other ICI and Glaxo patents, gave the appellees the economic leverage with which to insist upon and enforce the bulk-sales restrictions imposed on the licensees. Glaxo apparently considered the bulk-sales restriction to be a prerequisite to the granting of a sublicense, for it re-

jected a draft of the ICI-AMHO agreement because, among other things, it would have permitted AMHO to sell griseofulvin in bulk form. There are indications, also, that Glaxo refused a sublicense to others than Schering and J & J because of fears that the companies would sell in bulk form or pressure Glaxo to allow such sales. The source of the patent-pooling agreement pursuant to which such licenses were permitted and which contained the bulk-sales restriction was simple: Glaxo needed the ICI dosage-form patent to assure its licensees the right to use the patent and sell in dosage form. Pooling permitted ICI to engage in bulk manufacture, and, in exchange, ICI imposed the bulk-sales restrictions upon its licensees. There can be little question that the patents involved here were intimately associated with and contributed to effectuating the conduct that the District Court held to be a *per se* restraint of trade in griseofulvin.

Secondly, we think that ICI and Glaxo should have been required to sell bulk-form griseofulvin on reasonable and nondiscriminatory terms and to grant patent licenses at reasonable-royalty rates to all bona fide applicants in order to “pry open to competition” the griseofulvin market that “has been closed by defendants’ illegal restraints.” *International Salt Co.*, 332 U.S., at 401.

The United States griseofulvin market consists of three wholesalers, all licensees of appellees, that account for nearly 100% of United States sales totaling approximately eight million dollars. Glaxo and ICI have never sold in bulk to others than the licensees and have prohibited bulk sales and resales by the licensees. In practice, the licensees have not manufactured griseofulvin under the bulk-form patents, preferring instead to purchase in bulk form from ICI and Glaxo. The licensees sell the drug in dosage and microsize form to retail outlets at virtually identical prices. The effect of appellees’ refusal to sell in bulk and prohibition of such sales by the licensees has been that bulk griseofulvin has not been available to any but appellees’ three licensees and that these three are the only sources of dosage-form griseofulvin in the United States.

There is little reason to think that the appellees or their licensees, now that the bulk-sales restrictions have been declared illegal, will begin selling in bulk. It is in their economic self-interest to maintain control of the bulk form of the drug in order to keep the dosage-form, wholesale market competition-free. Bulk sales would create new competition among wholesalers, by enabling other companies to convert the bulk drug into dosage and microsize forms and sell to retail outlets, and would presumably lead to price reductions as the result of normal competitive forces. There is, in fact, substantial evidence in the record to the effect that other drug companies would not only have entered the market, had they been able to make bulk purchases, but also would have charged substantially lower wholesale prices for the dosage and microsize forms of the drug. Only by requiring the appellees to sell bulk-form griseofulvin on nondiscriminatory terms to all bona fide applicants will the dosage-form, wholesale market become competitive.

Relief in the form of compulsory sales may not, however, alone insure a competitive market. Glaxo and ICI could choose to discontinue bulk-form manufacturing or the sale of griseofulvin in bulk form. The patent licensees might then begin to practice the bulk-form

manufacturing patents pursuant to the patent licenses to fill their needs for the bulk drug. The licensees, of course, are not parties to this action, and a mandatory-sales order would not affect them. They would not be required to make the economically less advantageous bulk sales. The bulk form of the drug would be controlled by the licensees, and the appellees, because they would be required under the Government's proposed relief to sell to all applicants only so long as they sell to any United States purchasers, could easily avoid the mandatory-sales requirement. Unless other American firms are licensed to manufacture griseofulvin, competition in the United States market will depend entirely upon appellees' willingness to continue to supply their present licensees with the bulk form of the drug.

This Court has repeatedly recognized that "(t)he framing of decrees should take place in the District rather than in Appellate Courts" and has generally followed the principle that district courts "are invested with large discretion to model their judgments to fit the exigencies of the particular case." *International Salt Co. v. United States*, supra, 332 U.S., at 400-401; accord, *Ford Motor Co. v. United States*, 405 U.S. 562, 573 (1972). The Court has not, however, treated that power as one of discretion, subject only to reversal for gross abuse, but has recognized "an obligation to intervene in this most significant phase of the case" when necessary to assure that the relief will be effective. *United States v. United States Gypsum Co.*, 340 U.S., at 89. Accordingly, we have ordered the affirmative relief that the District Court refused to implement. See e.g., *United States v. United States Gypsum Co.* The purpose of relief in an antitrust case is "so far as practicable, (to) cure the ill effects of the illegal conduct, and assure the public freedom from its continuance." *Id.*, at 88. Mandatory selling on specified terms and compulsory patent licensing at reasonable charges are recognized antitrust remedies. See, e.g., *Besser Mfg. Co. v. United States*, 343 U.S. 444 (1952); *International Salt Co. v. United States*, 332 U.S. 392 (1947); *Hartford-Empire Co. v. United States*, 323 U.S. 386 (1945). The District Court should have ordered those remedies in this case.

To the extent indicated in this opinion, the judgment of the District Court is reversed.

So ordered.

Judgment reversed. ***

United States District Court for the District of Columbia, United States of America, Plaintiff, v. Microsoft Corporation, Defendant. Civil Action No. 94-1564 (SS) Final Judgment

Whereas Plaintiff, United States of America, having filed its Complaint in this action on July 15, 1994, and Plaintiff and Defendant, by their respective attorneys, having consented to the entry of this Final Judgment without trial or adjudication of any issue of fact or law; and without this Final Judgment constituting any evidence or admission by any party with respect to any issue of fact or law;

Now, Therefore, before any testimony is taken, and without trial or adjudication of any issue of fact or law, and upon consent of the parties, it is hereby

Ordered, Adjudged and Decreed as follows:

I. Jurisdiction

This Court has jurisdiction of the subject matter of this action and of the person of the Defendant, Microsoft Corporation ("Microsoft"). The Complaint states a claim upon which relief may be granted against the Defendant under Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1, 2.

II. Definitions

(A) Covered Product(s) means the binary code of (1) MS-DOS 6.22, (2) Microsoft Windows 3.11, (3) Windows for Workgroups 3.11, (4) predecessor versions of the aforementioned products, (5) the product currently code-named "Chicago," and (6) successor versions of or replacement 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 (1) through (5). 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.

(B) Customized means the substantial modification of a product by Microsoft to meet the particular and specialized requirements of a final customer of a computer system. It does not include the adaptation of such a product in order to optimize its performance in connection with a Personal Computer System manufactured by an OEM.

(C) Duration means, with respect to a License Agreement, the period of time during which an OEM is authorized to license, sell or distribute any of the Covered Products.

(D) A License Agreement means any license, contract, agreement or understanding, or any amendment thereto, written or oral, express or implied, pursuant to which Microsoft authorizes an OEM to license, sell or distribute any Covered Product with its Personal Computer System(s).

(E) A Minimum Commitment means an obligation of an OEM to pay Microsoft a minimum amount under a License Agreement, regardless of actual sales.

(F) Lump Sum Pricing means any royalty payment for a Covered Product that does not vary with the number of copies of the Covered Product that are licensed, sold or distributed by the OEM or of Personal Computer Systems distributed by the OEM.

(G) New System means a system not included or designated in a Per System License.

(H) NDA means any non-disclosure agreement for any pre-commercial release of a Covered Product that imposes any restriction on the disclosure or use of any such pre-commercial release of any Covered Product or any information relating thereto.

(I) OEM means an original equipment manufacturer or assembler of Personal Computer Systems or Personal Computer System components (such as motherboards or sound cards) or peripherals (e.g., printers or mice) that is a party to a License Agreement.

(J) Per Copy License means any License Agreement pursuant to which the OEM's royalty payments are calculated by multiplying (1) the number of copies of each Covered Product licensed, sold or distributed during the term of the License Agreement, by (2) a per copy royalty rate agreed upon by the OEM and Microsoft, which rate may be determined as provided in Section IV(H).

(K) Per Processor License means a License Agreement under which Microsoft requires the OEM to pay Microsoft a royalty for all Personal Computer Systems that contain the particular microprocessor type(s) specified in the License Agreement.

(L) Per System License means a License Agreement under which Microsoft requires the OEM to pay Microsoft a royalty for all Personal Computer Systems which bear the particular model name(s) or number(s) which are included or designated in the License Agreement by the OEM to Microsoft, at the OEM's sole option and under the terms and conditions as set forth herein.

(M) Personal Computer System means a computer designed to use a video display and keyboard (whether or not the video display and keyboard are actually included) which contains an Intel x86, or Intel x86-compatible microprocessor.

(N) 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.

III. Applicability

This Final Judgment applies to Microsoft and to each of its officers, directors, agents, employees, subsidiaries, successors and assigns; and to all other persons in active concert or participation with any of them who shall have received actual notice of this Final Judgment by personal service or otherwise.

IV. Prohibited Conduct

Microsoft is enjoined and restrained as follows:

(A) Microsoft shall not enter into any License Agreement for any Covered Product that has a total Duration that exceeds one year (measured from the end of the calendar quarter in which the agreement is executed).

Microsoft may include as a term in any such License Agreement that the OEM may, at its sole discretion, at any time between 90 and 120 days prior to the expiration of the original License Agreement, renew such License Agreement for up to one additional year on the same terms and conditions as those applicable in the original license period.

The License Agreement shall not impose a penalty or charge of any kind on an OEM for its election not to renew all or any portion of a License Agreement. In the event that an OEM does not exercise the option to renew a License Agreement as provided above, and a new License Agreement is entered between Microsoft and the OEM, the arm's length negotiation of different terms and conditions, specifically including a higher royalty rate(s), will not by itself constitute a penalty or other charge within the meaning of the foregoing sentence.

The Duration of any License Agreement with an OEM not domiciled in the United States or the European Economic Area that will not be effective prior to regulatory approval in the country of its domicile may be extended at the option of Microsoft or the OEM during the time required for any such regulatory approval.

License Agreement provisions that do not bear on the licensing or distribution of the Covered Products may survive expiration or termination of the License Agreement.

(B) Microsoft shall not enter into any License Agreement that by its terms prohibits or restricts the OEM's licensing, sale or distribution of any non-Microsoft Operating System Software product.

(C) Microsoft shall not enter into any Per Processor License.

(D) Except to the extent permitted by Section IV(G) below, Microsoft shall not enter into any License Agreement other than a Per Copy License.

(E) Microsoft shall not enter into any License Agreement in which the terms of that agreement are expressly or impliedly conditioned upon:

(1) 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); or

(2) the OEM not licensing, purchasing, using or distributing any non-Microsoft product.

(F) Microsoft shall not enter into any License Agreement containing a Minimum Commitment. However, nothing contained herein shall prohibit Microsoft and any OEM from developing non-binding estimates of projected sales of Microsoft's Covered Products for use in calculating royalty payments.

(G) Microsoft's revenue from a License Agreement for any Covered Product shall not be derived from other than Per Copy or Per System Licenses, as defined herein. In any Per System License:

- (1) Microsoft shall not explicitly or implicitly require as a condition of entering into any License Agreement, or for purposes of applying any volume discount, or otherwise, that any OEM include under its Per System License more than one of its Personal Computer Systems;
- (2) Microsoft shall not charge or collect royalties for any Covered Product on any Personal Computer System unless the Personal Computer System is designated by the OEM in the License Agreement or in a written amendment. Microsoft shall not require an OEM which creates a New System to notify Microsoft of the existence of such a New System, or to take any particular actions regarding marketing or advertising of that New System, other than creation of a unique model name or model number that the OEM shall use for internal and external identification purposes. The requirement of external identification may be satisfied by placement of the unique model name or model number on the machine and its container (if any), without more. The OEM and Microsoft may agree to amend the License Agreement to include any new model of Personal Computer System in a Per System License. Nothing in this clause shall be deemed to preclude Microsoft from seeking compensation from an OEM that makes or distributes copies of a Covered Product in breach of its License Agreement or in violation of copyright law;
- (3) The License Agreement shall not impose a penalty or charge on account of an OEM's choosing at any time to create a New System. Addition of a New System to the OEM's License Agreement so that Covered Products are licensed for distribution with such New System and royalties are payable with respect thereto shall not be deemed to constitute a penalty or other charge of any kind within the meaning of the foregoing sentence;
- (4) All OEMs with existing Per System Licenses, or Per Processor Licenses treated by Microsoft under Section IV(J) as Per System Licenses, will be sent within 30 days following entry of this Final Judgment in a separately mailed notice printed in bold, boxed type which shall begin with the sentence "You are operating under a Microsoft Per System License," and shall continue with the language contained in the first four quoted paragraphs below. All new or amended Per System Licenses executed after September 1, 1994 shall contain a provision that appears on the top half of the signature page in bold, boxed type shall begin with the sentence "This is a Microsoft Per System License," and which shall continue with the language contained in the first four quoted paragraphs below.

"As a Customer, you may create a 'New System' at any time that does not require the payment of a royalty to Microsoft unless the Customer and Microsoft agree to add it to the Licensing Agreement."

"Any New System created may be identical in every respect to a system as to which the Customer pays a Per System royalty to Microsoft provided that the New System has a unique model number or model name for internal and external identification purposes which distinguishes it from any system the Customer sells that is included in a Per System License. The requirement of external identification may be satisfied

by placement of the unique model name or model number on the machine and its container (if any), without more.”

“If the customer does not intend to include a Microsoft operating system product with a New System, the Customer does not need to notify Microsoft at any time of the creation, use or sale of any such New System, nor does it need to take any particular steps to market or advertise the New System.”

“Under Microsoft’s License Agreement, there is no charge or penalty if a Customer chooses at any time to create a New System incorporating a non-Microsoft operating system. If the Customer intends to include a Microsoft operating system product with the New System, the Customer must so notify Microsoft, after which the parties may enter into arm’s length negotiation with respect to a license to apply to the New System.”

In the case of OEMs with Per Processor Licenses treated as Per System Licenses pursuant to Section IV(J), the notice shall include the following paragraph at the beginning of the notice:

“All models covered by your Per Processor License are now treated as subject to a Per System License. You may exclude any such model from being treated as subject to a Per System License by notifying Microsoft in writing. Such notice to Microsoft must include the model designation to be excluded from the Per System License. Such exclusion shall take effect on the first day of the calendar quarter next following Microsoft’s receipt of such notice.”

(H) Microsoft may not use any form of Lump Sum Pricing in any License Agreement of Covered Product(s) executed after the date of this Final Judgment. It is not a violation of this Final Judgment for Microsoft to use royalty rates, including rates embodying volume discounts, agreed upon in advance with respect to each individual OEM, each specific version or language of a Covered Product, and each designated Personal Computer System model subject to the License Agreement.

(I) OEMs that currently have a License Agreement that is inconsistent with any provision of this Final Judgment may, without penalty, terminate the License Agreement or negotiate with Microsoft to amend the License Agreement to eliminate such inconsistent provisions. An OEM desiring to terminate or amend such a License Agreement shall give Microsoft ninety (90) days written notice at any time prior to January 1, 1995.

(J) If an OEM has a License Agreement that is inconsistent with any provision of this Final Judgment, Microsoft may enforce that License Agreement subject to the following:

(1) if the License Agreement is a Per Processor License, Microsoft shall treat it as a Per System License for all existing OEM models that contain the microprocessor type(s) specified in the License Agreement except those models that the OEM opts in writing to exclude and such exclusion shall take effect on the first day of the calendar quarter net following Microsoft’s receipt of such notice, and

(2) Microsoft may not enforce prospectively any Minimum Commitment.

(K) Microsoft shall not enter into any NDA:

(1) whose duration extends beyond (a) commercial release of the product covered by the NDA, (b) an earlier public disclosure authorized by Microsoft of information covered by the NDA, or (c) one year from the date of disclosure of information covered by the NDA to a person subject to the NDA, whichever comes first; or

(2) that would restrict in any manner any person subject to the NDA from developing software products that will run on competing Operating System Software products, provided that such development efforts do not entail the disclosure or use of any Microsoft proprietary information during the term of the NDA; or

(3) that would restrict any activities of any person subject to the NDA to whom no information covered by the NDA has been disclosed.

(L) The form of standard NDAs will be approved by a Microsoft corporate officer and all non-standard language in NDAs that pertains to matters covered in Section (K) above will be approved by a Microsoft senior corporate attorney.

(M) Within thirty (30) days of the entry of this Final Judgment, Microsoft will provide a copy of this Final Judgment to all OEMs with whom it has License Agreements at that time except for those with licenses solely under the Small Volume Easy Distribution (SVED) program or the Delivery Service Partner (DSP) program.

V. Reporting

(A) To determine or secure compliance with this Final Judgment, duly authorized representatives of the Plaintiff shall, upon written request of the Assistant Attorney General in charge of the Antitrust Division, on reasonable notice given to Defendant at its principal office, subject to any lawful privilege, be permitted:

(1) Access during normal office hours to inspect and copy all books, ledgers, accounts, correspondence, memoranda and other documents and records in the possession, custody, or control of Defendant, which may have counsel present, relating to any matters contained in this Final Judgment.

(2) Subject to the reasonable convenience of Defendant and without restraint or interference from it, to interview officers, employees, or agents of Defendant, who may have counsel present, regarding any matters contained in this Final Judgment.

(B) Upon written request of the Assistant Attorney General in charge of the Antitrust Division, on reasonable notice given to Defendant at its principal office, subject to any lawful privilege, Defendant shall submit such written reports, under oath if requested, with respect to any matters contained in this Final Judgment.

(C) No information or documents obtained by the means provided by this Section shall be divulged by the Plaintiff to any person other than a duly authorized representative of the Executive Branch of the United States government, except in the course of legal proceedings to which the United States is a party, or for the purpose of securing compliance with the Final Judgment, or as otherwise required by law.

(D) Defendant shall produce to plaintiff, within forty-five (45) days, any documents provided to the Directorate-General for Competition of the European Commission ("DG-IV") in connection with its monitoring or securing of compliance with any Undertaking by or

Decision against Microsoft that relates to Microsoft's licensing of any Covered Product. In addition, Defendant shall not object to disclosure to Plaintiff by DG-IV of any other information provided by defendant to DG-IV, or to cooperation between DG-IV and Plaintiff in the enforcement of this Judgment, provided that Microsoft shall receive in advance a detailed description of the information to be provided and the Plaintiff will accord any Microsoft information received from DG-IV the maximum confidentiality protection available under applicable law. Specifically, Plaintiff will treat Microsoft information that it receives from DG-IV as "confidential business information" within the meaning of the Freedom of Information Act, 5 U.S.C. § 552, with Microsoft deemed a "submitter" of the information under the statute. Plaintiff shall take precautions to ensure the security and confidentiality of Microsoft information provided in electronic form.

(E) If at the time information or documents are furnished by Defendant to Plaintiff, Defendant represents and identifies in writing the material in any such information or document to which a claim of protection may be asserted under Rule 26(c)(7) of the Federal Rules of Civil Procedure, and Defendant marks each pertinent page of such material "Subject to claim of protection under Rule 26(c)(7) of the Federal Rules of Civil Procedure," then ten days notice shall be given by Plaintiff to Defendant prior to divulging such material in any legal proceeding (other than a grand jury proceeding) to which Defendant is not a party.

VI. Further Elements of Judgment

(A) This Final Judgment shall expire on the seventy eighth month after its entry.

(B) Jurisdiction is retained by this Court over this action and the parties thereto for the purpose of enabling any of the parties thereto to apply to this Court at any time for further orders and directions as may be necessary or appropriate to carry out or construe this Final Judgment, to modify or terminate any of its provisions, to enforce compliance, and to punish violations of its provisions.

VII. Public Interest

Entry of this Final Judgment is in the public interest.

ENTERED: United States District Judge

United States v. Microsoft Corp.

56 F.3d 1448 (D.C. Cir. 1995)

SILBERMAN, Circuit Judge: Section 16(e) of the Antitrust Procedures and Penalties Act, known as the Tunney Act, requires the district court to determine whether entry of an anti-trust consent decree is "in the public interest." 15 U.S.C. § 16(e). In this case, the district court refused to enter a proposed consent decree the Antitrust Division of the Department of Justice negotiated with Microsoft Corporation. We conclude that the proposed consent decree is in the public interest, and that the district court exceeded its authority in concluding to the contrary. We therefore reverse and remand with instructions to enter an order approving the decree.

I.

* * * In July 1994, the Department filed a civil complaint under the Sherman Act, 15 U.S.C. §§ 1 and 2, charging Microsoft with unlawfully maintaining a monopoly of operating systems for IBM-compatible PCs and unreasonably restraining trade of the same through certain anticompetitive marketing practices.

The key anticompetitive practice against which the complaint is aimed is Microsoft's use of contract terms requiring original equipment manufacturers ("OEMs") to pay Microsoft a royalty for each computer the OEM sells containing a particular microprocessor (in this case, an x86 class microprocessor), whether or not the OEM has included a Microsoft operating system with that computer. The practical effect of such "per processor licenses," it is alleged, is to deter OEMs from using competing operating systems during the life of their contracts with Microsoft. The complaint further charges that Microsoft has exacerbated the anticompetitive effect of the per processor licenses by executing long-term contracts with major OEMs, and by requiring minimum commitments and crediting unused balances to future contracts, thereby extending the contract term and creating an economic disincentive for an OEM to install a non-Microsoft operating system.

The other anticompetitive device alleged in the complaint is Microsoft's use of overly restrictive nondisclosure agreements with certain independent software vendors ("ISVs"). Those ISVs provide applications software to run "on top of" Microsoft's operating system, enabling the user to perform a variety of tasks, such as wordprocessing. Microsoft provides those ISVs with advance test versions of its newest operating system so that the ISVs can develop their software to be compatible with that operating system. The government alleged that Microsoft, as a corollary, has imposed nondisclosure agreements on some ISVs which would restrict their ability to work with competing operating systems companies and to develop competing products for an unreasonably long period of time.

The government did not allege and does not contend—and this is of crucial significance to this case—that Microsoft obtained its alleged monopoly position in violation of the antitrust laws. The government believes that Microsoft's initial acquisition of monopoly power in the operating systems market was the somewhat fortuitous result of IBM choosing for its PCs the operating system introduced by Microsoft ("MS-DOS"), which, with Microsoft's successful exploitation of that advantage, led Microsoft to obtain an installed base on millions of IBM, and IBM-compatible, PCs.

It is undisputed that the software market is characterized by "increasing returns," resulting in natural barriers to entry. Because the costs of producing software are almost exclusively in its design, marginal production costs are "virtually zero." Professor Arrow, the government's consultant and a Nobel-prize winning economist, described the importance of Microsoft's large installed base in an increasing returns market as follows:

A software product with a large installed base has several advantages relative to a new entrant. Consumers know that such a product is likely to be supported by the vendor with upgrades and service. Users of a product with a large installed base are more likely to find that their products are compatible with other products. They are more

likely to be able successfully to exchange work products with their peers, because a large installed base makes it more likely that their peers will use the same product or compatible products. Installed base is particularly important to the economic success of an operating system software product. The value of the operating system is in its capability to run application software. The larger the installed base of a particular operating system, the more likely it is that independent software vendors will write programs that run on that operating system, and, in this circular fashion, the more valuable the operating system will be to consumers.

In a not uncommon technique, the Department of Justice filed a proposed consent decree along with its complaint, which embodied the Department's and Microsoft's settlement of the case. The consent decree, which essentially tracks the complaint and is effective for 78 months following its entry, prohibits Microsoft from entering into per processor licenses, licenses with a term exceeding one year (unless the customer opts to renew for another year), licenses containing a minimum commitment, and unduly restrictive nondisclosure agreements. To prevent Microsoft from using other exclusionary practices to achieve effects similar to those achieved by the practices challenged in the complaint, the proposed decree also prohibits certain other arrangements such as lump-sum pricing and variants of per processor licensing. The decree applies to Microsoft's most popular operating systems products (MS-DOS, Windows and Windows 95) and successor versions or operating systems marketed as replacement products. The decree does not, however, cover "Windows NT" products, which are designed for sophisticated "high end users" and which do not enjoy a substantial portion of the market for such products.

Pursuant to Section 16(b) of the Tunney Act, 15 U.S.C. § 16(b), the Department of Justice published the proposed decree in the Federal Register, accompanied by a competitive impact statement, and invited comment. See 59 Fed. Reg. 42,845 (1994). Only five comments were received during the statutory period, to which the government responded on October 31, 1994.

At the first substantive status conference on September 29, 1994, the district judge informed the parties that over the summer he had read a book about Microsoft—*Hard Drive*¹—because he "thought it would be a good idea maybe to know as much about Microsoft as probably they're going to know about me." Much of the ensuing discussion focused on accusations against Microsoft contained in the book. The district judge asked whether the government's lawyers had read the book and whether they had investigated the allegations made by its authors. In particular, the judge focused on the allegation that Microsoft engages in "vaporware," which he described in differing terms but ultimately defined as "the public announcement of a computer product before it is ready for market for the sole purpose of causing consumers not to purchase a competitor's product that has been developed and is either currently available for sale or momentarily about to enter the market." *United States v. Microsoft Corp.*, 159 F.R.D. 318, 334 (D.D.C. 1995) ("Opinion"). (The judge insisted that

¹ James Wallace & Jim Erickson, *Hard Drive: Bill Gates and the Making of the Microsoft Empire* (1992).

even truthful product preannouncements would violate the securities laws, if not the anti-trust laws.)

According to the district judge, *Hard Drive* also claimed that Microsoft's own applications developers have unfair access to information about Microsoft's operating systems, giving them an undue advantage over competitors in developing applications software that is compatible with Microsoft's operating systems. The government did not include "vaporware" or unfair access charges in its complaint against Microsoft.

* * * But on January 10, 1995, (over a month late and over the objection of both the government and Microsoft), the law firm of Wilson, Sonsini, Goodrich & Rosati, on behalf of three computer industry companies ("Doe Companies"), filed a 96-page memorandum (plus a 215-page appendix) arguing that the proposed consent decree was inadequate because it would not result in increased competition in the operating systems market, nor prevent Microsoft from monopolizing the rest of the software industry. The Doe Companies claimed that because of the unusual "increasing returns" nature of Microsoft's market position, it would be extremely difficult to dislodge Microsoft from its dominant status and return the market to a state of equilibrium, or competition. Moreover, they claimed that Microsoft had the capacity to leverage its installed base in the operating systems market so as to dominate the related markets for applications and other software products. The Doe Companies also attached two documents purporting to show that Microsoft had engaged in "vaporware." Wilson, Sonsini's brief was accompanied by a motion requesting that the district court permit the late filing, and also permit the purported computer industry companies to remain anonymous, asserting "fear" that they would be subject to unexplained retaliation from Microsoft. The district court, without a hearing on the need for or propriety of the Doe Companies' proceeding anonymously, granted the motion over the government's and Microsoft's objections.

On January 18, 1995, the United States filed a motion for entry of the decree (later joined orally by Microsoft at the district court's January 20, 1995 hearing) and attached an affidavit from Professor Arrow. As noted, Professor Arrow agreed with *amici* that in an increasing returns market there is a possibility of monopolization, which may be inefficient; but, he claimed, this process is entirely natural. He specifically rejected the notion that the government should intervene where, as he believed was the case here, the market success of the dominant firm was not the result of anticompetitive practices. Professor Arrow concluded that only artificial barriers, such as the licensing practices addressed in the decree, should be regulated or prohibited.

The next day the district court issued an order identifying issues to be addressed at the hearing scheduled for the following day. The parties were requested to explain why, among other things, the consent decree did not contain provisions that would (1) bar Microsoft from engaging in "vaporware," (2) establish a wall between the development of operating systems software and the development of applications software at Microsoft, and (3) require disclosure of all instruction codes built into operating systems software designed to give Microsoft an advantage over competitors in the applications software market. The Computer &

Communications Industry Association (“CCIA”) filed a motion for leave to intervene, or alternatively, to participate as amicus curiae.

The district court allowed I.D.E. Corporation, CCIA and the Doe Companies to participate in the January 20, 1995 hearing. All three urged disapproval of the decree. The district judge devoted substantial time to questioning counsel about “vaporware” and pressing the government for information regarding its investigation of “vaporware” allegations—information which the government declined to provide on the ground that the such allegations were unrelated to the violations charged in the complaint.

On February 14, 1995, the district court issued an order denying the government’s motion to approve the consent decree. The judge stated that he could not find the proposed decree to be in the public interest for four reasons:

First, the Government has declined to provide the Court with the information it needs to make a proper public interest determination. Second, the scope of the decree is too narrow. Third, the parties have been unable and unwilling adequately to address certain anticompetitive practices, which Microsoft states it will continue to employ in the future and with respect to which the decree is silent. Thus, the decree does not constitute an effective antitrust remedy. Fourth, the Court is not satisfied that the enforcement and compliance mechanisms in the decree are satisfactory.

Opinion, 159 F.R.D. at 332.

The judge’s understanding of the extent of additional information he “need [ed]” to make the public interest determination under the Tunney Act was quite considerable and was of a character that the government contended was not only outside the scope of the Tunney Act, but was also improper for a judge to seek. The court required at a “minimum”:

(1) The broad contours of the investigation i.e., the particular practices and conduct of the defendant that were under investigation along with the nature, scope and intensity of the inquiry; (2) With respect to such particular practices and conduct, what were the conclusions reached by the Government; (3) In the settlement discussions between the Government and defendant: (a) what were the areas that were discussed, and (b) what, if any, areas were bargained away and the reasons for their non-inclusion in the decree; (4) With respect to the areas not discussed at the bargaining table or not bargained away, what are the plans for the Government to deal with them i.e., is the investigation to continue, and, if so, at what intensity, or if the investigation is to be closed, then the Government must explain why it is in the public interest to do so.

Opinion, 159 F.R.D. at 332.

The judge’s second objection, going to the scope of the decree, was predicated on his concern that it does not apply to all of Microsoft’s operating systems. The decree, it will be recalled, explicitly excludes from its coverage “Windows NT.” In an apparent reference to Microsoft’s contention that its product preannouncements do not fit the definition of “vaporware” and do not constitute antitrust violations, the court further noted that “taking into account Microsoft’s penchant for narrowly defining the antitrust laws, the Court fears there

may be endless debate as to whether a new operating system is covered by the decree.” *Id.* at 333.

As to the third point—the essence of the *amici’s* objection—the judge concluded that the decree does not provide an effective antitrust remedy because it does not “pry open” the market to competition, i.e., remedy the monopolist position Microsoft has achieved through supposed illegal means. The judge was especially concerned that the decree does not address “a number of other anticompetitive practices that from time to time Microsoft has been accused of engaging in by others in the industry.” *Id.* at 334. Among such practices were “vaporware,” Microsoft’s “use[] [of] its dominant position in operating systems to give it an undue advantage in developing applications software,” and its manipulation of its operating systems to render competing applications software inoperable or more difficult for consumers to use. *Id.* at 334-35.

Finally, the court determined that the consent decree did not oblige Microsoft to adopt sufficient internal compliance mechanisms. Based on its perception that Microsoft had misled the court about whether it engaged in “vaporware,” the district court concluded that Microsoft’s current staff of “50 or so in-house lawyers, along with its outside retained counsel,” were insufficient to monitor the decree adequately. *Id.* at 336.

The United States and Microsoft appeal from the order refusing to enter the decree, asking this court to remand with instructions to enter the decree. Microsoft appeals as well from the order allowing the anonymous participation of the Doe Companies (and CCIA’s participation), and asks that the case be remanded to another district court judge because it contends that Judge Sporkin has demonstrated personal bias against the company.

Since both parties to the decree have appealed the district court’s order, these consolidated cases present the rare situation in which there is no appellee. Accordingly, we have allowed the Doe Companies, CCIA and I.D.E. Corporation to continue in their roles as *amici*.

II.

Both the government and Microsoft contend that the district judge vastly exceeded his authority under the Tunney Act, and that as a matter of law they are entitled to the court’s entry of the consent decree. * * *

III.

Appellants contend that the district judge misinterpreted the Tunney Act—indeed interpreted that statute so as to raise serious questions regarding its constitutionality—by basing his rejection of the decree on considerations which implicate the executive branch’s prosecutorial discretion. The thrust of the judge’s concerns were directed to his dissatisfaction with the framework of the complaint fashioned by the Department. He thought it much too modest to deal with the imperfections in the relevant market and their cause—at least as he perceived them. Appellants contend that the judge did not simply make the proper inquiry into whether the decree was appropriate to the complaint, but instead asked whether the complaint itself was adequate. By doing so, it is argued, the judge improperly intruded on the government’s prosecutorial role. The judge’s demand that he be informed of the contours of the investigation, the settlement discussions, and the government’s future investiga-

tive plans, indicates that the judge impermissibly arrogated to himself the President's role "to take care that the laws be faithfully executed." * * *

At the heart of this case, then, is the proper scope of the district court's inquiry into the "public interest." Is the district judge entitled to seize hold of the matter—the investigation into the putative defendant's business practices—and decide for himself the appropriate combined response of the executive and judicial branches to those practices? With respect to the specific allegations in the government's complaint, may the court interpose its own views of the appropriate remedy over those the government seeks as a part of its overall settlement? To be sure, Congress, in passing the Tunney Act, intended to prevent "judicial rubber stamping" of the Justice Department's proposed consent decree. H.R. Rep. No. 1463, *supra*, at 8, reprinted in 1974 U.S. Code Cong. & Admin. News at 6538. The Court was to "make an independent determination as to whether or not entry of a proposed consent decree [was] in the public interest." S.Rep. No. 298, *supra*, at 5. Yet, Congress did not purport to alter antitrust precedent applying the public interest in reviewing consent decrees. The difficulty with that stated purpose is that there was virtually no useful precedent—certainly none in which an appellate court had approved a trial court's rejection of a consent decree as outside the public interest.

Although the statute does not give specific guidance, it does speak in rather broad terms. In determining whether the decree is in the public interest, the district court is authorized to "consider": (1) the competitive impact of such judgment, including termination of alleged violations, provisions for enforcement and modification, duration or relief sought, anticipated effects of alternative remedies actually considered, and any other considerations bearing upon the adequacy of such judgment; (2) the impact of entry of such judgment upon the public generally and individuals alleging specific injury from the violations set forth in the complaint including consideration of the public benefit, if any, to be derived from a determination of the issues at trial. 15 U.S.C. § 16(e).

* * * The most prominent post-Tunney Act consent decree, the AT&T consent decree, was modified by the district judge in several respects in accordance with his views of the public interest and, although both the government and AT&T acquiesced, non-parties to the decree were allowed to intervene for purposes of appealing the district judge's public interest determination. It does not appear that any of the appellants challenged the constitutionality of the Tunney Act, but Justice Rehnquist, speaking for Chief Justice Burger and Justice White, nevertheless published a dissent from the order affirming the district court's entry of the decree. See *Maryland v. United States*, 460 U.S. 1001 (1983). The dissent expressed grave doubt as to the Act's constitutionality because without a judicial finding of illegality (a consent decree is, of course, a settlement), the statute does not supply a judicially manageable standard for review of the decree, and the considerations that led the Department of Justice to settle are not amenable to judicial review. For instance, a settlement, particularly of a major case, will allow the Department of Justice to reallocate necessarily limited resources.

The government, cautioning us as to the constitutional difficulties that inhere in this statute, urges us to flatly reject the district judge's efforts to reach beyond the complaint to eva-

luate claims that the government did not make and to inquire as to why they were not made. We agree. Although the language of section 16(e) is not precise, we think the government is correct in contending that section 16(e)(1)'s reference to the alleged violations suggests that Congress did not mean for a district judge to construct his own hypothetical case and then evaluate the decree against that case. * * *

The district court was troubled that if its review were limited to the market and practices within that market against which the complaint was directed, the government could, by narrow drafting, artificially limit the court's review under the Tunney Act. We think, with all due respect, that the district court put the cart before the horse. The court's authority to review the decree depends entirely on the government's exercising its prosecutorial discretion by bringing a case in the first place.

That brings us to *amici's* contention that the district court was justified in rejecting the decree as providing inadequate remedies, even if the court was barred from reaching beyond the complaint to examine practices the government did not challenge. The district judge (and *amici*) believed that the decree would not "effectively pry open to competition a market that has been closed by defendant[s] illegal restraints." *Opinion*, 159 F.R.D. at 333 (quoting *United States v. American Telephone & Telegraph Co.*, 552 F.Supp. 131, 150 (D.D.C. 1982) (in turn quoting *International Salt Co. v. United States*, 332 U.S. 392, 401 (1947)), *aff'd sub nom. Maryland v. United States*, 460 U.S. 1001 (1983)). The judge was especially concerned that Professor Arrow had not explained "how the decree remedies the monopolist position Microsoft has achieved through alleged illegal means in an increasing returns market." *Id.* at 334 (emphasis in original). And he urged that the decree should address "a number of other anticompetitive practices that from time to time Microsoft has been accused of engaging in by others in the industry," such as "vaporware." *Id.*

This argument, it seems to us, merely recasts the district court's order to make it appear less unorthodox. The complaint did not allege—because the government did not believe it was true—that Microsoft's dominant market position resulted from illegal means. The district court and *amici* would have it be otherwise, but neither have the power to force the government to make that claim. And since the claim is not made, a remedy directed to that claim is hardly appropriate. Of course, such reasoning applies a fortiori to discrete practices such as "vaporware," that the government does not assert are antitrust violations and which bear no relationship to the practices against which the complaint is directed. Even where the government has proved antitrust violations at trial, the remedies must be of the "same type or class" as the violations, and the court is not at liberty to enjoin "all future violations of the antitrust laws, however unrelated to violations found by the court." *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 132-33 (1969) (citations omitted).

If the essential dispute between *amici* and appellants were more narrowly cast as objections to the remedies sought, the district judge would still not be empowered to reject them merely because he believed other remedies were preferable. * * * Thus, a court should not reject an agreed-upon modification unless "it has exceptional confidence that adverse antitrust consequences will result—perhaps akin to the confidence that would justify a court in overturning

the predictive judgments of an administrative agency.” *United States v. Western Elec. Co.*, 993 F.2d 1572, 1577 (D.C. Cir. 1993) (“Triennial Review Remand Opinion”).

The *Triennial Review* cases, dealing with the administration of the AT&T consent decree, involve a decree the oversight of which had been the business of a district judge for several years. In some respects, the parties’ request for approval of a modification to a decree is akin to a request for entry of an initial proposed decree but, in other respects, it is different. In the latter situation, it seems to us that the district judge must be even more deferential than in the former. As Justice Rehnquist noted in *Maryland v. United States*, when a consent decree is brought to a district judge, because it is a settlement, there are no findings that the defendant has actually engaged in illegal practices. It is therefore inappropriate for the judge to measure the remedies in the decree as if they were fashioned after trial. Remedies which appear less than vigorous may well reflect an underlying weakness in the government’s case, and for the district judge to assume that the allegations in the complaint have been formally made out is quite unwarranted. We think the district judge’s criticism of Microsoft for declining to admit that the practices charged in the complaint actually violated the antitrust laws was thus unjustified. The important question is whether Microsoft will abide by the terms of the consent decree regardless of whether it is willing to admit wrongdoing.

After a district judge has administered a consent decree for some period of time—as is true regarding the AT&T decree—it might be thought that he would gain at least some familiarity with the market involved, and therefore the lack of an initial trial is, at least marginally, less of an inhibition. But when the proposed decree comes to a district judge in the first instance as a settlement between the parties that may well reflect weaknesses in the government’s case, the district judge must be even more deferential to the government’s predictions as to the effect of the proposed remedies than he would be when a modification request is presented, as in the AT&T cases, long after entry.

Giving due respect to the Justice Department’s perception of the market structure and its view of the nature of its case, we think the district judge was obliged to conclude that the remedies were not so inconsonant with the allegations charged as to fall outside of the “reaches of the public interest.” The district court understandably questioned the government as to why the decree did not forbid Microsoft from using the alleged anticompetitive licensing practices with respect to all of Microsoft’s operating systems (in particular, Windows NT products). But the government explained that Windows NT products do not have “a significant share of a relevant market at this time.”

It might well be that the decree would be strengthened if Windows NT were explicitly covered (it could also be that this was a concession the government made in bargaining), but that is of no great moment. It is undisputed that Windows NT does not have a dominant market position, and Professor Arrow assured the court that the decree “appropriately addresses and remedies the anticompetitive effects of the practices challenged in the complaint.” It is not for us (or the district court) to decide whether Professor Arrow is correct. “The quality of [his] presentation[] is enough ... to establish an ample factual foundation for

the judgment call made by the Department of Justice and to make its conclusion reasonable.” *Triennial Review Remand Opinion*, 993 F.2d at 1582.

A district judge pondering a proposed consent decree understandably would and should pay special attention to the decree’s clarity. The government may be entitled to rather broad discretion to settle with the defendant within the reaches of the public interest, but the district judge who must preside over the implementation of the decree is certainly entitled to insist on that degree of precision concerning the resolution of known issues as to make his task, in resolving subsequent disputes, reasonably manageable. We therefore think the district judge was on solid ground in, at least, inquiring as to the product lines covered in the decree. *Amici* suggest that in this respect the decree is ambiguous and that the district judge’s refusal to accept it can be justified on this alternative ground. The decree provides that “successor versions of or replacement products marketed as replacements for the [covered products]” are covered by the decree. But, as noted, Windows NT is specifically excluded. What would happen, *amici* ask, if Windows NT were somehow to be made to serve as a replacement or successor to MS-DOS or Windows products covered by the decree? The government contends (and Microsoft does not dispute) that in such an unlikely event Windows NT would be covered as a successor to the covered products. We think that is the logical interpretation of the decree, and therefore perceive no continuing ambiguity. In any event, the district judge’s concern was not primarily ambiguous language, but was rather his perception that Microsoft had a “penchant for narrowly defining the antitrust laws,” and that therefore “endless debate” might ensue “as to whether a new operating system is covered by the decree.” *Opinion*, 159 F.R.D. at 333. This observation apparently stems from the “vaporware dispute” between Microsoft’s counsel and the district judge, as well as from Microsoft’s unwillingness to concede that the practices covered by the decree violated the antitrust laws. As we have already noted, the judge’s conclusions about Microsoft’s behavior past or future are, on this record, unwarranted. * * *

* * * * *

When the government and a putative defendant present a proposed consent decree to a district court for review under the Tunney Act, the court can and should inquire, in the manner we have described, into the purpose, meaning, and efficacy of the decree. If the decree is ambiguous, or the district judge can foresee difficulties in implementation, we would expect the court to insist that these matters be attended to. And, certainly, if third parties contend that they would be positively injured by the decree, a district judge might well hesitate before assuming that the decree is appropriate. But, when the government is challenged for not bringing as extensive an action as it might, a district judge must be careful not to exceed his or her constitutional role. A decree, even entered as a pretrial settlement, is a judicial act, and therefore the district judge is not obliged to accept one that, on its face and even after government explanation, appears to make a mockery of judicial power. Short of that eventuality, the Tunney Act cannot be interpreted as an authorization for a district judge to assume the role of Attorney General.

Accordingly, the case is remanded with instructions to enter the proposed decree.

PER CURIAM:

Microsoft requests that this case be remanded to another district court judge because Judge Sporkin has demonstrated actual bias against the company. We do not lightly conclude that a bias claim has been made out. But both the recusal statute, 28 U.S.C. § 455(a), and our general supervisory power to “require such further proceedings to be had as may be just under the circumstances,” 28 U.S.C. § 2106, allow us to reassign this case to a different judge on remand. * * *

The combined effect of the foregoing is to cause a reasonable observer to question whether Judge Sporkin “would have difficulty putting his previous views and findings aside” on remand. *United States v. Torkington*, 874 F.2d 1441, 1447 (11th Cir. 1989). Accordingly, we will remand the case to the chief judge of the district court, with instructions that it be assigned to another district court judge.

United States v. Microsoft Corp.

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

PER CURIAM: Microsoft Corporation appeals from judgments of the District Court finding the company in violation of §§ 1 and 2 of the Sherman Act and ordering various remedies.

The action against Microsoft arose pursuant to a complaint filed by the United States and separate complaints filed by individual States. The District Court determined that Microsoft had maintained a monopoly in the market for Intel-compatible PC operating systems in violation of § 2; attempted to gain a monopoly in the market for internet browsers in violation of § 2; and illegally tied two purportedly separate products, Windows and Internet Explorer (“IE”), in violation of § 1. *United States v. Microsoft Corp.*, 87 F.Supp.2d 30 (D.D.C. 2000) (“Conclusions of Law”). The District Court then found that the same facts that established liability under §§ 1 and 2 of the Sherman Act mandated findings of liability under analogous state law antitrust provisions. *Id.* To remedy the Sherman Act violations, the District Court issued a Final Judgment requiring Microsoft to submit a proposed plan of divestiture, with the company to be split into an operating systems business and an applications business. *United States v. Microsoft Corp.*, 97 F.Supp.2d 59, 64-65 (D.D.C. 2000) (“Final Judgment”). The District Court’s remedial order also contains a number of interim restrictions on Microsoft’s conduct.

*** After carefully considering the voluminous record on appeal—including the District Court’s *Findings of Fact* and *Conclusions of Law*, the testimony and exhibits submitted at trial, the parties’ briefs, and the oral arguments before this court—we find that some but not all of Microsoft’s liability challenges have merit. Accordingly, we affirm in part and reverse in part the District Court’s judgment that Microsoft violated § 2 of the Sherman Act by employing anticompetitive means to maintain a monopoly in the operating system market; we reverse the District Court’s determination that Microsoft violated § 2 of the Sherman Act by illegally attempting to monopolize the internet browser market; and we remand the District Court’s finding that Microsoft violated § 1 of the Sherman Act by unlawfully tying its browser to its operating system. Our judgment extends to the District Court’s findings with respect to the state law counterparts of the plaintiffs’ Sherman Act claims.

We also find merit in Microsoft’s challenge to the Final Judgment embracing the District Court’s remedial order. There are several reasons supporting this conclusion. First, the District Court’s Final Judgment rests on a number of liability determinations that do not survive appellate review; therefore, the remedial order as currently fashioned cannot stand. Furthermore, we would vacate and remand the remedial order even were we to uphold the District Court’s liability determinations in their entirety, because the District Court failed to hold an evidentiary hearing to address remedies specific factual disputes.

Finally, we vacate the Final Judgment on remedies, because the trial judge engaged in impermissible ex parte contacts by holding secret interviews with members of the media and made numerous offensive comments about Microsoft officials in public statements outside of the courtroom, giving rise to an appearance of partiality. Although we find no evidence of

actual bias, we hold that the actions of the trial judge seriously tainted the proceedings before the District Court and called into question the integrity of the judicial process. We are therefore constrained to vacate the Final Judgment on remedies, remand the case for reconsideration of the remedial order, and require that the case be assigned to a different trial judge on remand. We believe that this disposition will be adequate to cure the cited improprieties.

In sum, for reasons more fully explained below, we affirm in part, reverse in part, and remand in part the District Court's judgment assessing liability. We vacate in full the Final Judgment embodying the remedial order and remand the case to a different trial judge for further proceedings consistent with this opinion.

I. INTRODUCTION

A. Background

In July 1994, officials at the Department of Justice ("DOJ"), on behalf of the United States, filed suit against Microsoft, charging the company with, among other things, unlawfully maintaining a monopoly in the operating system market through anticompetitive terms in its licensing and software developer agreements. The parties subsequently entered into a consent decree, thus avoiding a trial on the merits. See *United States v. Microsoft Corp.*, 56 F.3d 1448 (D.C. Cir. 1995) ("Microsoft I"). Three years later, the Justice Department filed a civil contempt action against Microsoft for allegedly violating one of the decree's provisions. On appeal from a grant of a preliminary injunction, this court held that Microsoft's technological bundling of IE 3.0 and 4.0 with Windows 95 did not violate the relevant provision of the consent decree. *United States v. Microsoft Corp.*, 147 F.3d 935 (D.C. Cir. 1998) ("Microsoft II"). We expressly reserved the question whether such bundling might independently violate § 1 or 2 of the Sherman Act.

On May 18, 1998, shortly before issuance of the *Microsoft II* decision, the United States and a group of State plaintiffs filed separate (and soon thereafter consolidated) complaints, asserting antitrust violations by Microsoft and seeking preliminary and permanent injunctions against the company's allegedly unlawful conduct. ***

II. MONOPOLIZATION

Section 2 of the Sherman Act makes it unlawful for a firm to "monopolize." 15 U.S.C. § 2. The offense of monopolization has two elements: "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966). The District Court applied this test and found that Microsoft possesses monopoly power in the market for Intel-compatible PC operating systems. Focusing primarily on Microsoft's efforts to suppress Netscape Navigator's threat to its operating system monopoly, the court also found that Microsoft maintained its power not through competition on the merits, but through unlawful means. Microsoft challenges both conclusions.

*** We begin by considering whether Microsoft possesses monopoly power, see *infra* Section II.A, and finding that it does, we turn to the question whether it maintained this power through anticompetitive means. Agreeing with the District Court that the company behaved anticompetitively, see *infra* Section II.B, and that these actions contributed to the maintenance of its monopoly power, see *infra* Section II.C, we affirm the court's finding of liability for monopolization.

A. Monopoly Power

While merely possessing monopoly power is not itself an antitrust violation, it is a necessary element of a monopolization charge. The Supreme Court defines monopoly power as “the power to control prices or exclude competition.” *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 391 (1956). More precisely, a firm is a monopolist if it can profitably raise prices substantially above the competitive level. Where evidence indicates that a firm has in fact profitably done so, the existence of monopoly power is clear. Because such direct proof is only rarely available, courts more typically examine market structure in search of circumstantial evidence of monopoly power. Under this structural approach, monopoly power may be inferred from a firm's possession of a dominant share of a relevant market that is protected by entry barriers. “Entry barriers” are factors (such as certain regulatory requirements) that prevent new rivals from timely responding to an increase in price above the competitive level.

The District Court considered these structural factors and concluded that Microsoft possesses monopoly power in a relevant market. Defining the market as Intel-compatible PC operating systems, the District Court found that Microsoft has a greater than 95% share. It also found the company's market position protected by a substantial entry barrier. ***

1. Market Structure

a. Market definition

“Because the ability of consumers to turn to other suppliers restrains a firm from raising prices above the competitive level,” *Rothery Storage & Van Co. v. Atlas Van Lines, Inc.*, 792 F.2d 210, 218 (D.C. Cir. 1986), the relevant market must include all products “reasonably interchangeable by consumers for the same purposes.” *du Pont*, 351 U.S. at 395. In this case, the District Court defined the market as “the licensing of all Intel-compatible PC operating systems worldwide,” finding that there are “currently no products—and ... there are not likely to be any in the near future—that a significant percentage of computer users worldwide could substitute for [these operating systems] without incurring substantial costs.” *Conclusions of Law*, at 36. Calling this market definition “far too narrow,” Microsoft argues that the District Court improperly excluded three types of products: non-Intel compatible operating systems (primarily Apple's Macintosh operating system, Mac OS), operating systems for non-PC devices (such as handheld computers and portal websites), and “middleware” products, which are not operating systems at all.

We begin with Mac OS. Microsoft's argument that Mac OS should have been included in the relevant market suffers from a flaw that infects many of the company's monopoly power claims: the company fails to challenge the District Court's factual findings, or to argue that these findings do not support the court's conclusions. The District Court found that consumers would not switch from Windows to Mac OS in response to a substantial price increase because of the costs of acquiring the new hardware needed to run Mac OS (an Apple computer and peripherals) and compatible software applications, as well as because of the effort involved in learning the new system and transferring files to its format. *** Microsoft neither points to evidence contradicting the District Court's findings nor alleges that supporting record evidence is insufficient. And since Microsoft does not argue that even if we accept these findings, they do not support the District Court's conclusion, we have no basis for upsetting the court's decision to exclude Mac OS from the relevant market.

Microsoft's challenge to the District Court's exclusion of non-PC based competitors, such as information appliances (handheld devices, etc.) and portal websites that host serverbased software applications, suffers from the same defect: the company fails to challenge the District Court's key factual findings. *** Again, because Microsoft does not argue that the District Court's findings do not support its conclusion that information appliances and portal websites are outside the relevant market, we adhere to that conclusion.

This brings us to Microsoft's main challenge to the District Court's market definition: the exclusion of middleware. Because of the importance of middleware to this case, we pause to explain what it is and how it relates to the issue before us.

Operating systems perform many functions, including allocating computer memory and controlling peripherals such as printers and keyboards. Operating systems also function as platforms for software applications. They do this by "exposing"—i.e., making available to software developers—routines or protocols that perform certain widely-used functions. These are known as Application Programming Interfaces, or "APIs." For example, Windows contains an API that enables users to draw a box on the screen. Software developers wishing to include that function in an application need not duplicate it in their own code. Instead, they can "call"—i.e., use—the Windows API. Windows contains thousands of APIs, controlling everything from data storage to font display.

Every operating system has different APIs. Accordingly, a developer who writes an application for one operating system and wishes to sell the application to users of another must modify, or "port," the application to the second operating system. This process is both time-consuming and expensive.

"Middleware" refers to software products that expose their own APIs. Because of this, a middleware product written for Windows could take over some or all of Windows's valuable platform functions—that is, developers might begin to rely upon APIs exposed by the middleware for basic routines rather than relying upon the API set included in Windows. If middleware were written for multiple operating systems, its impact could be even greater. The more developers could rely upon APIs exposed by such middleware, the less expensive porting to different operating systems would be. Ultimately, if developers could write appli-

cations relying exclusively on APIs exposed by middleware, their applications would run on any operating system on which the middleware was also present. Netscape Navigator and Java—both at issue in this case—are middleware products written for multiple operating systems.

Microsoft argues that, because middleware could usurp the operating system's platform function and might eventually take over other operating system functions (for instance, by controlling peripherals), the District Court erred in excluding Navigator and Java from the relevant market. The District Court found, however, that neither Navigator, Java, nor any other middleware product could now, or would soon, expose enough APIs to serve as a platform for popular applications, much less take over all operating system functions. Again, Microsoft fails to challenge these findings, instead simply asserting middleware's "potential" as a competitor. The test of reasonable interchangeability, however, required the District Court to consider only substitutes that constrain pricing in the reasonably foreseeable future, and only products that can enter the market in a relatively short time can perform this function. Whatever middleware's ultimate potential, the District Court found that consumers could not now abandon their operating systems and switch to middleware in response to a sustained price for Windows above the competitive level. Nor is middleware likely to overtake the operating system as the primary platform for software development any time in the near future. ***

b. Market power

Having thus properly defined the relevant market, the District Court found that Windows accounts for a greater than 95% share. The court also found that even if Mac OS were included, Microsoft's share would exceed 80%. Microsoft challenges neither finding, nor does it argue that such a market share is not predominant. Cf. *Grinnell*, 384 U.S. at 571 (87% is predominant); *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 481 (1992) (80%); *du Pont*, 351 U.S. at 379 (75%).

Instead, Microsoft claims that even a predominant market share does not by itself indicate monopoly power. *** In this case, however, the District Court was not misled. Considering the possibility of new rivals, the court focused not only on Microsoft's present market share, but also on the structural barrier that protects the company's future position. That barrier—the "applications barrier to entry"—stems from two characteristics of the software market: (1) most consumers prefer operating systems for which a large number of applications have already been written; and (2) most developers prefer to write for operating systems that already have a substantial consumer base. This "chicken-and-egg" situation ensures that applications will continue to be written for the already dominant Windows, which in turn ensures that consumers will continue to prefer it over other operating systems. ***

Microsoft does not dispute that Windows supports many more applications than any other operating system. It argues instead that "[i]t defies common sense" to suggest that an operating system must support as many applications as Windows does (more than 70,000, according to the District Court, *id.* § 40) to be competitive. Consumers, Microsoft points out, can only use a very small percentage of these applications. As the District Court explained, how-

ever, the applications barrier to entry gives consumers reason to prefer the dominant operating system even if they have no need to use all applications written for it:

The consumer wants an operating system that runs not only types of applications that he knows he will want to use, but also those types in which he might develop an interest later. Also, the consumer knows that if he chooses an operating system with enough demand to support multiple applications in each product category, he will be less likely to find himself straitened later by having to use an application whose features disappoint him. Finally, the average user knows that, generally speaking, applications improve through successive versions. He thus wants an operating system for which successive generations of his favorite applications will be released—promptly at that. The fact that a vastly larger number of applications are written for Windows than for other PC operating systems attracts consumers to Windows, because it reassures them that their interests will be met as long as they use Microsoft's product.

Findings of Fact § 37. Thus, despite the limited success of its rivals, Microsoft benefits from the applications barrier to entry. ***

Microsoft next argues that the applications barrier to entry is not an entry barrier at all, but a reflection of Windows' popularity. It is certainly true that Windows may have gained its initial dominance in the operating system market competitively—through superior foresight or quality. But this case is not about Microsoft's initial acquisition of monopoly power. It is about Microsoft's efforts to maintain this position through means other than competition on the merits. Because the applications barrier to entry protects a dominant operating system irrespective of quality, it gives Microsoft power to stave off even superior new rivals. The barrier is thus a characteristic of the operating system market, not of Microsoft's popularity, or, as asserted by a Microsoft witness, the company's efficiency.

Finally, Microsoft argues that the District Court should not have considered the applications barrier to entry because it reflects not a cost borne disproportionately by new entrants, but one borne by all participants in the operating system market. According to Microsoft, it had to make major investments to convince software developers to write for its new operating system, and it continues to "evangelize" the Windows platform today. Whether costs borne by all market participants should be considered entry barriers is the subject of much debate. We need not resolve this issue, however, for even under the more narrow definition it is clear that there are barriers. When Microsoft entered the operating system market with MS-DOS and the first version of Windows, it did not confront a dominant rival operating system with as massive an installed base and as vast an existing array of applications as the Windows operating systems have since enjoyed. Moreover, when Microsoft introduced Windows 95 and 98, it was able to bypass the applications barrier to entry that protected the incumbent Windows by including APIs from the earlier version in the new operating systems. See *id.* § 44. This made porting existing Windows applications to the new version of Windows much less costly than porting them to the operating systems of other entrants who could not freely include APIs from the incumbent Windows with their own.

2. Direct Proof

Having sustained the District Court's conclusion that circumstantial evidence proves that Microsoft possesses monopoly power, we turn to Microsoft's alternative argument that it does not behave like a monopolist. Claiming that software competition is uniquely "dynamic," Appellant's Opening Br. at 84 (quoting *Findings of Fact* § 59), the company suggests a new rule: that monopoly power in the software industry should be proven directly, that is, by examining a company's actual behavior to determine if it reveals the existence of monopoly power. According to Microsoft, not only does no such proof of its power exist, but record evidence demonstrates the absence of monopoly power. The company claims that it invests heavily in research and development, *id.* at 88-89 (citing Direct Testimony of Paul Maritz § 155, reprinted in 6 J.A. at 3698 (testifying that Microsoft invests approximately 17% of its revenue in R&D)), and charges a low price for Windows (a small percentage of the price of an Intel-compatible PC system and less than the price of its rivals, *id.* at 90 (citing *Findings of Fact* § § 19, 21, 46)).

Microsoft's argument fails because, even assuming that the software market is uniquely dynamic in the long term, the District Court correctly applied the structural approach to determine if the company faces competition in the short term. Structural market power analyses are meant to determine whether potential substitutes constrain a firm's ability to raise prices above the competitive level; only threats that are likely to materialize in the relatively near future perform this function to any significant degree. The District Court expressly considered and rejected Microsoft's claims that innovations such as handheld devices and portal websites would soon expand the relevant market beyond Intel-compatible PC operating systems. Because the company does not challenge these findings, we have no reason to believe that prompt substitutes are available. The structural approach, as applied by the District Court, is thus capable of fulfilling its purpose even in a changing market. Microsoft cites no case, nor are we aware of one, requiring direct evidence to show monopoly power in any market. We decline to adopt such a rule now. ***

B. Anticompetitive Conduct

As discussed above, having a monopoly does not by itself violate § 2. A firm violates § 2 only when it acquires or maintains, or attempts to acquire or maintain, a monopoly by engaging in exclusionary conduct "as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *Grinnell*, 384 U.S. at 571; see also *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 430 (2d Cir. 1945) (Hand, J.) ("The successful competitor, having been urged to compete, must not be turned upon when he wins.").

In this case, after concluding that Microsoft had monopoly power, the District Court held that Microsoft had violated § 2 by engaging in a variety of exclusionary acts (not including predatory pricing), to maintain its monopoly by preventing the effective distribution and use of products that might threaten that monopoly. Specifically, the District Court held Microsoft liable for: (1) the way in which it integrated IE into Windows; (2) its various dealings with Original Equipment Manufacturers ("OEMs"), Internet Access Providers ("IAPs"), In-

ternet Content Providers (“ICPs”), Independent Software Vendors (“ISVs”), and Apple Computer; (3) its efforts to contain and to subvert Java technologies; and (4) its course of conduct as a whole. Upon appeal, Microsoft argues that it did not engage in any exclusionary conduct.

Whether any particular act of a monopolist is exclusionary, rather than merely a form of vigorous competition, can be difficult to discern: the means of illicit exclusion, like the means of legitimate competition, are myriad. The challenge for an antitrust court lies in stating a general rule for distinguishing between exclusionary acts, which reduce social welfare, and competitive acts, which increase it.

From a century of case law on monopolization under § 2, however, several principles do emerge. First, to be condemned as exclusionary, a monopolist’s act must have an “anticompetitive effect.” That is, it must harm the competitive process and thereby harm consumers. In contrast, harm to one or more competitors will not suffice. “The [Sherman Act] directs itself not against conduct which is competitive, even severely so, but against conduct which unfairly tends to destroy competition itself.” *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458 (1993).

Second, the plaintiff, on whom the burden of proof of course rests must demonstrate that the monopolist’s conduct indeed has the requisite anticompetitive effect. In a case brought by a private plaintiff, the plaintiff must show that its injury is “of ‘the type that the statute was intended to forestall,’” *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 487-88 (1977) (quoting *Wyandotte Transp. v. United States*, 389 U.S. 191, 202 (1967)); no less in a case brought by the Government, it must demonstrate that the monopolist’s conduct harmed competition, not just a competitor.

Third, if a plaintiff successfully establishes a prima facie case under § 2 by demonstrating anticompetitive effect, then the monopolist may proffer a “procompetitive justification” for its conduct. See *Eastman Kodak*, 504 U.S. at 483. If the monopolist asserts a procompetitive justification—a nonpretextual claim that its conduct is indeed a form of competition on the merits because it involves, for example, greater efficiency or enhanced consumer appeal—then the burden shifts back to the plaintiff to rebut that claim.

Fourth, if the monopolist’s procompetitive justification stands un rebutted, then the plaintiff must demonstrate that the anticompetitive harm of the conduct outweighs the procompetitive benefit. In cases arising under § 1 of the Sherman Act, the courts routinely apply a similar balancing approach under the rubric of the “rule of reason.” ***

Finally, in considering whether the monopolist’s conduct on balance harms competition and is therefore condemned as exclusionary for purposes of § 2, our focus is upon the effect of that conduct, not upon the intent behind it. Evidence of the intent behind the conduct of a monopolist is relevant only to the extent it helps us understand the likely effect of the monopolist’s conduct. ***

With these principles in mind, we now consider Microsoft’s objections to the District Court’s holding that Microsoft violated § 2 of the Sherman Act in a variety of ways.

1. Licenses Issued to Original Equipment Manufacturers

The District Court condemned a number of provisions in Microsoft's agreements licensing Windows to OEMs, because it found that Microsoft's imposition of those provisions (like many of Microsoft's other actions at issue in this case) serves to reduce usage share of Netscape's browser and, hence, protect Microsoft's operating system monopoly. The reason market share in the browser market affects market power in the operating system market is complex, and warrants some explanation.

Browser usage share is important because, as we explained in Section II.A above, a browser (or any middleware product, for that matter) must have a critical mass of users in order to attract software developers to write applications relying upon the APIs it exposes, and away from the APIs exposed by Windows. Applications written to a particular browser's APIs, however, would run on any computer with that browser, regardless of the underlying operating system. "The overwhelming majority of consumers will only use a PC operating system for which there already exists a large and varied set of ... applications, and for which it seems relatively certain that new types of applications and new versions of existing applications will continue to be marketed..." *Findings of Fact* § 30. If a consumer could have access to the applications he desired—regardless of the operating system he uses—simply by installing a particular browser on his computer, then he would no longer feel compelled to select Windows in order to have access to those applications; he could select an operating system other than Windows based solely upon its quality and price. In other words, the market for operating systems would be competitive.

Therefore, Microsoft's efforts to gain market share in one market (browsers) served to meet the threat to Microsoft's monopoly in another market (operating systems) by keeping rival browsers from gaining the critical mass of users necessary to attract developer attention away from Windows as the platform for software development. Plaintiffs also argue that Microsoft's actions injured competition in the browser market—an argument we will examine below in relation to their specific claims that Microsoft attempted to monopolize the browser market and unlawfully tied its browser to its operating system so as to foreclose competition in the browser market. In evaluating the § 2 monopoly maintenance claim, however, our immediate concern is with the anticompetitive effect of Microsoft's conduct in preserving its monopoly in the operating system market.

In evaluating the restrictions in Microsoft's agreements licensing Windows to OEMs, we first consider whether plaintiffs have made out a *prima facie* case by demonstrating that the restrictions have an anticompetitive effect. In the next subsection, we conclude that plaintiffs have met this burden as to all the restrictions. We then consider Microsoft's proffered justifications for the restrictions and, for the most part, hold those justifications insufficient.

a. Anticompetitive effect of the license restrictions

The restrictions Microsoft places upon Original Equipment Manufacturers are of particular importance in determining browser usage share because having an OEM pre-install a browser on a computer is one of the two most cost-effective methods by far of distributing browsing software. (The other is bundling the browser with internet access software distributed by

an IAP.) *Findings of Fact* § 145. The District Court found that the restrictions Microsoft imposed in licensing Windows to OEMs prevented many OEMs from distributing browsers other than IE. *Conclusions of Law*, at 39-40. In particular, the District Court condemned the license provisions prohibiting the OEMs from: (1) removing any desktop icons, folders, or “Start” menu entries; (2) altering the initial boot sequence; and (3) otherwise altering the appearance of the Windows desktop. *Findings of Fact* § 213.

The District Court concluded that the first license restriction—the prohibition upon the removal of desktop icons, folders, and Start menu entries—thwarts the distribution of a rival browser by preventing OEMs from removing visible means of user access to IE. *Id.* § 203. The OEMs cannot practically install a second browser in addition to IE, the court found, in part because “[p]re-installing more than one product in a given category ... can significantly increase an OEM’s support costs, for the redundancy can lead to confusion among novice users.” *Id.* § 159; see also *id.* § 217. That is, a certain number of novice computer users, seeing two browser icons, will wonder which to use when and will call the OEM’s support line. Support calls are extremely expensive and, in the highly competitive original equipment market, firms have a strong incentive to minimize costs. *Id.* § 210.

Microsoft denies the “consumer confusion” story; it observes that some OEMs do install multiple browsers and that executives from two OEMs that do so denied any knowledge of consumers being confused by multiple icons. *** Other testimony, however, supports the District Court’s finding that fear of such confusion deters many OEMs from pre-installing multiple browsers. Accordingly, we reject Microsoft’s argument that we should vacate the District Court’s Finding of Fact 159 as it relates to consumer confusion.

As noted above, the OEM channel is one of the two primary channels for distribution of browsers. By preventing OEMs from removing visible means of user access to IE, the license restriction prevents many OEMs from pre-installing a rival browser and, therefore, protects Microsoft’s monopoly from the competition that middleware might otherwise present. Therefore, we conclude that the license restriction at issue is anticompetitive. We defer for the moment the question whether that anticompetitive effect is outweighed by Microsoft’s proffered justifications.

The second license provision at issue prohibits OEMs from modifying the initial boot sequence—the process that occurs the first time a consumer turns on the computer. Prior to the imposition of that restriction, “among the programs that many OEMs inserted into the boot sequence were Internet sign-up procedures that encouraged users to choose from a list of IAPs assembled by the OEM.” *Findings of Fact* § 210. Microsoft’s prohibition on any alteration of the boot sequence thus prevents OEMs from using that process to promote the services of IAPs, many of which—at least at the time Microsoft imposed the restriction—used Navigator rather than IE in their internet access software. Microsoft does not deny that the prohibition on modifying the boot sequence has the effect of decreasing competition against IE by preventing OEMs from promoting rivals’ browsers. Because this prohibition has a substantial effect in protecting Microsoft’s market power, and does so through a means other

than competition on the merits, it is anticompetitive. Again the question whether the provision is nonetheless justified awaits later treatment.

Finally, Microsoft imposes several additional provisions that, like the prohibition on removal of icons, prevent OEMs from making various alterations to the desktop: Microsoft prohibits OEMs from causing any user interface other than the Windows desktop to launch automatically, from adding icons or folders different in size or shape from those supplied by Microsoft, and from using the “Active Desktop” feature to promote third-party brands. These restrictions impose significant costs upon the OEMs; prior to Microsoft’s prohibiting the practice, many OEMs would change the appearance of the desktop in ways they found beneficial.

The dissatisfaction of the OEM customers does not, of course, mean the restrictions are anticompetitive. The anticompetitive effect of the license restrictions is, as Microsoft itself recognizes, that OEMs are not able to promote rival browsers, which keeps developers focused upon the APIs in Windows. This kind of promotion is not a zero-sum game; but for the restrictions in their licenses to use Windows, OEMs could promote multiple IAPs and browsers. By preventing the OEMs from doing so, this type of license restriction, like the first two restrictions, is anticompetitive: Microsoft reduced rival browsers’ usage share not by improving its own product but, rather, by preventing OEMs from taking actions that could increase rivals’ share of usage.

b. Microsoft’s justifications for the license restrictions

Microsoft argues that the license restrictions are legally justified because, in imposing them, Microsoft is simply “exercising its rights as the holder of valid copyrights.” Microsoft also argues that the licenses “do not unduly restrict the opportunities of Netscape to distribute Navigator in any event.”

Microsoft’s primary copyright argument borders upon the frivolous. The company claims an absolute and unfettered right to use its intellectual property as it wishes: “[I]f intellectual property rights have been lawfully acquired,” it says, then “their subsequent exercise cannot give rise to antitrust liability.” Appellant’s Opening Br. at 105. That is no more correct than the proposition that use of one’s personal property, such as a baseball bat, cannot give rise to tort liability. As the Federal Circuit succinctly stated: “Intellectual property rights do not confer a privilege to violate the antitrust laws.” *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322, 1325 (Fed. Cir. 2000). ***

The only license restriction Microsoft seriously defends as necessary to prevent a “substantial alteration” of its copyrighted work is the prohibition on OEMs automatically launching a substitute user interface upon completion of the boot process. We agree that a shell that automatically prevents the Windows desktop from ever being seen by the user is a drastic alteration of Microsoft’s copyrighted work, and outweighs the marginal anticompetitive effect of prohibiting the OEMs from substituting a different interface automatically upon completion of the initial boot process. We therefore hold that this particular restriction is not an exclusionary practice that violates § 2 of the Sherman Act. ***

Apart from copyright, Microsoft raises one other defense of the OEM license agreements: It argues that, despite the restrictions in the OEM license, Netscape is not completely blocked from distributing its product. That claim is insufficient to shield Microsoft from liability for those restrictions because, although Microsoft did not bar its rivals from all means of distribution, it did bar them from the cost-efficient ones.

In sum, we hold that with the exception of the one restriction prohibiting automatically launched alternative interfaces, all the OEM license restrictions at issue represent uses of Microsoft's market power to protect its monopoly, unredeemed by any legitimate justification. The restrictions therefore violate § 2 of the Sherman Act.

2. Integration of IE and Windows

Although Microsoft's license restrictions have a significant effect in closing rival browsers out of one of the two primary channels of distribution, the District Court found that "Microsoft's executives believed ... its contractual restrictions placed on OEMs would not be sufficient in themselves to reverse the direction of Navigator's usage share. Consequently, in late 1995 or early 1996, Microsoft set out to bind [IE] more tightly to Windows 95 as a technical matter." *Findings of Fact* § 160.

Technologically binding IE to Windows, the District Court found, both prevented OEMs from pre-installing other browsers and deterred consumers from using them. In particular, having the IE software code as an irremovable part of Windows meant that pre-installing a second browser would "increase an OEM's product testing costs," because an OEM must test and train its support staff to answer calls related to every software product preinstalled on the machine; moreover, pre-installing a browser in addition to IE would to many OEMs be "a questionable use of the scarce and valuable space on a PC's hard drive." *Id.* § 159.

Although the District Court, in its Conclusions of Law, broadly condemned Microsoft's decision to bind "Internet Explorer to Windows with ... technological shackles," Conclusions of Law, at 39, its *Findings of Fact* in support of that conclusion center upon three specific actions Microsoft took to weld IE to Windows: excluding IE from the "Add/Remove Programs" utility; designing Windows so as in certain circumstances to override the user's choice of a default browser other than IE; and commingling code related to browsing and other code in the same files, so that any attempt to delete the files containing IE would, at the same time, cripple the operating system. As with the license restrictions, we consider first whether the suspect actions had an anticompetitive effect, and then whether Microsoft has provided a procompetitive justification for them.

a. Anticompetitive effect of integration

As a general rule, courts are properly very skeptical about claims that competition has been harmed by a dominant firm's product design changes. In a competitive market, firms routinely innovate in the hope of appealing to consumers, sometimes in the process making their products incompatible with those of rivals; the imposition of liability when a monopolist does the same thing will inevitably deter a certain amount of innovation. This is all the more true in a market, such as this one, in which the product itself is rapidly changing. Judi-

cial deference to product innovation, however, does not mean that a monopolist's product design decisions are *per se* lawful.

The District Court first condemned as anticompetitive Microsoft's decision to exclude IE from the "Add/Remove Programs" utility in Windows 98. *Findings of Fact* § 170. Microsoft had included IE in the Add/Remove Programs utility in Windows 95, see *id.* § § 175-76, but when it modified Windows 95 to produce Windows 98, it took IE out of the Add/Remove Programs utility. This change reduces the usage share of rival browsers not by making Microsoft's own browser more attractive to consumers but, rather, by discouraging OEMs from distributing rival products. See *id.* § 159. Because Microsoft's conduct, through something other than competition on the merits, has the effect of significantly reducing usage of rivals' products and hence protecting its own operating system monopoly, it is anticompetitive; we defer for the moment the question whether it is nonetheless justified.

Second, the District Court found that Microsoft designed Windows 98 "so that using Navigator on Windows 98 would have unpleasant consequences for users" by, in some circumstances, overriding the user's choice of a browser other than IE as his or her default browser. *Id.* § § 171-72. Plaintiffs argue that this override harms the competitive process by deterring consumers from using a browser other than IE even though they might prefer to do so, thereby reducing rival browsers' usage share and, hence, the ability of rival browsers to draw developer attention away from the APIs exposed by Windows. Microsoft does not deny, of course, that overriding the user's preference prevents some people from using other browsers. Because the override reduces rivals' usage share and protects Microsoft's monopoly, it too is anticompetitive.

Finally, the District Court condemned Microsoft's decision to bind IE to Windows 98 "by placing code specific to Web browsing in the same files as code that provided operating system functions." *Id.* § 161; see also *id.* § § 174, 192. Putting code supplying browsing functionality into a file with code supplying operating system functionality "ensure[s] that the deletion of any file containing browsing-specific routines would also delete vital operating system routines and thus cripple Windows..." *Id.* § 164. As noted above, preventing an OEM from removing IE deters it from installing a second browser because doing so increases the OEM's product testing and support costs; by contrast, had OEMs been able to remove IE, they might have chosen to pre-install Navigator alone. See *id.* § 159. ***

In view of the contradictory testimony in the record, some of which supports the District Court's finding that Microsoft commingled browsing and non-browsing code, we cannot conclude that the finding was clearly erroneous. Accordingly, we reject Microsoft's argument that we should vacate Finding of Fact 159 as it relates to the commingling of code, and we conclude that such commingling has an anticompetitive effect; as noted above, the commingling deters OEMs from pre-installing rival browsers, thereby reducing the rivals' usage share and, hence, developers' interest in rivals' APIs as an alternative to the API set exposed by Microsoft's operating system.

b. Microsoft's justifications for integration

Microsoft proffers no justification for two of the three challenged actions that it took in integrating IE into Windows—excluding IE from the Add/Remove Programs utility and commingling browser and operating system code. *** As for the other challenged act that Microsoft took in integrating IE into Windows—causing Windows to override the user's choice of a default browser in certain circumstances—Microsoft argues that it has “valid technical reasons.” Specifically, Microsoft claims that it was necessary to design Windows to override the user's preferences when he or she invokes one of “a few” out “of the nearly 30 means of accessing the Internet.” *** The plaintiff bears the burden not only of rebutting a proffered justification but also of demonstrating that the anticompetitive effect of the challenged action outweighs it. In the District Court, plaintiffs appear to have done neither, let alone both; in any event, upon appeal, plaintiffs offer no rebuttal whatsoever. Accordingly, Microsoft may not be held liable for this aspect of its product design.

3. Agreements with Internet Access Providers

The District Court also condemned as exclusionary Microsoft's agreements with various IAPs. The IAPs include both Internet Service Providers, which offer consumers internet access, and Online Services (“OLSs”) such as America Online (“AOL”), which offer proprietary content in addition to internet access and other services. *Findings of Fact* § 15. ***

The District Court condemned Microsoft's actions in (1) offering IE free of charge to IAPs and (2) offering IAPs a bounty for each customer the IAP signs up for service using the IE browser. In effect, the court concluded that Microsoft is acting to preserve its monopoly by offering IE to IAPs at an attractive price. Similarly, the District Court held Microsoft liable for (3) developing the IE Access Kit (“IEAK”), a software package that allows an IAP to “create a distinctive identity for its service in as little as a few hours by customizing the [IE] title bar, icon, start and search pages,” *Findings of Fact* § 249, and (4) offering the IEAK to IAPs free of charge, on the ground that those acts, too, helped Microsoft preserve its monopoly. Conclusions of Law, at 41-42. Finally, the District Court found that (5) Microsoft agreed to provide easy access to IAPs' services from the Windows desktop in return for the IAPs' agreement to promote IE exclusively and to keep shipments of internet access software using Navigator under a specific percentage, typically 25%. See Conclusions of Law, at 42 (citing *Findings of Fact* §§ 258, 262, 289). We address the first four items—Microsoft's inducements—and then its exclusive agreements with IAPs.

Although offering a customer an attractive deal is the hallmark of competition, the Supreme Court has indicated that in very rare circumstances a price may be unlawfully low, or “predatory.” Plaintiffs argued before the District Court that Microsoft's pricing was indeed predatory; but instead of making the usual predatory pricing argument—that the predator would drive out its rivals by pricing below cost on a particular product and then, sometime in the future, raise its prices on that product above the competitive level in order to recoup its earlier losses—plaintiffs argued that by pricing below cost on IE (indeed, even paying people to take it), Microsoft was able simultaneously to preserve its stream of monopoly profits on Windows, thereby more than recouping its investment in below-cost pricing on

IE. The District Court did not assign liability for predatory pricing, however, and plaintiffs do not press this theory on appeal.

The rare case of price predation aside, the antitrust laws do not condemn even a monopolist for offering its product at an attractive price, and we therefore have no warrant to condemn Microsoft for offering either IE or the IEAK free of charge or even at a negative price. Likewise, as we said above, a monopolist does not violate the Sherman Act simply by developing an attractive product.

We turn now to Microsoft's deals with IAPs concerning desktop placement. Microsoft concluded these exclusive agreements with all "the leading IAPs," *Findings of Fact* § 244, including the major OLSs. *Id.* § 245; see also *id.* §§ 305, 306. The most significant of the OLS deals is with AOL, which, when the deal was reached, "accounted for a substantial portion of all existing Internet access subscriptions and ... attracted a very large percentage of new IAP subscribers." *Id.* § 272. Under that agreement Microsoft puts the AOL icon in the OLS folder on the Windows desktop and AOL does not promote any non-Microsoft browser, nor provide software using any non-Microsoft browser except at the customer's request, and even then AOL will not supply more than 15% of its subscribers with a browser other than IE. *Id.* § 289. ***

In this case, plaintiffs challenged Microsoft's exclusive dealing arrangements with the IAPs under both § 1 and 2 of the Sherman Act. The District Court, in analyzing the § 1 claim, stated, "unless the evidence demonstrates that Microsoft's agreements excluded Netscape altogether from access to roughly forty percent of the browser market, the Court should decline to find such agreements in violation of § 1." *Conclusions of Law*, at 52. The court recognized that Microsoft had substantially excluded Netscape from "the most efficient channels for Navigator to achieve browser usage share," *id.* at 53; see also *Findings of Fact* § 145 ("[N]o other distribution channel for browsing software even approaches the efficiency of OEM pre-installation and IAP bundling."), and had relegated it to more costly and less effective methods (such as mass mailing its browser on a disk or offering it for download over the internet); but because Microsoft has not "completely excluded Netscape" from reaching any potential user by some means of distribution, however ineffective, the court concluded the agreements do not violate § 1. *Conclusions of Law*, at 53. Plaintiffs did not cross-appeal this holding.

Turning to § 2, the court stated: "the fact that Microsoft's arrangements with various [IAPs and other] firms did not foreclose enough of the relevant market to constitute a § 1 violation in no way detracts from the Court's assignment of liability for the same arrangements under § 2.... [A]ll of Microsoft's agreements, including the non-exclusive ones, severely restricted Netscape's access to those distribution channels leading most efficiently to the acquisition of browser usage share." *Conclusions of Law*, at 53.

On appeal Microsoft argues that "courts have applied the same standard to alleged exclusive dealing agreements under both Section 1 and Section 2," Appellant's Opening Br. at 109, and it argues that the District Court's holding of no liability under § 1 necessarily precludes holding it liable under § 2. The District Court appears to have based its holding with

respect to § 1 upon a “total exclusion test” rather than the 40% standard drawn from the caselaw. Even assuming the holding is correct, however, we nonetheless reject Microsoft’s contention.

The basic prudential concerns relevant to §§ 1 and 2 are admittedly the same: exclusive contracts are commonplace—particularly in the field of distribution—in our competitive, market economy, and imposing upon a firm with market power the risk of an antitrust suit every time it enters into such a contract, no matter how small the effect, would create an unacceptable and unjustified burden upon any such firm. At the same time, however, we agree with plaintiffs that a monopolist’s use of exclusive contracts, in certain circumstances, may give rise to a § 2 violation even though the contracts foreclose less than the roughly 40% or 50% share usually required in order to establish a § 1 violation.

In this case, plaintiffs allege that, by closing to rivals a substantial percentage of the available opportunities for browser distribution, Microsoft managed to preserve its monopoly in the market for operating systems. The IAPs constitute one of the two major channels by which browsers can be distributed. *Findings of Fact* § 242. Microsoft has exclusive deals with “fourteen of the top fifteen access providers in North America [, which] account for a large majority of all Internet access subscriptions in this part of the world.” *Id.* § 308. By ensuring that the “majority” of all IAP subscribers are offered IE either as the default browser or as the only browser, Microsoft’s deals with the IAPs clearly have a significant effect in preserving its monopoly; they help keep usage of Navigator below the critical level necessary for Navigator or any other rival to pose a real threat to Microsoft’s monopoly. See, e.g., *id.* § 143.

Plaintiffs having demonstrated a harm to competition, the burden falls upon Microsoft to defend its exclusive dealing contracts with IAPs by providing a procompetitive justification for them. Significantly, Microsoft’s only explanation for its exclusive dealing is that it wants to keep developers focused upon its APIs—which is to say, it wants to preserve its power in the operating system market. That is not an unlawful end, but neither is it a procompetitive justification for the specific means here in question, namely exclusive dealing contracts with IAPs. Accordingly, we affirm the District Court’s decision holding that Microsoft’s exclusive contracts with IAPs are exclusionary devices, in violation of § 2 of the Sherman Act.

4. Dealings with Internet Content Providers, Independent Software Vendors, and Apple Computer

The District Court held that Microsoft engages in exclusionary conduct in its dealings with ICPs, which develop websites; ISVs, which develop software; and Apple, which is both an OEM and a software developer. See Conclusions of Law, at 42-43 (deals with ICPs, ISVs, and Apple “supplemented Microsoft’s efforts in the OEM and IAP channels”). The District Court condemned Microsoft’s deals with ICPs and ISVs, stating: “By granting ICPs and ISVs free licenses to bundle [IE] with their offerings, and by exchanging other valuable inducements for their agreement to distribute, promote[,] and rely on [IE] rather than Navigator, Microsoft directly induced developers to focus on its own APIs rather than ones exposed by Navigator.” *Id.* (citing *Findings of Fact* § § 334-35, 340).

With respect to the deals with ICPs, the District Court's findings do not support liability. After reviewing the ICP agreements, the District Court specifically stated that "there is not sufficient evidence to support a finding that Microsoft's promotional restrictions actually had a substantial, deleterious impact on Navigator's usage share." *Findings of Fact* § 332. Because plaintiffs failed to demonstrate that Microsoft's deals with the ICPs have a substantial effect upon competition, they have not proved the violation of the Sherman Act.

As for Microsoft's ISV agreements, however, the District Court did not enter a similar finding of no substantial effect. The District Court described Microsoft's deals with ISVs as follows:

In dozens of "First Wave" agreements signed between the fall of 1997 and the spring of 1998, Microsoft has promised to give preferential support, in the form of early Windows 98 and Windows NT betas, other technical information, and the right to use certain Microsoft seals of approval, to important ISVs that agree to certain conditions. One of these conditions is that the ISVs use Internet Explorer as the default browsing software for any software they develop with a hypertext-based user interface. Another condition is that the ISVs use Microsoft's "HTML Help," which is accessible only with Internet Explorer, to implement their applications' help systems.

Id. § 339. The District Court further found that the effect of these deals is to "ensure [] that many of the most popular Web-centric applications will rely on browsing technologies found only in Windows," *id.* § 340, and that Microsoft's deals with ISVs therefore "increase [] the likelihood that the millions of consumers using [applications designed by ISVs that entered into agreements with Microsoft] will use Internet Explorer rather than Navigator." *Id.* § 340.

The District Court did not specifically identify what share of the market for browser distribution the exclusive deals with the ISVs foreclose. Although the ISVs are a relatively small channel for browser distribution, they take on greater significance because, as discussed above, Microsoft had largely foreclosed the two primary channels to its rivals. In that light, one can tell from the record that by affecting the applications used by "millions" of consumers, Microsoft's exclusive deals with the ISVs had a substantial effect in further foreclosing rival browsers from the market. *** Because, by keeping rival browsers from gaining widespread distribution (and potentially attracting the attention of developers away from the APIs in Windows), the deals have a substantial effect in preserving Microsoft's monopoly, we hold that plaintiffs have made a prima facie showing that the deals have an anticompetitive effect.

Of course, that Microsoft's exclusive deals have the anticompetitive effect of preserving Microsoft's monopoly does not, in itself, make them unlawful. A monopolist, like a competitive firm, may have a perfectly legitimate reason for wanting an exclusive arrangement with its distributors. Accordingly, Microsoft had an opportunity to, but did not, present the District Court with evidence demonstrating that the exclusivity provisions have some such procompetitive justification. On appeal Microsoft likewise does not claim that the exclusivity required by the deals serves any legitimate purpose; instead, it states only that its ISV agreements reflect an attempt "to persuade ISVs to utilize Internet-related system services in Windows rather than Navigator." As we explained before, however, keeping developers focused

upon Windows—that is, preserving the Windows monopoly—is a competitively neutral goal. Microsoft having offered no procompetitive justification for its exclusive dealing arrangements with the ISVs, we hold that those arrangements violate § 2 of the Sherman Act. ***

Finally, the District Court held that Microsoft's dealings with Apple violated the Sherman Act. See Conclusions of Law, at 42-43. Apple is vertically integrated: it makes both software (including an operating system, Mac OS), and hardware (the Macintosh line of computers). Microsoft primarily makes software, including, in addition to its operating system, a number of popular applications. One, called "Office," is a suite of business productivity applications that Microsoft has ported to Mac OS. The District Court found that "ninety percent of Mac OS users running a suite of office productivity applications [use] Microsoft's Mac Office." *Findings of Fact* § 344. Further, the District Court found that:

In 1997, Apple's business was in steep decline, and many doubted that the company would survive much longer.... [M]any ISVs questioned the wisdom of continuing to spend time and money developing applications for the Mac OS. Had Microsoft announced in the midst of this atmosphere that it was ceasing to develop new versions of Mac Office, a great number of ISVs, customers, developers, and investors would have interpreted the announcement as Apple's death notice.

Id. § 344. Microsoft recognized the importance to Apple of its continued support of Mac Office.

In June 1997 Microsoft Chairman Bill Gates determined that the company's negotiations with Apple " 'have not been going well at all.... Apple let us down on the browser by making Netscape the standard install.' Gates then reported that he had already called Apple's CEO ... to ask 'how we should announce the cancellation of Mac Office....'" *Id.* at § 349. The District Court further found that, within a month of Gates' call, Apple and Microsoft had reached an agreement pursuant to which

Microsoft's primary obligation is to continue releasing up-to-date versions of Mac Office for at least five years.... [and] Apple has agreed ... to "bundle the most current version of [IE] ... with [Mac OS]"... [and to] "make [IE] the default [browser]"... Navigator is not installed on the computer hard drive during the default installation, which is the type of installation most users elect to employ.... [The] Agreement further provides that ... Apple may not position icons for nonMicrosoft browsing software on the desktop of new Macintosh PC systems or Mac OS upgrades.

Id. § § 350-52. The agreement also prohibits Apple from encouraging users to substitute another browser for IE, and states that Apple will "encourage its employees to use [IE]." *Id.* § 352.

*** Because Microsoft's exclusive contract with Apple has a substantial effect in restricting distribution of rival browsers, and because (as we have described several times above) reducing usage share of rival browsers serves to protect Microsoft's monopoly, its deal with Apple must be regarded as anticompetitive. Microsoft offers no procompetitive justification for the exclusive dealing arrangement. It makes only the irrelevant claim that the IE-for-Mac Office

deal is part of a multifaceted set of agreements between itself and Apple, see Appellant's Opening Br. at 61 ("Apple's 'browsing software' obligation was [not] the quid pro quo for Microsoft's Mac Office obligation[;] ... all of the various obligations ... were part of one 'overall agreement' between the two companies."); that does not mean it has any procompetitive justification. Accordingly, we hold that the exclusive deal with Apple is exclusionary, in violation of § 2 of the Sherman Act.

5. Java

Java, a set of technologies developed by Sun Microsystems, is another type of middleware posing a potential threat to Windows' position as the ubiquitous platform for software development. *Findings of Fact* § 28. The Java technologies include: (1) a programming language; (2) a set of programs written in that language, called the "Java class libraries," which expose APIs; (3) a compiler, which translates code written by a developer into "bytecode"; and (4) a Java Virtual Machine ("JVM"), which translates bytecode into instructions to the operating system. *Id.* § 73. Programs calling upon the Java APIs will run on any machine with a "Java runtime environment," that is, Java class libraries and a JVM. *Id.* §§ 73, 74.

In May 1995 Netscape agreed with Sun to distribute a copy of the Java runtime environment with every copy of Navigator, and "Navigator quickly became the principal vehicle by which Sun placed copies of its Java runtime environment on the PC systems of Windows users." *Id.* § 76. Microsoft, too, agreed to promote the Java technologies—or so it seemed. For at the same time, Microsoft took steps "to maximize the difficulty with which applications written in Java could be ported from Windows to other platforms, and vice versa." Conclusions of Law, at 43. Specifically, the District Court found that Microsoft took four steps to exclude Java from developing as a viable cross-platform threat: (a) designing a JVM incompatible with the one developed by Sun; *** [and] (c) deceiving Java developers about the Windows-specific nature of the tools it distributed to them *** .

a. The incompatible JVM

The District Court held that Microsoft engaged in exclusionary conduct by developing and promoting its own JVM. Conclusions of Law, at 43- 44. Sun had already developed a JVM for the Windows operating system when Microsoft began work on its version. The JVM developed by Microsoft allows Java applications to run faster on Windows than does Sun's JVM, *Findings of Fact* § 389, but a Java application designed to work with Microsoft's JVM does not work with Sun's JVM and vice versa. *Id.* § 390. The District Court found that Microsoft "made a large investment of engineering resources to develop a high-performance Windows JVM," *id.* § 396, and, "[b]y bundling its ... JVM with every copy of [IE] ... Microsoft endowed its Java runtime environment with the unique attribute of guaranteed, enduring ubiquity across the enormous Windows installed base," *id.* § 397. As explained above, however, a monopolist does not violate the antitrust laws simply by developing a product that is incompatible with those of its rivals. See *supra* Section II.B.1. In order to violate the antitrust laws, the incompatible product must have an anticompetitive effect that outweighs any procompetitive justification for the design. Microsoft's JVM is not only incompatible

with Sun's, it allows Java applications to run faster on Windows than does Sun's JVM. Microsoft's faster JVM lured Java developers into using Microsoft's developer tools, and Microsoft offered those tools deceptively, as we discuss below. The JVM, however, does allow applications to run more swiftly and does not itself have any anticompetitive effect. Therefore, we reverse the District Court's imposition of liability for Microsoft's development and promotion of its JVM. ***

c. Deception of Java developers

Microsoft's "Java implementation" included, in addition to a JVM, a set of software development tools it created to assist ISVs in designing Java applications. The District Court found that, not only were these tools incompatible with Sun's cross-platform aspirations for Java—no violation, to be sure—but Microsoft deceived Java developers regarding the Windows-specific nature of the tools. Microsoft's tools included "certain 'keywords' and 'compiler directives' that could only be executed properly by Microsoft's version of the Java runtime environment for Windows." *Id.* § 394. That is, developers who relied upon Microsoft's public commitment to cooperate with Sun and who used Microsoft's tools to develop what Microsoft led them to believe were cross-platform applications ended up producing applications that would run only on the Windows operating system. *** Microsoft's conduct related to its Java developer tools served to protect its monopoly of the operating system in a manner not attributable either to the superiority of the operating system or to the acumen of its makers, and therefore was anticompetitive. Unsurprisingly, Microsoft offers no procompetitive explanation for its campaign to deceive developers. Accordingly, we conclude this conduct is exclusionary, in violation of § 2 of the Sherman Act. ***

C. Causation

As a final parry, Microsoft urges this court to reverse on the monopoly maintenance claim, because plaintiffs never established a causal link between Microsoft's anticompetitive conduct, in particular its foreclosure of Netscape's and Java's distribution channels, and the maintenance of Microsoft's operating system monopoly. *** Microsoft's concerns over causation have more purchase in connection with the appropriate remedy issue, i.e., whether the court should impose a structural remedy or merely enjoin the offensive conduct at issue. As we point out later in this opinion, divestiture is a remedy that is imposed only with great caution, in part because its long-term efficacy is rarely certain. Absent some measure of confidence that there has been an actual loss to competition that needs to be restored, wisdom counsels against adopting radical structural relief. But these queries go to questions of remedy, not liability. In short, causation affords Microsoft no defense to liability for its unlawful actions undertaken to maintain its monopoly in the operating system market.

III. ATTEMPTED MONOPOLIZATION

Microsoft further challenges the District Court's determination of liability for "attempt[ing] to monopolize ... any part of the trade or commerce among the several States." 15 U.S.C. § 2 (1997). To establish a § 2 violation for attempted monopolization, "a plaintiff must prove

(1) that the defendant has engaged in predatory or anticompetitive conduct with (2) a specific intent to monopolize and (3) a dangerous probability of achieving monopoly power.” *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 456 (1993). Because a deficiency on any one of the three will defeat plaintiffs’ claim, we look no further than plaintiffs’ failure to prove a dangerous probability of achieving monopoly power in the putative browser market.

At the outset we note a pervasive flaw in the District Court’s and plaintiffs’ discussion of attempted monopolization. Simply put, plaintiffs have made the same argument under two different headings—monopoly maintenance and attempted monopolization. They have relied upon Microsoft’s § 2 liability for monopolization of the operating system market as a presumptive indicator of attempted monopolization of an entirely different market. The District Court implicitly accepted this approach: It agreed with plaintiffs that the events that formed the basis for the § 2 monopolization claim “warrant[ed] additional liability as an illegal attempt to amass monopoly power in ‘the browser market.’” *Id.* at 45. Thus, plaintiffs and the District Court failed to recognize the need for an analysis wholly independent of the conclusions and findings on monopoly maintenance. ***

To establish a dangerous probability of success, plaintiffs must as a threshold matter show that the browser market can be monopolized, i.e., that a hypothetical monopolist in that market could enjoy market power. This, in turn, requires plaintiffs (1) to define the relevant market and (2) to demonstrate that substantial barriers to entry protect that market. Because plaintiffs have not carried their burden on either prong, we reverse without remand. ***

Any doubt that we may have had regarding remand instead of outright reversal on the barriers to entry question was dispelled by plaintiffs’ arguments on attempted monopolization before this court. Not only did plaintiffs fail to articulate a website barrier to entry theory in either their brief or at oral argument, they failed to point the court to evidence in the record that would support a finding that Microsoft would likely erect significant barriers to entry upon acquisition of a dominant market share.

Plaintiffs did not devote the same resources to the attempted monopolization claim as they did to the monopoly maintenance claim. But both claims require evidentiary and theoretical rigor. Because plaintiffs failed to make their case on attempted monopolization both in the District Court and before this court, there is no reason to give them a second chance to flesh out a claim that should have been fleshed out the first time around. Accordingly, we reverse the District Court’s determination of § 2 liability for attempted monopolization.

IV. TYING

Microsoft also contests the District Court’s determination of liability under § 1 of the Sherman Act. The District Court concluded that Microsoft’s contractual and technological bundling of the IE web browser (the “tied” product) with its Windows operating system (“OS”) (the “tying” product) resulted in a tying arrangement that was *per se* unlawful. Conclusions of Law, at 47-51. We hold that the rule of reason, rather than *per se* analysis, should govern the legality of tying arrangements involving platform software products. The Supreme Court has warned that “[i]t is only after considerable experience with certain business relationships

that courts classify them as *per se* violations....” *Broad. Music, Inc. v. CBS*, 441 U.S. 1, 9 (1979) (quoting *United States v. Topco Assocs.*, 405 U.S. 596, 607-08 (1972)). While every “business relationship” will in some sense have unique features, some represent entire, novel categories of dealings. As we shall explain, the arrangement before us is an example of the latter, offering the first up-close look at the technological integration of added functionality into software that serves as a platform for third-party applications. There being no close parallel in prior antitrust cases, simplistic application of *per se* tying rules carries a serious risk of harm. Accordingly, we vacate the District Court’s finding of a *per se* tying violation and remand the case. Plaintiffs may on remand pursue their tying claim under the rule of reason.

The facts underlying the tying allegation substantially overlap with those set forth in Section II.B in connection with the § 2 monopoly maintenance claim. The key District Court findings are that (1) Microsoft required licensees of Windows 95 and 98 also to license IE as a bundle at a single price; (2) Microsoft refused to allow OEMs to uninstall or remove IE from the Windows desktop; (3) Microsoft designed Windows 98 in a way that withheld from consumers the ability to remove IE by use of the Add/Remove Programs utility; and (4) Microsoft designed Windows 98 to override the user’s choice of default web browser in certain circumstances. The court found that these acts constituted a *per se* tying violation. Although the District Court also found that Microsoft commingled operating system-only and browser-only routines in the same library files, it did not include this as a basis for tying liability despite plaintiffs’ request that it do so.

There are four elements to a *per se* tying violation: (1) the tying and tied goods are two separate products; (2) the defendant has market power in the tying product market; (3) the defendant affords consumers no choice but to purchase the tied product from it; and (4) the tying arrangement forecloses a substantial volume of commerce.

Microsoft does not dispute that it bound Windows and IE in the four ways the District Court cited. Instead it argues that Windows (the tying good) and IE browsers (the tied good) are not “separate products,” and that it did not substantially foreclose competing browsers from the tied product market. ***

We first address the separate-products inquiry, a source of much argument between the parties and of confusion in the cases. Our purpose is to highlight the poor fit between the separate-products test and the facts of this case. We then offer further reasons for carving an exception to the *per se* rule when the tying product is platform software. In the final section we discuss the District Court’s inquiry if plaintiffs pursue a rule of reason claim on remand.

A. Separate-Products Inquiry Under the *Per se* Test

The requirement that a practice involve two separate products before being condemned as an illegal tie started as a purely linguistic requirement: unless products are separate, one cannot be “tied” to the other. Indeed, the nature of the products involved in early tying cases—intuitively distinct items such as a movie projector and a film—led courts either to disregard the separate-products question or to discuss it only in passing. It was not until *Times-Picayune Publishing Co. v. United States*, 345 U.S. 594 (1953), that the separate-products issue became a distinct element of the test for an illegal tie. Even that case engaged in a rather

cursory inquiry into whether ads sold in the morning edition of a paper were a separate product from ads sold in the evening edition.

The first case to give content to the separate-products test was *Jefferson Parish*, 466 U.S. 2. That case addressed a tying arrangement in which a hospital conditioned surgical care at its facility on the purchase of anesthesiological services from an affiliated medical group. The facts were a challenge for casual separate-products analysis because the tied service—*anesthesia*—was neither intuitively distinct from nor intuitively contained within the tying service—*surgical care*. ***

The *Jefferson Parish* Court resolved the matter in two steps. First, it clarified that “the answer to the question whether one or two products are involved” does not turn “on the functional relation between them....” *Jefferson Parish*, 466 U.S. at 19. In other words, the mere fact that two items are complements, that “one ... is useless without the other,” does not make them a single “product” for purposes of tying law. Second, reasoning that the “definitional question [whether two distinguishable products are involved] depends on whether the arrangement may have the type of competitive consequences addressed by the rule [against tying],” *Jefferson Parish*, 466 U.S. at 21 the Court decreed that “no tying arrangement can exist unless there is a sufficient demand for the purchase of anesthesiological services separate from hospital services to identify a distinct product market in which it is efficient to offer anesthesiological services separately from hospital service,” *id.* at 21-22. ***

To understand the logic behind the Court’s consumer demand test, consider first the postulated harms from tying. The core concern is that tying prevents goods from competing directly for consumer choice on their merits, i.e., being selected as a result of “buyers’ independent judgment,” *id.* at 13 (internal quotes omitted). With a tie, a buyer’s “freedom to select the best bargain in the second market [could be] impaired by his need to purchase the tying product, and perhaps by an inability to evaluate the true cost of either product....” *Id.* at 15. Direct competition on the merits of the tied product is foreclosed when the tying product either is sold only in a bundle with the tied product or, though offered separately, is sold at a bundled price, so that the buyer pays the same price whether he takes the tied product or not. In both cases, a consumer buying the tying product becomes entitled to the tied product; he will therefore likely be unwilling to buy a competitor’s version of the tied product even if, making his own price/quality assessment, that is what he would prefer.

But not all ties are bad. Bundling obviously saves distribution and consumer transaction costs. This is likely to be true, to take some examples from the computer industry, with the integration of math co-processors and memory into microprocessor chips and the inclusion of spell checkers in word processors. Bundling can also capitalize on certain economies of scope. A possible example is the “shared” library files that perform OS and browser functions with the very same lines of code and thus may save drive space from the clutter of redundant routines and memory when consumers use both the OS and browser simultaneously. Indeed, if there were no efficiencies from a tie (including economizing on consumer transaction costs such as the time and effort involved in choice), we would expect distinct consumer demand for each individual component of every good. In a competitive market with zero transaction

costs, the computers on which this opinion was written would only be sold piecemeal—keyboard, monitor, mouse, central processing unit, disk drive, and memory all sold in separate transactions and likely by different manufacturers.

Recognizing the potential benefits from tying, the Court in *Jefferson Parish* forged a separate-products test that, like those of market power and substantial foreclosure, attempts to screen out false positives under *per se* analysis. The consumer demand test is a rough proxy for whether a tying arrangement may, on balance, be welfare-enhancing, and unsuited to *per se* condemnation. In the abstract, of course, there is always direct separate demand for products: assuming choice is available at zero cost, consumers will prefer it to no choice. Only when the efficiencies from bundling are dominated by the benefits to choice for enough consumers, however, will we actually observe consumers making independent purchases. In other words, perceptible separate demand is inversely proportional to net efficiencies. On the supply side, firms without market power will bundle two goods only when the cost savings from joint sale outweigh the value consumers place on separate choice. So bundling by all competitive firms implies strong net efficiencies. If a court finds either that there is no noticeable separate demand for the tied product or, there being no convincing direct evidence of separate demand, that the entire “competitive fringe” engages in the same behavior as the defendant, then the tying and tied products should be declared one product and *per se* liability should be rejected. ***

With this background, we now turn to the separate products inquiry before us. The District Court found that many consumers, if given the option, would choose their browser separately from the OS. Turning to industry custom, the court found that, although all major OS vendors bundled browsers with their OSs, these companies either sold versions without a browser, or allowed OEMs or end-users either not to install the bundled browser or in any event to “uninstall” it. The court did not discuss the record evidence as to whether OS vendors other than Microsoft sold at a bundled price, with no discount for a browserless OS, perhaps because the record evidence on the issue was in conflict.

Microsoft does not dispute that many consumers demand alternative browsers. But on industry custom Microsoft contends that no other firm requires non-removal because no other firm has invested the resources to integrate web browsing as deeply into its OS as Microsoft has. Microsoft contends not only that its integration of IE into Windows is innovative and beneficial but also that it requires non-removal of IE. In our discussion of monopoly maintenance we find that these claims fail the efficiency balancing applicable in that context. But the separate-products analysis is supposed to perform its function as a proxy without embarking on any direct analysis of efficiency. Accordingly, Microsoft’s implicit argument—that in this case looking to a competitive fringe is inadequate to evaluate fully its potentially innovative technological integration, that such a comparison is between apples and oranges—poses a legitimate objection to the operation of *Jefferson Parish*’s separate-products test for the *per se* rule.

In fact there is merit to Microsoft’s broader argument that *Jefferson Parish*’s consumer demand test would “chill innovation to the detriment of consumers by preventing firms from

integrating into their products new functionality previously provided by standalone products—and hence, by definition, subject to separate consumer demand.” Appellant’s Opening Br. at 69. The *per se* rule’s direct consumer demand and indirect industry custom inquiries are, as a general matter, backward-looking and therefore systematically poor proxies for overall efficiency in the presence of new and innovative integration. The direct consumer demand test focuses on historic consumer behavior, likely before integration, and the indirect industry custom test looks at firms that, unlike the defendant, may not have integrated the tying and tied goods. Both tests compare incomparables—the defendant’s decision to bundle in the presence of integration, on the one hand, and consumer and competitor calculations in its absence, on the other. If integration has efficiency benefits, these may be ignored by the *Jefferson Parish* proxies. Because one cannot be sure beneficial integration will be protected by the other elements of the *per se* rule, simple application of that rule’s separate-products test may make consumers worse off. ***

B. *Per se* Analysis Inappropriate for this Case.

We now address directly the larger question as we see it: whether standard *per se* analysis should be applied “off the shelf” to evaluate the defendant’s tying arrangement, one which involves software that serves as a platform for third-party applications. There is no doubt that “[i]t is far too late in the history of our antitrust jurisprudence to question the proposition that certain tying arrangements pose an unacceptable risk of stifling competition and therefore are unreasonable ‘*per se*.’” *Jefferson Parish*, 466 U.S. at 9. But there are strong reasons to doubt that the integration of additional software functionality into an OS falls among these arrangements. Applying *per se* analysis to such an amalgamation creates undue risks of error and of deterring welfare-enhancing innovation. ***

These arguments all point to one conclusion: we cannot comfortably say that bundling in platform software markets has so little “redeeming virtue,” *N. Pac. Ry.*, 356 U.S. at 5, and that there would be so “very little loss to society” from its ban, that “an inquiry into its costs in the individual case [can be] considered [] unnecessary.” *Jefferson Parish*, 466 U.S. at 33-34 (O’Connor, J., concurring). We do not have enough empirical evidence regarding the effect of Microsoft’s practice on the amount of consumer surplus created or consumer choice foreclosed by the integration of added functionality into platform software to exercise sensible judgment regarding that entire class of behavior. ***

C. On Remand

Should plaintiffs choose to pursue a tying claim under the rule of reason, we note the following for the benefit of the trial court:

First, on remand, plaintiffs must show that Microsoft’s conduct unreasonably restrained competition. Meeting that burden “involves an inquiry into the actual effect” of Microsoft’s conduct on competition in the tied good market, *Jefferson Parish*, 466 U.S. at 29, the putative market for browsers. To the extent that certain aspects of tying injury may depend on a careful definition of the tied good market and a showing of barriers to entry other than the tying arrangement itself, plaintiffs would have to establish these points. But plaintiffs were

required—and had every incentive—to provide both a definition of the browser market and barriers to entry to that market as part of their § 2 attempted monopolization claim; yet they failed to do so. Accordingly, on remand of the § 1 tying claim, plaintiffs will be precluded from arguing any theory of harm that depends on a precise definition of browsers or barriers to entry (for example, network effects from Internet protocols and extensions embedded in a browser) other than what may be implicit in Microsoft’s tying arrangement.

Of the harms left, plaintiffs must show that Microsoft’s conduct was, on balance, anticompetitive. Microsoft may of course offer procompetitive justifications, and it is plaintiffs’ burden to show that the anticompetitive effect of the conduct outweighs its benefit.

Second, the fact that we have already considered some of the behavior plaintiffs allege to constitute tying violations in the monopoly maintenance section does not resolve the § 1 inquiry. The two practices that plaintiffs have most ardently claimed as tying violations are, indeed, a basis for liability under plaintiffs’ § 2 monopoly maintenance claim. These are Microsoft’s refusal to allow OEMs to uninstall IE or remove it from the Windows desktop, and its removal of the IE entry from the Add/Remove Programs utility in Windows 98. In order for the District Court to conclude these practices also constitute § 1 tying violations, plaintiffs must demonstrate that their benefits—if any—are outweighed by the harms in the tied product market. If the District Court is convinced of net harm, it must then consider whether any additional remedy is necessary.

In Section II.B we also considered another alleged tying violation—the Windows 98 override of a consumer’s choice of default web browser. We concluded that this behavior does not provide a distinct basis for § 2 liability because plaintiffs failed to rebut Microsoft’s proffered justification by demonstrating that harms in the operating system market outweigh Microsoft’s claimed benefits. On remand, however, although Microsoft may offer the same procompetitive justification for the override, plaintiffs must have a new opportunity to rebut this claim, by demonstrating that the anticompetitive effect in the browser market is greater than these benefits.

Finally, the District Court must also consider an alleged tying violation that we did not consider under § 2 monopoly maintenance: price bundling. First, the court must determine if Microsoft indeed price bundled—that is, was Microsoft’s charge for Windows and IE higher than its charge would have been for Windows alone? This will require plaintiffs to resolve the tension between *Findings of Fact* §§ 136-37, which Microsoft interprets as saying that no part of the bundled price of Windows can be attributed to IE, and *Conclusions of Law*, at 50, which says the opposite.

If there is a positive price increment in Windows associated with IE (we know there is no claim of price predation), plaintiffs must demonstrate that the anticompetitive effects of Microsoft’s price bundling outweigh any procompetitive justifications the company provides for it. In striking this balance, the District Court should consider, among other things, indirect evidence of efficiency provided by “the competitive fringe.” Although this inquiry may overlap with the separate-products screen under the *per se* rule, that is not its role here. Because courts applying the rule of reason are free to look at both direct and indirect evidence of effi-

ciencies from a tie, there is no need for a screening device as such; thus the separate-products inquiry serves merely to classify arrangements as subject to tying law, as opposed to, say, liability for exclusive dealing.

If OS vendors without market power also sell their software bundled with a browser, the natural inference is that sale of the items as a bundle serves consumer demand and that unbundled sale would not, for otherwise a competitor could profitably offer the two products separately and capture sales of the tying good from vendors that bundle. It does appear that most if not all firms have sold a browser with their OSs at a bundled price ***.

Of course price bundling by competitive OS makers would tend to exonerate Microsoft only if the sellers in question sold their browser/OS combinations exclusively at a bundled price. If a competitive seller offers a discount for a browserless version, then—at least as to its OS and browser—the gains from bundling are outweighed by those from separate choice. The evidence on discounts appears to be in conflict. Compare Direct Testimony of Richard Schmalensee § 241, reprinted in 7 J.A. at 4315, with 1/6/99 pm Tr. at 42 (trial testimony of Franklin Fisher). If Schmalensee is correct that nearly all OS makers do not offer a discount, then the harm from tying—obstruction of direct consumer choice—would be theoretically created by virtually all sellers: a customer who would prefer an alternate browser is forced to pay the full price of that browser even though its value to him is only the increment in value over the bundled browser. (The result is similar to that from non-removal, which forces consumers who want the alternate browser to surrender disk space taken up by the unused, bundled browser.) If the failure to offer a price discount were universal, any impediment to direct consumer choice created by Microsoft's price-bundled sale of IE with Windows would be matched throughout the market; yet these OS suppliers on the competitive fringe would have evidently found this price bundling on balance efficient. If Schmalensee's assertions are ill-founded, of course, no such inference could be drawn.

V. TRIAL PROCEEDINGS AND REMEDY

Microsoft additionally challenges the District Court's procedural rulings on two fronts. First, with respect to the trial phase, Microsoft proposes that the court mismanaged its docket by adopting an expedited trial schedule and receiving evidence through summary witnesses. Second, with respect to the remedies decree, Microsoft argues that the court improperly ordered that it be divided into two separate companies. Only the latter claim will long detain us. The District Court's trial-phase procedures were comfortably within the bounds of its broad discretion to conduct trials as it sees fit. We conclude, however, that the District Court's remedies decree must be vacated for three independent reasons: (1) the court failed to hold a remedies-specific evidentiary hearing when there were disputed facts; (2) the court failed to provide adequate reasons for its decreed remedies; and (3) this Court has revised the scope of Microsoft's liability and it is impossible to determine to what extent that should affect the remedies provisions. ***

We vacate the District Court's remedies decree for the additional reason that the court has failed to provide an adequate explanation for the relief it ordered. The Supreme Court has explained that a remedies decree in an antitrust case must seek to "unfetter a market from

anticompetitive conduct,” *Ford Motor Co.*, 405 U.S. at 577, to “terminate the illegal monopoly, deny to the defendant the fruits of its statutory violation, and ensure that there remain no practices likely to result in monopolization in the future,” *United States v. United Shoe Mach. Corp.*, 391 U.S. 244, 250 (1968); see also *United States v. Grinnell Corp.*, 384 U.S. 563, 577 (1966).

The District Court has not explained how its remedies decree would accomplish those objectives. Indeed, the court devoted a mere four paragraphs of its order to explaining its reasons for the remedy. They are: (1) Microsoft “does not yet concede that any of its business practices violated the Sherman Act”; (2) Microsoft “continues to do business as it has in the past”; (3) Microsoft “has proved untrustworthy in the past”; and (4) the Government, whose officials “are by reason of office obliged and expected to consider—and to act in—the public interest,” won the case, “and for that reason alone have some entitlement to a remedy of their choice.” *Final Judgment*, at 62-63. Nowhere did the District Court discuss the objectives the Supreme Court deems relevant.

Quite apart from its procedural difficulties, we vacate the District Court’s final judgment in its entirety for the additional, independent reason that we have modified the underlying bases of liability. Of the three antitrust violations originally identified by the District Court, one is no longer viable: attempted monopolization of the browser market in violation of Sherman Act § 2. One will be remanded for liability proceedings under a different legal standard: unlawful tying in violation of § 1. Only liability for the § 2 monopoly maintenance violation has been affirmed—and even that we have revised. ***

In short, we must vacate the remedies decree in its entirety and remand the case for a new determination. This court has drastically altered the District Court’s conclusions on liability. On remand, the District Court, after affording the parties a proper opportunity to be heard, can fashion an appropriate remedy for Microsoft’s antitrust violations. In particular, the court should consider which of the decree’s conduct restrictions remain viable in light of our modification of the original liability decision. While the task of drafting the remedies decree is for the District Court in the first instance, because of the unusually convoluted nature of the proceedings thus far, and a desire to advance the ultimate resolution of this important controversy, we offer some further guidance for the exercise of that discretion.

As a general matter, a district court is afforded broad discretion to enter that relief it calculates will best remedy the conduct it has found to be unlawful. This is no less true in antitrust cases. See, e.g., *Ford Motor Co.*, 405 U.S. at 573 (“The District Court is clothed with ‘large discretion’ to fit the decree to the special needs of the individual case.”). And divestiture is a common form of relief in successful antitrust prosecutions: it is indeed “the most important of antitrust remedies.” See, e.g., *United States v. E.I. du Pont de Nemours & Co.*, 366 U.S. 316, 331 (1961).

On remand, the District Court must reconsider whether the use of the structural remedy of divestiture is appropriate with respect to Microsoft, which argues that it is a unitary company. By and large, cases upon which plaintiffs rely in arguing for the split of Microsoft have involved the dissolution of entities formed by mergers and acquisitions. On the contrary, the

Supreme Court has clarified that divestiture “has traditionally been the remedy for Sherman Act violations whose heart is intercorporate *combination and control*,” *du Pont*, 366 U.S. at 329, 81 S.Ct. 1243 (emphasis added), and that “[c]omplete divestiture is particularly appropriate where asset or stock *acquisitions* violate the antitrust laws,” *Ford Motor Co.*, 405 U.S. at 573 (emphasis added).

One apparent reason why courts have not ordered the dissolution of unitary companies is logistical difficulty. As the court explained in *United States v. ALCOA*, 91 F.Supp. 333, 416 (S.D.N.Y. 1950), a “corporation, designed to operate effectively as a single entity, cannot readily be dismembered of parts of its various operations without a marked loss of efficiency.” A corporation that has expanded by acquiring its competitors often has preexisting internal lines of division along which it may more easily be split than a corporation that has expanded from natural growth. Although time and corporate modifications and developments may eventually fade those lines, at least the identifiable entities preexisted to create a template for such division as the court might later decree. With reference to those corporations that are not acquired by merger and acquisition, Judge Wyzanski accurately opined in *United Shoe*:

United conducts all machine manufacture at one plant in Beverly, with one set of jigs and tools, one foundry, one laboratory for machinery problems, one managerial staff, and one labor force. It takes no Solomon to see that this organism cannot be cut into three equal and viable parts.

United States v. United Shoe Machine Corp., 110 F.Supp. 295, 348 (D. Mass. 1953).

Depending upon the evidence, the District Court may find in a remedies proceeding that it would be no easier to split Microsoft in two than United Shoe in three. Microsoft’s Offer of Proof in response to the court’s denial of an evidentiary hearing included proffered testimony from its President and CEO Steve Ballmer that the company “is, and always has been, a unified company without free-standing business units. Microsoft is not the result of mergers or acquisitions.” Microsoft further offered evidence that it is “not organized along product lines,” but rather is housed in a single corporate headquarters and that it has

only one sales and marketing organization which is responsible for selling all of the company’s products, one basic research organization, one product support organization, one operations department, one information technology department, one facilities department, one purchasing department, one human resources department, one finance department, one legal department and one public relations department.

Defendant’s Offer of Proof at 23-26, *reprinted in* 4 J.A. at 2764-67. If indeed Microsoft is a unitary company, division might very well require Microsoft to reproduce each of these departments in each new entity rather than simply allocate the differing departments among them.

In devising an appropriate remedy, the District Court also should consider whether plaintiffs have established a sufficient causal connection between Microsoft’s anticompetitive conduct and its dominant position in the OS market. “Mere existence of an exclusionary act does not itself justify full feasible relief against the monopolist to create maximum competi-

tion.” 3 Areeda and Hovenkamp, Antitrust Law § 650a, at 67. Rather, structural relief, which is “designed to eliminate the monopoly altogether ... require[s] a clearer indication of a *significant causal connection* between the conduct and creation or maintenance of the market power.” *Id.* § 653b, at 91-92 (emphasis added). Absent such causation, the antitrust defendant’s unlawful behavior should be remedied by “an injunction against continuation of that conduct.” *Id.* § 650a, at 67.

As noted above, *see supra* Section II.C, we have found a causal connection between Microsoft’s exclusionary conduct and its continuing position in the operating systems market only through inference. *See* 3 Areeda and Hovenkamp, Antitrust Law § 653(b), at 91-92 (suggesting that “more extensive equitable relief, particularly remedies such as divestiture designed to eliminate the monopoly altogether, ... require a clearer indication of significant causal connection between the conduct and creation or maintenance of the market power”). Indeed, the District Court expressly did not adopt the position that Microsoft would have lost its position in the OS market but for its anticompetitive behavior. *Findings of Fact* § 411 (“There is insufficient evidence to find that, absent Microsoft’s actions, Navigator and Java already would have ignited genuine competition in the market for Intel-compatible PC operating systems.”). If the court on remand is unconvinced of the causal connection between Microsoft’s exclusionary conduct and the company’s position in the OS market, it may well conclude that divestiture is not an appropriate remedy.

While we do not undertake to dictate to the District Court the precise form that relief should take on remand, we note again that it should be tailored to fit the wrong creating the occasion for the remedy.

In sum, we vacate the District Court’s remedies decree for three reasons. First, the District Court failed to hold an evidentiary hearing despite the presence of remedies-specific factual disputes. Second, the court did not provide adequate reasons for its decreed remedies. Finally, we have drastically altered the scope of Microsoft’s liability, and it is for the District Court in the first instance to determine the propriety of a specific remedy for the limited ground of liability which we have upheld. ***

VII. CONCLUSION

The judgment of the District Court is affirmed in part, reversed in part, and remanded in part. We vacate in full the Final Judgment embodying the remedial order, and remand the case to the District Court for reassignment to a different trial judge for further proceedings consistent with this opinion.
