

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

UNITED STATES OF AMERICA,

Plaintiff,

v.

MICROSOFT CORPORATION,

Defendant.

Civil Action No. 98-1232 (TPJ)

STATE OF NEW YORK ex rel.
Attorney General ELIOT SPITZER, et al.,

Plaintiffs,

v.

MICROSOFT CORPORATION,

Defendant.

Civil Action No. 98-1233 (TPJ)

UNITED STATES' AND PLAINTIFF STATES' JOINT REBUTTAL WITNESS LIST

Pursuant to Paragraph 5 of the Court's Scheduling Order No. 6, the United States and the Plaintiff States hereby file and serve the following list of witnesses that plaintiffs intend to call as rebuttal witnesses.

WITNESS	COMPANY / CAPACITY
Edward W. Felten	Assistant Professor of Computer Science, Princeton University - Technical Expert - Demonstration Witness
Franklin M. Fisher	Professor of Economics, Massachusetts Institute of Technology - Economic Expert
Garry Norris	Former Director Software Strategy and Strategic Relations for IBM Corporation's PC Co.

Attached are the summaries of anticipated testimony for each witness:

Exhibit 1 (Felten), Exhibit 2 (Fisher), and Exhibit 3 (Norris).

DATED: May 3, 1999

Respectfully submitted,

_____/s/_____
Phillip R. Malone
Jeremy D. Feinstein
Attorneys
David Boies
Special Trial Counsel

U.S. Department of Justice
Antitrust Division
450 Golden Gate Avenue Room 10-0101
San Francisco, CA 94102
(415) 436-6660

EXHIBIT 1

SUMMARY OF ANTICIPATED REBUTTAL TESTIMONY PROFESSOR EDWARD FELTEN

Professor Felten will provide testimony that rebuts the trial testimony of James Allchin and other Microsoft witnesses. Professor Felten's rebuttal testimony will address the following subjects:

3. Professor Felten will rebut the testimony of Microsoft's witnesses concerning the supposed benefits that they claim result from Microsoft's decisions to weld its Internet Explorer browser to Windows in a non-removable way, and to prohibit OEMs from removing the browser or substituting other browsers for it. Professor Felten will testify that there is no technical reason why such benefits, if any, cannot be achieved through OEM or customer combination of what are in fact separate products: specifically, the separate installation of an optional, removable browser that preserves OEM and consumer choice.

3. Professor Felten will testify that, contrary to Microsoft's trial testimony, it in fact is possible to separate the browser from Microsoft's Windows 98 operating system. He will rebut Microsoft trial testimony concerning his Prototype Removal Program and Internet Explorer reinstallation utility, including describing various errors and inaccuracies in that testimony. He will testify concerning updated and improved versions of his programs, the code for which is being provided to Microsoft with this summary. He also will testify that the proof of concept provided by his earlier trial testimony and the original removal and reinstallation programs is sound and accurate, and that there is no technical reason that Microsoft's web browser product (like many software programs, features, or components that ship in the Windows 95 and

Windows 98 packages) cannot be easily removable or replaceable without causing harm to the underlying operating system, thereby preserving browser neutrality and consumer choice. He also may testify about the technical ease with which various icons, files, or programs can be added to or removed from Windows.

3. Professor Felten may illustrate the foregoing points by reference to Microsoft's Internet Explorer 5 browser product, including by testifying about the features and performance provided by personal computers running Windows 95 and Windows 98 on which Internet Explorer 5 is separately installed. Professor Felten may describe the nature and significance of various design and engineering changes that Microsoft has made in the Internet Explorer 5 browser from the IE 4 version. He also may testify about features or elements of the current version of Windows 98 Second Edition that have changed from the initial release of Windows 98.

3. Professor Felten will rebut Microsoft trial testimony concerning the manner in which web browsers are packaged with non-Windows operating systems, particularly the BeOS and Caldera Open Linux. He will describe and correct errors in Microsoft's testimony concerning the relationships between such operating systems and the browsers with which they are packaged, and testify that, in contrast to Internet Explorer and Windows, browsers such as those shipped with the BeOS and OpenLinux are readily removable and/or replaceable. Professor Felten will use these examples to confirm that the various benefits Microsoft witnesses have alleged result from the "integration" of browser and operating system products do not

require that the browser be “hard-wired” into the operating system in a non-optional, non-removable way, and in fact are made available to consumers even though the browsers are optional and removable.

EXHIBIT 2

SUMMARY OF ANTICIPATED REBUTTAL TESTIMONY PROFESSOR FRANKLIN M. FISHER

I. Microsoft has monopoly power in the market for operating systems for Intel-compatible personal computers.

Microsoft's witnesses have testified that long-term unforeseen threats to its Windows operating system will eventually emerge, negating the existence of monopoly power today. Professor Fisher will testify about why this is not the proper method of diagnosing monopoly, and will explain the purpose and methodology of defining relevant markets. Defining a relevant market and considering constraints on conduct is a well recognized and critical exercise to determining monopoly power, something that Microsoft's economist refuses to do.

Professor Fisher will testify that a proper evaluation of the constraints on Microsoft's conduct shows that operating systems for Intel-compatible personal computers comprise a relevant market. Browsers and Java are not in the relevant market, as Dean Schmalensee claims, because they do not themselves present demand or supply side constraints. Dean Schmalensee apparently believes that because a product might ultimately serve to increase competition in one market, it must necessarily be included within the definition of that market -- whether it is a substitute for the products in that market or not. This clearly is not an economically sensible method of analyzing relevant markets.

Professor Fisher will explain that the precise contours of the relevant market are not crucial to a determination of monopoly power. One defines a relevant market as a tool in considering constraints on a firm's conduct. Whether a firm is in or out of the market is not the

ultimate question *as long as* the constraints it may pose on a firm's conduct are taken into account. Whether Apple is in or out of the market, for example, does not particularly matter because Apple does not prevent Microsoft from exercising monopoly power in operating systems. Similarly, whether Netscape Navigator and Java are in or out of the market does not matter to the conclusion in this case: that Microsoft has monopoly power and is improperly maintaining that monopoly.

Dean Schmalensee erred in testifying that, because the software industry moves so quickly, defining a relevant market in this case is virtually useless. By citing the dynamic nature of the software industry, he has avoided coming to terms with the real constraints (or lack thereof) on Microsoft's conduct. Professor Fisher will explain why the process of defining a market is useful for analyzing monopoly power in markets that involve intellectual property and fast moving industries. By relying on speculation that long term, unforeseen threats might someday emerge to threaten Microsoft's monopoly position, Dean Schmalensee abandons the process of market definition and constraint analysis altogether.

Microsoft claims that even if it does have monopoly power over operating systems, that power is irrelevant to this case. This, Professor Fisher will testify, misses the point. This is a case about Microsoft's maintenance of its operating system monopoly. It is *that* monopoly that gives it the ability and the incentive to undertake exclusionary and predatory conduct. It is also that monopoly that heightens the harm resulting from anticompetitive conduct. Dean

Schmalensee's refusal to consider whether an operating system monopoly is relevant to a lawsuit about maintenance of that monopoly leads to incredible conclusions.

Professor Fisher will explain why Dean Schmalensee was wrong in testifying that, if there were a relevant market here, it would be the market for software distribution. This is not a case about Microsoft having power over software distribution. This is a case about Microsoft's operating system monopoly and about Microsoft's ability and willingness to engage in anticompetitive and predatory conduct designed to preserve that operating system monopoly. Nor is monopoly control over software distribution necessary to enable Microsoft to effectively foreclose browser competition. For example, Microsoft was able to engage in such conduct and effectively raise rivals' costs *without* monopoly power over software distribution, but with "purchases" of exclusion. These purchases were made with the expectation that Microsoft would recoup through eliminating potential platform competitors, thereby maintaining its monopoly.

Professor Fisher will testify that Microsoft's operating system monopoly is protected by high barriers to entry. Professor Fisher will examine the barriers to entry into the operating system market that exist today, the most significant of which is the applications barrier to entry. He will discuss the defects in Dean Schmalensee's conclusion that the applications barrier to entry does not exist.

Professor Fisher will also demonstrate the flaws in Dean Schmalensee's claim that Microsoft's behavior is inconsistent with monopoly power. Microsoft is wrong in implying that monopolists do not have an incentive to innovate, market their products, or maximize their profits. One cannot infer from the present level of innovation in the software industry (as Dean Schmalensee attempts) that Microsoft does not have monopoly power.

Likewise, one cannot infer from the price of Windows (as Dean Schmalensee also attempts) that Microsoft does not have monopoly power. The price of Windows alone, as Professor Fisher previously testified, says nothing about whether or not Microsoft has monopoly power, but only about whether it is maximizing its *short run* profits *solely* by setting the price of Windows. At most that price would be indicative of the extent to which Microsoft has chosen to exercise that power solely by the way it sets the Windows price. Even if the price of Windows were relevant to the issue of whether Microsoft has monopoly power, Dean Schmalensee's calculation rests on flawed and arbitrary assumptions. Correcting for a few fundamental errors in his calculation, it is apparent that Microsoft could very well be charging a "monopoly price" for Windows. However, one need not go through this exercise because Dean Schmalensee's underlying theory -- that long term, largely unknown threats are currently preventing Microsoft from exercising monopoly power -- cannot explain the supposedly "low price" of Windows. That argument is theoretically flawed and contrary to the evidence.

II. Microsoft engaged in predatory and anticompetitive behavior in order to thwart a platform threat.

Microsoft's entire course of conduct has been predatory. Professor Fisher will explain this conclusion, and respond to Dean Schmalensee's criticisms of his predation analysis. Professor Fisher's test for predation -- conduct that cannot be justified except for the effects on competition -- is mainstream and based on sound economic principles. Here, Microsoft engaged in conduct that could not be expected to be either profitable or profit maximizing but for the elimination of a potential threat to its operating system monopoly.

Microsoft engaged in predatory pricing by giving the browser away. Microsoft's actions were not intended to be profitable on their own. Professor Fisher will explain why Microsoft's deal with AOL was predatory: Microsoft, in entering into the deal, incurred significant costs and conveyed substantial value without direct compensation that cannot be explained except to exclude browser rivals and thwart a threat to its operating system monopoly. Dean Schmalensee's various after-the-fact justifications for Microsoft's browser pricing, which do not appear contemporaneously in the documents and are not consistent with Microsoft's other conduct, are wrong.

Nor is Microsoft's current justification for tying the Internet Explorer browser to Windows (that it is efficient and pro-consumer) correct in light of the evidence. Professor Fisher will testify about why the forced inclusion of Internet Explorer in Windows without a separate charge is predatory. It is efficient to offer the two products separately, therefore, there is no procompetitive reason that Microsoft should have welded the two products together in such a

manner that it is difficult to separate them, or that Microsoft should have prohibited by contract that they be separated. The ability to claim any plausible -- however small -- benefit should not exempt the conduct from antitrust scrutiny.

Microsoft's agreements with the ICPs, ISPs and OLSs are also anticompetitive and predatory. These agreements are not, as Microsoft witnesses have claimed, ordinary cross marketing arrangements. The proper framework from which to assess these agreements, Professor Fisher will testify, is to remember that Microsoft gives tremendous value for the promotion of a no revenue product and the exclusion of a platform threat. Although Dean Schmalensee greatly underestimates the value of Windows distribution to AOL, this miscalculation is merely an underestimation of the amount of the expenditure Microsoft offered for exclusion of a potential platform competitor. Professor Fisher will explain why Microsoft's witnesses are wrong in supposing that the Government's case rests upon the proposition that Windows distribution need be critical to the ISPs, ICPs, and OLSs, in order for the agreements to have been anticompetitive.

Microsoft would excuse all of the above conduct, based on the theory that the operating system market will eventually go to one firm anyway. Dean Schmalensee's argument leads to the conclusion that, in alleged winner-take-all markets, predatory conduct may be excused. This cannot be the right standard. Professor Fisher will explain why Dean Schmalensee's is not the proper analytical method and why competition on the merits should not be artificially limited in markets that may be asserted to be winner-take-all markets.

III. Microsoft's conduct has caused anticompetitive harm.

Microsoft claims that its conduct, even if anticompetitive, did not have significant effects. Professor Fisher will explain that Dean Schmalensee's analysis, upon which Microsoft rests this claim, suffers from conceptual and empirical errors. Microsoft could protect its operating system monopoly by preventing Netscape Navigator or another browser from gaining a large share. Therefore, the proper way to measure foreclosure is not Netscape's (or any other particular browser competitors') loss, but rather Internet Explorer's improper gain. Viewed from this perspective, Microsoft's own data show significant anticompetitive effects.

Even if a rival's loss were the relevant measure, Microsoft effectively increased Netscape's costs and reduced its browser usage to the point where it no longer poses a substantial threat to Microsoft's operating system monopoly. For this purpose, it is not necessary that Netscape be completely foreclosed from every possible channel of distribution. Professor Fisher will testify that Netscape has been substantially foreclosed from the OEM, ISP, and OLS channels.

Microsoft relies heavily upon the MDC data in attempting to negate this foreclosure. These data, however, suffer from a number of problems that render them unsuitable for the purposes for which Dean Schmalensee uses them. In explaining the defects in the MDC data, Professor Fisher will respond to some of Dean Schmalensee's exhibits. Professor Fisher, on the other hand, has relied upon the AdKnowledge data, which (as Professor Fisher will testify),

contrary to Dean Schmalensee's testimony, is a particularly reliable source for hit and usage share information and illustrates some of the foreclosure resulting from Microsoft's conduct.

Professor Fisher will testify that Microsoft's conduct has inflicted, and threatens to inflict even more severely in the future, significant harm on consumers. He will rebut Microsoft's claim that its conduct has not resulted in any consumer harm. Left unchecked, Microsoft will be able to continue to monopolize the personal computer operating system market and control attendant standards. Professor Fisher will explain why a free market economy relies upon competition to determine the most efficient firms, even in winner- take-all markets, and why Microsoft's conduct is distorting the path of innovation.

IV. The AOL/Netscape transaction does not change the analysis, or the fact that Microsoft's conduct has caused substantial anticompetitive harm.

Finally, Professor Fisher will testify about the AOL/Netscape merger. He will elaborate upon his previous testimony that the merger does not impair Microsoft's operating system monopoly and does not change any of the interested companies' incentives. AOL continues to favor Internet Explorer in return for the consideration furnished by Microsoft. Even if the merger changes the incentives of the parties involved, it does not materially affect the parties' ability to mount a serious threat to Microsoft's operating system monopoly. In short, the transaction does not negate the competitive harm already wrought by Microsoft's conduct, does not excuse that conduct, and does not mean that Microsoft has not illegally maintained its monopoly.

EXHIBIT 3

SUMMARY OF ANTICIPATED REBUTTAL TESTIMONY GARRY NORRIS

Mr. Norris joined IBM in 1982 as a marketing representative. As of approximately March of 1995, Mr. Norris became Director, Software Strategy and Strategic Relations for IBM's PC Co., which develops, manufactures and markets IBM personal computers. Mr. Norris' primary responsibilities while in this position, which he held through March 1997, were to negotiate various agreements with Microsoft, including the Windows License Agreements and Market Development Agreements. Mr. Norris and his team negotiated the 1995 Windows 95 License Agreement and the 1996 Windows Desktop Family agreement. He also negotiated the 1995 and 1996 Market Development Agreements. During this period, Mr. Norris also discussed other issues and agreements with Microsoft, including technical and marketing support and various Microsoft enabling and support programs. In late 1996 and into the first quarter of 1997, Mr. Norris began to negotiate the 1997 Windows license and Market Development Agreements and other proposals concerning, among other things, Internet Explorer, Microsoft Office, Broadcast PC and other actual or potential offerings.

Mr. Norris is expected to testify about his experience with regard to the foregoing negotiations and their outcomes. Mr. Norris will testify about IBM's proposals, requests and objectives and Microsoft's responses and proposals, the impact Mr. Norris believed the outcome of these matters would or could have and the conclusion of these matters. Mr. Norris is expected to testify about:

- (a) The impact of the absence of any commercially viable alternative to the Microsoft desktop operating system products on the negotiations;
- (b) The impact of IBM's offering of products competitive with Microsoft, such as OS/2, older versions of Microsoft products, Navigator, Lotus products such as SmartSuite and Notes, and Worldbook's Worldbook product, and the impact of Microsoft's reactions to such competition, on the negotiations, on the price or availability of Microsoft products, on the availability of Microsoft sales, marketing and technical support, and on IBM's competitive position;
- (c) The impact on IBM's costs, product offerings and user alternatives, and competitiveness of the terms of the various agreements and proposals negotiated by Mr. Norris with Microsoft, such as those related to prices, volume and various MDA discounts, availability of Microsoft technical, marketing and sales support, screen and startup sequence restrictions, and the Microsoft Logo Licenses and Hardware Design Guides.