

**C. Microsoft's ability to control the price of Windows evidences its monopoly power**

33. Microsoft's monopoly power is also evidenced by its ability to control the price of its operating systems.

i. Professor Fisher testified that a firm's "substantial ability to vary, and, indeed, to raise" price "without fearing that its customers will turn elsewhere" can be evidence monopoly power. Fisher, 6/1/99am, at 11:14 - 12:17.

**1. Microsoft does not consider rival operating systems in pricing Windows 95 or Windows 98**

34. Microsoft does not consider competitors in setting the price for Windows 98, and Microsoft does not fear that increasing the price of Windows will cause its customers to turn elsewhere.

i. See supra Part II.A.; ¶ 15.1.5.

**2. Microsoft raised the prices of obsolete versions of Windows**

35. Microsoft's substantial pricing discretion is also demonstrated by its ability to increase the royalty for older versions of Windows, versions that Microsoft characterized as "obsolete," following the release of new versions.

**a. Microsoft increased the Windows 95 price when it released Windows 98**

36. Following the release of Windows 98, Microsoft, increased the price of Windows 95 to the same level as Windows 98.

i. Professor Fisher testified that

Fisher,  
1/12/99pm, at 47:2-9 (sealed session).

ii. Dean Schmalensee acknowledged that Microsoft  
Schmalensee, 1/25/99am, at 51:25  
- 52:12 (sealed session); Schmalensee, 1/25/99am, at 44:22 - 45:9  
(sealed session).

iii. Current OEM licenses list royalties for the  
See e.g., GX  
461, at MS98 0009500 (IBM license) (sealed); GX 1190 at MS98 0008922  
(Compaq license) (sealed). See also Schmalensee, 1/25/99am, 51:25 - 52:7  
(sealed session).

iv. The average actual price of a Windows 95 standard license  
GX 1404 (chart of prices  
sponsored by Professor Fisher) (sealed); DX 2330 (chart of license dates  
sponsored by Dean Schmalensee) (admitted in sealed session).

36.1. Microsoft's increase of the Windows 95 royalty to the same level as the  
Windows 98 royalty is not consistent with a competitive market.

i. Microsoft witnesses repeatedly asserted that  
Schmalensee, 1/25/99am, at 15:6-18  
(sealed session); Rose, 2/17/99pm, at 26:14  
id. at 30:9-31:11 (same) (sealed session).

ii.  
Fisher, 1/12/99pm, at 45:16-22 (sealed session).

Fisher, 1/12/99pm, at 46:21-22 (sealed session). If operating systems “were a competitive market, and Microsoft didn’t have some power over price, then when the better product came out, you would expect to see the price of the older product at least stay the same and, quite possibly, go down, but it didn’t. It went up.” Fisher, 1/11/99pm, at 43:9-13.

36.1.1. Dean Schmalensee’s testimony that

(Schmalensee, 1/25/99am, at 27:9-11 (sealed session)) is wrong, and he ultimately acknowledged that he did not investigate whether

i. Professor Fisher presented a chart showing that

GX 1404 (sealed); Fisher, 1/11/99am, at  
19:18-22 (sealed session). These figures included  
Fisher, 1/12/99pm, at  
46:16-25 (sealed session)

ii. Dean Schmalensee presented no evidence comparing

Indeed he conceded

Schmalensee, 1/25/99am, at 49:21 - 51:24  
(sealed session).

iii. Instead, Dean Schmalensee presented a chart showing

Schmalensee, 1/25/99am, at 31:18 - 32:7 (sealed session); DX 2332  
(admitted in sealed session).

iv. Dean Schmalensee also asserted that “Microsoft did not in fact increase prices for Windows 95/98 after December 1997.” Schmalensee Dir. ¶ 164. But he himself introduced a chart

showing  
DX 2330 (sealed).

e.g., GX 1190, at MS98 000892, MS98 0008930

(sealed); compare GX 449, at MSV 0002629

(sealed). Dean

Schmalensee appeared to ground his erroneous assertion on the fact that

(Schmalensee, 1/25/99am, at 50:3-9) (sealed session);

Dean Schmalensee conceded he did not investigate whether

Id. at 54:21 - 55:4.

**b. Microsoft used the threat of withholding discounts on Windows 95 to double the price charged IBM for Windows 3.1 following the release of Windows 95**

37. Similarly evidencing substantial and durable market power over operating systems for Intel-compatible personal computers is Microsoft's threat to withhold substantial discounts for Windows 95 in order to force IBM to accept a doubling of its royalty for Windows 3.11.

37.1. Microsoft put IBM to the choice of abandoning its favorable royalty for Windows 3.11 or sacrificing commercially crucial MDA discounts for Windows 95.

- i. Garry Norris testified that IBM, in part because of its assistance in developing the product, enjoyed a \$9 royalty for Windows 3.11. Norris, 6/7/99pm, at 8:18-23, 12:8-18; 6/8/99am, at 81:23 - 82:19; GX 2194, at 90353. IBM's contract with Microsoft guaranteed IBM that rate until September 1997. Norris, 6/7/99pm, at 8:18-23.
- ii. In April 1996, Norris testified, Microsoft proposed to IBM what Microsoft termed its "Windows desktop family agreement." Norris, 6/7/99pm, at 14:13 - 15:4. The proposed agreement consisted of a single contract covering a number of Microsoft operating system products, including Windows 95, Windows 3.11, and Windows NT. Through this agreement, Microsoft

conditioned substantial discounts to Windows 95, and a license to Microsoft's newest version of Windows NT, on IBM abandoning its favorable rate for Windows 3.11 and accepting a much higher rate (initially proposed at \$62). Norris, 6/7/99pm, at 8:13 - 9:16, 13:16 - 14:4. IBM could sign a Windows 95 license without giving up its favorable Windows 3.11 rate, but if it did, Microsoft would withhold MDA discounts on Windows 95 amounting to \$75 million a year. Norris, 6/7/99pm, at 9:4-9, 10:21-25.

37.1.1. Microsoft sought to raise IBM's Windows 3.11 royalty, and thereby to migrate its installed base to Windows 95, in order to ensure Microsoft's continued market dominance.

- i. Norris testified that Microsoft told IBM that it conditioned discounts vital to the IBM PC Company's business on IBM abandoning its favorable rate for Windows 3.11 because Microsoft "wanted more customers to move to Windows 95, and more customers to move to Windows NT." Norris, 6/7/99pm, at 12:1-7, 39:20 - 40:2.
- ii. As Dr. Warren-Boulton testified, one way Microsoft reinforces the applications barrier to entry is to "migrate" its "installed base" of users — those already using Windows operating systems — to newer versions of its operating system. Increasing the number of Windows 95 users increases the incentives of ISVs to develop for Windows 95, thus reinforcing the applications barrier to entry. Warren-Boulton, 11/23/98pm, at 75:13 - 77:7.

37.1.2. Microsoft also told IBM that, even if it signed the agreement Microsoft proposed, it would not get as good a deal as IBM's rival, Compaq, because IBM (unlike Compaq) competed against Microsoft.

- i. See infra Part V.C.2.b.(3)(b); ¶ 209.2.1.

37.1.3. IBM ultimately acquiesced in Microsoft's demands and gave up its \$9 royalty for Windows 3.11 because it lacked any viable commercial alternative to Windows 95 and the discounts Microsoft threatened to withhold were necessary in order for IBM to compete against OEM rivals.

- i. Norris testified that IBM gave in to Microsoft's demands because IBM "did not have a choice. We had no place else to go. We had to have Windows 95 in order to be in the PC business," and Microsoft was threatening to increase IBM's costs "by \$75 million" a year. Norris, 6/7/99pm, at 13:9-25, 40:3-15 (same); **see also GX 2185 (internal IBM document stating "MS is forcing IBM to give up its Windows 3.11 investment return by withdrawing the MDA from Windows 95/Windows NT; either take Win 3.11 at \$40 or no MDA for Windows 95")**
- ii. Norris further testified that a Microsoft account manager told IBM that accepting these terms was the "Cost of doing business with Microsoft." GX 2186; Norris, 6/7/99pm, at 74:20 - 75:10.

37.1.4. Although IBM was able to negotiate the originally offered \$62 royalty Microsoft proposed for Windows 3.11 down to an effective royalty of approximately \$19.50, Microsoft's threatened withholding of \$75 million in MDA discounts, and its ability to increase the price charged IBM for its inferior Windows 3.11, demonstrate substantial market power.

37.1.4.1. IBM's assent to Microsoft's demands demonstrates that Microsoft possesses substantial pricing discretion with respect to Windows 95. Microsoft threatened to withhold \$75 million in discounts to IBM without concern that IBM would shift its business to another operating system vendor or that charging a high price to IBM would hasten the day when a viable alternative to Windows would arise.

- i. Professor Fisher testified that Microsoft's monopoly power is evidenced by the fact that its "customers do not believe that they have serious commercial alternatives to Windows." Fisher, 6/1/99am, at 11:9-19.

37.1.4.2. The price IBM paid for Windows 3.11 would have increased even more had IBM not kept its shipments of Windows 3.11 below 8% of all Microsoft operating systems

that it shipped. Microsoft's ability to change the Windows 3.11 royalty depending on the extent to which IBM facilitated Microsoft's objective of moving users to Windows 95 is further evidence of monopoly power.

- i. GX 2186 (document discussing IBM's royalty payments to Microsoft states as "Special Condition one" that "If win 3.11 vol. <8% of total volume for the contract period IBM receives rebate of \$5m + \$6 per copy of all win 3.11 shipments"); **see also GX 2189**
- ii. Garry Norris testified that there was a two-part agreement under which "Microsoft offered IBM an incentive, and the incentive was that if IBM's shipments of Windows 3.11 fell below eight percent of its total Microsoft operating shipments, Microsoft would rebate to IBM 5 million U.S. dollars, which had been agreed upon in a previous settlement agreement in 1995. The second aspect of that was that after shipments did, in fact, fall below eight percent, then the price for Windows 3.11 would receive an additional \$6 rebate." Norris, 6/7/99pm, at 37:10-20; see also Norris, 6/9/99pm, at 48:9 - 49:5 (same).

**3. Other aspects of Microsoft's pricing of Windows are consistent with monopoly power**

38. Other aspects of Microsoft's pricing of Windows are consistent with Microsoft's possession of monopoly power.

38.1. The increasing price of Windows. In contrast to other components of a personal computer (where prices have substantially decreased), the price of Windows has increased in both absolute and relative terms in the past several years.

38.1.1. The price OEMs pay for Microsoft's operating systems has risen in absolute terms in the past several years.

- i. Professor Fisher testified that he has "looked at what's happened to Microsoft's operating system price over time, and it isn't falling, and I

don't believe it's falling even on a quality corrected basis. And for that matter, it isn't even constant. It's rising." Fisher, 1/11/99pm, at 41:24 - 42:3; see also GX 1404 (sealed) (chart sponsored by Professor Fisher showing

ii. Rose, 2/17/99pm, at 30:9-18 (sealed session).

iii. GX 1430 (sealed).

iv. See supra Part II.C.2.a.; ¶¶ 36, Part II.C.3.; 38 - 38.1.3.

v. Kempin acknowledged that Kempin, 2/25/99pm, 126:5 -128:13 (sealed session); GX 1506 (sealed); GX 1508 (sealed).

38.1.2. The price OEMs pay for Microsoft's operating systems has risen in relative terms in the past several years.

- i. Kempin wrote to Gates in December 1997 that the price of Microsoft's operating systems to OEMs has increased "over the last ten years" while "other components" of PC systems "have come down and continue[] to come down." GX 365, at MS7 007194.
- ii. See Romano Dep. (played 12/16/98pm), at 33:20 - 34:21 (testifying that the prices of all components of the PC have decreased except the operating system, the price of which has increased); Warren-Boulton, 12/1/98am, at 26:16 - 30:9; GX 439 (Microsoft chart demonstrating

price increase); GX 1430 (chart based on GX 439) (sealed); Warren-Boulton Dir. ¶ 61.

- iii. Compare Schmalensee, 6/23/99am, at 14:15 (testifying that “hardware costs are falling”) with DX 2301 (admitted in sealed session) (chart sponsored by Dean Schmalensee showing

38.1.3. Although Dean Schmalensee asserted that

(Schmalensee, 1/25/99am, at 11:11 - 15:18) (sealed session), that

assertion is not supported by the evidence:

- i. Microsoft, as explained, raised the price of Windows 95 to the same level as Windows 98. But Microsoft did not at the same time increase the quality of Windows 95. See supra Part II.C.2.a.; ¶ 36 - 36.1.
- ii. As Professor Fisher testified, this relative increase in the price of Windows “ought to at least make one suspicious” of Microsoft’s assertion that its price increases merely reflects adjustments for increased product quality. Fisher, 1/11/99pm, at 43:14-23; Fisher, 1/13/99am, at 39:13 - 41:9.
- iii. See supra Part II.C.3.; ¶ 38.1.2 (price of operating system has increased relative to other components of PC system).

**38.1.3A. Microsoft's assertion that Dean Schmalensee “performed a quality-adjusted price analysis,” unrefuted by plaintiffs, (MPF ¶ 220) is inaccurate.**

- i. **Professor Fisher refuted Dean Schmalensee’s analysis by pointing out that Microsoft raised the price of Windows 95 without improving its quality when it released Windows 98.** Fisher, 1/11/99pm, at 42:18-43:23; Fisher, 1/13/99am, at 39:13 - 41:9; **also see supra** Part II.C.2.a; ¶36.1, Part II.C.3; 38.1.3.

38.2. Microsoft’s pricing of its Windows 98 upgrade. Microsoft’s pricing of its

Windows 98 upgrade also is consistent with Microsoft's possession of monopoly power.

38.2.1. The evidence shows that Microsoft had substantial discretion in setting the price of its Windows 98 upgrade product, the operating system product it sells to existing users of Windows 95.

- i. A contemporaneous Microsoft study shows that it could have charged \$49 for the product -- and there is no reason to believe that price would have been unprofitable -- but concluded it could earn greater profits by charging \$89. Warren-Boulton, 12/1/98am, at 24:8 - 25:13; GX 1371, at MS7 003730, MS7 003748.
- ii. The existence of a range of prices over which Microsoft believed it could profitably sell its upgrade product is, at a minimum, consistent with its possession of substantial market power. Warren-Boulton, 12/1/98am, at 24:8 - 25:13.

38.3. Microsoft's ability to price discriminate. Microsoft's sustained ability to price discriminate is probative of market power and, therefore, consistent with monopoly power.

38.3.1. Price discrimination is probative of the existence of market power and, therefore, is consistent with monopoly power.

- i. Price discrimination is the practice of setting different prices for the same product to different customers. Schmalensee, 1/21/99am, 30:11-16. Dean Schmalensee testified that he continues to agree with his statement in his 1982 article from the Harvard Law Review, that it is "a standard textbook proposition that for a seller to practice price discrimination profitably, it must have some control over price, some monopoly power." GX 1514. By "some monopoly power" in that quotation, Dean Schmalensee says he meant "market power." Schmalensee, at 1/14/99pm, 47:7-14; see also Schmalensee, at 1/21/99pm, 4:22 - 5:4.

- ii. Professor Fisher testified that Microsoft's ability to price discriminate indicates its ability to earn supranormal profits from OEMs which do not pay the low price. Fisher, 1/11/99pm, 41:17 -23. Because monopoly power is a "high and sustained degree of market power," Professor Fisher testified, evidence that Microsoft has market power helps form the basis for his opinion that Microsoft has monopoly power. Fisher, 1/13/99am, at 26:16-22.
- iii. Microsoft introduced an excerpt from a current economics textbook, which states that for a firm to be able to engage in price discrimination, the firm must have some market power. The book further comments: "Even though all firms would like to price discriminate, many are not able to do so." DX 2271, at page 434.

38.3.2. Microsoft engages in price discrimination by charging different OEMs different prices for Windows.

- i. Professor Fisher testified that  

Fisher, 1/11/99am, at 18:14 - 19:8 (sealed session).
- ii. Summarizing the charts he sponsored, Professor Fisher testified that the price differences among OEMs cannot be explained except in light of Microsoft's exercise of market power. Fisher, 1/13/99am, 57:16 - 58:9.
- iii. As Professor Fisher's charts show,

For instance, GX 1403  
(sealed), GX1432 (sealed), and GX 1433 (sealed) show

GX 1405 (sealed), GX 1406 (sealed),  
GX 1407 (sealed)

GX 1416 (sealed), GX 1417 (sealed), GX  
1419 (sealed), and GX 1420 (sealed)

GX 1408 (sealed), GX 1409 (sealed), GX 1410 (sealed), GX 1412 (sealed), GX 1414 (sealed), and GX 1415 (sealed) show

GX 1422 (sealed), GX 1423 (sealed), GX 1426 (sealed), and GX 1428 (sealed)

- iv. Professor Fisher testified, referring to his charts

Fisher, 1/11/99am, at 20:12-18 (sealed session).

- v. Further, Professor Fisher testified, Microsoft's price discrimination is part of a system which tends to increase Microsoft's future revenues and reinforce the barriers to entry protecting Microsoft's monopoly. Fisher, 1/11/99pm, at 44:3 - 45:13.

Fisher, 1/11/99pm, at 30:8-11 (sealed session).

- vi.

DX 2307.

- vii. Dean Schmalensee repeatedly emphasized

DX 2306

DX 2306;  
Schmalensee, 1/25/99am, at 29:6-11 (sealed session). But his chart DX 2307 shows

DX 2307; Schmalensee, 1/25/99am, at 22:17-22 (sealed session).

- 38.3.3. Among the five largest OEMs,

i. According to a chart sponsored by Dean Schmalensee,

DX 2307.

ii. According to Dean Schmalensee,

DX 2307.

In October 1997, Gates wrote to Kempin, Microsoft's Vice President in charge of OEM relations, "[o]verall, we will never have the same relationship with IBM that we have with Compaq, Dell and even HP because of their software ambitions. I could deal with this just fine if they weren't such rabid JAVA backers." GX 257.

iii. Professor Fisher showed, focusing on the same language mix and time period as Dean Schmalensee, that

GX 1432 (sealed).

GX 1432 (sealed).

#### **38.3.4 In its proposed findings (MPF ¶ 216), Microsoft misrepresents**

##### **Professor Fisher's testimony about price discrimination.**

**i Microsoft says that "Fisher's reliance on Microsoft's alleged price discrimination as evidence of monopoly power cannot be reconciled with his prior opinions on the subject. Fisher previously stated without equivocation that 'price discrimination does not show 'monopoly power' and, at most, 'may show some market power.' (DX 2270.) Fisher's earlier views, as opposed to those he espoused at trial, comport with mainstream economic thinking. (See, e.g., DX 2271.)" MPF ¶216.**

**ii. But the record shows that Professor Fisher's testimony is entirely consistent with his past writings, Dean Schmalensee's writings, and "mainstream economic thinking." See supra 38.3.1 - 38.3.3. Professor Fisher testified that, "there is a substantial amount of price discrimination, and that is an indicator of some**

**market power.” Fisher, 1/11/99pm, at 41:17-23. Compare Dean Schmalensee’s statements in GX 1514 at p.8.**