Effective Structural Relief in U.S. v. Microsoft

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The day after we filed an *Amici Curiae* brief on remedies in *U.S. v. Microsoft*, together with Roger Noll and Mike Scherer, the federal government and 17 state attorneys' general (hereinafter "the government") submitted their recommendations on relief to the Court.[1] Because we were not privy to the details of the government's proposal, our analysis of remedy alternatives was necessarily more general and included options that were not ultimately embraced by the government. In its proposed final judgment, the government advocates what we referred to in our brief as "functional" divestiture -- the separation of Microsoft into separate operating system and application software businesses – coupled with a series of "conduct" remedies designed to be in place for no longer than three years following the divestiture to help ensure that competition in the operating systems market takes hold.[2]

We believe that functional divestiture is the minimum acceptable form of relief in this case, but that it nonetheless also does not promise to accomplish all of the goals to which an effective relief plan should aspire. A much better case can be made, in our view, for what we have termed a "full" divestiture of Microsoft that would build on the functional split recommended by the government, and then require a further divestiture of the company's operating systems business into three competing firms, each with the same intellectual property rights in the various Windows operating systems. We are fully cognizant that a full divestiture would be a more complicated task than that proposed by the government. For the reasons we

[1] See "Plaintiffs' Proposed Final Judgment" ("PPFJ") and "Plaintiffs' Memorandum in Support of Proposed Final Judgment," April 28, 2000 (corrected as of May 2, 2000).

[2] We use the term "functional" rather than the common terms of "horizontal" or "vertical" because the

argue in our brief to the Court, however, it not only is feasible but is the best method for ensuring competition in the operating systems (OS) market in which Microsoft has been found to have unlawfully maintained a monopoly.

The Three Central Goals of Relief

Before discussing the merits of the government's proposal, it is useful to review the basic principles of the remedy phase of monopolization cases. Remedies in such cases generally incorporate one or more of the following elements: conduct restrictions, licensing, and restructuring. Structural relief is the most far-reaching category of remedies, but there are several reasons for the presumption favoring structural remedies in monopolization cases. If the aim is to "terminate the monopoly", the most straightforward solution is to break it up in some fashion. This is consistent with the economic view that structural relief goes to the root of the problem, even if the problem is merely conduct that unlawfully maintains the monopoly. Such conduct would not be successful unless the underlying structure of the market in the first instance has been subject to monopoly, even if gained through lawful means. If there are significant reasons why restraining conduct or licensing remedies are not likely to be effective in undoing the terminating the monopoly – reasons which we discuss in detail in our brief – then the case for some sort of structural remedy is compelling.[3]

The need for structural relief in this case becomes clear when one considers the three central goals that a remedy must accomplish.[4] First, within a short period of time, the remedy should introduce workable competition into the market for Intel-compatible platforms for applications software. Second, the remedy should reduce the "applications barrier to entry" in

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principle of division in the government's proposal is to separate the company along programmatic lines.

[3] *Id*. at 26-44.

[4] *Amici* at 10.

order to establish economic conditions that are conducive to workable competition in the operating systems market. Third, the remedy should reduce the ability of Microsoft to project its current monopoly power into other markets, as a way of preventing new monopolies in those other markets and of inhibiting Microsoft from reinforcing its monopoly in operating systems. The challenge is to choose a remedy that balances these goals against the potential short-run disruption and risks that necessarily accompany any major structural change.

The Merits and Shortcomings of "Functional" Divestiture

The merits and shortcomings of the government's relief plan can best be judged with reference to the three goals that a relief measure should try to accomplish. The functional separation proposed by the government directly addresses the second goal of relief – reducing the applications barrier to entry – by removing both the incentives and means to raise that entry barrier. This is because the new applications company ("AppsCo") should have incentives to develop its Office products for alternative operating systems like Linux. In addition, to the extent the government's plan works as advertised, it has a chance of introducing competition into the OS market, and if this occurs, then in constraining Microsoft's ability to dominate adjacent markets.

There are several drawbacks to the government's proposal, however. Most importantly, the split between applications and operating systems does not *ensure* that workable competition in the OS market – the focus of the findings of fact and conclusions of law – actually will emerge. In particular, the AppsCo may not emerge as a middleware threat the government anticipates. Alternatively, even if it does – that is, even if applications begin to be written for Office -- users of PCs are still likely to need Windows as an underlying operating system to run their computers to the extent they do not trust getting their software from the Internet (or do not

have the bandwidth to do so). Then there is always the possibility – some have claimed likelihood – that AppsCo and the Windows company tacitly would agree not to invade each other's turf.

In any of these cases, if significant competition does not emerge, then consumers could suffer higher prices on account of the "double monopoly" problem. This is because each of the two monopolies are likely to independently maximize its own profits and set prices higher than would be the case in a competitive market, with correspondingly lower combined profits, than would be the case with an integrated monopoly (such as the present Microsoft).

Finally, the government's plan may not prevent Microsoft from distorting competition in its drive to extend the desktop OS monopoly to the markets for operating systems used by servers, hand held computers, and other internet access devices. To be sure, the proposal anticipates this problem by imposing various conduct restrictions on the company in the three years following any breakup (and up to 10 years if no breakup occurs). Among other things, the proposal would require Microsoft not "bind" and "middleware products" to its OS unless it offers an identical feature of the OS that does not contain such additional middleware. Furthermore, the proposed conduct decree order would prevent the compare from interfering with the interoperability of other non-Microsoft middleware, while requiring the company to disclose its application programming interfaces (APIs) in a timely manner to other software developers.

In principle, these restrictions might inhibit Microsoft from successfully leveraging its desktop OS monopoly into other OS markets. In practice, however, Microsoft can take advantage of the inherent lags built into the decree enforcement process – which entails trial court hearings and then appeals – to pursue its strategy of Windows dominance. By the time the company may

be judged to have violated any of the foregoing provisions – the meaning of each of which are likely to be litigated – the company may be able to secure a *fait accompli*, much as it has done with Internet Explorer and the browser market.

Full Divestiture of the Microsoft Monopoly

These various considerations led us to the view that the Court should seriously examine what we call "full divestiture" as the best means for addressing all the remedy goals in this case. This remedy would contain two elements – the functional divestiture described above, combined with a dissolution of the monopoly of the operating systems. The dissolution of Windows monopoly would be accomplished by effectively "cloning" the current Windows division into two additional companies, so that three distinct firms would have a full license to all the intellectual property of Microsoft's current OS division.

Why the number three? The experience of having just two competitors in a market, such as the duopoly that used to exist in the wireless telecommunications business before the numbers of licenses were expanded, suggests that having only two competitors in a market is not a reliable protection against monopoly. Significant price and/or quality competition does not generally appear until there are at least three firms. Moreover, in light of the significant barriers to new entry into the OS market, having three competitors provides a margin of safety. With but two competitors, if one stumbles and fails, the market would then revert back into a full-blown monopoly.

Full divestiture would completely meet the three remedy goals in the case:

– It would immediately (upon a final verdict) create competition in the OS market. Because even a small increase in the relative price or quality by one of the Windows companies

could easily have a substantial impact on its sales, the three-way company split would stimulate price and quality competition in operating systems.

– Full divestiture would essentially nullify the applications barrier to entry for the new Windows OS companies. It would not, however, reduce the barrier for new entrants into the OS market. The barrier would be removed for the three OS companies because, at the outset, developers would be able to write programs for all of the WinCos simultaneously. None of the WinCos could hope to exclude the other initially.[5]

– Full divestiture would reduce any of the successor OS companies' ability to project monopoly power into other markets by reducing the monopoly power of the OS companies. For example, as we already noted, there are currently concerns that Microsoft is using the Windows 2000 system to extend its desktop monopoly to servers. In the post-full-divestiture world, if a single Windows company attempted to develop a system that locked users into a particular and (for users) undesirable linkage of desktop and server software, the users could turn to another company for a different configuration. Similarly, one of the new Windows companies might decide to provide a variant of its Windows-compatible operating system that supported primarily Netscape for those users who were attracted to some features of Netscape.

The Fragmentation Objection

The only major criticism of the full divestiture option that we have heard is the assertion that it would "fragment" what is the current dominant OS standard and would lead

[5] We see little prospect in the near term, however, of lowering the barriers to entry for other non-successor companies, although technological developments might change that.

to incompatible systems. In the short run, fragmentation would not be a problem because each of the Windows companies would be the existing APIs.

Over the longer run, given the strong economies of scale in developing operating systems and powerful network externalities due to consumers' desire to have operating systems that are able to support large numbers of applications, there would be a powerful tendency toward a single OS standard. For that very reason, during some reasonable period of time following monopoly dissolution, it is highly likely that each of the WinCos would have strong incentives to remain compatible with each other – to maintain common APIs – so that applications software developers will be able to write programs for each operating system with minimum additional porting costs. Meanwhile, to the extent innovation in operating systems occurs, it is likely that new features would be added in "modular" fashion, so that the current core aspects of the operating system would retain their common APIs.

Of course, there is a danger that a new monopoly OS eventually would emerge following dissolution. That is, one of the Windows companies might innovate so rapidly that it would outstrip the other two companies, producing a new and vastly superior operating system that the other WinCos cannot imitate or reverse engineer, and move to a position of market dominance similar to that of Microsoft today. It is impossible to predict whether or not a new market dominance would occur, but there would be no legal objection to this scenario if the company were to gain market dominance through "superior skill, foresight, and industry." However, if the firm were to gain market dominance through anti-competitive means, this would once again trigger antitrust attention, although the new Windows companies would be well aware of Microsoft's experience in this litigation, and thus would have at least some incentive to behave differently.

While remonopolization is a concern, it is also clear that the potential for sustained monopoly under the full divestiture proposal is far less than under any alternative remedy. Under the full divestiture remedy, *the market at least begins with a workably competitive structure*. Therefore, compared to the current situation, or to situations with a Microsoft OS monopoly burdened by conduct restraints, as would occur under conduct or partial divestiture proposals, the full divestiture remedy has the best chance of developing a workably competitive market for operating systems, while encouraging a maximum degree of innovation.

Furthermore, it is vital to keep in mind that divergence in operating systems is not necessarily harmful to consumers. What is denigrated as "fragmentation" is more accurately described as "product differentiation," such as occurs in most industries in a progressive market economy, as for example occurs with automobiles, VCRs, communications devices, televisions, cameras, most computer software, pharmaceuticals, apparel, breakfast cereals, and even tomatoes.

Indeed, the market for operating systems arguably has provided *insufficient product differentiation* precisely because of Microsoft's monopoly, the applications barrier to entry, and Microsoft's unlawful conduct. The relative paucity of low-end operating systems is one example of insufficient product differentiation. Microsoft's philosophy is akin to that of pre-divestiture AT&T, which held in effect that consumers could have any phone they wanted as long as Western Electric made it and its color was black.

In our view, the Court should view favorably the prospect of competition and innovation that will lead to product differentiation in the market for operating systems. However, the potential for costs to consumers of new technologies is real. New and superior technologies often

mean that old investments – in areas such as scythes, horse-drawn carriages, kerosene lamps, typewriters, vinyl records, wooden skis, black-and-white televisions, or 5 ¼ floppy disks – become worthless except as antiques. Yet few are the cases where people yearn for the flickering light of the kerosene lamp, the scratchy sound of their 78-rpm records, or the endless pile of floppy disks. We should embrace the opportunity for innovation and product differentiation in the market for operating systems when the differentiation arises from a competitive process in which each OS company seeks to offer the best operating system for its target category of users.