1-1-2009

The Quest for Appropriate Remedies in the Microsoft Antitrust EU Cases: A Comparative Appraisal

Nicholas Economides  
New York University, economides@stern.nyu.edu

Ioannis Lianos  
utliao@ucl.ac.uk

Follow this and additional works at: http://lsr.nellco.org/nyu_lewp

Part of the Antitrust and Trade Regulation Commons, and the Science and Technology Commons

Recommended Citation
http://lsr.nellco.org/nyu_lewp/191
The Quest for Appropriate Remedies in the Microsoft Antitrust EU Cases: A Comparative Appraisal

Nicholas Economides
Stern School of Business, New York University

Ioannis Lianos
Faculty of Laws, University College London

* The Networks, Electronic Commerce, and Telecommunications (“NET”) Institute, http://www.NETinst.org, is a non-profit institution devoted to research on network industries, electronic commerce, telecommunications, the Internet, “virtual networks” comprised of computers that share the same technical standard or operating system, and on network issues in general.
The Quest for Appropriate Remedies in the Microsoft Antitrust EU Cases: A Comparative Appraisal

August 2009

Nicholas Economides1 and Ioannis Lianos2

The Microsoft cases in the United States and in Europe have been influential in determining the contours of the substantive liability standards for dominant firms in US antitrust law and in EC Competition law. The competition law remedies that were adopted, following the finding of liability, seem, however, to constitute the main measure for the “success” of the case(s). An important disagreement exists between those arguing that the remedies put in place failed to address the roots of the competition law violation identified in the liability decision and others who advance the view that the remedies were far-reaching and that their alleged failure demonstrates the weakness of the liability claim. This study evaluates these claims by examining the variety of remedies that were finally imposed in the European Microsoft cases, from a comparative perspective. The study begins with a discussion of the roots of the Microsoft issues in Europe and the consequent choice of a remedial approach by the Commission and the Court. It then explores the effectiveness of the remedies in achieving the aims that were set. The non-consideration of the structural remedy in the European case and the pros and cons of developing such a remedy in the future are briefly discussed before more emphasis is put on alternative remedies (competition and non-competition law ones) that have been suggested in the literature. The study concludes by discussing the fit between the remedy and the theory of consumer harm that led to the finding of liability and questions a total dissociation between the two. We believe that it is important to think seriously about potential remedies before litigation begins. However, we do not require an ex ante identification of an appropriate remedy by the plaintiffs, since this could lead to underenforcement or overenforcement.

Key words: antitrust, remedies, Microsoft, complementarity, innovation, efficiency, monopoly, oligopoly, media player, interoperability, Internet browser

JEL Classification: K21, L41, L42, L12, L86, L63

1 Professor of Economics, Stern Business School, NYU; Executive Director, NET Institute. economides@stern.nyu.edu, www.stern.nyu.edu/networks, www.NETinst.org.

2 City Solicitors’ Educational Trust Reader in Competition Law and Economics, Faculty of Laws, University College London, co-Director Centre for Law and Economics; Jevons Institute of Competition Law and Economics; Centre for Law and Governance in Europe, UCL; Emile Noel Fellow, NYU Law School.
The Quest for Appropriate Remedies in the Microsoft Antitrust EU Cases: 
A Comparative Appraisal

I. Introduction

In 2004, the European Commission (hereinafter Commission) adopted a decision declaring that Microsoft had violated Article 82 EC\(^3\) by committing two abuses of its dominant position on the market for PC operating systems (the first EU Microsoft case).\(^4\) Microsoft was held to have abused its dominant position by refusing to supply competitors with certain interoperability information and to allow them to use it for the purpose of developing and distributing competing products on the market for work group server operating systems. It also found that Microsoft had infringed Article 82 EC by making supply of its client PC operating system Windows conditional on the simultaneous acquisition of its Windows Media Player (WMP). The European Court of First Instance (CFI) affirmed the decision of the Commission in 2007.\(^5\)

Following complaints by Opera, the Norwegian Internet browser maker, in December 2007 the Commission initiated investigations and sent a Statement of Objection (SO) in January 2009\(^6\) alleging a violation by Microsoft of Article 82 EC for tying its web browser Internet Explorer to its dominant client PC operating system Windows. The Commission has recently noted with interest the commitments offered by Microsoft in order to address the issues raised by the SO and will “shortly decide in the pending browser tying antitrust case whether or not Microsoft’s conduct from 1996 to date has been abusive” as well as the appropriate remedies (the second EU Microsoft case).\(^7\)

This study will focus on the remedies that were adopted by the Commission and confirmed by the CFI in the first EU Microsoft case as well as those suggested by Microsoft in the second EU Microsoft case and will not examine the liability issue or the specific substantive standards for the finding of an abuse of dominant position in EU competition law.\(^8\) Although there will be some references to the remedial strategy adopted in the United States for practices that were closely related to those condemned in the European Microsoft case, this study will also not systematically compare the US remedy with the EU remedy for the simple reason that each remedy addressed a different competition law problem, and therefore required the adoption of different measures to address that problem.

Competition law remedies are adopted with the aim to restore competition in the market: this includes the “micro” goal of putting the infringement to an end,

\(^3\) Article 82 of the EC Treaty prohibits the abuse of a dominant position that one or more undertakings detain in a relevant market when there is an affectation of trade between member states.
\(^7\) MEMO/09/272, June 12, 2009.
compensating the victims,\(^9\) and curing the particular problem to competition, but also the “macro goal” of putting incentives in place “so as to minimize the recurrence of just such anticompetitive conduct.”\(^{10}\) This study embraces a broader view of the concept of remedies than Council Regulation 1/2003 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty.\(^{11}\) Competition law remedies seek generally to restore “the plaintiff’s rightful position, that is, to the position that the plaintiff would have occupied if defendant had never violated the law” or “to restore the defendants to the defendant’s rightful position, that is, the position that the defendant would have occupied absent the violation.”\(^{12}\) In other words, remedies are a cure to a “wrong” the plaintiff committed, “in contravention of some legally-recognised right of the plaintiff’s”\(^{13}\) or of the category of right-recipients that the legislator aimed to protect. The wrong of the defendant gives rise to the enforceable right of the plaintiff (or the protected category) to impose on the defendant a correlative duty of stopping the illegal behavior, paying damages, making restitution, adopting a specific behavior. An important aspect in the definition of remedies is therefore to determine who would be the beneficiary of this right, in other words the protected category that detains the right to impose a correlative duty to the defendant. We will assume that the protected category is the consumers of the relevant market harmed by the “wrong” committed by the defendant.\(^{14}\) A wider perspective would be to consider that the protected category consists of the “broader public” who derives benefits from the principle of competition, allegedly jeopardized by the practices of the dominant firm.\(^{15}\)

\(^9\) Taking illegal gains away from the law violators and “restore the monies to the victims” constitutes a principal goal of competition law remedies: see, Robert Pitofsky, Antitrust at the Turn of the Twenty-First Century: the Matter of Remedies, (2002) 91 Geo L J 169, 170.


\(^11\) Council Regulation (EC) No 1/2003 [2003] OJ L 1/1. According to Article 7 of Regulation 1/2003 the aim of competition law remedies is “to bring the infringement effectively to an end.” Remedies should therefore be distinguished from sanctions against undertakings, as the later have the aim to punish the infringer and to provide compensation to victims or society in general. See also, on the distinction between remedies and sanctions, OECD, Remedies and Sanctions in Abuse of Dominance Cases, DAF/COMP(2006), May 2007, available at \[http://www.oecd.org/dataoecd/20/17/38623413.pdf\] , at 18 “(t)ypically, remedies aim to stop a violator’s unlawful conduct, its anticompetitive effects, and their recurrence, as well as to restore competition. Sanctions are usually meant to deter unlawful conduct in the future, to compensate victims, and to force violators to disgorge their illegal gains.” This distinction does not adequately take into account that sanctions and damages often affect the incentives of the wrongdoers’ in their future behavior on the market. This study adopts a broader view of remedies, which includes different aims, allegedly also those performed by sanctions, such as stopping the illegal conduct and preventing its recurrence, restoring competition, deterrence, just compensation, disgorgement of illicit profits. This overall approach may provide a more useful analytical framework for analyzing the effect of competition law on the specific market. Furthermore, the restrictive position adopted by Regulation 1/2003 concerns public enforcement and does not take into account the emerging role of private enforcement in EC competition law, following the publication of the White Paper on Damages Actions for Breach of the EC antitrust rules, COM(2008) 165.

\(^12\) Douglas Laycock, Modern American Remedies : Cases and Materials (Little, Brown, 1994), at 2.


\(^14\) In this case, consumer welfare or consumer sovereignty will be proxies of consumer harm.

\(^15\) See, the Opinion of AG Kokott in Case C-8/08 T-Mobile Netherlands BV and Others [19 February 2009], para 58 & 71 defending the view that the objective of EC competition law is to “protect competition
Whichever perspective is chosen, “restoring competition” should not be interpreted as reaching perfect competition (or free competition if one takes a deontological perspective), which is practically unattainable, and in some cases normatively undesirable objective from a public policy perspective. The remedy aims to restore the market that would have existed in the absence of the conduct found illegal, that is, what is commonly called the “but for” market conditions.

Competition law remedies list also a prophylactic objective: “ensure that there remain no practices likely to result in monopolization in the future.” This is certainly a difficult enterprise that requires from the courts a guessing exercise linked to a counterfactual analysis of the situation in the market with and without the specific competition law violations. This is particularly true in complex and dynamically evolving markets, where static models cannot easily predict the situation that would have existed absent the restraint. It also requires a difficult decision on the appropriate remedy enforcement mechanism, as the judge should decide on the degree of her involvement (as opposed to market forces or regulatory institutions) in the operation. One could indeed perceive the operation of designing appropriate remedies as being, first of all, a decision over the need for regulatory interference in order to bring the self-correcting forces of the market back to their usual operation as the default mechanism that would adjust the incentives of market actors and therefore the interaction between supply and demand in the specific sector of the economy. Thus, remedies could be (i) setting up conditions for the market to work or (ii) directly influencing or guiding the market.

There are of course different choices that can be made and combined in order to affect the incentives of market actors and restore “competition,” defined as the best possible outcome for the consumers of the specific relevant market in terms of price, quality, variety, innovation etc, if one assumes, as does this study, a consumer-driven competition law and policy. First, it is possible to contract out the remedy to other as such” because this is of benefit, not only for consumers but for “the public at large.” In Case C-8/08 T-Mobile Netherlands BV and Others [4 June 2009] nyr para 38 the European Court of Justice (ECJ) accepted that “Article 81 EC, like the other competition rules of the Treaty, is designed to protect not only the immediate interests of individual competitors or consumers but also to protect the structure of the market and thus competition as such” but did not adopt the position of AG Kokott with regard to the ultimate beneficiaries of the principle of competition, thus suggesting that a possible interpretation of the aims of EC competition law is the avoidance of a long-term consumer harm.

16 In industries with significant network effects, even in the absence of anticompetitive actions, the natural equilibrium is neither perfect competition nor an egalitarian market structure. Markets with strong network effects, such as the market for operating systems of PCs, are “winner-take-most” markets with significant market share and profits inequality as well as high concentration. Thus, the “but for” world that would have existed in the absence of anti-competitive actions is one of very significant inequality. Attempting to impose the perfectly competitive egalitarian environment of a non-network industry can lead to lower social benefits. See Nicholas Economides, The Economics of Networks, International Journal of Industrial Organization (1996) 14, 675-699, available at http://www.stern.nyu.edu/networks/Economides_Economics_of_Networks.pdf; Nicholas Economides and Fredrick Flyer, Compatibility and Market Structure for Network Goods, Discussion Paper EC-98-02, Stern School of Business, N.Y.U., at http://www.stern.nyu.edu/networks/98-02.pdf; and Nicholas Economides Competition Policy in Network Industries: An Introduction, in Dennis Jansen (ed.), The New Economy and Beyond: Past, Present and Future, Edward Elgar (2006), at http://www.stern.nyu.edu/networks/Economides_Competition_Policy.pdf.

affected market participants by enabling them to sue for the recuperation of the damages suffered because of the conduct found illegal or for more than the damages incurred in order to deter market participants from adopting a similar anticompetitive conduct in the future. Second, it is possible to develop remedies that would affect the discretion of market participants to run their business, in other words affect their autonomy as market participants and consequently their incentives. The latter could be conceived as a *continuum* ranging from preserving some degree of discretion for market participants (in the case of contractual remedies, such as commitments) to purely non-voluntary schemes, unilaterally imposed by the public authorities. One could also distinguish remedies that relate to the conduct of the market participants and attempt to affect their incentives to adopt a specific form of conduct (by creating disincentives such as fines, or, more brutally, by imposing injunctions, interdictions, conduct remedies) from more intrusive remedies that affect the infringing company’s or management’s status (criminal sanctions, structural remedies).

The first part of the paper will briefly discuss the roots of the Microsoft issues in Europe and the consequent choice of a remedial approach by the Commission and the Court. The second part will critically assess the effectiveness of these remedies. Time has been relatively short since these remedies were adopted to be able to proffer a well-substantiated judgment on the success of the remedial strategy adopted in Europe. Two sources of wisdom will however be employed in order to make a relatively informed assessment of the remedial part of the European Microsoft case so far. First, we will refer to the example of the US Microsoft cases and the effectiveness of the remedial strategy employed, not only in order to add a comparative law perspective to this study but because the European remedial strategy has been influenced by the US remedial experience in the US Microsoft case. Second, we will incorporate in our analysis the recent business history of this specific sector and the emergence of new market characteristics, new products and competitors, as it is usually the case in the rapidly evolving high tech markets. The third part will dissert on the non-consideration of the structural remedy in the European case and will reflect on the prospects of developing such a remedy in the future. The fourth part will conclude by discussing alternative remedies (competition and non-competition law ones) that have been suggested in the literature and that could provide the adequate incentives to market participants. The final part will conclude.

II. Designing optimal remedies and the roots of the Microsoft problem in Europe

The design of optimal remedies requires a clear identification of the competition law problem that the antitrust remedy is attempting to address. It may be that competition authorities and courts develop different remedial strategies, for precisely similar or analogous fact patterns, because the competition law problems that were identified as the source of consumer harm in the liability phase of the decision are different. This study builds on the assumption that consumers should be at the centre of the attention of competition law enforcers, not only at the liability phase of the decision, but also at the remedy phase.
At the background of the finding of a competition law violation there is always a consumer harm story, in other words a narrative of consumer harm that is built on specific inferences from the facts of the case and that is established by different types of evidence: circumstantial, empirical or theoretical, quantitative or qualitative. In order to understand and assess the remedies adopted in the Microsoft case, we need to briefly unravel the dominant narrative of consumer harm that led to the adoption of these specific remedies. Additionally, often actions can be identified as anti-competitive and their likely effect can be determined, but the quantification of their effect is much more difficult. Thus, a full restoration of the market to the “but for” world may be unfeasible. Often all that can be done is to eliminate the impediments to competition that resulted from anti-competitive actions.

In Europe, the dominant narratives of consumer harm in the first Microsoft EU case were two: first, an issue of lack of interoperability and compatibility that allegedly harmed consumers; second, a story of leveraging. Both stories are different from the dominant narrative of the US Microsoft case, although they also relate to the business strategy of Microsoft to integrate different applications in its Windows platform, the source of Microsoft troubles in the US. However, there are different views on the anticompetitive effects of this strategy of integration. While in the US the main story of anticompetitive harm was that Microsoft was essentially attempting to preserve the dominance of the Windows’ platform, in Europe the Commission and the Court perceived Microsoft’s strategy as essentially being focused on the application part of the business, where it attempted to extend its dominant position through the network effects of its platform. The different narratives of consumer harm justified the choice of a different remedial strategy.

Institutional differences with the US, such as the unavailability of civil remedies (fines) for infringements of Sections 1 and 2 of the Sherman Act, while fines are frequently imposed in Europe, may also explain the different remedy mixture in each jurisdiction. Private enforcement and damages actions are also less frequent in Europe than in the US. Frederic Jenny rightly observes the close relation between civil sanctions and damages, from a deterrence perspective, even if the beneficiaries of the compensation are different in each case:

“(i)t makes no difference whether payments are made to the state budget or to consumers. Thus the current discussion in the EU on private enforcement should take into account the fact that even if the purpose of private enforcement is to compensate victims rather than to punish violators, the possibility of adding compensatory damages to administrative (or criminal) sanctions increases the overall cost of being

\[18\] The leveraging attempted monopolization part of the browser market claim was not successful. See, US v. Microsoft Corp., 253 F.3d 34, 80-81 (D.C. Cir. 2001) although an undertone of leveraging theory existed in some other claims. See, for instance, the integration of IE and Windows (Ibid., at 65-66).

\[19\] The Commission also argued that Microsoft also had a maintenance of monopoly/defensive leveraging objective for the interoperability part of the decision: Commission Decision, Microsoft, at para. 768-770, but the extension of monopoly power was the primary concern in both the interoperability and the tying parts of the case. See also, Case T-201/04, above n 5, at para. 1288, 1327 & 1344 (“it must be borne in mind at the outset that the two abuses at issue form part of a leveraging infringement, consisting in Microsoft’s use of its dominant position on the client PC operating systems market to extend that dominant position to two adjacent markets, namely the market for work group server operating systems and the market for streaming media players”).
caught for violators and therefore increases the deterrent effect of the enforcement system. This means that when considering whether an enforcement system is over deterrent or under deterrent (and when considering whether more or less resources should be devoted to public enforcement), one should take into account the effect of the interaction between public and private enforcement. For example in jurisdictions (such as the US) where it is relatively easy for victims to bring civil suits against antitrust violators that have inflicted harm on them, there is, ceteris paribus, less need for public enforcement than in countries where it is more difficult to bring such actions (such as in the EC Member states). Cross-Atlantic comparisons of fining policies between the US Department of Justice and the EC Commission sometimes seem to suggest antitrust enforcement is as vigorous in the EC as in the US because the level of sanctions meted out by the Commission tends to be nearly as high (or sometimes higher) as penalties obtained by the US Department of Justice. But if such comparisons do not take into account civil enforcement as well as public enforcement, they can be highly misleading.20

The alleged consumer harm narrative is intrinsically related to the imposition of a specific duty to the defendant to cure the wrong committed. It affects therefore the mixture of the different types of remedies adopted. In some cases, that will require the adoption of a specific duty to act (conduct remedies). In other cases, it will entail a substitutionary (pecuniary) remedy, often when it is difficult or impossible to cure all the negative effects of the practice on the protected category with conduct remedies. It is therefore important to understand the mixture of all types of remedies, specific and substitutionary adopted by different jurisdictions in order to form an idea on their comparative effectiveness. We will first discuss the conduct remedies imposed to Microsoft in Europe before examining the substitutionary remedies (fines, damages).

A. Specific (conduct) remedies

The Commission adopted conduct remedies for both anticompetitive practices of Microsoft. These remedies should respect the usual requirements of proportionality21 and the existence of a relation between the remedy and the infringement that has been established.22 The first remedy addressed the interoperability/compatibility issue, the second the tying/leveraging issue.

1. Interoperability/compatibility

The Commission found that Microsoft had refused to provide Sun with information enabling it to design work group server operating systems which could seamlessly integrate in the “Active Directory domain architecture,” a web of interrelated client-PC-to server and server-to-server protocols that organize Windows work group

22 Case, Commercial Solvents, para 45
networks. Microsoft’s refusal to provide interoperability to Sun was found to be part of a broader pattern of conduct of refusing the relevant information to any vendor of work group server operating systems. Microsoft developed this strategy after it had, for a certain period of time, provided analogous information for previous versions of Microsoft’s products to Sun and to the industry at large. The Commission found that this disruption of previous levels of supply eliminated competition in the relevant market for work group server operating systems, as this information was indispensable for competitors operating in that market.\(^{23}\)

The objective pursued by Microsoft was to leverage the quasi-monopoly power it had in the operating system market to the work group server market. Due to network effects, Windows is an indispensable platform for most applications. In reaching this conclusion, the Commission relied on evidence that there was a link between the enhanced interoperability from which benefited Microsoft’s group server operating systems, in comparison to competing group server operating systems, and the rapid rise to dominance of Microsoft’s applications in the group server operating system market. The Commission proceeded even further and attempted to show consumer harm, as in the absence of Microsoft’s refusal to provide interoperability, the competitors would have been able to provide new and enhanced products to consumers. The decision of the Commission did not include any evidence of the existence of projects for new products or investments that were not carried on because of Microsoft’s conduct. Rather, it emphasized the indirect nature of consumer harm provoked by Microsoft, which put interoperability at the centre stage of the competitive struggle. Consumers seemed, however, to attach greater importance to other product characteristics, such as reliability and security. The Commission rejected the objective justifications advanced by Microsoft. The Commission did not make a full market inquiry on whether the free provision of software and the expansion of functionality of Windows create benefits to consumers. Such potential benefits should have been balanced with the losses to consumers from the alleged anticompetitive actions.

The European Court of Justice’s case law recognizes that in exceptional circumstances a refusal to license may constitute an abuse under Article 82.\(^{24}\) This was

\(^{23}\) The exact market definition for interoperable systems was contested between Microsoft and the EU. Here we take the liability verdict as given.

\(^{24}\) For an analysis see, Ioannis Lianos, Competition Law and Intellectual Property Rights: Is the Property Rights' Approach Right? Chapter 8 in Cambridge Yearbook of European Legal Studies. John Bell & Claire Kilpatrick (ed.), Oxford: Hart Publishing, 2006, pp. 153-186. The CFI gave a broad interpretation of the “new product rule” in comparison to the previous case law: “(t)he circumstance relating to the appearance of a new product as envisaged in Magill and IMS Health […] cannot be the only parameter which determines whether a refusal to license an intellectual property right is capable of causing prejudice to consumers within the meaning of Article 82(b). As the provision states, such prejudice may arise where there is a limitation not only of production or markets, but also of technical development” (Case T-201/04, above n 5, at para. 647). The focus on the limitation of technical development to the detriment of consumers widens the scope of application of Article 82 EC in comparison to the position of the European Court of Justice in Case C-241-1991 P, *RTE & ITP v. Commission* [1995] ECR I-743, para 50 (“Magill”) and Case C-418/01, IMS Health GmbH v. NDC Health [2004] ECR I-5039, para 34-35, which found that except exceptional circumstances, a refusal to license IP rights cannot by itself constitute an abuse of a dominant position. These cumulative exceptional circumstances exist when the refusal to license is unjustified, prevents the emergence of a new product for which there is a potential consumer demand and excludes “any” or “all” competition on a secondary market.
found to be the case, after the Commission proceeded to a qualitative balancing of the incentives of Microsoft and its competitors to innovate in the marketplace. Imposing a duty to provide interoperability would not reduce Microsoft’s incentives to innovate, because, from the Commission’s point of view, this is the way competition takes place in this industry. It will also preserve the incentives to innovate of Microsoft’s competitors. This finding was based on three implicit assumptions: first, competition constitutes the most adequate market structure to promote innovation in the software market; second, Microsoft’s competitors would have the incentive to provide new products and functionalities to consumers in order to be able to compete and will not clone Microsoft’s products; and third, that the Commission-imposed disclosures on interoperability among Microsoft servers will not diminish Microsoft’s incentives to innovate in systems of servers. Further direct evidence of exclusionary intent, such as company internal documents, carried the conviction of the Commission that Microsoft’s objective was to restrict competition in the work group server operating system market.

In adopting the conclusion on Microsoft’s liability, the Commission was indirectly influenced by the existence of a previous remedial strategy addressing problems of interoperability in the software sector. In fact, although the decision of the Commission targeted the refusal of interoperability by Microsoft to Sun, it is clear from the general description of the competition law problem to which the Commission was confronted in this case that it envisioned the issue of interoperability more broadly and therefore not strictly confined to the facts of the specific case. For example, the Commission referred to the strong network effects that existed in this market, thus reducing considerably the contestability of Microsoft’s dominance in the platform and application parts of its business. The Commission also emphasized, when it examined the issue of Microsoft’s dominant position, the “strong commercial and technical associative links” between the PC operating system market and the work group server operating system market with the result that “Microsoft’s dominance over the PC operating system market has a significant impact on the adjacent market for operating systems for work group servers.” This observation communicates the idea that the competition law problem to which the Commission was confronted was of structural nature (relating to the nature of the market and not necessarily linked to the specific characteristics of the excluded rivals) and therefore required the development of a set of remedies that would address the problem of interoperability at its core.

The Commission referred to previous industry practice, in particular the license agreement with AT&T relating to the disclosure of portions of the Windows source code, to previous decisional practice, such as the IBM precedent, and to the existing regulatory framework in order to emphasize the need to establish interoperability in the software market. Furthermore, the EC Software Directive adopted in 1991 restricted the exercise of copyright over software (including exercise by non-dominant undertakings)

---

25 In reaching this conclusion, the Commission did not fully consider innovation by new companies that would be bought by the dominant company or create strategic alliances with it and then their products would be sold or marketed by the dominant company.
26 Commission Case IV/29.479, IBM.
27 European Commission, Microsoft, para. 526.
28 Ibid., para 212.
for interoperability reasons and explicitly provided that its provisions were without prejudice to the application of Article 82, in particular if a dominant undertaking refused to make available information which is necessary for interoperability.\textsuperscript{30}

The main objective of the remedy was thus to restore interoperability, at least to the same degree that existed on the market before the alleged disruption by Microsoft of the previous supply of information. This raised two difficulties.

First, the Commission had to define the requisite degree of interoperability. This is an issue linked to both the liability and the remedy parts of the decision. Microsoft argued that it already provided some form of interoperability, which was allegedly found insufficient by the Commission, as this degree of interoperability was still providing an advantage to Microsoft’s work group server operating systems. The issue could be framed as a platform neutrality problem: where a platform owner also provides complementary goods or services (applications), which rely on the platform and which compete with other applications. Had Microsoft not provided full (or native) interoperability to its own work group server operating systems, after providing the same degree of interoperability in the past with competing applications, most likely the Commission would not have found a violation of Article 82 EC. In other words, the Commission understood interoperability in relative (not absolute) terms, requiring in systems composed of components of different companies the same level of interoperability achieved between the dominant platform’s components. This created a paradox as the Active Directory did not exist in the past (before Windows 2000) and Microsoft had not provided interoperability information in the past. Rather, what Microsoft provided was a license to the source code of Windows itself, for others (mainly AT&T) to use to build bridges between UNIX and Windows. But providing Windows source code was not what the Commission wanted Microsoft to do. Second, the Commission had to decide the institutional arrangement that would have achieved most effectively the required degree of interoperability. This issue relates to the implementation mechanism for the remedy, which raised important difficulties.

\textbf{a. Defining the requisite degree of interoperability}

One could attempt a comparison between the European interoperability remedy and the interoperability remedy imposed in the US Microsoft case: contrary to the European case, interoperability was a minor point of the liability claims of the Department of Justice and the nineteen states against Microsoft. Of course, incompatibility between different operating systems created an inequality in market shares, with Microsoft ending with a lion’s share of the OS market for PCs.\textsuperscript{31} Thus, it could be argued that the lack of technical compatibility in operating systems (the fact the Windows

\textsuperscript{30} European Commission, Microsoft, para. 763.

\textsuperscript{31} In industries with strong network effects, lack of compatibility leads to a natural equilibrium of severe market share and profit inequality even in the absence of anticompetitive acts. See, Nicholas Economides, Public Policy in Network Industries, in Paolo Buccirossi (ed.), \textit{Handbook of Antitrust Economics}, Cambridge, The MIT Press (2008), at http://www.stern.nyu.edu/networks/Economides_Public_Policy_In_Network_Industries.pdf . When anticompetitive acts are proven, the appropriate remedy should not be to restore perfect competition with egalitarian market shares and profits but rather the natural oligopoly equilibrium that has severe market share and profits inequality.
applications do not run on Linux or Apple in native mode and vice versa) resulted in dominance by Microsoft in the market for OS for PCs, and in turn this was the foundation of Microsoft’s distributional advantage for any type of application or middleware that could be added to the Windows platform.

- The US case

The issues in the US case were mainly the contractual and technological integration of Internet Explorer and Windows along with a number of measures adopted with relation to Internet Explorer, and a number of acts adopted with the aim to undermine Sun’s cross-platform Java. In order to build a stronger integration between IE and Windows, Microsoft had adopted a number of practices, such as (1) imposing license restrictions barring Original Equipment Manufacturers from a number of activities, such as removing IE icons, causing a new interface to load in place of Windows, altering the appearance of the Windows desktop, (2) designing Windows to exclude IE from the Add/Remove Programs utility or to commingle IE only and shell code in the same files and otherwise technologically tying IE with Windows, (3) enter agreements with Internet Access and Content Providers to promote and favor IE and IE technologies, (4) contractually tying IE with Windows.

The theory behind the case, accepted by Judge Thomas Penfield Jackson of the District Court in his liability decision\(^{32}\) was mainly that Microsoft’s aim was to protect its monopoly in the operating system’s market (platform) from the threat of middleware such as Sun’s Java technologies and Netscape, which could have evolved into a rival platform for applications. Microsoft engaged in a strategy of annihilation of that threat,\(^ {33}\) through a series of measures, such as withholding technical information, contractual and design measures etc. The D.C. Circuit unanimously affirmed some of Judge Jackson’s liability findings with regard to IE, including most notably monopolization of the OS market for PCs.\(^ {34}\) Judge Jackson also found liability of tying IE with Windows as a *per se* tying claim, but this was reversed by the DC Circuit on appeal. USDOJ declined to pursue the tying claim under the rule of reason approach suggested by the DC Circuit.

Crucially, however, the DC Circuit did not address the claim that Microsoft withheld valuable technical information from Netscape in the liability part of the decision. William Page and Seldon Childers note that “nothing in the opinion supports the propositions that a monopolist has a general obligation to make its products compatible with those of its rivals or to help its rivals develop products that can interoperate with its own.”\(^ {35}\) Interoperability became, however, an important concern in the remedial part of the US Microsoft case. Judge Jackson’s 2000 remedial order called for a variety of conduct orders, in addition to the structural vertical separation of Microsoft, including a requirement that Microsoft disclose Application Programme

---


\(^{33}\) Ibid., at 46. The DC Circuit found that the plaintiffs did not establish a dangerous probability of success of the attempted monopolization claim, in particular but demonstrate that substantial barriers to entry protected that market: *United States v. Microsoft Corp.*, 253 F.3d 34, 81 (D.C.Cir. 2001).

\(^{34}\) *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C.Cir. 2001).

Interfaces, Communications Interfaces and Technical information necessary for developers to ensure that their software was compatible with Windows and therefore to “interoperate effectively with Microsoft Platform Software.”

The DC Circuit vacated the remedial order for a number of reasons, including the fact that Judge Jackson failed to offer an explanation of how the remedy would restore competitive conditions and that, following the reversal of most of the liability holdings, it was necessary to remand the case to the trial court in order to establish appropriate remedies. Interestingly, the DC Circuit linked the design of an appropriate remedy with the issue of causation, by mentioning that the courts must base their remedies on “some clear indication of a significant causal connection between the conduct enjoined or mandated and the violation found directed toward the remedial goal intended.”

The remedy should also be carefully “tailored to fit the wrong creating the occasion for the remedy.” It is interesting to note that on remand, after a further trial, the district court rejected the divestiture remedy for Internet Explorer (IE) and Microsoft Office, suggested by the plaintiffs, because “(n)either the evidentiary record from the liability phase, nor the record in this portion of the proceeding, establishes that the present success of IE is attributable entirely, or even in predominant part, to Microsoft’s illegal conduct.”

Following the referral to the district court, the United States and nine States (the New York group) entered a settlement with Microsoft and agreed to a proposed Final Judgment. Judge Kollar-Kotelly reviewed the settlement under the Tunney Act in order to determine if it was in the public interest and confirmed the consent decree with only minor modifications. A group of States, the California group, pursued a more extensive relief but they were finally granted a similar relief to the New York group. The DC Court of appeals affirmed both final judgments.

The DC District court’s decision included some “forward-looking” remedies that attempted to guarantee a degree of interoperability between Microsoft’s operating system and middleware applications, as well as between Microsoft’s PC operating system products and third-party server operating systems. It was thought that such interoperation “will play an integral role in the successful emergence of new software products and platforms and that fostering such interoperation is an appropriate remedial objective in this case.” This remedy was allegedly demanded by the States and included in the consent decree without any particular thought as to the extent of the obligation imposed

---

37 Ibid., at 105. The Court also indicated when remanding the case to the district court that “(i)n 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,” the Court noting that “we have found a causal connection between Microsoft’s exclusionary conduct and its continuing position in the operating systems market only through inference.”
38 Ibid., at 107.
to Microsoft and the difficulties of its enforcement.\(^{46}\) Middleware was defined more broadly than the browser and the Java applications that were the main subjects of the decision and also included Media Player, Windows Messenger, Outlook Express “and their successors in a Windows Operating System Product,”\(^{47}\) although it was contended that these “forward looking provisions” aimed to “foster competition in the monopolized market in a manner consistent with the theory of liability in this case.”\(^{48}\) The consent decree required Microsoft to disclose not only APIs that were used by Microsoft Middleware to interoperate with a Windows Operating System Product in order to place rival middleware suppliers on an equal footing with Microsoft in developing applications for Windows, but also “any communications protocol”, which are “implemented in a Windows Operating System Product installed on a client computer” that “are used to interoperate, or communicate natively (i.e., without the addition of software code to the client operating system product) with a Microsoft server operating system product.”\(^{49}\)

Communication protocols constitute the rules for the transmission of information between servers and clients or between servers and other servers. Communication protocols may “perform a function akin to that performed by traditional middleware because they provide a platform for applications running ‘for’ use on a PC,” thus enhancing the ability of these non-Microsoft server operating systems to provide a platform which competes with Windows itself.\(^{50}\) The District court limited its disclosure requirement for protocols that had a sufficient nexus to the theory of the liability of the case, maintenance of monopoly: only communication protocols implemented in a Windows Operating System product installed on a client (PC) computer used to interoperate or communicate natively with the Microsoft server operating system product were covered.\(^{51}\) This followed the rejection, by the District court, of the attempt of the plaintiffs to link interoperability as a general concept to the findings of liability and, consequently, the “overbroad” disclosures that these were requesting. Such over-broad disclosure would have led to the cloning of Windows without violating Microsoft’s IP rights. The Court defined cloning as “the creation of a piece of software which replicates the functions of another piece of software, even if the replication is accomplished by some means (e.g. reverse-engineering) other than the literal repetition of the same source code.”\(^{52}\)

\(^{46}\) As it is explained by W. Page & S. Childers, Software Development as an Antitrust Remedy: Lessons from the Enforcement of the Microsoft Communications Protocol Licensing Requirement, above, at 27-29, the idea of requiring Microsoft to disclose protocols for interoperation of server-based applications and Windows has arisen during the settlement negotiations mediated by Judge Posner and were not mentioned in the liability phase of the decision. The negotiations did not focus on the browser as it had become clear by that time that Microsoft had won the browser war. The Department of Justice and the States were instead worried that Microsoft could leverage its monopoly power to the server operating systems market and thus “maintain its dominance by retarding the ability of non-Microsoft servers- servers being the vital, digitized, data-filled libraries that served corporate networks and the Internet- to hook onto PCs powered by Windows.”


\(^{48}\) Ibid., at 193.

\(^{49}\) Ibid., Final judgment, Part III.E.

\(^{50}\) Ibid., at 172-173.

\(^{51}\) Ibid., at 173.

\(^{52}\) Ibid., at 176.
The District court rejected the States’ definition of interoperable, as it equated this concept to interchangeable. That would have denied Microsoft’s returns from its investment in innovation and divested Microsoft’s IP rights of their value as well as decrease the incentives of software developers to innovate since they would have created clones of Microsoft’s product. The District court assumed that a greater degree of interoperability would have increased the risk of cloning and therefore led to greater homogeneity in the market. Additional difficulties for an extensive disclosure related to the need for Microsoft to maintain product flexibility, but again the indirect connection of the interoperability remedy with the liability findings in this case limited the Court’s activism. The District court also rejected the plaintiff’s demand to require Microsoft to provide this information without being permitted to charge a reasonable royalty in exchange for the license of its intellectual property.

The State of Massachusetts challenged the remedy decision of the District court to the Court of appeal arguing, among other claims, that the District Court had imposed a restrictive disclosure obligation to Microsoft. With regard to communication protocols, it was argued that native interoperability was only one out of five possible approaches to achieving interoperability between Windows client (PC) operating systems and non-Microsoft server operating systems. The Court of appeal found that complete interoperability would have been imprudent and that the objective of the Court should be to “advance the ability of non-Microsoft server operating systems to serve as platforms for applications”, in conformity with the liability theory of the case. The Court ruled that “full” or “seamless” interoperability was not appropriate in this case. Pursuant to Section III.E of the remedies judgment, Microsoft put in place a protocol licensing program in September 2002.

- the EC Microsoft case

The broader scope of the consumer harm theory followed in the European Microsoft case had an impact on the degree of interoperability required. Contrary to the US Microsoft case, the leveraging of Microsoft’s quasi-monopoly power in the Windows Operating System (platform) to the applications was the principal theory of harm in the European Microsoft case. The two forms of conduct sanctioned by the European Commission, refusal to interoperate and tying, were intrinsically linked to this specific theory of consumer harm. Certainly, defensive leveraging was mentioned as an additional concern but the core of the case was leveraging. It was thus possible for the European Commission to impose stricter and more extensive requirements to Microsoft. Furthermore, contrary to the US case, the existence of consumer harm was not inferred by the possibility of middleware to operate as a competing platform to Windows in the future. There was some evidence in the European decision that supported that consumers were harmed from the exclusion of competing group servers, as it was “diminishing

53 Ibid., at 227.
54 Ibid.
55 Massachusetts v. Microsoft Corp, at 1224.
56 For additional information on the monitoring process of the protocol licensing program, see the Joint Status Reports on Microsoft’s Compliance with the Final Judgment, available at http://www.usdoj.gov/atr/cases/ms_index.htm.
57 See, our analysis above, n 19.
consumers’ choices by locking them into a homogenous Microsoft solution.”58 This causal link between the theory of harm and the anticompetitive practice can be explained by the emphasis put in EC competition law on the special responsibility of dominant firms to preserve competition59 and the importance the European Commission gave to network effects as important barriers to entry reducing the contestability of the operating systems and the group server markets.60

Sun was therefore able to extend the interoperability requirement to server to server communication protocols that were non-native. According to the Commission, this was linked to the perception that compatibility should extend beyond the Windows domain architecture or computer system as, in order to benefit from the upgrade from Windows to Windows 2000 and profit from the advanced features of the Windows 2000 domain, the work group servers should be Windows 2000-compatible.61 This was possible partly because Microsoft had integrated Active Directory support directly into the Windows server which guaranteed interoperability “within a computer system encompassing several Windows client PCs and several Windows work group servers linked together in a network,” therefore implying “both client-to-server and server to-server interoperability” in a seamless way.62 As the Commission noticed in the decision,

“The common ability to be part of that architecture is an element of compatibility between Windows client PCs and Windows work group servers. This compatibility can be described in terms of interoperability with the Windows domain architecture.”63

The Commission found that the degree of interoperability of a non-Microsoft group server affects the “efficiency with which that work group server delivers its services to the users of the network,” as “other work group server operating system vendors that want to compete for customers having an existing investment in Windows need access to information relating to interoperability with the Windows domain architecture.”64 Sun was indeed requesting Microsoft to provide a full (native) interoperability information for its server Solaris, including server-to-server native interoperability, the type and degree of interoperability that was explicitly rejected by Judge Kollar-Kottely in the US Microsoft case. Sun requested specifications that would enable the company to implement in its products this ability for native interoperability. In

58 Commission Decision Microsoft, para. 782.

“(w)ithin the scope of the application of Article 82 EC, a dominant undertaking is subject to certain limitations that do not apply to other undertakings in the same form. Because of the presence of the dominant undertaking, competition on the market in question is weakened. Therefore - whatever the causes of its dominant position – that undertaking has a particular responsibility to ensure that its conduct does not undermine effective and undistorted competition in the common market. A practice which would be unobjectionable under normal circumstances can be an abuse if applied by an undertaking in a dominant position.

60 European Commission, Microsoft, para. 448.
61 Ibid., para. 169.
62 Ibid., para.178.
63 Ibid., para. 182.
64 Ibid., para. 183-184.
comparison, the fact that this information was proprietary was mentioned by the US as a factor limiting disclosure.

The scope of the interoperability requirement was also broader than in the US case. The US Microsoft Communications Protocols Licensing program was limited to client-server communication but did not extend to the interoperability between server-to-server protocols that are functionally related to the client PC, as it was requested in the Commission’s decision. Other interoperability solutions were not considered to be equivalent. The interoperability requirement imposed by the European Commission was not open-ended, however, but concerned precisely the core work group server tasks of file, print and group and user administration, which were essential for rivals to compete in the work group server operating systems. The refusal that was at stake in the Decision was that to provide a full specification of the protocols underlying the Windows domain architecture, which organizes the way through which Windows work group servers deliver work group server services to Windows client PCs. The Commission insisted that while Sun’s requests involved both client-to-server and server-to-server interoperability, the latter interconnections and interactions were functionally related to the client PC, noting that “the link back to the client PC operating system market implies that the competitive value of the information refused derives from Microsoft’s market strength in the client PC operating system market,” thus building the necessary causal link between the dominant position and the abuse.

The Commission found that Microsoft’s refusal to supply full specification of the protocols used by Windows work group servers to deliver work group server services to Windows group networks aimed to allow the use of that specification to build interoperable products and distinguished that from the implementation of these specifications, which were not to be disclosed. The Commission noted that it was common industry practice to provide interface specifications without giving access to all implementation details (e.g. standard-setting organizations on best practices in software specification).

Microsoft’s work group server operating system products had also enjoyed a rapid rise to dominance in the market. The Commission linked Microsoft’s growth to the launch of Microsoft’s Windows 2000 generation of products, for which Microsoft had disclosed less interoperability information than for previous generations. Microsoft’s competitors have been unsuccessful to challenge Microsoft’s position: Novell’s market shares decreased considerably and Linux and Unix products had only a marginal presence
in the market and did not represent a significant threat to Microsoft. The lack of interoperability locked in customers in a “homogeneous Windows solution for work group networks.” According to the Commission, which based its findings on consumer surveys, interoperability was “the key factor driving the uptake of Microsoft’s work group server operating systems.” The Commission emphasized server to server interoperability as it viewed client-to-server and server-to-server interoperability as “tightly linked to one another,” a consequence of the new integrated architecture of Windows to function as a system. As long as server-to-server communication was necessary in order to perform a server-to-client communication, Microsoft had to provide specifications for these communication protocols in order to enable Novell’s products to compete.

The linkage with the quasi-monopolistic position of Microsoft on the client PC operating system market is more indirect and in essence weaker than in the case of server-to-client communications. The Commission found nevertheless that server-to-server interoperability was an “indispensable input” for Microsoft’s competitors to be able to compete and did not distinguish between the different degrees of indispensability of a server-to-client or server-to-server interoperability and the various degrees of interoperability that could have influenced the remedy imposed. Additionally, the Commission did not clearly show that the high degree of interoperability among servers that it demanded was sufficiently influenced by Microsoft’s dominant position in Windows clients.

Microsoft’s conduct was found to produce consumer harm: first, consumer harm came in the form of reduced consumer choice as non-disclosure would have eliminated or marginalised products that could provide interoperability in “heterogeneous computing environments”; second, Microsoft has been able to impair “the effective competitive structure in the market” by gaining a dominant position in the market for work group server operating systems. The Commission did not believe that enhanced interoperability will lead to cloning. The definition of cloning by the Commission was not, however, similar to the definition of cloning in the US case by judge Kollar-Kotelly, for whom cloning was precisely what the European Commission called functional.

---

74 Ibid. para. 597.
75 Ibid., para 613.
76 Ibid., para. 637 & 665. It is not entirely clear, however, if the specific consumer surveys were as conclusive as the Commission concludes in the decision. The surveys did not fully assess the value that consumers would place on interoperability compared to other features of Microsoft and non-Microsoft servers. Additionally, it is unclear whether the surveys were filled only by server buyers in the relevant antitrust market as defined by the EU.
77 Ibid., at 689.
78 The Commission noted that “the proper functioning of a Windows work group network relies on an architecture of client-to-server and server-to-server interconnections and interactions, which ensures a transparent access to the core work group server services,” named “Active Directory domain architecture.”
79 Ibid., para. 703. Locking in consumers into a homogenous Microsoft solution and therefore diminishing consumer choice indicated, according to the Commission, the existence of important consumer harm. Microsoft, para. 782.
80 Ibid., para. 704.
81 Ibid., para. 713-729.
equivalence.\textsuperscript{82} The Commission rejected the definition of cloning as functional equivalence and implied that cloning will exist only if Sun was authorized to copy Microsoft’s source code.\textsuperscript{83} The existence of functional equivalence would not lead to a similar product, as the Commission assumed that “Microsoft’s competitors will have to provide additional value to the customer, beyond mere interoperability of their products with the Windows domain architecture, if such products are to be commercially viable.”\textsuperscript{84} The Commission found that there was no qualitative difference, from the point of view of innovation, between the protocols on client-to-server communication that it had agreed to provide under the US consent decree with the Communications Protocols Licensing Program and the protocols required for server to server interoperability, as these “involve the same type of protocols - sometimes the very same protocols” and that therefore any disclosure would not affect Microsoft’s incentives to innovate.\textsuperscript{85}

Microsoft was ordered “to disclose complete and accurate specifications for the protocols used by Windows work group servers in order to provide file, print and group and user administration services to Windows work group networks”\textsuperscript{86} as well as to authorize the implementation of these specifications in work group server operating system products.\textsuperscript{87} This disclosure covered “both direct interconnection and interaction between a Windows work group server and a Windows client PC, as well as interconnection and interaction between a Windows work group server and a Windows client PC that is indirect and passes through another Windows work group server.”\textsuperscript{88} It also applied prospectively to future generations of Microsoft’s products, implying that Microsoft should update the disclosed information, each time it brought to market new versions of its products.\textsuperscript{89} The aim set for the remedy was “to ensure that Microsoft’s competitors can develop products that interoperate with the Windows domain architecture natively supported in the dominant Windows client PC operating system and hence viably compete with Microsoft’s work group server operating system.”\textsuperscript{90} The disclosure did not cover the source code but the Commission also added that “to the extent that this Decision might require Microsoft to refrain from fully enforcing any of its intellectual property rights, this would be justified by the need to put an end to the abuse.”\textsuperscript{91}

\textsuperscript{82} New York v. Microsoft Corp., 224 F. Supp. 2d above at 175-76, cited by William H. Page, Mandatory Contracting Remedies in the American and European Microsoft Cases, (May 5, 2009). University of Florida Levin College of Law Research Paper No. 2009-22. Available at SSRN: http://ssrn.com/abstract=1073103, at 29-30. According to Judge Kollar-Kotelly, “the clone emerges from a process of reverse engineering-which consists of the study of functionality in the original product and the attempt to produce a product which accomplishes the same end. The process of cloning the functionality of a competitor's product is usually an expensive and time-consuming undertaking which, if successful, will enable the cloned product to function as a replacement for the original product.”\textsuperscript{83}

\textsuperscript{83} European Commission, Microsoft, para. 718-719.

\textsuperscript{84} Ibid., para. 722.

\textsuperscript{85} Ibid., para. 728.

\textsuperscript{86} Ibid., para 999.

\textsuperscript{87} Ibid., para. 1003.

\textsuperscript{88} Ibid.

\textsuperscript{89} Ibid., para 1002.

\textsuperscript{90} Ibid., para 1003.

\textsuperscript{91} Ibid., para 1004.
Article 5 of the Decision imposed that any disclosure should be made on “reasonable and non discriminatory terms.” This implied: first, that “the disclosures should be made to any undertaking having an interest in offering work group server operating system products” and in a timely manner; second, that “any remuneration that Microsoft might charge for supply should not reflect the strategic value stemming from Microsoft’s market power in the client PC operating system market or in the work group server operating system market, allowing its recipients to “viably compete with Microsoft’s work group server operating system” and third, that the terms “under which they can make use of the disclosed specifications will remain reasonably stable.” We will examine in a subsequent part how these conditions, in particular the second one, led to substantive litigation. However, it was the design of an implementation mechanism for the remedies that raised the most important difficulties.

b. The difficulties of the implementation mechanism

- The period after the European Commission’s decision: slow progress

Article 7 of the Commission’s liability decision required from Microsoft to submit a proposal to the Commission “for the establishment of a suitable mechanism assisting the Commission in monitoring Microsoft Corporation’s compliance.” The Commission retained the right to impose such a mechanism by decision, if Microsoft’s proposal was not found “suitable.” The Commission followed the example of the US Microsoft antitrust case, where a Technical committee was appointed with the aim to ensure compliance, thus rejecting the option of a simple reporting mechanism. The complexity of the decision, and in particular the need to constantly verify the accuracy and completeness of the information provided by Microsoft, as well as the need to provide adequate information on specifications, would have indeed required, in some circumstances, the inspection of Microsoft’s source code in order to resolve any issue of accuracy and completeness of the specifications disclosed, thus requiring a more institutionalized structure such as a Monitoring Trustee. The Monitoring Trustee was urged to adopt a proactive, rather than reactive, role in enforcing the interoperability, as well as the tying, part of the decision.

Microsoft was required to propose a mandate for the Monitoring trustee. This mandate was subject to a number of principles, among others, the designation of the Monitoring Trustee by the Commission, the independence of the Trustee from Microsoft, the guarantee that “the Monitoring Trustee would have access to Microsoft’s assistance, information, documents, premises and employees to the extent that he may reasonably require such access in carrying out his mandate” and “full access to the source code of the relevant Microsoft products.” The Monitoring Trustee had the possibility to hire experts to carry out certain precisely defined tasks on his behalf and it was specified that all costs

---

92 Ibid., para. 1006.
93 Ibid., para. 1008 (ii).
94 Ibid., para. 1008 (iv).
95 Ibid., para 1048.
of establishment of the Monitoring Trust, including a fair remuneration, should be borne by Microsoft.96

Microsoft submitted the first proposal for the establishment of a monitoring mechanism in April 2004 and followed up with the submission of two draft agreements that it intended to offer as part of a “Work Group Server Protocol Program” (the 2004 WSPP agreement).97 The experience of the US Communications Protocol program (MCPP)98 program and the monitoring of the remedy by the US Technical Committee were, in a way, instructive of the difficulties the implementation of the European decision would also face.99

Most difficulties related, as in the US case, to the scope and the quality of the documentation provided by Microsoft in order to fully comply with the decision. William Page and Seldon Childers detail the compliance efforts undertaken by Microsoft and the Technical Committee in the US Microsoft decision as an ongoing project readjusted according to the market results it was achieving: these were not those anticipated, as after the first year of the program and the initial release of the documentation, only four companies had agreed to a MCPP license.100 Under the instigation of the monitoring judge, Kollar-Kotelly, Microsoft was required to bring significant changes to the MCPP licenses, to reduce the royalties required and to perform a number of promotional activities in order to attract new licensees.101 The Technical Committee had also extended the degree of disclosure of the protocols by requiring Microsoft to show licensees how to use the protocols and created “an ancillary software development that would field test the protocols in order to check if the information provided by Microsoft would enable the Technical Committee’s engineers to write implementations; this amounted to test Microsoft’s compliance by using the information provided.”102 Microsoft went as far as to create an “interoperability lab”, in order to test MCPP protocol implementations for MCPP licensees and to offer “direct access to Microsoft product development teams and in-person support from experienced engineering staff during testing.”103

96 Ibid., para. 1048 (v).
97 These included the license agreement that Microsoft planned to use in order to make available the intellectual property in its protocols” (“the 2004 WSPP Development and Distribution Agreement”), and “a draft form of evaluation agreement that Microsoft planned to use in order to enable prospective licensees to evaluate the protocols we would be making available before entering into a license for such protocols” (“the 2004 WSPP Evaluation Agreement.” For the final version of the WSPP program see, http://download.microsoft.com/download/3/a/6/3a601f1b-ab32-486b-83de-dff660162125/MPP_IP_White_Paper.pdf
100 William H. Page & Seldon J. Childers, Software Development, above, at 114. To this date, only SAMBA has worked in any significant way with the information provided through the MCPP license.
101 Ibid.
102 Ibid., at 117.
by Page and Childers, “these efforts led to substantial increases in staffing for both Microsoft and the Technical Committee,” as more than 210 Microsoft employees and 40 Committee staff were involved in the operation.  

The “one at a time” method of fixing problems in the communication of the protocols was replaced in 2006 by a more comprehensive approach and a “new overarching specification” for the technical documentation, put under the supervision of Robert Muglia, an experienced Microsoft executive. This new program was based on “the specification agreed upon between Microsoft and the European Monitoring Trustee.” According to Page and Childers, this new specification was the result of a formal collaboration between the Technical Committee and the European Commission’s Monitoring Trustee and involved the rewriting of the technical documentation, “eventually replacing the bulk of the work performed to date, while incorporating everything Microsoft has learned while trying to meet the prior standards, as well as complementary requirements from the EU documentation standards.” The importance of this project required the extension of the program until November 2009, with a further possibility of extension until November 2012.

The European Commission’s decision had the advantage of intervening at a later stage when the US experience could have been very instructive for the design of the interoperability remedy. It also requested, however, disclosure of information that was never before the subject of a disclosure program. The result of the European Commission’s decision was therefore not only to oblige Microsoft to adopt the Work Group Server protocol program but also to relatively extend the scope of the US MCPP to the extent that this would have made possible compliance with both US and EU requirements. It is clear that in a global market where products are marketed at the global level, it is very difficult and costly to maintain two different compliance or communications protocols programs: the program that imposes the strictest disclosure obligations finishes by setting the standard of disclosure.

Microsoft lodged an application for suspension of the Decision to the Court of First Instance (CFI) and also applied for an annulment of the Commission’s decision. However it decided on its own initiative not to enforce Articles 5(a), 5(b), 5(c), 5(e), 6(a) and 6(b) of the Decision, pending the outcome of the interim measures proceedings before the CFI. The President of the CFI rejected Microsoft’s application for a suspension order in December 2004. Following an exchange of views between Microsoft and the European Commission on different draft decisions, the Commission adopted a decision in July 2005, setting a detailed framework for the Trustee’s functions, determining the procedure of appointment of the trustee and describing the rights and

104 William H. Page & Seldon J. Childers, Software Development, above, at 120.
109 Case T-201/04R.
obligations of each party.\textsuperscript{111} The Commission appointed as Monitoring Trustee, Professor Neil Barrett, a computer scientist, from a shortlist of four experts submitted by Microsoft in October 2005.\textsuperscript{112} In the meantime, the European Commission had received from Microsoft a proposal on the technical documentation to be disclosed, as well as suggestions as to the non discriminatory and reasonable conditions under which the information would be disclosed.\textsuperscript{113}

The compliance process for the interoperability part of the decision faced two difficulties that led to a number of exchanges between the Commission and Microsoft and eventually a number of Article 24 Regulation 1/2003 penalty decisions.\textsuperscript{114} The first series of difficulties concerned the extent to which Microsoft provided the European Commission complete and accurate technical documentation. There is an inherent ambiguity in this kind of exercise. Since the subject matter was intensely technical, it was hard for the lawyers on each side to communicate effectively with one another and to find a consensus on which aspects of Windows the European Commission wanted Microsoft to document and share with competitors. The second series of difficulties related to the imposition of reasonable and non-discriminatory terms and in particular the establishment of royalties for the WSPP licenses.

The external technical experts of the Commission prior to the appointment of the Monitoring Trustee, OTR, found the proposals sent by Microsoft as insufficiently complete, in particular as there was missing information and a lack of introductory and explanatory materials, making the Technical Information virtually unusable for developers without prior knowledge of the Microsoft environment. The Commission found that the WSPP remuneration scheme presented also several problems as it did not comply with the three conditions for the remuneration to be declared reasonable and non-discriminatory: that is that the protocols are Microsoft’s own creation, the protocols must be innovative, and the remuneration should be in line with a market valuation for technologies deemed comparable to any innovations identified by Microsoft.

Microsoft was indeed offering two separate licensing agreements to companies: a “No-Patent Agreement”, which allowed licensees to use the protocols without taking a license for some disputed (by third parties) patents that Microsoft considered as being necessary and an “All IP Agreement” which included a patent license for these disputed patents. For both licensees Microsoft divided the protocols into Gold, Silver, Bronze price categories, from the most to the least innovative information or not necessarily innovative category, for which Microsoft imposed no royalty. The Commission found that the WSPP Agreements offered by Microsoft were lacking in all three conditions.\textsuperscript{115}

\textsuperscript{111} Commission Decision (Case COMP/C-3/37.792 Microsoft), C(2005)2988 final.
\textsuperscript{112} IP/05/1215.
\textsuperscript{113} IP/05/673.
\textsuperscript{114} Article 24 of Regulation 1/2003 entitles the Commission to impose such penalty payments not exceeding 5% of average daily turnover in the preceding business year per calendar day to compel companies to put an end to infringements of EC Treaty anti-trust rules, where an infringement has been established by a previous Commission anti-trust decision.
\textsuperscript{115} In particular, the Commission noted that Microsoft’s maximum royalty pricing levels would place the potential recipient of the interoperability information at a significant competitive disadvantage vis-à-vis Microsoft “if the royalty that it has to pay is the same as the stand-alone price of Microsoft’s work group server operating system product” (para. 118) and that even the minimum pricing levels would create “a significant constraint on the ability of the work group server operating system vendor to compete if the cost of interoperating (which is necessary to be able to viably compete) is one fifth of the value of the dominant
In light of these failings, the Commission issued a decision in November 2005 pursuant to Article 24(1) of Regulation 1/2003 which warned Microsoft that if it did not comply with its obligation to supply complete and accurate information and with its obligation to make the information available on reasonable terms, it would face a daily fine of up to €2 million.\textsuperscript{116}

Following this Article 24(1) Decision, Microsoft provided, some days after the expiry of the deadline, a new version of technical documents and announced in January 2005 that it was offering a source code license to all potential licensees. The Commission found that this documentation was not “substantially different” from the earlier documentation and did not seem impressed by the source code announcements as this did not necessarily respond to the need to provide some active support to third party developers if these were to understand the specifications described by Microsoft in the Technical Documentation provided.\textsuperscript{117} Following consultation of the Advisory Committee of Member State Competition Authorities,\textsuperscript{118} and supporting reports from the Monitoring Trustee and other external consultants, the Commission sent a new Statement of Objection for non compliance with the obligation to provide complete and accurate technical documentation (the first step in an Article 24(1) Decision),\textsuperscript{119} and later issued a decision for non-compliance pursuant to Article 24(2) of Regulation 1/2003 imposing Microsoft a further €280,5 million for continued non compliance with the March 2004 Decision and raised, this time acting on the basis of Article 24(1), the periodic penalties to €3 million for non compliance.\textsuperscript{120} Microsoft introduced an action for annulment of this decision at the Court of First Instance in October 2006, requesting the annulment or reduction of the amount of the periodic penalty imposed.\textsuperscript{121}

But this was not the end of Microsoft’s troubles. The Commission had raised in the first Article 24(2) decision the possibility of fixing also periodic penalty payments for non compliance with the second aspect of the decision: charging reasonable remuneration for access to or use of the interoperability information. Both the Monitoring Trustee and the Commission’s external advisor submitted reports which concluded that the remuneration levels proposed by Microsoft as a starting point for negotiation with licensees were not reasonable.\textsuperscript{122} Following this consultation, the Commission sent vendor’s entire work group server operating system product.” (para. 120). This issue is reminiscent of a margin squeeze claim.

\textsuperscript{116} Commission Decision imposing a periodic penalty payment pursuant to Article 24(1), available at \url{http://ec.europa.eu/competition/antitrust/cases/decisions/37792/art24_1_decision.pdf}.

\textsuperscript{117} MEMO/06/76.


\textsuperscript{119} IP/06/298.

\textsuperscript{120} Commission Decision fixing the definitive amount of the periodic penalty payment [July 12, 2006], available at \url{http://ec.europa.eu/competition/antitrust/cases/decisions/37792/art24_2_decision.pdf}; Summary of Commission Decision, July 12, 2006, Case COMP/C-3/37.792 Microsoft [2008] OJ C 138/1. According to Article 24(2) of Regulation 1/2003, “(w)here the undertakings or associations of undertakings have satisfied the obligation which the periodic penalty payment was intended to enforce, the Commission may fix the definitive amount of the periodic penalty payment at a figure lower than that which would arise under the original decision.”

\textsuperscript{121} Case T-271/06 that was later removed from the register of the Court as Microsoft decided to discontinue the proceedings.

Microsoft a statement of objection on March 1, 2007 indicating that there was no significant innovation in the interoperability information and concluded that the prices suggested by Microsoft were unreasonable. \(^{123}\) In response, Microsoft submitted revised WSPP Agreements that included a Revised Royalty table providing for a new remuneration scheme, to be assessed by the Commission.

- The period after the CFI’s judgment: acceleration

At this stage of the proceedings, the Court of First Instance rendered its judgment, which annulled Article 7 of the Decision in so far as it ordered Microsoft to submit a proposal for the establishment of a mechanism involving a Monitoring Trustee independent from the Commission. \(^{124}\) The Commission asked Microsoft to provide all documents and information Microsoft had provided to the Trustee or his team to the Commission from the date of the appointment of the Trustee. \(^{125}\) The judgment of the Court on the liability issue strengthened the Commission’s position in the negotiation process and finished by convincing Microsoft to agree to alter a certain number of the conditions in the WSPP license regarding the provision of interoperability information (the Neelie Kroes-Steve Ballmer agreement). \(^{126}\) These included the alteration of the terms of the license in order to render it compatible with the open source software model, the reduction of the royalty to a flat fee of €10,000 and the reduction of royalties for a worldwide license including patents from 5.95% to 0.4%. The initial royalty claimed by Microsoft was of the range of 7%. In comparison, the royalty rates of the standard MCPP agreement, between Microsoft and the US government were 4% of the net revenue of the licensee. \(^{127}\) This figure was modified as a consequence of the European decision and it is now 0.4%. \(^{128}\)

More concretely, Microsoft will now offer two agreements: “A No Patent Agreement” which would allow access to the interoperability information, but without taking a license for patents which Microsoft claims necessary, with the flat royalty fee and a “Patent Agreement” for patents which Microsoft considers relevant, where the royalty fee would be limited to 0.4% of licensees’ product revenues. \(^{129}\) In addition to these two licenses, Microsoft took an “irrevocable pledge not to sue open source developers (whether they are individuals, nonprofit organizations or commercial entities,

\(^{123}\) IP/07/269. The Commission found that, regarding the “No-Patents” category, there was no innovation in any protocol in the Gold and Silver categories and that only four minor Bronze protocols represented a limited degree of innovation. Concerning the “All IP Agreement” category the Commission found also that there were unreasonable, this time not for the absence of innovation, as the Commission indicated that the existence of patents indicates the existence of innovation, although it is possible to challenge the patents or to implement software that, in their view does not infringe the patented technology.

\(^{124}\) See our analysis in Part III.


\(^{129}\) IP/07/1567
such as companies and their employees, working in an open source development project) for development and noncommercial distribution of implementations of these Open Protocols.”

The Neelie Kroes-Steve Ballmer agreement was not overwhelmingly greeted by the members of the open source software community, essentially for two reasons, first, “the terms were still incompatible with the GPLv3 (General Public License), the standard open source license employed by open source software,” and second, the €10,000 flat royalty fee could “discourage use by small free and open source development teams, which typically have no operating budget.”

It had nevertheless a direct impact on the marketplace, as the Commission supported in December 2007 the conclusion of a licensing agreement between Microsoft and Samba (the “PFIF Agreement”) for the covered protocols. Samba is an open source/free software package that gives administrators flexibility and freedom in terms of setup, configuration and choice of systems and equipment for work group servers and which provides interoperability to a number of platforms, such as UNIX, Linux, IBM System 390, Open VMS and other operating systems. The involvement of Samba in the EU Microsoft litigation has been well explained elsewhere, but it is interesting here to note the following points: Samba decided to intervene in 2003, when its existence was portrayed by Microsoft as a proof that there was no need to provide interoperability information to competitors and that reverse engineering techniques were already in use and sufficient. Samba’s role became more prominent when the companies that initiated the complaint, in particular Sun and Novell settled the case with Microsoft. This prevented these companies of playing an active part at the appeal stage and therefore to share their important technical experience with the Commission and the Monitoring Trustee. The SFLC (representing SAMBA) had stepped in the procedure as an intervener in order to provide to the Commission technical support if needed in the appeal and a SFLC representative participated to the Court’s hearings. Samba’s role in the litigation became particularly prominent as it is now “the most important non-Microsoft technology in the server market … which emulates the behavior of Windows server products, but runs on Linux” and “the de facto standard for most non-Microsoft network

133 An important characteristic of Samba is that it is free and that it offers, according to GPL, permissive licensing terms, the possibility to change Samba software, which is available to download for free from the Samba website and a copyleft license that requires derived works to be available under the same copyleft.
135 The Protocol Freedom Information Foundation Agreement. PFIF was a nonprofit corporation created by the Software Freedom Law Center (SFLC) in order to license the documentation to free or open source developers.
enabled products,” used by workgroup server companies such as IBM, Apple, Sun and Novell for their engines.\textsuperscript{138}

The license agreement between Samba and Microsoft was made possible with the mediation of the European Monitoring Trustee, who was still in place at the time, as the Commission had not formally repealed Article 7 of the 2004 Commission Decision.\textsuperscript{139} The Monitoring Trustee put in contact directly Samba’s and Microsoft’s engineers to try and fix the most problematic parts of the agreement. In particular Microsoft was willing to provide, as an annex to the agreement, an indication of all the patents it claimed in its licensed information and agreed not to sue Samba for infringement of an unlisted patent\textsuperscript{140}. These “patent maps”, which have also become a prominent feature of Microsoft’s interoperability policy,\textsuperscript{141} provide developers an opportunity to attempt to successfully design around, without risk of patent infringement. Microsoft has only included patents on the patent map that it believes are necessarily infringed by any implementation of the protocol. The Samba license constitutes by far the most important development of the EU Microsoft Decision’s remedial phase.

In February 2008 the Commission adopted a second Article 24(2) Decision which imposed an additional €899 million penalty for charging unreasonable prices for access to interface documentation for work group servers.\textsuperscript{142} The decision made clear that in order to be reasonable the remuneration charged by Microsoft should exclude the strategic value stemming from Microsoft’s market power in the client PC and work group server operating system markets.\textsuperscript{143} The Commission decided that the WSPP Pricing Principles to which Microsoft had agreed could serve as a point of reference for the assessment of the reasonableness of the prices. In particular, the Commission assessed the innovative character of the interoperability information provided by Microsoft, which forms the second WSPP Pricing principles criterion, by examining the prior art for each claimed specification, and arrived to the conclusion that a very large part of the unpatented information (merely trade secrets) lacked innovation.\textsuperscript{144} The Commission referred to the usual criteria of patentability (novelty, non-obviousness) in order to define the innovative nature of the information as “an operational proxy,” mainly for the reason that these are “settled concepts” in the area of intellectual property.\textsuperscript{145}

An action for annulment against this decision was brought at the Court of First Instance arguing, among other pleas, that the Commission committed a manifest error of assessment “by requiring Microsoft to establish that trade secrets were innovative under a heightened patentability test in order to justify the imposition of royalties for a license to

\textsuperscript{139} http://www.samba.org/samba/PFIF/PFIF_history.html, at 6.
\textsuperscript{140} William Page & Seldon Childers, Bargaining in the Shadow of the European Microsoft Decision: The Microsoft-SAMBA Protocol License, above, at 347.
\textsuperscript{141} http://www.microsoft.com/protocols/default.mspx#patent%20maps.
\textsuperscript{143} Ibid, at para. 107.
\textsuperscript{144} Ibid., para. 130-138. See also, http://ec.europa.eu/competition/antitrust/cases/decisions/37792/decision2008_annex.pdf.
\textsuperscript{145} Ibid., at para 138.
such trade secrets.” The Commission then examined the third condition for the remuneration to be declared reasonable and non discriminatory. It noted that Microsoft had provided similar technical documentation of protocols royalty-free in the past, a conduct that it discontinued when it acquired a dominant position in the work group server operating system market, that the royalties charged in the MCPP license agreements should not be considered as concrete evidence of market valuation, in particular as they did not bring the requisite results, and finally that remuneration charged in the context of Standard Setting Organizations (SSO) should be considered as comparable, thus indicating that Microsoft charged unreasonable prices. The Commission noted that “Article 5 of the Decision does not prevent Microsoft from submitting its WSPP protocols to an SSO, thereby possibly reaping alleged ‘non-royalty benefits’ in the form of cross licenses or services provided by the SSOs.” This aspect will be examined in the last section of this paper.

In a recent press release, the Commission reaffirmed Microsoft’s “ongoing obligation to supply complete and accurate interoperability information but took notice of the Court’s judgment on Article 7 of the 2004 Decision, removed the Trustee provision from the 2004 Decision and repealed the 2005 Trustee Decision, which provided for the modalities of the monitoring mechanism and the appointment of a Monitoring Trustee. According to the Commission, the changes of Microsoft’s behavior, the possibility for third parties to exercise their rights directly before national courts, with the operation of private enforcement provisions in Microsoft’s license agreements, as well as the experience gained since the process of compliance started in 2004, convinced the Commission that the need for technical assistance should be now of an ad hoc character.

2. Tying

In comparison to the complex and long-standing compliance to the interoperability part of the decision, the conduct remedy imposed with regard to the tying of WMP to Windows was relatively straightforward. The 2004 Commission Decision took the view that Microsoft had violated Article 82 EC, in particular because of the possible leveraging of its quasi-monopolistic position in the PC operating systems market to the media player market. As it is explained in the Commission’s decision, the US Judgments did not solve that particular anticompetitive problem. First, the US proceedings focused only on the maintenance of monopoly argument and the leveraging argument was abandoned at the appeal level. The plaintiffs abandoned the tying claim after the Court of appeal ruled that technological tying should be examined under a rule of reason. Second, as a consequence of the narrow focus of the US liability decision, there was no specific remedy included for tying: the US judgment did not provide means enabling the Original Equipment Manufacturers (OEMs) and end-users to remove Windows Media Player code from the PC operating system (as it was technically unfeasible to remove the WMP code without running the risk that other parts of the

148 IP/09/349.
149 However, bundling made also part of the maintenance of monopoly claim: US v. Microsoft Corp., 253 F.3d 34, 65 (D.C. Cir. 2001).
operating system and third party products relying on WMP would not function properly), but only requested Microsoft to provide OEMs and end users the means to remove access (including icons) to the WMP application or to disable automatic launches.

The effectiveness of this remedy was limited as only few OEMs took advantage of this possibility. The alleged lack of success of the remedy could be explained by the fact that the final remedial order did not require Microsoft to charge a lower license fee to OEMs that deleted access to Microsoft middleware, although this eventuality was included in Judge Jackson’s remedial order. In addition, the Commission may have found this remedy inadequate “because it reinforced the applications barrier to entry from which Microsoft benefited by encouraging content providers to encode their products in Microsoft’s standards.”

The importance of the leveraging argument and network effects in the European case and the insistence of the Commission on the need to restore the freedom of choice of the consumers that were coerced by Microsoft’s conduct to use WMP as a default media player led to a more intrusive remedy than in the US Microsoft case. The fact that WMP was offered for free, that there were other ways to reach consumers for competing products and that the consumers were not forced but simply likely to use WMP did not influence the conclusion of the Commission that there was coercion. The extent of the competition problem was of structural nature: the ubiquity of Windows undermined because of the network effects competition in media players. This was thought to deter innovation and reduce consumer choice as competing media players that consumers preferred were excluded from the market.

The extent of the competition problem identified, Microsoft’s distributional advantage, led to a more intrusive competition law remedy than in the US case, affecting Microsoft’s freedom to design its products. Article 6 of the Decision requested Microsoft to offer a version of Windows for client PC, which does not include WMP media files, the new version being equally performing. The remedy applied to licenses for both end-users and OEMs. Microsoft was also asked to refrain from using “any technological,  

150 Commission Decision, Microsoft, para. 829.  
153 One could however also advance that taking into account the liability claim, which was that OEMs were forced to carry IE because they could not exclusively promote other browsers, the remedy was fully “successful” in providing them with that option. The fact that they may or may not choose to take advantage of that right may not necessarily mean the remedy was unsuccessful, unless a “successful” remedy is defined as a socially desirable market outcome, which could blur the distinction between competition law intervention and regulatory alternatives.  
154 Ibid., at 216.  
155 Ibid., at 218.  
156 Commission Decision, Microsoft, para. 979. As the Commission puts it, “through tying with Windows, Microsoft uses Windows as a distribution channel to anti-competitively ensure for itself a significant competition advantage in the media player market. Competitors, due to Microsoft’s tying, are a priori at a disadvantage irrespective of whether their products are potentially more attractive on the merits.”  
157 Ibid., para. 978-984.  
158 According to the Commission, “these files contain the technologies which have been identified as bringing about the foreclosure effect by virtue of WMP being tied to Windows, namely the files that support the proprietary Microsoft codecs, file formats and DRM formats and the WMP user interface”: Ibid, para 1019.
commercial, contractual or any other means which would have the equivalent effect of tying WMP to Windows”, for example by selling the new version at a higher price than the Windows with WMP version.\textsuperscript{159} This did not include directly an obligation for Microsoft to charge the Windows without WMP version for a lower price than for the Windows with WMP version, since most competing media players were offered for free. In addition, the Decision included an indication of activities having an effect equivalent to tying to which Microsoft should not resort, such as privileged interoperability between WMP and Windows or any other favorable treatment to Windows, conditional discounts, punishing or threatening OEMs who obtain Windows without WMP, tying WMP to other products that “would exhibit a similar ubiquity as Windows,” such as Microsoft Office.\textsuperscript{160} The Commission rejected Microsoft’s arguments that removing the WMP would undermine the integrity of the operating system, as for the Commission any interdependencies between the two products were the result of “deliberate choice by Microsoft” and the integration of WMP was not a precondition for the multimedia capabilities of Windows.\textsuperscript{161} In other words, the remedy imposed attempted to unravel the various links that tied WMP and Windows. Microsoft was given 90 days to implement the remedy. The Commission rejected Microsoft’s proposal to include other media players in Windows (the must carry remedy). This aspect will be examined more extensively in Section II.

As it was the case for the interoperability remedy, Microsoft invoked its right to seek a suspension of the Decision, which was refused by order of the President of the CFI. The Court of First Instance upheld the liability and the remedial part of the decision. The Monitoring Trustee supervised Microsoft’s compliance to the remedy. Microsoft launched Windows XP-N (for “not with media functionality”) to European Union countries in mid-June 2005. Almost two hundred ancillary or support files were removed from XP Home and Professional Editions. According to a Microsoft’s press release in April 2006, there has been virtually no demand from PC manufacturers, retailers and consumers for Windows XP N, and only 1787 copies of Windows XP N have been sold to retailers and distributors in Europe; More importantly, no Original Equipment Manufacturer was interested in installing and selling computers with a less than fully functional version of Windows XP.\textsuperscript{162}

Measured in terms of the number of sales for the Windows XP N edition, the effectiveness of the remedy can certainly be questioned.\textsuperscript{163} The Commission’s hope of widespread adoption of Windows XP N and the emergence of new powerful competitors did not materialize.\textsuperscript{164} One could compare the situation of the media player market with

\textsuperscript{159} Ibid., para. 1012.
\textsuperscript{160} Ibid., para. 1013(v).
\textsuperscript{161} Ibid., para 1027 & 1031. The Commission distinguished between two sorts of dependencies: “technical” which would by definition lead to the non-functioning of the operating system and functional dependencies which can be dealt with “gracefully”: ibid., at para. 1033.
\textsuperscript{162} http://www.microsoft.com/presspass/legal/european/04-24-06windowsxpnsalesfs.mspx .
\textsuperscript{163} The alleged ineffectiveness of the remedies may raise questions on the validity of the liability theory of harm at the first place. One could claim that Microsoft was essentially found liable for failing to produce a product – Windows without media functionality – that no one wanted.
\textsuperscript{164} There is no doubt that powerful competition existed in Media Players before the introduction of Windows XP N, as evidenced by the huge successes of the iPod and the associated media format, as well as the Adobe Flash media player.
that of Internet browser market, which was the subject of the US Microsoft case. As it was previously explained, after the Court of appeal’s judgment, the tying case was dropped. By the time of the Court of appeal’s decision, Microsoft commanded an impressive share of the Internet browser market (almost 90%). It is only recently that Mozilla Firefox, a competing Internet browser, developed by Netscape in the form of open source software in 2004, after Netscape’s defeat in the first browser war,\[^{165}\] has been able to challenge Internet Explorer’s dominant position with IE’s usage share reducing to 66.1% in the second quarter of 2009.\[^{166}\] The situation is relatively different in the media player market, where a number of competing programs developed during the same period. One could advance that one of the reasons for the faster development of competing products in the media player market than in the Internet browser market was the relatively important constraint and distraction that litigation in Europe placed to Microsoft’s management, and the effect the decision had on Microsoft’s aggressive competitive ethos.\[^{167}\]

**B. Substitutionary remedies**

Substitutionary remedies may take different forms: e.g. fines, damages, disgorgement of illegally acquitted gains. As it is the case for remedies in kind, the objective of substitutionary remedies is to place the plaintiff or the protected category of right holders to the situation that would have existed absent the infringement. This could be either achieved through compensation of the right holders and/or by restoring competition. For example, the objective of fines is to raise the costs of the violation of competition law and therefore affect the incentive of these undertakings to adopt a similar conduct in the future. In that sense, pecuniary sanctions such as fines aim to restore competition. This deterrence effect will also affect the incentives of all other undertakings likely to adopt similar conduct in the future. This assumes, as Frederic Jenny observes, “that persons engaging in illegal practices are rational individuals who (implicitly) consider the expected cost and the expected benefit to them of violating a law and will engage in such a violation only if it pays (that is, if the expected benefit outweighs the expected cost to them) when they are risk neutral or if the expected net gain is sufficiently large, if they are risk averse.”\[^{168}\] It follows that “(i)n order to achieve (...) optimality, the basic framework on penalties should be a quantitative one, rather than qualitative. In other


\[^{166}\] See, [http://en.wikipedia.org/wiki/Usage_share_of_web_browsers](http://en.wikipedia.org/wiki/Usage_share_of_web_browsers). Mozilla Firefox had 22.47% of usage share. According to other reports, the IE versions had a total of 54.4% market share in July 2009, a significant decline from 65.8% in March 2009. See, [http://www.techcrunch.com/2009/07/05/since-march-internet-explorer-lost-114-percent-share-to-firefox-safari-and-chrome/?awesm=tcn.ch_. Furthermore, Apple Safari 4 and Google Chrome have done well since their releases too.

\[^{167}\] Gary L. Reback, Free the Market! (Portfolio, 2009). See also the remarks of William E. Kovacic, Designing Antitrust Remedies for Dominant Firm Misconduct, (1999) 31 Connecticut L Rev 1285, 1288-1292 advancing that the existence of an antitrust lawsuit may inhibit aggressive commercial behavior by the defendant as well as distract the defendant’s employees from more productive functions, thus imposing formidable costs on the company. One could however remark that Microsoft continued to introduce new products in the market, such as Zune (media player hardware) and Silverlight (for Internet media playback, like Adobe Flash).

words, the quantity of the penalty has to be linked to the measure of the effect that the infringement provoked, rather than on the quality of the action undertaken.”\textsuperscript{169} The monetary transfers involved may have different addresses. Indeed, substitutionary remedies may consist in fines, which is a monetary transfer to the tax payer, or damages, which is a monetary transfer to the “victims” of the anticompetitive practice. The choice of one over the other or of a combination of both depends on the emphasis given by each legal system on deterrence or compensation. For example, fines serve merely a deterrence aim, although it is possible that they could also be conceptualized as a compensation mechanism, if one adopts the position that the restoring competition will benefit the “public at large.” In any case, setting an optimal level for civil sanctions and damages should take into account the interaction of these two forms of substitutionary remedies.

1. Fines

Article 3 of the Commission’s decision imposed to Microsoft what appeared at the time as a record fine in an abuse of dominance case\textsuperscript{170}. The Commission calculated the amount of the fines according to the method set in the Guidelines on setting fines of 1998, revised in 2006.\textsuperscript{171} This includes two steps: first, determine the basic amount of the fine, and second examine the existence of aggravating or attenuating circumstances. The Commission took into consideration in order to set the basic amount of the fine the gravity of Microsoft’s infringement, a leveraging strategy which comprised two separate abuses: a refusal to supply and a tying abuse. The Commission found that Microsoft had engaged in a “general pattern of conduct”, which could produce “significant effects on the competition landscape”, in particular as it would have given Microsoft the ability to erect further barriers to entry in the client PC operating system market and thus “to limit the risk of a change of paradigm that could strip Microsoft’s overwhelming dominance on the client PC operating system market of its competitive importance.”\textsuperscript{172} Microsoft would thus be able to extend its quasi-monopolistic position into the server industry or the market for the delivery of content over the Internet and on multimedia software. The fact that Microsoft had already achieved a dominant or leading position in these industries was found a sufficient indication of the gravity of the infringement.

The initial amount for gravity was set to €162,732,101, without distinguishing which amount represented the fine for the refusal to supply interoperability infringement and which one for the tying infringement. This starting amount was doubled in order to ensure “a sufficient deterrent effect on Microsoft,” in light of the undertaking’s significant economic capacity.\textsuperscript{173} The duration of the infringement was also particularly long: the refusal to supply abuse lasted six years and it was still ongoing at the time of the decision; the tying abuse lasted more than 5 years. The Commission set the overall duration of the infringement to 5 years and 5 months, thus increasing the basic amount of the fine by 50% to €497,196,204, taking into account an increase of 10% for each year of

\textsuperscript{170} The latest record being held by the fine imposed to Intel. See, IP/09/745.
\textsuperscript{172} Decision Commission, para 1061-1068.
\textsuperscript{173} Ibid., at 1076.
participation in the infringement. The fine represented 7.5% of Microsoft’s turnover on the market for client PC and work-group server operating systems in Europe, thus below the threshold of 10% set by the Guidelines. No aggravating or attenuating circumstances were found.

The Court of First Instance affirmed the fine imposed by the Commission and rejected Microsoft’s arguments that no fine should be imposed, as the infringements resulted from “novel theories of law” or that Microsoft had already taken measures, following the US settlement to provide the necessary degree of interoperability. The Court also acknowledged that “the obligation to state reasons does not require the Commission to indicate in its decision the figures relating to the method of calculating the fines.” Finally, the Court found that the doubling of the basic amount of the fine by the Commission was justified for deterrence reasons: in a prescient (for recent developments) paragraph the Court noted that “since Microsoft is very likely to maintain its dominant position on the client PC operating systems market, at least over the coming years, it cannot be precluded that it will have other opportunities to use leveraging vis-à-vis other adjacent markets.”

Although the fine imposed to Microsoft seems particularly important, its deterrent effect may be questioned. In the high technology sector, where network effects may tip the market for some time towards a particular technological standard, incurring the costs of civil penalties may still be a profitable strategy for monopolists. The effectiveness of this part of the European remedy should be examined in comparison to the pecuniary sanctions imposed in the US Microsoft case. There is no provision for civil penalties, such as fines, under the Sherman Act and their adoption may not be possible, at least for the near future. In US antitrust law, pecuniary sanctions take the form of wealth transfers to the victims of the exclusionary practice, which may engage a private action to collect damages. Most often, this leads to settlements entered between the monopolist and the claimants. The next section will discuss the availability of damages and settlements as an effective “pecuniary” remedy. These remedies, to which one could add restitution/disgorgement, rarely ordered in the US and unavailable in Europe, provide compensation/restitution to the victims of the competition law infringement, as well as deter the monopolist or dominant firm from adopting similar practices in the future by acting indirectly on their incentives.

2. Damages

In comparison to the amount of the fines imposed by the European Commission, the monetary transfers to consumers and competitors affected by Microsoft’s antitrust

---

174 CFI, para 1319.
175 CFI, para. 1324.
176 CFI, para. 1361.
177 CFI, para 1363.
law infringement in the US case seem particularly important. According to Harry First, more than 220 private cases have been filed against Microsoft, from consumers and rivals. Consumer class actions represent the largest group of claims (more than 80%), with individuals having filed thirty cases and state attorneys general having filed two cases on behalf of their non-business citizens. This category of private plaintiffs had an important hurdle to overcome, as they had to prove that they were overcharged, following Microsoft’s maintenance of monopoly in the operating systems market. As indirect purchasers, they were barred from bringing a federal antitrust private damages claim, with the exception of some states that provide the possibility for state antitrust actions filed in state courts. All class actions had also to pass the procedure of class certification, which was in this case overly complicated by the fact that it was not clear how much of the alleged overcharge the direct purchasers had passed on to indirect purchasers. This required individualized determinations which made class certification particularly difficult.

Important difficulties also arose with regard to the existence of an overcharge of Windows, as Microsoft was allegedly able to maintain its monopoly power by excluding potential competing platforms in the operating systems market. The issue revolved on the question of what would have been the price of Windows, had Netscape and Java been able to challenge Microsoft’s dominant position and develop a competing platform. Judge Jackson’s decision contained some indications that Microsoft was able to charge higher prices to Windows 98 upgrades, while lower prices would have also been profitable. However, Judge Jackson also recognized that it might be in Microsoft’s interest to “keep the price of Windows low today” in order to support the growth of the operating system market. These elements offered the possibility to OEMs, such as IBM and Gateway, which did not accept Microsoft’s offer to distribute and promote IE and therefore did not receive any compensation in the form of rebates, to enter significant settlements with Microsoft.

The third group that filed private damages suits in the US Microsoft case included the two competitors that brought the case against Microsoft in the EU, Netscape/AOL and Sun. Netscape settled in 2003, while Sun settled a few days after the publication of

---

180 Ibid., at 6.
182 The majority of the courts adopted, however, a liberal standard for class certification. See William H. Page & John E. Lopatka, The Microsoft Case (University of Chicago, 2007), at 235.
183 Whether Netscape together with Java could have been a real threat to Windows was not clear and definitely not proved. Netscape’s CEO Jim Barksdale completely dismissed that likelihood at trial stating that Netscape never planned such entry into operating systems. However, Microsoft had taken this potential threat, expounded by Netscape’s CTO Mark Andreesen, very seriously as internal Microsoft emails presented at trial revealed. But if Netscape’s success was very unlikely in the absence of anticompetitive actions, the remedy should be limited to erasing the anti-competitive hurdle and should not involve a restructuring of the market.
184 United States v. Microsoft, 84 F.Supp. 2d 9, 27 (D.D.C. 1999), (Finding of Fact ¶ 66). However, this argument is not credible given that Microsoft already had over 90% market share in the OS market. In fact, it is likely that potential competition in the OS market drove Microsoft to charge a significantly lower price than the unconstrained monopoly price. For a detailed analysis of pricing of Windows, see, Nicholas Economides, The Microsoft Antitrust Case, Journal of Industry, Competition and Trade: From Theory to Policy, (2001) 1, 7-39, at http://www.stern.nyu.edu/networks/Microsoft_Antitrust.final.pdf, pp. 16-19.
the decision of the European Commission in 2004 and consequently retreated as a third party intervener in the European litigation. This had the effect of pushing SAMBA and the open source community to step in as the main opponent of Microsoft in the post-decision 2004 period until they settled at the aftermaths of the CFIs decision. As for other Microsofts opponents in the European antitrust case, both RealNetworks and Novell settled, with the exception of Novell’s pending lawsuit against Microsoft relating to the damage suffered by WordPerfect (for lack of interoperability information), which because of its cross-platform capacity posed a potential threat to Microsoft’s monopoly in the operating system’s market. In total, the settlements in the US seem to have exceeded the $3.5 billion.185

In comparison, the fine imposed by the European Commission, which represents only a fraction of the total amount of settlements, seems to lead to under-deterrence, absent private enforcement. This conclusion is reinforced by the absence of any private action brought against Microsoft for damages in the EU. There are two cumulative explanations for this: First, private enforcement of EC competition law is only nascent and does not include a system of treble damages or other incentives for private actions. Second, the heart of the European case was not maintenance of monopoly, and therefore a possible overcharge of Windows, but the extension of the monopoly power of Microsoft to the work group server and media player markets. Concerning the work group server market, it is not clear if consumer harm took a different form than just a slower pace of innovation, because of the exclusion of competitors or led also to an increase in the prices charged by Microsoft. In the media player market, the product was given for free, so the harm to consumers was not relating to higher prices but to possibly lower quality, as allegedly better quality media players were excluded from the market. It would, however, be extremely difficult and costly to quantify this reduction of quality. Because of the limited access of European consumers to damages and the difficulties to get damages in the US, for comity concerns, in particular after Empagran, European consumers will stay without compensation and, consequently, there would be less deterrence. The weakness of private enforcement of competition law in Europe indicates that fines should be set at a higher level in order to ensure more effective deterrence.

---

185 Harry First, Netscape is dead: Remedy Lessons from the Microsoft Litigation, above, at 9.
186 Ibid., at 27.
188 However, during the infringement period there was significant innovation and entry of new products such as the iPod and the Adobe Flash Player.
190 This supposes, however, a clarification of the liability standard under Article 82 EC. The European Commission has recently adopted guidance on Article 82 EC: DG Competition, Communication from the Commission, Guidance on the Commission’s Enforcement Priorities in Applying Article 82 EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings(2009) 864 final. Note the guidance on enforcement priorities is a softer law instrument than guidelines: it is complementary to the Commission’s specific enforcement decisions. The choice of the instrument of guidance on enforcement priorities offers to the Commission more leeway in presenting its approach for Article 82. The Commission could not have adopted guidelines contrary to the rulings of the European courts [see the most recent reminder by Advocate general Kokott, Case C-8/08, T-Mobile Netherlands BV and Others [2009] ECR nyr, para 29]. The Commission maintains the ability to reject a complaint when it considers that a case lacks priority for other reasons (e.g. lack of Community interest).
III. Critical assessment of the remedies

The success of the interoperability remedy required a sustained and continuing effort of setting and monitoring compliance standards, which was particularly difficult in the absence of a regulatory authority that could supervise its enforcement. The Commission initiated the mechanism of the Monitoring Trustee, which proved particularly useful in the promotion of the SAMBA-Microsoft settlement, the only positive as far outcome of the European Commission’s decision. However, the CFI annulled this part of the decision. The crafting of remedies involves the consideration of an adequate institutional mechanism for their enforcement. The design of the tying part remedy was also particularly problematic, as the Commission took a quasi-regulatory role by imposing to Microsoft a particular product design, which, however, produced very poor results on the marketplace.

1. The enforcement difficulties of the interoperability remedy: institutional aspects

The appointment of a Monitoring Trustee was the primary mechanism of enforcement of the remedy imposed by the Commission for both the interoperability and tying parts. The Monitoring Trustee was required to assess whether the information made available by Microsoft was complete and accurate and to ensure that Windows N was not less performing than any bundled version of Windows Microsoft would continue to provide on the market. The Monitoring Trustee was independent from Microsoft, although at its payroll. Article 4 of the decision imposed Microsoft an obligation to refrain from repeating any act or practice which would have the same or equivalent object or effect than the anticompetitive conduct. This exemplified the forward-looking role of the Monitoring Trustee, as it was clear that “the obligation to disclose interoperability information must apply ‘in a prospective manner’ to future generations of Microsoft’s products.”

Microsoft successfully challenged this part of the Decision at the CFI for lack of legal basis.

The CFI found that Regulation 17/62, in force at the moment of the decision, did not provide the Commission with the authority to compel Microsoft to grant to an independent monitoring trustee powers which the Commission itself was not authorized to confer to a third party. The Court questioned the independence that the Monitoring Trustee would have had from both the Commission and Microsoft and the broad scope of his powers and mission. It also noted that no limit in time was envisaged for his continuing intervention in monitoring Microsoft’s compliance. Furthermore, the principle of proportionality required that the costs associated with the enforcement of the remedy and compliance should not be borne by the undertakings but by the Commission, in fulfilling its own investigation and enforcement responsibilities.

The conservatism showed by the Court in envisioning an effective compliance mechanism seems misplaced. First, the independence of the Monitoring Trustee from

---

191 CFI, para. 1270.
192 Ibid., para 1271.
193 Ibid., para 1277.
Microsoft, but also from the Commission, ensured its impartiality, which was an essential characteristic in order to enhance compliance and cooperation from Microsoft. This was crucial for the success of the remedy (provide adequate information on specifications). After all, it is because the Monitoring Trustee had developed a relation of confidence with Microsoft’s technical staff that he had been able to mediate successfully between Microsoft and SAMBA, ironically during the period following the Court’s decision and before the Commission formally replaced him with a system of *ad hoc* external experts.\(^{194}\) It may have not been possible to achieve the same degree of cooperation from Microsoft, had the Commission employed internal or external experts for the enforcement of the decision, as in this case no direct relation (without the intermediate of lawyers) would have existed between Microsoft’s technical staff and the technical staff of the parties requiring interoperability. It is true that the Commission’s decision should have included a realistic time horizon for the monitoring of the decision and should have quantified the costs. However, as it became clear in the compliance procedure for the US antitrust decision, the extent and time scope of monitoring was an unknown factor depending on the clear articulation of what the government wanted Microsoft to produce and on the willingness and ability of Microsoft to provide detailed specifications for its interoperability information.\(^{195}\) Sharing the costs of the enforcement mechanism would have limited the exorbitant costs for Microsoft, which may seem out of proportion, but at the same time it would have reduced to a minor extent Microsoft’s incentives to comply with the decision. The Commission could have nevertheless taken in charge a larger proportion of the expenses during the first period of the operation of the enforcement mechanism, Microsoft’s share progressively increasing in order to incur the costs of delayed compliance.

The appointment of the Monitoring Trustee illustrates the blurring of the distinction between competition law and regulation, when it comes to the enforcement of far reaching and forward looking remedies, with regard to the scope of the obligations imposed and the time-horizon of the remedy. The European Monitoring Trustee intervened three years after the Technical Committee in the US antitrust case started to monitor Microsoft’s compliance. The US Technical Committee had become at that time a quasi-regulatory entity with 40 experts employed and the ability to persuade DOJ and the States that additional obligations and burdens should be imposed in order to ensure effective interoperability. The Technical Committee had the ability to receive complaints, interview Microsoft’s staff and examine the Windows’ source code, subject to confidentiality; the expenses of the Committee, including the salaries being taken in charge by Microsoft.\(^{196}\) The Monitoring Trustee was able to build on these efforts to ensure interoperability and to benefit from the US experience but he also contributed to the compliance effort in the United States. Indeed, in 2006 the US Technical Committee started working closely with Microsoft’s experts in order to improve the technical

---


\(^{195}\) William H. Page & Seldon J. Childers, ‘Software Development as an Antitrust Remedy: Lessons from the Enforcement of the Microsoft Communications protocol Licensing Requirement’, above, at 75 noting that “we have no way of estimating the costs of a program of this scale with any accuracy, but they certainly run into eight figures.”

\(^{196}\) *Final judgment*, Part IV.B.
One could envision a higher degree of cooperation at the remedial stage of multijurisdictional cases, such as Microsoft, if compliance is ensured by an independent entity, like a Monitoring Trustee or a Technical Committee, including the sharing of the costs of the compliance mechanism between jurisdictions. It is clear that despite the different theories of antitrust liability in Europe and in the US, the remedies imposed with regard to the interoperability part of the decision converged at the end. This type of international cooperation at the remedial stage of antitrust cases could be enhanced if the Commission had the ability to appoint independent compliance officers/experts. The procedure has been used in the context of Article 9 of Regulation 1/2003 commitment decisions, such as the Deutsche Bundesliga\textsuperscript{198} and FA Premier League\textsuperscript{199} cases concerning the collective selling of media rights to football matches, where the Commission appointed a monitoring trustee to monitor the auctions of the Premier League rights, or in Repsol\textsuperscript{200} where the Monitoring Trustee had to monitor the opening up of the fuel distribution system in Spain. Monitoring Trustees were also used in merger cases cleared with obligations and commitments, where the Trustees enjoy important powers, such as the supervision and management of the divested business, the exercise of shareholder rights or the appointment of board members.\textsuperscript{201} The CFI’s decision in Microsoft raises questions on the legality of this practice, in particular as the company giving the commitment is usually required to incur the Trustee’s costs. Regulation 1/2003 does not grant the Commission any power to establish such monitoring mechanisms and this is certainly an issue that has to be tackled in the recent review process of Regulation 1/2003.\textsuperscript{202}

2. The “failure” of the Windows-N remedy and the “must carry” proposal

As it has been exposed previously the EU decision, upheld by the Court of First Instance, found Microsoft liable for tying Windows Media Player (WMP) with Windows. WMP participates in a market where it and its substitute media players are distributed without charge. Since there are always costs of developing these software, both Microsoft and its competitors sell below production and distribution cost of media players. Of course, as part of Windows, WMP enjoys part of the Windows revenue.

Companies such as Microsoft and its competitors (for example RealAudio) distribute their media players for free with the hope that their software development costs will be recouped if (i) in the future the product will be sold at a positive price, or (ii) the

\textsuperscript{202} Although nothing on this topic is included in the European Commission, Report on the functioning of Regulation 1/2003, COM(2009) 206 final.
firm will be able to sell upgraded versions of the software (with more features) at a positive price, or (iii) the firm will be able to sell products or services complementary to the free product (for example, sell music or video downloads at a positive price or sell software that produces audio or video in a compatible format). Although media players have been distributed for free for almost a decade and have experienced significant technological advances, there is no evidence that their basic versions will ever be sold at a positive price. Additionally, with the exception of Apple’s iTunes, there is no evidence of substantial revenues from sales of complementary products. And, iTunes profits come almost exclusively from sales of the complementary hardware (iTunes players). Thus, there are no damages arising from higher prices because of restriction of competition, since no company charged a positive price. The only possible damages can arise from a restriction of the full extent of varieties and qualities of media players that might be available in the absence of the tying behavior of Microsoft.

The variety issue is further complicated by the fact that a number of companies distribute media players that each has a “favored” format but can also play content in a number of other formats, to the extent that the other format owners allow it. So, for example, WMP plays WMA (the Microsoft-favored format) as well as MP3 (based on a public standard) but does not play the RealAudio format because its specifications have not been made public. Similarly, RealAudio plays its proprietary format, as well as WMA, MP3, and others. Thus, wide distribution of WMP does not necessarily imply dominance of the WMA format since WMP can play many formats. It is possible, however, to argue that even dual encoding (that is encoding in a number of different formats) may confer a distributional advantage to Microsoft. Ian Ayres and Barry Nalebuff noted that “Microsoft would still have the unique ability to ensure that its media player would be on all new machines – and thus eventually on all machines” and that “in turn, would mean that a content provider that encoded its content in the WMP format would be ensured nearly 100% reach in the market” and would have therefore little incentive to engage in dual encoding. The conclusion that WMP will be eventually on all PCs is true only under restrictive modeling assumptions, and empirical evidence attests that it is certainly not true today. Additionally, the fact that WMP plays a number of other formats, including some based on open standards, makes the exclusivity argument of including WMP with Windows weak. In the aftermath of the U.S. v. Microsoft settlement, any consumer as well as any computer manufacturer can set up any media player as the default one, thereby severely limiting any distributional advantage of the joint distribution of WMP with Windows. However, they do not benefit of the same distributional opportunities than WMP, precisely because dual encoding may not be materially equivalent to ubiquitous encoding. Finally, one could argue that the distribution advantage that any player enjoys is also limited because any rival media player can be downloaded and installed in a few minutes. If consumers do not think it is worth spending a couple of minutes to download and install rival players, clearly

---

203 Of course there are attempts to get revenue from complementary goods. For example Real Networks, offers an upgraded version at a positive price as well as subscription services for content. However, these revenues are not substantial and have led to the decline of companies that are essentially only in the software media players business such as Real Networks.

consumers do not see significant value in the variety and quality that rival players may add. Thus, the damages that can be ascertained from Microsoft’ distributional advantage cannot be substantial. The Commission and the Court may have overestimated the distributional advantage conferred to WMP by its joint distribution with Windows.

The Commission imposed as a remedy on Microsoft the requirement to produce and distribute in the EU a version of Windows without WMP, which became known as Windows-N. The Commission’s remedy allowed Microsoft to continue producing and distributing in the EU the U.S. version of Windows that included WMP but was subject to the requirements of the consent decree that resolved United States v. Microsoft. The EU did not mandate a specific price difference between Windows and Windows-N. The two versions of Windows were sold in the EU at the same price and practically no OEM bought and adopted Windows-N. Thus, the remedy imposed by the Commission had no noticeable effect in the marketplace. At the same time, the dire predictions of expanded dominance of WMA never materialized in the long period between the beginning of the EU case and the Commission’s decision or even later. In contrast, a new, until recently proprietary, format promoted by Apple (tied to hardware also produced by Apple!) has become the dominant format in the market for song downloads, a key market for goods that are complementary to media players. Additionally, “flash player,” a new player from Adobe has become the standard video player in Internet browsers.

We are at a loss to understand why the EU Commission thought that requiring Microsoft to produce and distribute Windows without WMP was going to change significantly competition in media players. It was almost mathematically certain that Windows-N (without WMP), sold at the same price as Windows (with WMP), would not sell well, and therefore would have little impact on the market share of WMP. It is also hard to imagine how depriving consumers of WMP in Windows-N in the post-US-settlement environment, where both the OEM and the final consumer can designate any media player as the default one, would have enhanced consumers’ choice. The European Commission rather considered that consumers expected a media player but advanced that the OEMs should be free to build PCs that feature a non-Microsoft media player.

In negotiations before the Commission’s decision was announced, the Commission rejected a reported Microsoft proposed remedy to include in the distribution of Windows three rival media players besides WMP and let the consumer designate the default player. This proposal that would have guaranteed as wide distribution of RealAudio and other players as WMP, would have erased any distributional advantage of WMP, would have dispelled any tying concerns, and would have given full decision

205 The lack of a price difference requirement is in sharp contrast with the proposal to the District Court of the nine states ("litigating states") that did not agree with the USDOJ-Microsoft settlement that was also signed by nine other states. The litigating states proposed to “freeze Windows” to its pre-1998 state and impose on Microsoft the requirement to sell any additional functionality at an additional price. It is interesting, however, that the CFI noted in its decision that “[s]hould Microsoft now decide to sell the unbundled version of Windows at the same price as the bundled version, the Commission would examine that price by reference to the present market situation and in the light of Microsoft’s obligations to refrain from any measure having an equivalent effect to tying and, if necessary, adopt a new decision pursuant to Art. 82 EC.” Microsoft, 5 C.M.L.R. 11, ¶ 908.

206 Windows-N sold less than 2000 copies.

power to consumers. Such a remedy would have addressed the competition law concerns raised by Microsoft’s abuse much more effectively than the proposed remedy.\textsuperscript{208} At the same time, its adoption would have at least guaranteed the ability of even a dominant firm (Microsoft) in the complementary good (Windows) to innovate and distribute in the way it finds most appropriate. The benefits of this proposal both for consumers and innovation are obvious and substantial in comparison to the imposed remedy.\textsuperscript{209} It provides consumers the best of both worlds—the benefits of standalone media players and the benefits of an integrated solution.

We argue that the requirement that a dominant firm “must carry” the competitors products should, however, only be imposed when (i) there are substantial distributional advantages of the dominant firm; and (ii) there are substantial consumer losses arising from the lack of distribution through the dominant firm. Because of the \textit{US v. Microsoft} settlement, computer manufacturers can install any media player they want without facing any penalties or retaliation from Microsoft. To the extent that computer manufacturers install what consumers desire, the present extent of distribution of WMP with Windows seems more than a reflection of consumers’ choice than a decision by Microsoft. Of course consumers are likely to be better off if they receive more free software delivered with their new computer. This, however, does not mean that the dominant firm should have the obligation to distribute this software, and additionally to do so without collecting practically any revenue from competitors whose software it is forced to distribute, unless the operating system is considered as an essential facility. But in this case the standards of liability are different (allegedly stricter) than those required for tying.\textsuperscript{210} It seems to us that, if the competition authority decides to impose a “must carry” remedy, it should bring a proper essential facilities case rather than rely on the

\begin{footnotesize}
\textsuperscript{208} Indeed, the issue in this case was “not that Microsoft integrates [WMP] in Windows, but that it offers on the market only a version of Windows in which [WMP] is integrated, that is to say, that it does not allow OEMs or consumers to obtain Windows without [WMP] or, at least, to remove [WMP] from the system consisting of Windows and [WMP].” Microsoft, 5 C.M.L.R. 11, ¶ 1149. The remedy could have identified a number of media players from those existing at the time of the commitment of the abuse that would have been integrated to Windows. It is in this respect different from a common carrier obligation, as it would not necessarily have extended to media players that would have been commercialized after the termination of the abuse.

\textsuperscript{209} This is particularly surprising since Professor Mario Monti, head of the Commission at the time, was quoted as to the objectives of the Commission in the decision: “In the end, we decided to do what’s best for innovation and European consumers.” Acohido & Knox, supra note 228.

\textsuperscript{210} The European Court of Justice took a restrictive view of the obligation of a dominant undertaking to grant access to its facilities by imposing a number of conditions in Case C-7/97, \textit{Oscar Bronner GmbH & Co KG v. Mediaprint} [1998] ECR I-7791, para. 41, 45-46. The refusal “must be likely to eliminate all competition” on the part of the competitor requesting access, that access should be indispensable and not only make it harder for the requesting undertaking to compete and it should not be capable of being objectively justified. With regard to the indispensability condition, the Court held that access would have been indispensable only if it was not economically viable to create a home-delivery system for a newspaper with a comparable circulation to the dominant firm’s. One could argue that the conditions in \textit{Bronner} set the outer boundaries of the special responsibility of a dominant firm and consequently of the corresponding duty, under Article 82, to abstain from any action that would be likely to exclude rivals from the market. The excluded rival would be granted access only if it is impossible for an undertaking with a comparable output to the dominant firm to develop such facility, which indicates that the Court applies a not yet as efficient as test.
\end{footnotesize}
most favorable, for carrying its standard of proof, liability standards of tying and then ask for a “must carry” remedy.

The “must carry” obligation is of special interest because it has been considered by the EU as a remedy to its current investigation of Microsoft for bundling Internet Explorer with Windows, as discussed in detail below. Clearly, the EU could not impose that Windows be distributed without an Internet browser and the ability to download a browser because that would severely cripple the ability of the typical user to reach the Internet. But does it make sense for Microsoft to be required to distribute rival browsers?

It could be argued that requiring Microsoft to distribute rival browsers may not provide an appropriate remedy, in presence of weak anticipative effects. Like with media players, competing browsers can be downloaded and installed in a few minutes, so the reluctance of consumers to do might show that they do not find it sufficiently desirable. To this claim it is possible to respond that consumers may have a status quo bias favoring Internet Explorer, particularly because, having used only Internet Explorer, the user has no real way to know what it means for a browser to be better. One could also advance a natural reluctance to take on additional learning costs associated with using a different browser. OEMs may also refrain from the additional support costs that are associated with offering another browser. It could be argued nevertheless that the damage that consumers may incur from the joint distribution of Internet Explorer with Windows is very limited. In the particular case of the browser, as contrasted with the media players, there is almost full compatibility between the various browsers. Additionally, Firefox provides a plug-in that emulates Internet Explorer and can even be used for live updates from Microsoft that require Internet Explorer. As with the media player analysis, there are no damages because of price competition since all the browsers are distributed for free. Additionally, the almost full compatibility of browsers implies that the benefits of variety and quality will be smaller than in the media player market. Thus, it seems likely that imposition of the “must carry” remedy might be out of proportion in this case.

If the effects on consumers are considered to be more substantial, the “must carry” remedy might be an appropriate remedy, although it could face some practical difficulties. The issue of the mandatory Java distribution was raised in the US Microsoft case. The Court found that a “must carry” requirement would have not provided a substantial benefit to competition, once Microsoft’s anticompetitive restraints on other channels of Java distribution were lifted by the other parts of the Court’s remedy (exclusivity arrangements). The reason for the Court’s reluctance was, however, its uneasiness in granting a specific competitor, Sun Microsystems, an advantage in its efforts to compete with Microsoft, not accorded to other competitors in the industry. The Court noted that “favoritism of one market participant over another in a remedy provision

214 Ibid., at 189.
places the Court in the improper position of exerting too much control over the market.”215 An adequate remedy would provide equal treatment to third parties, in order to restore competition. For example, complainants should not be the only ones receiving the benefits of a “must-carry” obligation: any firm that is capable of challenging the dominant firm should be included in the design of this obligation. It follows that for the must carry obligation to function equitably, new products should also be periodically included. This could raise some practical difficulties, such as, which browsers, from the five main ones and/or browsers from niche players, to include and on what license terms as well as to how to align the release schedule of these browsers with the release schedule of Windows to be solved by further negotiation between the parties.

Negotiations between the EU and Microsoft on whether to implement a version of a must carry rule gave rise to important recent developments. As previously explained, the EU opened formal proceedings on Opera’s complaint in Dec 2007 and issued a statement of objections to Microsoft in January 2009. To terminate the Commission’s current investigation in the Internet Explorer case, Microsoft initially announced216 that it would not distribute the standard Windows 7 in Europe. Instead, it intended to produce and distribute in Europe a special edition of Windows 7 called Windows 7-E which would not have Internet Explorer or any other browser pre-installed, adopting the removal approach of the Windows-N remedy imposed by the Commission in the WMP case as the sole version of Windows in Europe. Computer manufacturers (OEMs) would have the option to install an Internet browser of their choice as the default as well as include other browsers before the PC reaches the final consumers.

As part of the initial proposal of Microsoft, European consumers who would buy an upgrade to Windows 7 for Windows Vista or XP, as well as those consumers who would buy Windows 7 and install it themselves from scratch on a “naked” computer (that comes from the manufacturer without an operating system) would be given a version of Windows 7-E that would include a file transfer protocol (FTP) link to a web site from which they could download and install IE8. The EU applauded Microsoft’s steps to provide OEMs more flexibility, but was critical of Microsoft’s decision on the distribution of the retail upgrade or retail clean install.217

Based on that public feedback as well as on private discussions, Microsoft withdrew its unilateral plan of distributing Windows 7-E218 and proposed a final resolution that would commit219 it to (i) distribute a “ballot screen” through software update220 to EEA users of Windows XP, Windows Vista, Windows 7, and Windows

---

215 Ibid.
220 A preliminary design of the ballot screen is available at http://www.microsoft.com/presspass/presskits/eu-msft/docs/Annex_B.ppt. The words “ballot screen” are used inappropriately; the appropriate words are “choice screen.” There is no ballot here and there is no
Client PC Operating Systems, by means of Windows Update; and (ii) allow both computer manufacturers and users to turn on or off IE. Thus, the remedy does not only concern Windows 7. This remedy may have far reaching consequences on the structure of the Internet browser industry and the distributional advantage of Internet Explorer. The ballot screen will give those users who have set Internet Explorer as their default web browser an opportunity to choose whether and which competing web browser(s) to install in addition to the one(s) they already have. Users will be able to select one or more of the web browsers offered through the Ballot Screen. Microsoft commits to distribute and install the Ballot Screen software update “in a manner that is designed to bring about installation of this update at a rate that is as least as high as that for the most recent version of Internet Explorer offered via Windows Update.” It is also emphasized that “nothing in the design and implementation of the Ballot Screen and the presentation of competing web browsers will express a bias for a Microsoft web browser or any other web browser or discourage the user from downloading and installing additional web browsers via the Ballot Screen and making a web browser competing with a Microsoft web browser the default.”

The design of the ballot screen attempts to represent as best as possible actual consumer preferences. At the same time it avoids to provide an excessively large choice that would have occupied a lot of disk space. The ballot screen will be populated with the most widely-used web browsers that run on Windows with a usage share of equal to or more than 0.5% in the EEA as measured semi-annually by a source commonly agreed between Microsoft and the European Commission, but not more than ten (not counting different versions of one and the same browser) and it will in a horizontal line and in an unbiased way display icons of and basic identifying information on the web browsers. In addition, the Ballot Screen will prominently display the final releases of the five web browsers with the highest usage share in the EEA as measured by a source commonly agreed between Microsoft and the European Commission. Browser usage share will be determined semi-annually by averaging monthly usage share data for the previous six months for which such data is available, with shares for different released versions of the same vendor’s browsers added together to determine a browser’s total usage share. No more than one browser will be listed per vendor. It is also specified that “Microsoft will bear the costs of the technical implementation of the remedy in Windows and may not charge for the inclusion of a third party web browser in the Ballot Screen.”

The “must carry” remedy is limited to web browsers and any web browser vendor eligible to appear on the Ballot Screen should refrain from installing additional software in the same download. This is an interesting hybrid. Microsoft has to include the promotion of competing browsers, but does not have to distribute the code of third

decision by majority or any other rule that will be imposed to all participants. The screen will allow each consumer to set the default browser for him, and, if he wants to uninstall IE.

221 See http://www.microsoft.com/presspass/presskits/eu-msft/docs/ANNEX_A.doc for a detailed description of how this will be implemented in Windows 7.
222 Ibid., para. 8.
223 Ibid., para. 9.
224 Ibid., para. 10.
225 Ibid., para. 11.
226 Ibid., para. 12.
227 Ibid., para. 14.
parties browsers. The duration of the commitment is five years leaving a wide window of opportunity to Microsoft’s rivals, and in particular Google, to take hold of a significant part of the Internet browser’s market. Microsoft’s ballot commitment appears to have been accepted in principle by the European Commission.228

On turning IE on or off, “Microsoft will ensure that if Internet Explorer is turned off, then (i) it can only be turned on through user action specifically aimed at turning on Internet Explorer; (ii) the user interface cannot be called upon by applications; and (iii) no icons, links or shortcuts or any other means will appear within Windows to start a download or installation of Internet Explorer.” 229 A website will provide all necessary information about turning on or off Internet Explorer. In addition, Microsoft “will maintain that page so that other browser vendors can link to it if they wish.” 230 In essence, the “OEMs will be free to pre-install any web browser (or browsers) of their choice on PCs they ship and to set any browser as the default web browser.” 231 Microsoft has also committed “not to retaliate against any OEM refraining from developing, using, distributing, promoting or supporting any software that competes with Microsoft web browsers” through an alteration of commercial relations with that OEM,, or by withholding the application of preferential terms or finally by entering into any agreement with an OEM that conditions the grant of any monetary payment, discount or the provision of preferential licensing terms or any other preferential treatment to the choice of IE. 232

In many ways, the EU proposed outcome is similar to one of the US consent decree. The US consent decree allowed OEMs and final consumers to choose the default browser; similarly OEMs and final consumers will choose the default browser in the EU. But there are also important differences.

First, the US consent decree was broader since it applied to all middleware while the EU proposed outcome covers only browsers. Besides browsers, middleware includes email clients, audio players, instant messenger, java, and other software that function between the operating system and applications.

Second, unlike in the US, where all final consumers are given the opportunity to choose a default browser (and other middleware) through a “set defaults” screen, Microsoft’s commitment in the EU will give a choice of browser to final consumers only if their computer has IE set as the default browser. 233 If the computer manufacturer has set up a browser other than IE as the default, the final consumer will not be presented with the EU ballot screen or the “set defaults” screen available to US consumers. Thus,

---

229 Commitment, para. 1.
230 Ibid.
231 Ibid., para. 2
232 Ibid., para. 4-5.
233 Also note that in the EU final users will be automatically prompted to choose a browser, if their computer came with IE as the default, while in the US they are not automatically prompted but just have the option of choosing defaults. See http://microsoftontheissues.com/cs/blogs/mscorp/archive/2009/07/31/windows-7-and-browser-choice-in-europe.aspx: “Shortly after new Windows PCs are set up by the user, Microsoft will update them over the Internet with a consumer ballot software program. If IE is the default browser, the user will be presented with a list of other leading browsers and invited to select one or more for installation.” No choice screen will appear to users if IE is not the default browser.
the mechanism is tilted (i) against Microsoft since computer with a non-IE default will not have the same choice (that might have resulted in IE); and (ii) in favor of non-
Microsoft commercial browsers (Chrome, Opera, Safari, etc.) who can compensate 
OEMs to set up their browser as a default (and then will not have the ballot screen appear to final consumers). This may favor non-Microsoft browser vendors that have the deepest pockets.

Third, in the EU proposed outcome, Microsoft is obligated to line up many competitors’ browsers for the final consumer to choose from. Thus, the EU proposed outcome is a “must carry” rule imposed on Microsoft, especially since it applies only to computers where the OEM has installed IE as the default. In the US middleware defaults setup screen, the consumer is faced with a list of browsers chosen by his computer’s manufacturer. Depending on the computer manufacturer’s choices, this list could be extensive, but could also be limited to a single browser (IE or another one) and the consumer would need to take extra steps to download other choices.

Fourth, the EU proposed outcome allows OEMs and consumers to uninstall more layers of IE, if they wish, than just the front end of IE that the US decree allows. In the EU proposed outcome, an OEM may choose to never show the existence of Internet Explorer to the final customer. Even so, deeper layers of the IE API will remain in Windows when IE is “off” and an application manufacturer will be able to call and utilize the IE API for both the “on” and “off” IE functions. Additionally, users can always “turn on” IE even if the OEM has turned it off. OEMs can’t permanently disable IE.

Fifth, for an OEM that has chosen a default browser other than IE in the EU, the operating system and security updates will not appear to be done through Internet Explorer. That is, even if IE does the updates in the background, the consumer will see an interface that does not mention IE. 234

3. Would a structural remedy have been an appropriate solution to the Microsoft antitrust problem?

In thinking about a potential structural remedy in the EU case, it is worth discussing its imposition in the US case. This is because in both cases, the issue was also leveraging monopoly power to a market of a complementary good.

In US v. Microsoft, Judge Jackson adopted the plaintiff’s remedies proposal word-for-word and imposed a breakup of Microsoft into two “Baby Bills,” 235 an operating systems company which would inherit all the operating systems software, and an “applications” company with all the remaining software assets. Cash and securities holdings of other companies held by Microsoft would be split between the resulting entities. Bill Gates and other officers of the company would not be allowed to hold executive and ownership positions in both of the resulting companies. 236

234 This means that the Windows updates will be done the same way they are done today in Vista and in 
Windows 7 Release Candidate.
235 This is a word play on “Baby Bells” that came out of AT&T and the first name of the co-founder and then CEO of Microsoft, Bill Gates.
236 For a more detailed evaluation of the final US remedy see Nicholas Economides, Comment of Nicholas S. Economides on the Revised Proposed Final Judgment in United States v. Microsoft, January 22, 2002, at 
http://www.usdoj.gov/atr/cases/ms_tuncom/major/mtc-00022465.htm#comments.
In arguing for the break-up, the government put forward a number of reasons. But, since there was only an extremely short formal hearing on remedies, there was no chance for both the government’s and Microsoft’s cases on remedies to be discussed and evaluated. The government and the judge have stated (formally and informally) the following arguments for a breakup:

1. That they considered the repeated violations of antitrust law by Microsoft as an indication that Microsoft would not follow any conduct or contractual restrictions; in fact, in some informal remarks, government officials believe that they were “tricked” by Microsoft in settling the 1995 case with terms that Microsoft was able to exploit;
2. That the lack of remorse by Microsoft’s executives was a clear indication that Microsoft “could not be trusted” to implement any other remedy;
3. That the breakup was a “surgical cut” that would create the least interference with business;
4. AT&T and the rest of the telecommunications industry benefited from AT&T’s breakup, and so should Microsoft and the software industry; after all both industries have network effects;
5. The breakup eliminates the incentive for vertical foreclosure; and
6. The breakup reduces the “applications barrier to entry” since now the applications company might write popular Microsoft applications (such as MS-Office) for other platforms.

The government failed to show that the proposed (and later abandoned) breakup was the appropriate remedy. USDOJ did not perform the appropriate cost-benefit analysis to show that conduct remedies were not sufficient and that a breakup is necessary. None of the affidavits in the remedies phase even approach a discussion on evaluating alternatives. Additionally, a few weeks before Judge Jackson’s decision, under the supervision of Judge Posner the government and Microsoft had reached a compromise that imposed only conduct remedies. The government failed to justify why it was ready to compromise a few weeks earlier (in the settlement negotiated by Judge Richard Posner who was asked to try to find a settlement by Judge Jackson), on behavioral remedies but later claimed that structural remedies were necessary. Harry First notes that the plaintiffs would have been probably more successful, “had they clearly such a remedy in mind at an earlier stage in the proceeding.”

The first argument of the government in support of a breakup does not stand to reason. The 1995 case was settled with a decree that explicitly stated that Microsoft can include in its operating system any additional functionality. It is reasonable that Microsoft (or any observer, including USDOJ) would believe, given the 1995 consent decree, that adding browser functionality to Windows does not violate the consent decree. This, of course, does not mean that adding such functionality does not violate antitrust law in general, but it puts to its death the idea that the government was tricked by Microsoft. The fact that companies and antitrust enforcers often have an asymmetry of

237 The settlement was rejected by the States.
238 Harry First, ‘Netscape is Dead: Remedy Lessons from the Microsoft Litigation,’ above, at 32.
239 The dispute regarding the application of the 1995 consent decree ended with a DC Circuit ruling in favor of Microsoft’s understanding of the meaning of the decree. 147 F. 3d 935.
information is very common and expected, and cannot be considered a “trick,” or a reason not to enter into agreements between antitrust authorities and companies.

The second argument of the plaintiffs in support of the breakup seems excessive. Antitrust enforcement is not an emotional tug of war in which the egos of either the plaintiffs or the defendants need to be satisfied. The show of remorse or lack thereof by Microsoft executives could not possibly define the remedy. We find it hard to believe that the judge would be correct in finding a different remedy appropriate if enough Microsoft executives simply showed public remorse. Moreover, Microsoft, like any other defendant, had a right to appeal (and it did so). A defendant’s belief that he will prevail on appeal should not result in punishment.

The third argument, that the breakup is a surgical cut and therefore would disrupt the industry the least, is countered by the facts. A breakup of Microsoft would eliminate Microsoft as a flexible and formidable competitor. The wholehearted endorsement of the breakup by Microsoft’s competitors in servers and back office (who were not found in US v. Microsoft to have incurred damages by the Windows monopoly but will greatly benefit from the confusion and disruption created by a Microsoft breakup) is evidence that the breakup would be one of the most disruptive possible outcomes. Generally breakdowns of large companies are complicated and drawn-out affairs that disrupt the company that is broken up, the producers of complementary goods to its products, and its customers.

The fourth argument, that, since AT&T’s 1982 breakup was successful, so would Microsoft’s is incorrect. AT&T was divided into the long-distance company (AT&T), and seven regional operating companies, each of which remained a regulated local telecommunications monopoly until 1996. The destruction of AT&T’s long-distance monopoly encouraged competition, which brought sharply lower prices and immense consumer benefits. There are a number of key differences between the two companies and their competitive situations. And these differences make it very likely that a Microsoft breakup, besides harming Microsoft, would harm consumers and the computer industry.

In 1981, AT&T was a 100-year-old regulated monopoly with many layers of management. For historical reasons, the local phone companies within the old AT&T, such as New York Telephone, were managed separately from the “long lines” division. Thus, it was not difficult to separate the divisions since they functioned on many levels as separate companies. AT&T also had an abundance of managers to help cope with the breakup. By contrast, Microsoft is a young, entrepreneurial company run by few top executives, and its divisions are fluid. While this has made Microsoft an efficient and successful company, it also means that a break-up would have posed significant managerial problems and severely reduced the company’s flexibility. Finally, AT&T was a regulated utility, and regulation guaranteed that the companies emerging from the breakup stayed interconnected. In contrast, the Microsoft breakup would likely to lead to incompatibilities and further loss of efficiency.

USDOJ’s two-way breakup plan was premised on the hope that an autonomous applications company would create a new operating system to compete with Windows. But at trial it was stipulated that more than 70,000 applications run on Windows, creating what the government called “the applications barrier to entry” in the operating-system market. The new applications company, however capable, is unlikely to be able to single-handedly create a successful rival operating system in short order.
The breakup of Microsoft, first proposed by the government, imposed by Judge Jackson, and, after the DC Court of Appeals decision not pursued by the government, would have had detrimental effects. First, the breakup was likely to result in higher prices. If USDOJ was correct and Microsoft kept its OS prices low so that it can exercise its monopoly power in the adjacent browser market, the post-breakup Baby Bill that would inherit the operating system would have no incentive to keep the price low. The OS Baby Bill would no longer have the incentive to disadvantage any applications companies. Thus, if USDOJ’s theories are correct, the OS Baby Bill would exercise its monopoly power and raise the price of the operating system to the detriment of consumers. If USDOJ was correct and Microsoft has significant monopoly power because of the “applications barrier to entry,” higher prices would be the direct result of the breakup. Second, as explained earlier, the breakup would likely eliminate the efficiencies that make Microsoft a flexible and formidable competitor.

A breakup would likely temporarily eliminate the incentive for interference from OSs to applications and vice versa. Of course, the same can and has been accomplished by conduct restrictions without the cost and the disruption of a breakup. Moreover, the district court’s breakup proposal did not impose permanent restrictions on the post-breakup functions of the resulting companies. The OS and the applications Baby Bills would have been able to enter into each other’s business soon after the breakup. It is very likely that a few years after such a breakup, one of the resulting companies would dominate both markets.

4. Alternative remedies

The difficulty of devising adequate remedies that address the application entry barrier issue as well as the distributional advantage of Windows, and the alleged “failure” of the traditional conduct remedies employed in this case led some commentators to suggest alternative and unconventional remedies, including non-antitrust alternatives.

a. Public procurement procedures as an antitrust remedy: reducing the applications barrier

Regulation is not the only way States can intervene in the marketplace. Increasingly, State ownership and/or State contracting/spending are employed in order to achieve specific public policy objectives. Competition in the marketplace might be one of those objectives. Professor Herbert Hovenkamp raised the possibility of public contracting being used as a tool to reduce Microsoft’s applications barrier to entry and gave the example of Alcoa, where the government sold the productive capacity of aluminum it owned under the conditions of the Surplus Property Act, which “required the government to consider the impact on competition whenever it sold a significant piece of private property to a private firm” and excluded Alco from participating to the bid for government plants. According to Hovenkamp, “(t)oday the government could do

---

241 See, Christopher McCrudden, Buying Social Justice (OUP, 2007).
something similar by requiring its departments and agencies to use open-source software as an alternative to Microsoft’s products.”

This would increase the open source software installed base, as governments are among the principal purchasers of software products and would help the economy move from a monopolized to a competitive computer platform network. The benefits for innovation would be particularly important, as recent studies have showed that innovative incentives (investments in applications) are sometimes greater for open source than for proprietary software platforms. Microsoft would be able to participate to the government bidding process, under the condition that it submits its own open-source products, either by developing new products or by making public the source code of Windows. This may improve allocative efficiency, as the government would also be able to purchase software products at a lower price (not including remuneration for intellectual property rights), and dynamic efficiency with increased competition between different products (assuming that a competitive market is better suited for innovation than a monopolistic market for software products). One could also envision as a condition for Microsoft’s participation to a call for tenders the unbundling of its applications from the operating system so as to guarantee an installed base to competing formats, or a wide interoperability with all existing or new formats. Of course, any imposed restriction of software choice would also precipitate reductions in utility of government users, at least in the short run. These utility losses of the Hovenkamp proposal have to be considered and balanced with the potential benefits outlined above.

The decision of the Brazilian government to switch from Microsoft proprietary software to open source software and to pass legislation making the use of open source software mandatory for governmental departments was reportedly aiming to force Microsoft to rethink its business model. The German government has also adopted Guidelines for federal, state and local governments as well as other public sector agencies

243 Ibid.
245 Additionally, it would be far reaching into the realm of industrial policy if the government specified a particular model of software development predicting what finished software products provides the greatest value per dollar spent. If Microsoft is forced to make the Windows source code public, this would reduce Microsoft’s incentives to drive that product forward with new innovations as others could then offer essentially the same product for free, possibly only subject to risk of patent infringement suits. Also, there is no significant evidence that the open source model can become a replacement for for-profit software. See, Nicholas Economides and Evangelos Katsamakas, Two-sided Competition of Proprietary vs. Open Source Technology Platforms and the Implications for the Software Industry, Management Science (2006) 52, 1057-1071, at http://www.stern.nyu.edu/networks/Economides_Katsamakas_Two-sided.pdf; Nicholas Economides and Evangelos Katsamakas, Linux vs. Windows: A Comparison of Application and Platform Innovation Incentives for Open Source and Proprietary Software Platform, in Jürgen Bitzer and Philipp J.H. Schröder (eds.), The Economics of Open Source Software Development, Elsevier Publishers, 2006, at http://www.stern.nyu.edu/networks/Economides_Katsamakas_LINUX_vs_WINDOWS.pdf.
interested to migrate from Microsoft proprietary technology to open source software and signed contracts with IBM for computer systems based on Linux operating systems.\textsuperscript{247}

These initiatives may have influenced Microsoft’s progressive commitment with interoperability, and probably led to the publication of the “interoperability principles.”\textsuperscript{248} An example may be the interoperability of Microsoft’s former proprietary OOXML (Office Open XML file format), now a formal ISO standard,\textsuperscript{249} with the OpenDocument Format (ODF) standard, which is supported by Sun Microsystems, IBM, Novell, Nokia, Intel and Red Hat. This led to the release of Microsoft Office 2007 service pack 2, a product that, according to Microsoft, “provides built-in support for more file formats than any other productivity suite on the market” and which comes with a “new programming interface that will make it easy for developers to make any other document format show up in the drop down menu and be selected by users as their default, putting it on a par with the major formats already supported in Office 2007.”\textsuperscript{250} This business culture evolution may have been provoked by the recent competition law challenges on interoperability and the use of public procurement as a way to increase competition in the marketplace. The cumulative impact of these combined antitrust and non-antitrust remedies is outside the scope of this study and should be empirically examined.

b. Standard setting organization and \textit{de facto} versus \textit{de jure} standardization

The alleged \textit{de facto} standardization of the Windows architecture work group computing environment or the Windows media player platform through the leveraging of Microsoft’s dominant position in the operating systems market was a development that both the European Commission and the Court of First Instance abhorred\textsuperscript{251}. The CFI was particularly clear that its reservations did not concern the process of standardization, which may provide benefits to consumers, but the way this \textit{de facto} standardization took place in this particular case. The Court noted that “(a)lthough, generally, standardization may effectively present certain advantages, it cannot be allowed to be imposed unilaterally by an undertaking in a dominant position by means of tying.”\textsuperscript{252}

A possible alternative is to delegate the task of developing interoperable standards to a Standard Setting Organization (SSO), which will assist the competition law authority or court from a burdensome monitoring mechanism in implementing interoperability requirements. In this case, the standard will not emerge by a process of \textit{de facto} standardization by a dominant firm but will be the outcome of negotiations. The SSO’s

\textsuperscript{247} See, IBM signs Linux deal with Germany, BBC news, June 3, 2002, available at \url{http://news.bbc.co.uk/2/hi/business/2023127.stm}.
\textsuperscript{248} See, \url{http://www.microsoft.com/interop/principles/default.mspx}.
\textsuperscript{249} See, \url{http://en.wikipedia.org/wiki/Standardization_of_Office_Open_XML#cite_note-0}.
\textsuperscript{250} \url{http://microsoftontheissues.com/cs/blogs/mscorp/archive/2009/04/28/following-through-on-our-commitment-to-interoperability.aspx}.
\textsuperscript{251} See, Commission Decision, para. 779 where the Commission noted that the position of Microsoft on the client PC operating systems market will enable it to “determine to a large extent and independently of its competitors the set of coherent communications rules that will govern the \textit{de facto} standard for interoperability in work group networks.” But note that standardization to WMA and WMV never occurred, but was assumed by the Commission to be later disproved in actuality. Today, as well as before the imposition of the Windows N remedy, WMA and WMV are not dominant media formats.
\textsuperscript{252} CFI, para. 1152.
activity will be closely monitored in order to avoid cartel-like behavior, deceptive
court and to guarantee transparent and open procedures. However, different
problems with this specific solution are the imbalance of power between Microsoft and
its competitors in the standard setting body and the subsequent risk that the standard
approved will not be “sufficiently” interoperable with competitors’ products.
Additionally, the standard setting process is slow and could thus retard innovation in
some dimensions while accelerating it in others. Furthermore, an agreement by
competitors on a standard tends to restrict competition because competitors are limited
largely to competing within the specific narrow confines of the standard, that is, just the
best implementation of it. It follows that breakthrough innovation with alternative
approaches tends not to occur because everyone is focused on implementation of the
standard.

IV. Conclusion

The success or the failure of the remedial action in the US and the EC Microsoft
case is still, five years after the D.C. Circuit decision on remedies in the US and the same
period since the Commission’s Decision, a matter of controversy. Some tend to link
the alleged failure of the remedy, or its unexpected costs and scope, with the issue of
liability, professing what has been known as “if you cannot fix it, it isn’t broken.”
Although it is clear that, in principle, the costs of remedies should not outweigh the
consumer benefit they achieve, it is also contended that plaintiffs employ a sequential
information model that addresses one issue at a time. It would be therefore inappropriate
to dismiss a case simply because the plaintiff did not identify an adequate remedy. Harry
First rightly observes “it seems inevitable that plaintiffs will refine their case as they
learn more in the course of the litigation process,” in particular in high tech industries
where technological change is so complex and technological change so rapid that there is
a need for quick action.

At the same time, the litigation process is cheap compared to competition in price
or product development. Thus, rivals have significant incentives to sue global dominant

253 See, Philip J. Weiser, ‘Regulating Interoperability: Lessons from AT&T, Microsoft, and Beyond’,
Paper No. 09-04. Available at SSRN: http://ssrn.com/abstract=1344828, at 22-23. See, however, the
rejection of the ‘truth-in-standards” provisions suggested by the non-settling states by the D.C. Circuit on
the motive that these were unrelated to the violation found. The non-settling states would have required
Microsoft to continue supporting any industry standard it has publicly claimed to support until it publicly
releases such support, or the standard expires or is rescinded by the standard setting body and to continue
to support an industry standard any time it makes a proprietary alteration.
254 See the recent investigation by the European Commission of the interoperability of OOXML, which was
approved as an ISO-recognized international standard in April 2008. However, there have been allegations
which are currently investigated by the European Commission that there have been irregularities or
attempts to influence the vote at the European Committee for Standardization or the International
Organization for Standardization, thus illustrating the difficulties of guaranteeing the transparency of the
255 See, most recently, the exchange between Carl Shapiro, ‘Microsoft: A Remedial Failure’, (2009) 75
Antitrust Law Journal 739 & Keith N. Hylton, ‘Remedies, Antitrust Law and Microsoft: Comment of
256 Harry First, ‘Netscape is Dead: Remedy Lessons from the Microsoft Litigation’, above, at 31.
firms on multiple grounds and in multiple jurisdictions with the expectation that some suit will ultimately be successful in some jurisdiction. And, sometimes, one or more of these cases is picked up and pursued by an antitrust authority, as it happened with the two cases against Microsoft, one in the US and one in the EU. To some extent, the lack of fully-thought remedies in both of these cases is a consequence of the history of the cases, that is, how they were started by allegations of rivals who were primarily interested in improving their competitive position vis-à-vis the dominant firm rather thanremedying all the consequences of anti-competitive behavior.

The anticompetitive effects of these practices were clearly identified and a dominant narrative emerged as a retrospective rationalization of different practices and strategies adopted by Microsoft that harmed consumers: the maintenance of monopoly story in the US case and the leveraging story in the EU case. The identification of a specific consumer harm story could operate as a limit to the identification of adequate remedies. Antitrust liability stories transcend the different stages of a case, including the issue of remedies that need to address the specific consumer harm. The US Microsoft case was problematic at this respect as there wasn’t a direct link between the antitrust liability story of maintenance of monopoly and the forward-looking remedies adopted. It is clear that Microsoft executives were concerned by the potential (but unlikely) erosion of the Windows’ platform ubiquity from the joint actions of Sun and Java. The competitive threat to Windows did not materialize but Microsoft raised the walls of its fortress preventively in order to defend its position from Java’s and Sun’s naval attack, if one employs Carl Schapiro’s fortress metaphor. But, is it legitimate to require dominant firms to bring down the walls of their fortress or to keep them at the same level they were before, when they identify, perhaps wrongly, the existence of a potential threat of attack? There is a fine conceptual line between an illegitimate preventive wall raising exercise and a legitimate meeting competition defense. Lowering the wall some centimeters will certainly be an option but the question will be of how much lower and how much for what reason.

In comparison, the narrative of the first European Microsoft case fits better with the remedies imposed. The issue here was that the dominant firm was using an existing fort to attack a new area and extend its fortification. The dominant firm would have thus been able to reinforce the defenses of its existing fort and to increase the risks for those attacking it. The remedy in this case seems more straightforward in comparison to the previous setting: terminating the extension of the fortification will bring the end of both the ambition to reinforce the existing fortifications and to occupy a new area.

What this metaphor shows is that the choice of the adequate narrative among different consumer harm stories should correspond to the remedy sought. This was certainly the case with the EU Microsoft case but not with the US Microsoft case, where the difficulty for the leveraging argument to get accepted by the courts as well as the change of the administration and possibly the re-framing of the government’s claim led to the development of a narrative (maintenance of monopoly) that had only an indirect link with the bulk of the forward-looking remedies that were finally imposed.

---

257 Carl Shapiro, ‘Microsoft: A Remedial Failure’, at 747.
This mismatch between the consumer harm story/narrative and the remedy sought is also manifest in the second EU Microsoft case. Although the Commission seemed to advance a consumer harm story based on the relatively favorable, for its position, case law on tying, establishing some form of quasi per-se illegality of tying if a company has a dominant position, the “must carry” commitment accepted by the Commission as an adequate remedy for the competition problem does not address this particular issue. Unbundling would have certainly looked as the most adequate remedy for a leveraging concern. However, the Commission reacted negatively when Microsoft decided to unbundle IE from Windows 7-E. The “must carry” remedy adopted fits more with an essential facilities case, where Windows would have been considered indispensable for the distribution of an Internet browser. We do not criticize the remedy as such, which could perhaps prove to be effective, in terms of reinvigorating competition in the Internet browser market, but the apparent mismatch between the consumer harm story and the remedy. It would be particularly damaging for the development of competition law and economic growth in general if plaintiffs could employ the less demanding, in terms of standard of proof, theory of consumer harm in order to achieve the most far reaching, in terms of commitments from a dominant firm, remedies. The problem cannot be solved by the characterization of the Microsoft case as a strictly “tying” case. The classification of abuses under Article 82 is not a clear-cut exercise and there is always a fine conceptual line that distinguishes different categories of abuses, if one takes an effects-based approach.259