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Unbundling Scope-of-Permission Goods:
When Should We Invest in Reducing Entry Barriers?

Randal C. Picker†

Bundling has emerged as one of the most complicated competition policy issues of the day, from markets as ordinary as that for transparent tape (to 3M, Scotch tape to the rest of us)¹ to those as complex and fast-moving as telecommunications. I want to try to carve off a piece of the bundling question, namely that relating to what I will call “scope-of-permission” goods. Scope-of-permission goods deliver precisely the same good to each individual but define multiple products through the scope of access—through the scope of permission—that the producer gives to each consumer. These goods typically have arbitrary scope: we could add to them or subtract from them quite easily.

As I detail below, scope-of-permission goods naturally include computer software, such as Microsoft Windows, and licenses from copyright collectives, such as American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music, Inc. (BMI)—products at stake in two of the most prominent antitrust controversies. In framing the ASCAP and Microsoft cases as addressing scope-of-permission goods, we see that both cases turn on the same question: when should we invest in reducing entry barriers? The chosen structure of the scope-of-permission good—the blanket licenses in ASCAP and the design of Windows—creates entry barriers, barriers to competing performing rights organizations in the case of ASCAP and barriers to competing browsers and now media players in the case of Microsoft.

The critical issue is the extent to which we are willing to reengineer these scope-of-permission goods—to re-scope them—to enable

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¹ See http://www.3m.com/about3m/student/scotchbrand4 (visited Nov 26, 2004) (“The worldwide popularity of 3M's transparent tape made the term 'Scotch tape' a virtual synonym for 'tape.' In fact, however, Scotch is a brand name, exclusive to the 3M family of 900 pressure-sensitive adhesives.”).
entry. With a new judgment in the sixty-five-year-old ASCAP case, the final resolution of the U.S. case against Microsoft, and the European Commission's decision in its proceeding against Microsoft, we have chosen three different approaches to reengineering scope-of-permission goods to foster entry.

As discussed in Part II of this Essay, in ASCAP, we have re-scoped by subtracting from the scope of the blanket license and have imposed a pricing-consistency provision between the blanket license and the newly-required sublicenses with the hope of creating entry by competing copyright collectives. In the U.S. Microsoft case, as discussed in Part III, we again have reduced the scope of the permission good by giving computer sellers the right to hide the visible means of accessing parts of Windows, including, most relevantly, Windows Media Player (WMP). In the EU Microsoft case, discussed in the same Part, we have gone a step farther by requiring Microsoft to engage in what I have called elsewhere mandatory versioning, requiring Microsoft to create versions of Windows with and without WMP. Again, we have done this by reducing the scope of the product with the hope of facilitating entry in the media player market. But because the scope of these goods is in many ways arbitrary, we could choose to add scope rather than subtract scope, and we may have missed an opportunity to do better in the EU Microsoft case by imposing a must-carry remedy on Microsoft relating to competing media players.

I. UNDERSTANDING SCOPE-OF-PERMISSION GOODS

To understand the idea of a scope-of-permission good, work quickly through a taxonomy of goods. Contrast private goods with public goods. Private goods are defined by rivalry in consumption: if I eat the muffin for breakfast, you can't eat the same muffin. Public goods are defined by the absence of rivalry in consumption: my enjoyment of our national defense protection does not prevent you from enjoying it as well.

We can also speak, perhaps cutely but also with meaning, of "public" public goods and "private" public goods. We want to add to rivalry a second dimension to the analysis, namely, the idea of excludability. Public public goods are nonrivalrous goods as to which it is impossible to exclude anyone from consumption. National defense remains a good example: it is impossible to protect me with an antiballistic missile system and not protect you as well. As the name suggests, absent charitable impulses, we should expect little private provision of public

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public goods and instead will need to rely on the compulsion of taxation to finance their provision. In contrast, if we add excludability to nonrivalry, we have the possibility of private public goods: public goods that will be privately provided and privately financed.\(^1\) Pay TV is the classic example of a private public good: the ability to block access means that consumers cannot just get it for free, so a private provider can charge for the product.

Nonrivalrous consumption plus excludability defines the private public good. To get to scope-of-permission goods, take that idea and add more: namely, we deliver precisely the same good to each individual but define multiple products through the scope of access—through the scope of permission—that the producer gives to each consumer. By arbitrarily setting the scope of different versions of the product, we could give different individuals different products. The key attribute that makes possible scope-of-permission goods is that the marginal cost of adding and distributing increments to the goods in issue is zero. Once an attribute is created, there are no real marginal costs to bundling together a very large number of attributes. This means that there are few, if any, natural limits on product scope.

For contrast, consider how we might sell fruit. We have five kinds of fruit: apples, oranges, bananas, pears, and grapefruits. Consumers value the right piece of fruit at $5, the wrong piece of fruit at zero. Each consumer just wants one piece of fruit, and each piece of fruit costs $1 to produce. A seller who assembled a fruit basket consisting of one piece of each fruit would incur costs of $5 and yet could sell the fruit basket for just $5 and would make zero profits. Four pieces of fruit would be wasted in each transaction. The marginal cost of each piece of fruit naturally points to a definition of the scope of the product, here the individual piece of fruit.

That scope-of-permission goods might pose special competitive concerns should be clear. The fact that goods can be added to the product scope at zero marginal cost means that we do not need to try to identify consumer demand and tailor the delivered product to that demand. Instead, we could just offer the consumer everything and allow the consumer to choose what she wants. This strategy may lower costs, as the seller does not need to offer many differentiated products. Moreover, with consumers likely to have different values for different parts of the product, the larger the number of attributes bundled together in a single product, the more that the aggregate demand by

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each consumer for the entire product converges to a single value. If that happens, a seller with monopoly power may be able to extract more money from consumers by expanding the scope of the product. And the larger product scope may erect an entry barrier to competitors as the scope and scale of their entry is altered.

II. ASCAP: SUBTRACTING FROM SCOPE-OF-PERMISSION GOODS

Copyrighted works are the quintessential scope-of-permission goods. We define slices of rights that make up the bundle of rights associated with a copyrighted works. We distinguish the right to copy a work from the right to distribute that work. We distinguish sale of a physical instantiation of the work from the work itself. J.K. Rowling doesn’t transfer her copyright in her most recent Harry Potter novel when she sells a hardback copy of it.

To take another right, U.S. copyright law vests a separate exclusive right in copyright owners to perform copyrighted works publicly. ASCAP was organized in October 1913 to create a way for music composers to vindicate their copyrights in music performed publicly.

ASCAP shaped entry through its policy of issuing only blanket licenses for the music in the ASCAP repertory. The blanket license gave the recipient the right to play any song registered with ASCAP. The fee for use did not depend on which songs were used or how frequently they were played, though prior to 1932 ASCAP did set license fees based on the number of hours in which the radio station broadcast ASCAP music. After 1932, ASCAP dropped that policy and switched to fees tied to a percentage of the station’s annual income.

This switch matters for entry. Under the old scheme, a radio station could drop ASCAP songs entirely for an hour, reduce its payments to ASCAP, and substitute in other songs. With fees tied to annual revenues—and wholly independent of actual use—the radio sta-

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4 See Yannis Bakos and Erik Brynjolfsson, Bundling Information Goods: Pricing, Profits, and Efficiency, 45 Mgmt Sci 1613, 1614 (1999) (showing that a “consumer’s valuation for a collection of goods typically has a probability distribution with a lower variance per good compared to the valuations for the individual goods” and that such an effect makes bundling a powerful marketing tool for profit maximization).

5 Compare 17 USC § 106(1) (2000) (the right “to reproduce the copyrighted work in copies or phonorecords”), with 17 USC § 106(3) (the right “to distribute copies or phonorecords”).

6 17 USC § 202 (2000) (“Ownership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied.”).

7 17 USC § 106(4).


9 Id.
tion received no financial benefit from substituting to non-ASCAP songs. Indeed, if the alternative provider wanted to get paid, the radio station's fees would go up.\textsuperscript{10}

ASCAP's annual-revenues blanket license blocked entry by competing performing rights organizations (PROs). A PRO entrant who sought to sign up composers would struggle, as all would recognize that the radio station would be stuck with its set fee to ASCAP, unless the station could drop ASCAP music entirely.

Yet we did get entry by a competing PRO in 1939. How? In late 1939, when ASCAP wanted to raise licensing fees, the radio broadcasters set up their own competing rights organization, BMI.\textsuperscript{11} The radio broadcasters didn't want to pay ASCAP anything for programs where no ASCAP music was used; instead they wanted a per-program license.\textsuperscript{12} As ASCAP and the radio broadcasters negotiated, the Department of Justice, which had been nosing around ASCAP for the better part of six years looking for antitrust violations, announced that it would launch new criminal antitrust proceedings against ASCAP and BMI.

This had to surprise BMI—it was barely a year old—but BMI must have realized that it could turn the antitrust threat to its advantage by raising its rival's costs. BMI settled quickly with the government and agreed to adhere to precisely the provision that the radio broadcasters had been seeking in their negotiations with ASCAP.\textsuperscript{13} The "pay-when-you-play" provision stipulated that the license fee for the use of the rights controlled by BMI could not be tied to revenues for any programs in which no BMI music was used, and that provision was consistent with BMI's core method for paying composers when music was played.\textsuperscript{14}

\textsuperscript{10} Id at 46 (quoting a memorandum written by a federal official after discussing this pricing policy with a radio station manager in Detroit).

\textsuperscript{11} See Paul Goldstein, Copyright's Highway 59 (Stanford revised ed 2003).

\textsuperscript{12} See Ryan, Production of Culture at 87 (cited in note 8).

\textsuperscript{13} See Goldstein, Copyright's Highway at 60 (cited in note 11).

\textsuperscript{14} See United States v Broadcast Music, Inc, 1940-43 Trade Cases ¶ 56,096 at 383 (ED Wis 1941):

[BMI] shall not require, as a condition to any offer to license the public performance for profit of a musical composition or compositions for radio broadcasting, a license fee of which any part shall be . . . based upon a percentage of the income received by the broadcaster from programs in which no musical composition or compositions licensed by said defendant for performance shall be performed.

See also B.M.I. Averts Suit by Consent Decree: Agrees to End Alleged Monopolistic Ways as Soon as A.S.C.A.P. Also Yields, Government Voids Action But Says It WillProsecute Anti-Trust Criminal Case Against Composers, NY Times 22 (Jan 28, 1941); Jack Gould, Radio Music Dispute Raises Complex Issues: ASCAP, Broadcasters and Their BMI Are Tangled with the Anti-Trust Forces of the Government, NY Times E10 (Feb 9, 1941).
Finally, with the full weight of the federal government bearing down, ASCAP faced the music—who could resist?—and agreed to a settlement tracking the government’s prior settlement with BMI.  

Most importantly—at least one would have thought—ASCAP agreed to license songs on a per program basis with fees tied to the revenues of that particular program.  

That said, the then-president of ASCAP, Gene Buck, believed that the blanket license would continue to be widely used because of the “economy in bookkeeping” associated with it. He was right: the consent decrees were reworked in the 1950s and 1960s, but the blanket license continued to be the dominant mode of licensing music. When CBS sued ASCAP and BMI in 1975 alleging that the blanket licenses offered by ASCAP and BMI were per se violations of the Sherman Act, CBS and the other television networks had taken only blanket licenses since 1946.

CBS alleged illegal price fixing, unlawful tying, a concerted refusal to deal, and misuse of copyrights. ASCAP and BMI won in the district court, but on appeal to the Second Circuit, the court held that the blanket license constituted per se illegal price fixing. What remedy did CBS want? The Second Circuit identified a central problem of the blanket license and a possible solution:

Our objection to the blanket license is that it reduces price competition among the members and provides a disinclination to compete. We think that these objections may be removed if ASCAP itself is required to provide some form of per use licensing which will ensure competition among the individual members with respect to those networks which wish to engage in per use licensing.

This is a distinction between collective policing and collective price-setting. There may be substantial merit in collectivizing the enforcement of copyrights, but it is not clear, especially today, that col-

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15 United States v American Society of Composers, Authors and Publishers, 1940-43 Trade Cases ¶ 56,104 at 402 (SD NY 1941); ASCAP to Sign Pact Ending Trust Suits: Consent Decree Revises Its Methods—Radio Fee Still an Issue as Peace Talks Near, NY Times 1 (Feb 20, 1941).
16 ASCAP, 1940-43 Trade Cases at 404.
17 ASCAP to Sign Pact Ending Trust Suits, NY Times at 22 (cited in note 15).
19 Columbia Broadcasting System, Inc v American Society of Composers, Authors and Publishers, 400 F Supp 737, 780-81 (SD NY 1975) (dismissing the complaint because CBS “failed to prove the factual predicate of its claims—the non-availability of alternatives to the blanket license”).
21 Id at 140.
collective pricing must come with collective policing, a point that the Supreme Court should have been more sensitive to in rejecting CBS's per se claims. Not that the Court should have upheld those claims: this is clearly a complex situation and we should not engage in a truncated per se analysis. More to the point is that the new product rationale framed by the Court in justifying a move to rule of reason analysis (“Here, the whole is truly greater than the sum of its parts; it is, to some extent, a different product”), while right, takes too little into account that any number of new products might have been created; the right question is which products are created and why.

That gets us back nicely to the scope-of-permission good framework and the most recent iteration of the government's sixty-five-year-old case against ASCAP. The core issue here has always been about what licenses ASCAP offered and whether it offered a meaningful alternative to the blanket license. This was what the radio broadcasters sought when they formed BMI in 1939 and what CBS continued to seek when it brought its private antitrust action against ASCAP and BMI in 1975.

On June 11, 2001, a second amended final judgment (SAFJ) was entered in the ASCAP case, supplanting the original judgment entered on March 4, 1991 (as amended in the interim). According to the government, the point of the SAFJ is to provide “genuine alternatives to a blanket license” with the hope of “encouraging competition among PROs” and “encouraging competition between ASCAP and its members to license performances of the members’ works.” As this, of course, was the point of the original final judgment, it is hard to know whether the longevity of the blanket license is a testament to its efficiency, to ASCAP’s market power, or to the difficulties of court-implemented regulation.

The SAFJ does contain a new provision—optimistically labeled “Genuine Choice”—which imposes a pricing consistency requirement

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24 Id at 21-22.
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on the blanket license.\textsuperscript{27} Think of one radio station taking the blanket license and the corresponding fees to ASCAP. Imagine if that radio station took a per-program license—one of the sublicenses called for by the SAFJ—for each of its programs. From a use standpoint, that would be equivalent to having a blanket license. The Genuine Choice provision requires that the total fees due from the set of per-program licenses approximate those for the blanket license.\textsuperscript{28}

The core idea here is to make it possible for a radio station to reduce how much it pays ASCAP and BMI when it reduces its use of their music, to make it possible to substitute in music from another source, and in turn encourage entry and competition in the provision of music by copyright collectives. The blanket license separates use decisions from price, a virtue given the public-good nature of music compositions, plus the blanket license removes any concern about needing to monitor use for possible infringements (but still leaves reason to monitor to determine how to split up the ASCAP pie). But the blanket license blocks entry in copyright collectives and may facilitate collusion among music composers. The monitoring benefits of the blanket license might be mitigated through a sampling and penalty structure (spot check for violations and hit infringers with big fines). If that is right, the remaining question, yet to be answered, is whether the transaction costs associated with defining the new licenses are worth the competitive benefits associated with new entry from other copyright collectives.

III. MICROSOFT AND SCOPE-OF-PERMISSION GOODS: SUBTRACTING WHEN WE SHOULD HAVE BEEN ADDING?

Computer software is frequently distributed in a scope-of-permission framework. The program comes in two versions: a basic version which may even be free and a full-featured version for a price. But we are not talking about two different products in the way that a single doughnut is different from a dozen doughnuts. The actual software delivered may be identical for both the basic and full-featured versions. An end user upgrades from the basic version by paying a fee and receiving a password to unlock the additional features.

\textsuperscript{27} ASCAP, 2001–02 Trade Cases at 91,961–62. The consent decree states:

(A) ASCAP shall use its best efforts to avoid any discrimination among the various types of licenses offered, or of the benefits of any of those types of licenses.

(B) For a representative music user, the total license fee for a per-program or per-segment license shall, at the time the license fee is established, approximate the fee for a blanket license.

\textsuperscript{28} Id.
The Microsoft antitrust cases emphasize the importance of how access and permission are organized. For more than a decade, Microsoft has been the Great White Whale of antitrust. In 1994, Microsoft entered into settlements with the U.S. and the EU concerning its licensing practices for its then-dominant operating system, MS-DOS.2 That settlement required Microsoft to revamp its licensing practices. The settlement itself became the source of subsequent litigation when Microsoft moved to add its web browser, Internet Explorer, to Windows. Whether doing so violated the 1994 settlement is a nice question—and the subject of a 2-1 decision in the D.C. Circuit holding that it did not3—but one that quickly became irrelevant once the U.S. government filed a broad new antitrust complaint against Microsoft.31

In the new case, the district court found Microsoft guilty of illegal monopoly maintenance relating to many of Microsoft’s actions against the entry threat posed by Netscape Navigator.32 The court also characterized the same actions as attempted monopolization of the web browser market.33 And Microsoft was found to have illegally tied Internet Explorer to Windows.34 The district court concluded that Microsoft should be split into two independent companies—an operating system company and an applications company (organized around Microsoft Office).35

On appeal, the D.C. Circuit, en banc and unanimously, upheld the finding of monopoly maintenance, but overturned everything else.36 The court found that the lower court had erred in considering the tying claim under a per se analysis and instead held that rule of reason analysis was required for the complicated questions of tying and software integration at issue in the case.37 The court also found that the government had failed to specify a meaningful browser market, and a fortiori, had therefore failed to make out a successful claim of attempted monopolization of that market.38

29 See Edmund L. Andrews, Microsoft’s Grip on Software Loosened by Antitrust Deal, NY Times 1 (July 17, 1994).
30 United States v Microsoft Corp., 147 F3d 935 (DC Cir 1998).
32 Microsoft, 87 F Supp 2d at 35.
33 Id.
34 Id.
35 United States v Microsoft Corp., 97 F Supp 2d 59, 64 (D DC 2000).
36 United States v Microsoft Corp., 253 F3d 54, 94 (DC Cir 2001) (en banc).
37 Id.
38 Id at 81-82:

Because the determination of a relevant market is a factual question to be resolved by the District Court, we would normally remand the case so that the District Court could formu-
On remand the Antitrust Division dropped the tying claim and moved forward to pursue a remedy for the remaining monopoly maintenance finding. Microsoft, the United States, and certain of the individual states reached an agreed remedy, and that remedy, described in part below, was ultimately upheld by the D.C. Circuit on June 30, 2004.

At the same time that the U.S. case was working its way up and down the court system, the European Commission was conducting a parallel investigation of Microsoft’s practices with a focus on the bundling of Windows Media Player with Windows and the interaction between Windows and computer servers. The Commission announced its result on March 24, 2004, holding that Microsoft had abused its dominant position in the market for operating systems to the detriment of the server market and the market for media players.

The question of who should define the product is perhaps the central question regarding scope-of-permission goods. The tying claim in the U.S. case turned on how Microsoft had organized the relationship—both technical and financial—between Windows and Internet Explorer. In the EU case, the focus was on the same questions regarding Windows and Windows Media Player. In other work, I have argued that the ideas of tying and bundling are too crude to help us understand these situations. The core characteristics of scope-of-permission goods—private public goods with zero marginal cost increments to the good—make tying and bundling particularly elusive.

Instead, I have suggested that we should focus on presence, visibility, and price. Presence is about where software is located: does it come on the Windows CD, or is the software preinstalled by an original equipment manufacturer (OEM), or is it somewhere else? Put differently, how is the software distributed? Prior to the internet, Microsoft enjoyed a substantial distributional advantage in being able to incorporate new software into Windows. The existence of the internet, where software can be downloaded easily, should diminish that advantage.

late an appropriate definition. A remand on market definition is unnecessary, however, because the District Court’s imprecision is directly traceable to plaintiffs’ failure to articulate and identify evidence before the District Court as to (1) what constitutes a browser . . . and (2) why certain other products are not reasonable substitutes.

39 United States v Microsoft Corp, 224 F Supp 2d 76 (D DC 2002).
40 Massachusetts v Microsoft Corp, 373 F3d 1199 (DC Cir 2004).
42 See Picker, 158 J Institutional & Theoretical Econ at 134 (cited in note 2).
43 Id.
tage, but, as discussed below, the evidence in the EU case suggests that Microsoft still enjoys a powerful distributional advantage over its software competitors. Microsoft can easily make software present by just folding new software into Windows.

Visibility is distinct from presence. Software can be present but invisible. In truth, most software on your computer fits this category. Microsoft Word comes with a zillion features, but the average user only ever sees a handful. Indeed, the current interface of Word recognizes this and "evolves" to track your use patterns by only showing on menus features that you use frequently. Software can also be visible but not present. Some features in software are listed as being available for use, but in truth they need to be installed on first use, either from a CD or over the network.

Finally, price focuses on the question of whether a separate charge is required to use the software. Windows is designed as a trademarked product sold for one price. Sort of, actually. Microsoft does sell what it calls a “personalization pack” and an “enhancement pack” for Windows XP. Microsoft Plus! and Microsoft Plus! Digital Media Edition add additional functionality and options to Windows XP. Buy a computer online at Dell’s website and you will be given the option—for a fee—to add these operating system enhancements to your purchase. And Microsoft is issuing a reduced-feature “starter edition” of Windows XP for Thailand and other developing markets. So even for Windows reality is slippery; but big picture, you pay one price for Windows and you get Windows, whatever Microsoft has deemed that to be. You cannot buy Windows à la carte and pay a reduced price if you never want to print anything.

The distinction between visibility and presence as to Windows Media Player is one of the key lines of separation between the U.S. and EU cases. In the EU case, Microsoft argued that the U.S. case remedy sufficed as to media players. Under the U.S. remedy, OEMs could sell computers without visible access to WMP and could make other media players the default installation. Critically—at least from the EU’s perspective—this meant that the underlying code for WMP would continue to be present on the machines shipped by OEMs.

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44 See text accompanying note 68.
47 European Commission Decision § 796.
48 New York v Microsoft Corp, 231 F Supp 2d 144, 177 (D DC 2002).
49 See European Commission Decision § 798 ("[T]he US Judgment does not purport to include a remedy for tying. In particular, the US Judgment does not provide for removal of WMP
In part, the European Commission understood the U.S. remedy to be framed by the way in which liability was found in the U.S. case. The D.C. Circuit had overturned the original finding of liability for tying Internet Explorer to Windows. The district court had proceeded on an analysis of per se liability, but the D.C. Circuit believed instead that the tying claim needed to be evaluated under a rule of reason analysis. The U.S. government dropped the tying claim, given the uncertainty of the likely outcome and the fact that further liability litigation would have delayed imposition of a remedy.

The U.S. remedy therefore was imposed for the found illegal monopoly maintenance, and not for the allegedly illegal tying of the browser to Windows. I have argued elsewhere that I believe that Microsoft should not have been found to have engaged in illegal tying of the browser to Windows, but more to the point here is the way in which the liability framing affected remedies. On the remedy remand, the district court noted that actual removal of code—as contrasted with removal of visible means of access to that code—"would likely be reflected in the imposition of liability for illegal tying, rather than liability for illegal for [sic] monopoly maintenance."

The U.S. approach limits the extent to which courts intrude into product design. Microsoft is free to commingle software code at will and to reuse chunks of code to provide different functionalities. At the same time, the remedy controls the visibility of pieces of the code. This is one approach to the scope-of-permission framework: the user has the right to use the code that is present, but the transaction costs of using it are higher because the code isn't visible to the end user. By making it possible for computer sellers to reduce the visibility of software functions, such as Internet Explorer, we enhance the ability of browser competitors to place their software on the desktop.

In the EU case, the Commission focused on the question of whether Microsoft had impermissibly tied WMP to Windows in violation of Article 82 of the European Union Treaty. The EU tying standard under Article 82 focuses on a series of issues familiar to students of U.S. antitrust tying law, namely whether the two goods are separate

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50 Microsoft, 253 F3d at 89.
51 See text accompanying notes 37–39.
52 See Picker, 158 J Institutional & Theoretical Econ at 131–33 (cited in note 2) (arguing that traditional formulations of tying violations do not apply easily to the software industry, particularly with internet sharing).
products, whether the firm has a dominant position in the tying product market, whether the firm does not allow customers to obtain the tying product without the tied product, and whether the tying forecloses competition. 55

Start with the question of whether Windows and WMP are two separate products. Microsoft argued that it was “inappropriate to consider multimedia playback functionality to be a separate product from an operating system.” 56 Microsoft contended that all PCs would be shipped with multimedia playback included. But the Commission properly rejected this analysis. As in Jefferson Parish Hospital District No 2 v Hyde, 57 the leading U.S. case on the separate product doctrine, the fact that consumers would inevitably use the functionalities together isn’t the point. In Jefferson Parish, few patients were getting surgery without anesthesia; indeed, presumably none were. And as the Commission itself suggested, most computer users also use word processing programs, but no one had suggested that word processing was part of the market for operating systems. 58

As the Commission recognized, the point is who chooses which anesthesiologist goes with the operating room, or which media player goes with the Windows operating system. 59 Do consumers self-bundle, do OEMs compete in putting together bundles, or does Microsoft guarantee that WMP comes with Windows and can Microsoft take steps to discourage the inclusion of a second media player?

These are the right questions; the answers are the hard part. But switch perspectives. What is Microsoft seeking to accomplish in distributing WMP as part of or with Windows? And should we be concerned about it? We typically tell one of two tying stories. 60 The first is tying as an effort to increase profits in a very basic way. The monopolist effectively charges more to customers through the tie. The standard analysis on tying of this sort emphasizes the “one monopoly profit” notion, applicable in fixed proportion situations, where a monopolist cannot increase profits through tying, and the possibility of price discrimination in variable proportions cases, where a monopolist may be able to increase profits through tying. We can say little gener-

55 European Commission Decision ¶ 794 (listing the elements of unlawful tying of products).
56 Id ¶ 404 (quoting Microsoft’s submission to the Commission).
58 European Commission Decision ¶ 405.
59 Id ¶ 809 (refuting Microsoft’s argument that consumers’ preference for some media player necessitates inclusion of Windows Media Player by pointing out that OEMs could just as easily preinstall a competing media player).
60 Indeed, both of these stories surfaced in the EU case as part of the server-­Windows part of the case. Id ¶¶ 764–68.
ally about price discrimination of this sort, as the discrimination can either reduce or enhance overall social welfare.

The second tying story is that the monopolist ties the second good in an effort to protect its original monopoly. That may have been the right story in the browser antitrust case, though there may have been other sufficient reasons for the tie. But the nefarious story is that Microsoft understood Netscape Navigator posed a threat to its Windows monopoly, and in particular, to the fact that software developers wrote to the Windows application programming interface (API). Microsoft understood that it could defeat Netscape's threat to that control if it merely fragmented the browser market, and tying Internet Explorer would go a long way toward fragmenting the browser market.

Do we think that either of our standard tying theories applies here? The Commission concluded, if only weakly, that the media player might be a beachhead in a larger attack on Windows. Media players do expose their own APIs and applications can be written to them, as AOL has done with RealNetworks's media player. Still, even if the media player is combined with other software, such as Java, we are a long way from the broad-based platforms established by Windows, the Mac OS, or Linux.

So return to the first tying story, namely, the idea that Microsoft might be tying WMP to Windows to get customers to pay, on average, more money. As I suggested above, the literature on bundling and product scope does suggest good reason for a monopolist to expand the scope of the product, and the addition of WMP to Windows would be consistent with that.

But I think that there is a more direct story here, perhaps a useful third story for tying, and one that the Commission understood. The media player is the key point—perhaps even the bottleneck—in this

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62 As I have argued elsewhere. See Picker, 158 J Institutional & Theoretical Econ at 133 (cited in note 2) (pointing out the advantages of tying in the pre-internet world, when Microsoft, as the dominant player in the market, needed to serve as the central coordinator of shared software).

63 Id at 130.

64 European Commission Decision ¶ 892 ("[S]oftware programmes can be written to the Windows Media Player APIs."); id ¶ 966 ("AOL 6.0 and 7.0 make API calls to RealPlayer."); id ¶ 972 ("[M]edia players—Microsoft gives RealPlayer as an example—expose their APIs.").

65 See text accompanying note 4.

66 See European Commission Decision ¶ 975 (arguing that Microsoft "can use the ubiquity of WMP on Windows PCs as an argument to propagate its proprietary media formats and technologies on the server software side, in its relationship with content developers").
two-sided market. The media player sits in the middle between consumer listeners and content creators. There are a number of ways to extract value in these markets, and none of the payments need come from the consumers themselves. So broadcast TV is “free” because we pay by watching commercials. Adobe Acrobat Reader is free to readers, because a broadly installed reader platform makes it possible to sell expensive authoring software to writers. Microsoft bundles WMP with Windows not to extract more dollars from end users but to get those dollars from third parties. Distributing “free” platforms is hard, but Microsoft does so just by bundling the platform with Windows.

Indeed, the Commission concluded that Microsoft enjoyed a “ubiquity” or reach advantage compared to other makers of media players and that that advantage might decisively tip the media player market in Microsoft’s favor. Media player software is platform software, and the value of the platform depends on how much content is developed for it. But content developers face a choice as well: how many platforms to support and which ones? If supporting multiple platforms is costly—and the evidence in the EU case suggested that it was—a content provider might choose to support only one or two platforms and would naturally focus on the platform with the largest reach. Microsoft’s tie of WMP to Windows almost certainly ensures that the media player with the largest reach is WMP.

How should the Commission remedy this problem? The Commission sought to create competition at the computer seller level by requiring Microsoft to create two different versions of Windows, one with WMP and one without. As I previously advocated exactly this remedy—mandatory versioning is what I called it—I am hard pressed to say that the Commission is completely out to lunch (or perhaps we are having lunch together). Under the remedy, Microsoft would not be required to charge different prices for the “with” and “without” versions, and Microsoft would be allowed to negotiate with OEMs to

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68 European Commission Decision ¶ 842.

69 Id ¶¶ 883–84 (citing results of the Commission’s 2003 market inquiry to show that “supporting many different technologies generates additional development, infrastructure and management costs”).

70 Picker, 158 J Institutional & Theoretical Econ at 115–16 (cited in note 2).
have the "with" version installed on desktops.\textsuperscript{71} That is the point: Microsoft would have to bargain to get WMP on the desktop, just as Real, Apple, and all of the other media player companies currently bargain to get their software distributed.

Take stock of that point. Windows isn't just software: it is one of the best possible vehicles for distributing software (Microsoft Office is another). Prior to the recent antitrust actions, when Microsoft added software to Windows it could be assured that that software would become widely distributed as the next version of Windows rolled out. Microsoft enjoyed a huge competitive advantage in being able to fold WMP into Windows. One measure of this is the distributional deal cut by RealNetworks with Compaq.\textsuperscript{72} The Commission characterized that deal as "a revenue sharing model of not insignificant relevance."\textsuperscript{73}

But it is important to understand the nature of Microsoft's competitive advantage. The Commission characterized RealNetworks's revenue sharing as an example of "the significant additional cost that tying imposes on Microsoft's rivals."\textsuperscript{74} That isn't right, or, more precisely, we aren't really told enough to know how right it is. Consider an OEM's decision to distribute a second media player. With WMP already on the system, an OEM will focus on the \textit{incremental} costs and benefits of adding a second media player. Incremental benefits could arise if the second media player has more features than WMP or taps into music not released in a format supported by WMP. The incremental costs of the second media player are typically extra support and training costs.\textsuperscript{75} These were the costs that Microsoft used as a barrier to entry against Netscape Navigator.\textsuperscript{76} Without WMP installed, adding RealPlayer would almost certainly be a net positive; with WMP installed, adding RealPlayer may very well be a net negative for the OEM.

Indeed, the story gets worse. If consumers won't pay more for a computer with a second installed player, the second player is just a negative for the OEM, and the second media player firm needs to pay

\textsuperscript{71} European Commission Decision ¶ 959 ("[T]his Decision does not purport to prevent Microsoft from entering into arrangements with OEMs to pre-install Windows and a media player (possibly WMP) on a client PC in order to meet the corresponding consumer demand.").

\textsuperscript{72} See id ¶ 856.

\textsuperscript{73} Id.

\textsuperscript{74} Id.

\textsuperscript{75} Id ¶ 852.

\textsuperscript{76} Microsoft, 253 F3d at 60–62 (arguing that by preventing OEMs from deleting the Internet Explorer icon from the desktop, making other alterations to the desktop, or changing the initial boot-up sequence, Microsoft forced OEMs to risk creating a system that confused customers, thus raising the OEMs' "extremely expensive" customer service costs and ensuring that OEMs would prefer not to supplement or substitute Internet Explorer).
the OEM at least the incremental support costs associated with adding its product. But it strikes me as unlikely that the payments RealNetworks is making to Compaq merely reflect additional support costs. To be sure, there is not enough information in the public record to know. But the power to distribute is valuable, and firms routinely get paid for distribution. The deal between RealNetworks and Compaq looks much like a standard carriage deal.

With Windows, Microsoft has its own distribution channel, and Microsoft doesn't have to strike separate distribution deals. WMP's presence does make it somewhat more expensive for a media player competitor to enter, but it would be a mistake to measure that entry barrier by the size of the observed payments by media player firms to OEMs. Pure distribution payments probably represent the lion's share of those payments.

But that takes us to the central problem with the Commission's versioning remedy. The distribution payments suggest that media player software is underdistributed. In a competitive market, the price of distribution should reflect the marginal cost of distribution. If hard disk space is free—and effectively we should think of it that way—the key cost of distribution is the extra support calls that come with having more than one media player installed. If I am right that RealNetworks' payments to Compaq exceed those costs—and I have no way to assess that, but the Commission should have—then we are seeing market power exercised in distributing "free" software such as media players, and that software is underdistributed.

There was a second route available to the Commission and, indeed, one that it had under active consideration as an alternative to mandatory versioning.\(^7\) This is a "must-carry" remedy, meaning that Microsoft would have to distribute one or more media players with Windows if Microsoft wanted to bundle WMP with Windows. The must-carry remedy would directly mitigate the ubiquity advantage that the Commission thought would tip the media platform format war. It would also mitigate the market power that may be being exercised by OEMs in the deals that they strike to distribute software.

As I noted before, I previously advocated a mandatory versioning remedy of the sort implemented by the EU. Why now the preference for must-carry? Two points. First, my views were premised on the idea that with increasing broadband penetration, the advantage of centralized distribution in Windows or through OEMs was declining relative

to over-the-network distribution. I think that is right—indeed, I am not sure the point can really be challenged—but the behavior of all participants in the industry and the evidence presented in the EU case suggests that there still is a real advantage to centralized distribution. Second, the point of mandatory versioning was to allow competition at the OEM level. But we should be concerned if we are seeing market power exercised at that level, and, again, the evidence in the EU case on the distribution deals signed with OEMs suggests that there is a good chance that we are seeing market power there.

The core disadvantage of must-carry is the concern about market engineering, one reason must-carry was rejected in the U.S. case. How much market engineering is a question of design. We shouldn't just choose firms and give them must-carry rights in perpetuity. Better to choose a number of media player slots in Windows—five?—and auction off the rights to those slots (and we could require Microsoft to buy into that auction as well if it wants WMP to continue to come with Windows). Who gets the money? We would almost certainly end up compensating OEMs for the extra support costs. After that, dollar (or Euro) issues are fighting points, but little turns on that regarding implementing meaningful competition in media players.

There is also a real irony here in the Commission's choice of mandatory versioning over must-carry. In the U.S., under the Telecommunications Act of 1996, we have sought to create facilities-based competition, that is, competition between telecommunications companies each of which has its own equipment and lines. That has proven to be hard to do, and most of the facilities-based competition that has emerged is *intermodal* competition, that is, competition between the local telephone incumbent and cable companies and new wireless systems.

The must-carry remedy is facilities-based competition on the cheap. Not quite free, because there will be extra support costs in having multiple players installed on a computer but, by the standards of telecommunications, really cheap facilities-based competition. By bundling other media players with Windows, WMP's competitors would have the same "reach" as WMP, plus we would avoid the problem of missing APIs. That is, if we really want to encourage developers

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78 Microsoft, 373 F3d at 1239-40 ("[T]he Department of Justice explained its decision not to pursue the States' proposed Java must-carry provisions: '[I]t is not the proper role of the government to bless one competitor over others, or one potential middleware platform over others.").


to write to the media player, the media player needs to be available. The mandatory versioning approach fragments the media player base, making it harder for any developer to rely on a particular API. That was the Commission's point, as it preserves competitive balance among media players, but must-carry would have done that while avoiding the fragmentation problem. And, if the Commission really thinks that it is possible that media players might grow incrementally toward being an operating system, must-carry would jump-start that process.

CONCLUSION

Scope-of-permission goods are goods of arbitrary scope, where consumption of the good is nonrivalrous, where users can be excluded from consuming the good—through market organization, technology, or law—and where increments to the good can be added to the good, once they are created, at zero marginal cost. These goods have been at the heart of some of our most difficult cases in antitrust law and competition policy. This includes the extended antitrust litigation over the blanket licenses for the use of copyrighted works issued by ASCAP and BMI. It also includes the Windows operating system, especially as it has grown over time with the addition of Internet Explorer and Windows Media Player.

In the ASCAP cases and in the U.S. and EU antitrust actions against Microsoft, the core question is to what extent do we want to re-scope a scope-of-permission so as to foster entry. In the recent revision of the forty-year-old consent decrees in ASCAP, we have once again pushed ASCAP to offer meaningfully smaller licenses—a required subtraction of scope—with the hope that we would create entry in collective rights organizations.

The U.S. and EU have taken different paths in their actions against Microsoft. Both focus on the scope of the rights given to end users in Windows. The U.S. has chosen to limit the visibility of Windows Media Player by allowing computer sellers to hide visible means of access to WMP. WMP remains present to rise up if invoked by a savvy consumer or by a third party. In contrast, the European Commission has required Microsoft to engage in mandatory versioning, requiring Microsoft to offer computer sellers versions of Windows with and without WMP.

The U.S. remedy intrudes less directly into product design; the EU remedy does a better job of preserving competition in media

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81 See note 64 and accompanying text.
players by limiting the reach advantage that Microsoft has by being able to tie and distribute WMP with Windows. But we had a better alternative available, one that was rejected by both the U.S. and the EU. Imposing a must-carry obligation—requiring Microsoft to distribute other media players if it chose to distribute WMP with Windows—would have neutralized Microsoft's ability to tie WMP to Windows, while avoiding concerns about fragmenting the programming infrastructure available to third parties. This would have created the possibility of strong competition, akin to the facilities-based competition we have sought to create in U.S. telecommunications.

At least for software, we should think that there are strong asymmetries between subtraction and addition remedies. Subtracting disrupts the natural flow of product development and leaves the software producer with the difficult task of unscrambling the software code. It also creates the risk of fragmenting the programming base available to third parties. Subtraction may be sensible when the underlying goods are more distinct—when we can separate Bach from the Beatles—but in the Microsoft cases, instead of subtracting scope, as we did in ASCAP and the U.S. and EU have done in Microsoft, we should have expanded the scope of Windows by imposing a must-carry remedy.