

## Paper Trail: Working Papers and Recent Scholarship

**Editor's Note:** In this edition, we review a paper by Dennis Carlton and Michael Waldman criticizing the Antitrust Modernization Commission's definition of safe harbors in the analysis of bundled discounts, which they believe are usually benign. We also include a response from Malcolm Coate to our review of his working paper on barriers to entry in merger analysis. Send comments and suggestions for papers to review to: [page@law.ufl.edu](mailto:page@law.ufl.edu) or [jwoodbury@crai.com](mailto:jwoodbury@crai.com).

—WILLIAM H. PAGE AND JOHN R. WOODBURY

### Recent Papers

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#### **Dennis Carlton & Michael Waldman, Safe Harbors for Quantity Discounts and Bundling (Jan. 2008)**

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1089202](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1089202)

In this short paper, Dennis Carlton and Michael Waldman criticize the Antitrust Modernization Commission's definition of safe harbors<sup>1</sup> in the analysis of bundled discounts. The authors note that safe harbors are often beneficial in antitrust law because certain "practices often are motivated by efficiency and that a broad antitrust attack on them could cause more harm than good." Quantity and bundled discounts, like price cutting, are in this category, because they are usually benign. The practices only become matters of antitrust concern if they harm both rivals and consumers by the same actions. In other words, they should only be unlawful when they are used as exclusionary practices, not when they are used for price discrimination. Indeed, the authors suggest that no pricing practices raise antitrust concerns unless they threaten a rival's existence or impair its competitiveness by denying it the ability to produce at an efficient scale.

The two-part test for predatory pricing reflects these standards. The requirement of pricing below incremental cost provides a kind of safe harbor. Even though above cost pricing might be anticompetitive in some instances, it is per se legal "in light of the fear of chilling beneficial price competition." The recoupment requirement recognizes that below-cost pricing is only harmful if it impairs rivals' ability to constrain the defendant's ability to raise price above marginal cost.

Quantity discounts raise similar, but not identical issues. When a firm offers a quantity discount, buyers' total expenditure for the goods increases with quantity, but "at slower rate than with linear pricing." This kind of discount can be evaluated under essentially the same two-part standard as predatory pricing. First, the discount will be profitable only if the expenditure remains above marginal cost, although there may be some (usually unimportant) discontinuities at the price points when the discount kicks in. Second, "if either the rival will not be driven out, or if re-entry can occur with no penalty, then recoupment is not possible and the claim of anticompetitive exclusionary pricing should fail." This latter condition is met, even if there are sunk costs, so long as the rival is not actually driven out of business and its marginal costs increase with output. In these circum-

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<sup>1</sup> The AMC's test is not stated as a "safe harbor," but as a test of legality. But it is arguable that the first prong of the test is a kind of safe harbor.

stances, the rival's ability to constrain pricing would remain, even if it loses sales and is thus deprived of scale. In a footnote, however, Carlton and Waldman concede that there may be anti-competitive effects if the losses to the rival force it to reduce investment in innovation.

Bundled discounts also raise similar issues, but the analysis is complicated by the involvement of multiple products, not all of which are competitively priced. This portion of the paper attempts to demonstrate that the Antitrust Modernization Commission's proposed definition of the safe harbor for bundling is incorrect. The Commission proposed:

Courts should adopt a three-part test to determine whether bundled discounts or rebates violate Section 2 of the Sherman Act. To prove a violation of Section 2, a plaintiff should be required to show each one of the following elements (as well as other elements of a Section 2 claim): (1) after allocating all discounts and rebates attributable to the entire bundle of products to the competitive product, the defendant sold the competitive product below its incremental cost for the competitive product; (2) the defendant is likely to recoup these short-term losses; and (3) the bundled discount or rebate program has had or is likely to have an adverse effect on competition.<sup>2</sup>

Carlton and Waldman focus their criticism on the first element of this test, the full "discount attribution" standard, which the Ninth Circuit endorsed in *PeaceHealth*.<sup>3</sup> They claim that this part of test is a safe harbor, but is too narrowly drawn because it does not take account of nonexclusionary uses of bundling for price discrimination. To make the point, they hypothesize a firm that sells product A, over which the firm has a monopoly, and product B, which faces competition from other producers. If the separate monopoly price of A is 10 and the separate competitive price (marginal cost) of B is 5, and all consumers need both products, then it is arguably predatory to sell the bundle for 14. The firm has accomplished the same thing as selling B below marginal cost. The AMC would thus frame the first prong of its test by calculating the implicit net price of B by assigning to it the full discount on the bundle, then asking if the resulting price is below marginal cost.

Carlton and Waldman object that this definition of the safe harbor is too narrow, because it fails to recognize the legitimate, nonexclusionary use of bundling to discriminate in price. Suppose, for example, that one consumer values product A at 15 and product B at zero, while another consumer values A at 11 and B at 6. B is sold separately at its marginal cost of 5. Pricing each product separately, the firm could only sell two units of A at 11 each. Using mixed bundling as a strategy of price discrimination to exact each consumer's surplus, however, the firm could sell A separately to the first consumer for 15, and sell a bundle of A and B to the second consumer for 16. But doing so would fail the first prong of the AMC's safe harbor. If we apply the full discount of the bundle (compared to the prices of A and B separately) to B, the implicit price of B is 4, which is below B's marginal cost of 5. Yet, according to Carlton and Waldman, this bundling strategy is not exclusionary, even though rival producers of B are eliminated, because neither consumer is harmed by the exclusion of the rival producers. Indeed, they note that, if there are consumers who value B but not A, rival producers could remain in the market by selling to those consumers, yet the firm selling the bundle would have failed the AMC's safe harbor.

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<sup>2</sup> ANTITRUST MODERNIZATION COMM'N, REPORT AND RECOMMENDATIONS 99 (2007), available at [http://www.amc.gov/report\\_recommendation/chapter1.pdf](http://www.amc.gov/report_recommendation/chapter1.pdf).

<sup>3</sup> *Cascade Health Solutions v. PeaceHealth*, No. 05-35627, 2008 WL 269506, at \*15 (9th Cir. Feb. 1, 2008). Carlton and Waldman cite an opinion in the case that the cited opinion superseded, but the new opinion does not affect this point.

The AMC's test has two other prongs: first, will the bundle allow the firm to recoup by raising the price of B in a later time period; and, second, will the bundle cause competitive harm? They suggest that a better approach would be to ask whether producers of B can remain in the market by specializing in sales to consumers who value only B. This test has the virtue of (relative) simplicity, and recognizes that any harm to consumers of A is purely the result of price discrimination, and is thus not exclusionary.

—WHP

## Author's Response

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### From Malcolm Coate, Economist, Federal Trade Commission\*

In the December issue of the *Antitrust Source's* Paper Trail, John Woodbury reviewed my working paper (since updated), "Theory Meets Practice: Barriers to Entry in Merger Analysis." Woodbury gave what's essentially a referee report on the initial version of the paper. He did make some helpful comments that have been incorporated into the latest version of the paper (revised 2008) (available at SSRN: <http://ssrn.com/abstract=988423>). However, I think the review fails to capture the essence of the line of work I collectively term the "Transparency Project."<sup>4</sup> The goal of the overall project is to explore the Federal Trade Commission's enforcement record in a search for both empirical generalities and innovations in merger analysis. The project has led to the release of useful information on aggregate data for Herfindahl levels and number of significant competitors, the proportion of cases that report some form of evidence (natural experiment data, customer concerns, or hot documents) and the styles of analysis that are used to define markets in practice. Moreover, papers in the project discuss innovative ideas associated with isolating a relevant market, measuring market structure and proving a competitive concern. Entry analysis would also benefit from this style of transparency.

The paper reviewed in the December 2007 Paper Trail focuses on the entry issue; it gives an overview of the Guidelines process and highlights innovations such as modeling likelihood of entry. Woodbury characterizes the insights on how the agency applies the Guidelines as "nothing new;" instead, he suggests the paper re-focus on obtaining a "deeper understanding" of what the staff "typically" looks at to evaluate entry. In effect, Woodbury would prefer a case study approach to merger analysis. Some case study information is available to the antitrust community, as the joint FTC/Department of Justice Commentary on the Horizontal Merger Guidelines contains a section on entry barriers.<sup>5</sup> More detailed analyses of actual cases are difficult in light of the constraints on releasing Hart-Scott-Rodino confidential information.

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\* The analyses and conclusions contained in this response are those of the author and do not necessarily represent the views of the Federal Trade Commission, any individual Commissioner or any Commission Bureau.

<sup>4</sup> See, e.g., Malcom B. Coate & Shawn W. Ulrick, *Transparency at the Federal Trade Commission: The Horizontal Merger Review Process*, 73 ANTITRUST L.J. 531 (2006); Malcolm B. Coate, *Economic Models and the Merger Analysis: A Case Study*, 2 REV. L. & ECON. 53 (2006); Malcolm B. Coate, *Empirical Analysis of Merger Enforcement Under the 1992 Merger Guidelines*, 27 REV. INDUS. ORG. 279 (2005); Malcolm B. Coate & Jeffrey H. Fischer, *A Practical Guide to the Hypothetical Monopoly Test for Market Definition*, J. COMPETITION L. & ECON. (forthcoming), available at <http://ssrn.com/abstract=940667>.

<sup>5</sup> See Federal Trade Comm'n & U.S. Dep't of Justice, *Commentary on the Horizontal Merger Guidelines* (2006), available at <http://www.ftc.gov/os/2006/03/CommentaryontheHorizontalMergerGuidelinesMarch2006.pdf>.

All the papers in the Transparency Project attempt to identify economic considerations relevant to the staff analyses using the Merger Guidelines as a context. Often this requires providing some definitions and background material. In this paper, I define barriers as “structural conditions or strategic behaviors that prevent market forces from quickly deterring or counteracting an anti-competitive effect of concern.”

Woodbury questions the overweighting of strategic barriers to entry in the theoretical discussion, describing it as “too cryptic.” Unfortunately, Post-Chicago economics is cryptic, but antitrust professionals are stuck with it. The theoretical discussion, along with references to the recent work of Dennis Carlton, are crucial to convince the stakeholder to accept the fundamental proposition that the concept of an entry barrier must be defined in light of a theory of competitive concern.<sup>6</sup> In effect, this means that merger enforcement and barrier analysis are empirical tasks. While economists can postulate any number of models to simulate the universe, the models are only applicable if (1) they can be validated with some type of evidence to show their predictions have been tested and (2) the facts underlying the model can be quantified in the real world.<sup>7</sup>

Woodbury notes that the discussion of the FTC cases does not start until section VI. I have clarified the draft and it is now clear that the entire second half of section III is based (in part) on insights gleaned from the case files. Table 1 lists historical barriers to entry, all of which make their appearance in some form or the other in the files. Each entry style (de-novo entry, fringe branding, fringe entry, etc.) needs to be evaluated for timeliness and then likelihood. Then styles of entry that are both timely and likely are passed through the sufficiency analysis to determine if the effect of timely, likely entry, when viewed together, is sufficient to offset or deter the competitive effect of concern.

Woodbury appeared concerned with the lack of evidence on the likelihood issue. The text has been tweaked to focus the reader on the minimum viable scale test. Staff claims entry is not profitable in 93 matters, but only provides a comprehensive explanation for 47 of the cases. Arguments such as “the product was branded” or “the market was declining” could have been developed into fact-based analyses, but were not. The solution to this problem is lifted right out of the files: in a few innovative reviews, staff presented actual models of the entry decision, based either on available entry studies or pro-forma profitability models. Net present value analysis, if carefully implemented, should be able to determine if a firm could profitably (would) enter in response to a specific anticompetitive effect. While further research on any topic may be useful, the ideas contained in this paper are likely to help stakeholders address entry issues at the FTC.

#### **John Woodbury Replies:**

*I want to clarify two points Malcolm Coate takes issue with in his response to my review of his paper in the December 2007 Antitrust Source, <http://www.abanet.org/antitrust/at-source/07/12/Dec07-pTrail12-17.pdf>: First, contrary to what Coate seems to be suggesting, I did find the data discussed in his paper informative and interesting. That's why most of my review focused on the FTC's release of the information that characterizes the agency's enforcement approach contained in the Coate paper.*

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<sup>6</sup> Dennis W. Carlton, *Why Barriers to Entry Are Barriers to Understanding*, 94 AM. ECON. REV. 466 (2004).

<sup>7</sup> Malcolm B. Coate & Jeffrey H. Fischer, *Can Post-Chicago Economics Survive Daubert*, 34 AKRON L. REV. 795 (2001).

*And if it were correct, as Coate writes in his response, that "Post-Chicago economics is cryptic, but antitrust professionals are stuck with it"—this would certainly be an unsettling state of affairs in the relationship between antitrust law and economics. But my experience has been that economists can generally provide the intuition behind even a technically complicated concept. So I wasn't suggesting that post-Chicago economics was beyond the comprehension of mere mortals and lawyers, only that the discussion of post-Chicago economics in the paper was not particularly accessible. ●*

**Editor's Note:** The Antitrust Source welcomes comments from the authors whose papers are reviewed in the Paper Trail. Send comments to [antitrust@att.net](mailto:antitrust@att.net).