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Vertical Restrictions and Antitrust Policy: What About the Evidence?

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Edited by Richard Schmalensee

From the Editor

The second issue of *Competition Policy International* begins with articles by two distinguished jurists representing both sides of the Atlantic. President Bo Vesterdorf, of the European Court of First Instance in Luxembourg, looks at the role of the EC courts in reviewing competition policy decisions by the European Commission. One of the interesting questions he addresses is how much deference the courts should give to findings by the Commission that involve complex economic assessments. Douglas H. Ginsburg, Chief Judge of the U.S. Court of Appeals for the D.C. Circuit, and Leah Brannon explore how court decisions have affected the pace of private enforcement activity in the United States. In an interesting statistical analysis, he documents how waves of private litigation have come and gone, driven in part by U.S. Supreme Court decisions that that opened or closed the door to theories of anticompetitive harm.

The issue then turns to a provocative article by Professor Luke Froeb, until recently chief economist at the U.S. Federal Trade Commission, and several co-authors who are FTC economists. Froeb and his colleagues argue that the available evidence provides little support for various theories of anticompetitive vertical foreclosure. Two leading industrial organization scholars—Professors F. M. Scherer and Ralph Winter—beg to differ to varying degrees. This exchange has relevance for ongoing debates in the European Community, where the Commission is considering guidelines for vertical mergers as well as abuse of dominance cases involving vertical issues, and in the United States, where the Antitrust Modernization Committee is examining possible legislative reform of the antitrust laws.

Next comes a symposium on loyalty rebates—discounts that are tied to buying some fraction of one or more goods from a single manufacturer. Such rebates are the focus of an intense debate in the European Community and the United States. The *Michelin II* decision, for example, would appear to make it very difficult for a dominant firm to persuade the courts that its loyalty rebates are not an abuse. From a European perspective, the *LePage's* case decided by the U.S. Court of Appeals for the Third Circuit, which subjects the rebates of a firm with market power to a rule of reason inquiry, would seem to be much more permissive. But in the United States, *LePage's* has been viewed as opening a new and wider door for plaintiffs to bring cases against discounting

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arrangements. Dr. David Spector of Paris Sciences Economiques, Professor Bruce Kobayashi of George Mason University in the United States, and Alberto Heimler of the Italian Competition Authority bring different geographic and institutional perspectives to this issue.

This issue of the journal concludes with two classic articles on predatory pricing. Phillip Areeda and Donald Turner's "Predatory Pricing and Related Practices under Section 2 of the Sherman Act" triggered the rise of skepticism toward claims of predatory pricing, both in the courts and among many academics. Many economists now believe that this tide has risen too far and that U.S. courts have become too skeptical of predatory pricing claims. Basil Yamey's "Predatory Price Cutting: Notes and Comments" will resonate with those who hold this view. Professor Yamey argues that predatory pricing is not only theoretically plausible, but that several cases clearly demonstrate its existence as an empirical matter.

On behalf of the readers and the editorial team, I am delighted to extend my thanks to all of the contributors to this issue.

Richard Schmalensee
Editor-In-Chief

Judicial Review in EC and U.S. Antitrust Law

Valentine Korah

The first two articles of this issue are based on presentations for the inaugural edition of the University College London Antitrust Forum held on March 3, 2005. Sir Christopher Bellamy, President of the U.K. Competition Appeal Tribunal, chaired the event. Bo Vesterdorf, President of the European Court of First Instance (CFI), and Douglas H. Ginsburg, Chief Judge of the U.S. Court of Appeals for the DC Circuit, were the speakers.

President Vesterdorf described the role of the European Court of Justice (ECJ) and CFI in enforcing EC competition law. His remarks excluded private damage actions, of which few have been brought in the courts of EC member states, but over which the CFI has no jurisdiction. He explained the judicial review of administrative action which, unlike U.S. appeals from lower court decisions, goes into the merits of the agencies' cases. The President was content that the European Commission should have wide discretion in appraising complex economic situations, provided that they were subject to scrutiny, not only internally within the Competition Directorate General, but also by an independent court.

The CFI has established full and close review over decisions of the Commission, but has no jurisdiction to decide the issues on the merits. Under Article 230 EC, it has power only to see that the rights of the defence have been respected, that there is sufficient reasoning in the decision, and that the Commission has not committed a manifest error of appraisal. He did not consider how close the court sometimes gets to the merits by deciding that the Commission's reasons were insufficient.

President Vesterdorf ended by considering ways in which the powers of the court might be improved and, in particular, whether it could be helped to speed up the process. Would it be desirable to implement the Treaty of Nice and

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create a subordinate court to consider competition cases with an appeal on point of law to the CFI? Or would it be better to relieve the CFI of its work on trademarks so that it has more time to consider competition cases and speed them up? In his paper, President Vesterdorf provides these answers.

Judge Ginsburg (based on joint work with Leah Brannon) removed widespread misconceptions about the number of private damage actions for antitrust infringements in the United States and the reasons for their occurrence. Some commentators believed that the large number was due to procedural advantages enjoyed by antitrust plaintiffs and, in particular, the amount of damages obtainable and that the decrease in the late 1970s was due to the lack of standing for indirect purchasers.

Judge Ginsburg took advantage of empirical studies performed at Georgetown University and observed that the number of U.S. private actions has fluctuated with the state of the law and with the number and kind of U.S. government filings (on the backs of which private plaintiffs may piggyback).

In the 1960s and early 1970s, when much conduct—including non-price vertical restrictions—was held to constitute per se offences, a plaintiff in the United States only had to prove what the defendant had done. As a result, private litigation increased and many actions were brought by competitors. This continued until *Sylvania*,[1] when the U.S. Supreme Court ruled that vertical restraints could be justified under the rule of reason and shifted the burden of showing that the conduct was restrictive to the plaintiff.

The decrease in U.S. private damage actions in the late 1970s and 1980s did not correlate well with the U.S. Supreme Court's refusal to allow standing to indirect purchasers in *Illinois Brick*.[2] Many U.S. states enacted laws allowing action by indirect purchasers soon after the judgment of the U.S. Supreme Court and only one piggyback action was brought in that decade in the U.S. courts studied in the Georgetown paper. The decrease of private litigation when the U.S. government was prosecuting many cartels could be explained by the fact that the main damage suffered was in public procurement. State buyers could use the threat to debar the guilty from public procurement and did not need to sue.

These thoughtful papers were written by individuals who bring a unique combination of scholarly and practical insight to important questions of U.S. and EC judicial practice. The editors of *Competition Policy International* are delighted to have the opportunity to publish them.

1 Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36 (1977).

2 Illinois Brick v. Illinois, 431 U.S. 720 (1977).

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Judicial Review in EC Competition Law: Reflections on the Role of the Community Courts in the EC System of Competition Law Enforcement

Bo Vesterdorf

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Judicial Review in EC Competition Law: Reflections on the Role of the Community Courts in the EC System of Competition Law Enforcement

Bo Vesterdorf

This paper sets out personal reflections on the role of the judiciary within a primarily administrative system of enforcement of the competition laws. The paper first goes through a short description of the basic features of the EC system of competition law enforcement; second, it addresses the role of the Community Courts in judicially reviewing the European Commission's decisions; third, it provides an overview (including statistical information) on the functioning of the current system; and fourth, it offers certain ideas for potential future changes and improvements to the system of judicial review.

The author is President of the Court of First Instance of the European Communities. The views expressed herein are entirely personal, do not necessarily reflect those of his colleagues, and do not have any bearing on any pending cases before the Court. The paper endeavors to set out his reflections on the law as it stands on July 1, 2005. This paper is based on a speech given at the UCL Annual Antitrust Forum Conference in London on May 3, 2005 and, subsequently, with minor revisions, at the Studienvereinigung Kartellrecht International Forum on EC Competition Law in Brussels on August 4, 2005. The author would like to thank Kyriakos Fountoukakos, référendaire in the author's chambers, for his assistance with the preparation of this paper.

I. Introduction

The topic of this paper may appear, at first glance, wide in scope and perhaps academic but, in my view, it could not be more topical or relevant to the everyday enforcement of competition law.

The recent reform of EC competition law with the adoption of Regulation 1/2003[1] in antitrust and Regulation 139/2004[2] in the field of mergers has reopened a debate on the role of competition law in general, and the merits of different systems of enforcement of the competition laws (administrative v. prosecutorial systems, decentralized v. centralized systems, and so forth).

Regulation 1/2003 has led to a radical reform by decentralizing the system of enforcement of the antitrust laws, giving greater powers not only to the European Commission and National Competition Authorities, but also to national courts.

The reform of the Merger Regulation, while less radical, was preceded by a wide-ranging debate, launched by the Commission's Green Paper on merger reform,[3] on the due process aspects of the EC system of merger control and the respective merits of an administrative-based system of enforcement compared to a judicial-based system, such as that of the United States.

Finally, recent litigation in the field of mergers has brought, perhaps for the first time so explicitly, the role of judicial review in competition law to the foreground and even within the realms of the mainstream press. The recent judgment by the European Court of Justice (ECJ) in the *Tetra Laval* case[4] dealt precisely with this issue: What is the role of judicial review in matters of competition law and, in particular in that case, merger law?

This paper attempts to address those issues, focusing in particular on the role of the judiciary within a primarily administrative system of enforcement of the

1 Council Regulation (EC) No. 1/2003 of Dec. 16, 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, 2003 O.J. (L 1) 1 [hereinafter Regulation 1/2003].

2 Council Regulation (EC) No. 139/2004 of Jan. 20, 2004 on the control of concentrations between undertakings, 2004 O.J. (L 24) 1 [hereinafter Merger Regulation or ECMR].

3 Green Paper on the Review of Council Regulation (EEC) No. 4064/89, COM(2001) 745/6, Dec. 11, 2001, *at* http://europa.eu.int/comm/competition/mergers/review/ [hereinafter Green Paper].

4 Case C-12/03 P, Tetra Laval v. Commission, Judgment of the European Court of Justice of Feb. 15, 2005, not yet published in the ECR [hereinafter *Tetra Laval*].

competition laws.[5] The paper first goes through a short description of the basic features of the EC system of competition law enforcement; second, it addresses the role of the Community Courts—the ECJ and Court of First Instance (CFI)—in judicially reviewing the Commission's decisions; third, it provides an overview (including statistical information) on the functioning of the current system; and fourth, it offers certain ideas for potential future changes and improvements to the system of judicial review.

II. Basic Features of the EC System of Competition Enforcement

Competition is not a minor part of the EC legal order. Quite the contrary, a system of undistorted competition is part and parcel of the EC internal market.

Article 3(g) of the EC Treaty makes "a system ensuring that competition in the internal market is not distorted" one of the main areas of competence of the European Community. Such a system is important in order to achieve one of the main objectives of the European Community as set out in Article 2 EC, namely "a high degree of competitiveness and convergence of economic performance." The importance of competition is also outlined in the Constitutional Treaty which stipulates that "the Union shall offer its citizens... an internal market where competition is free and undistorted."[6]

With regard to antitrust law, the main provisions are of course contained in the EC Treaty in the form of Articles 81 and 82 EC, which respectively prohibit restrictive agreements and abuses of a dominant position. The basic rules concerning the enforcement of those provisions are currently found in Regulation

5 While, after decentralization, the role of national judges will undoubtedly increase, the focus of the present paper will be on the role of the Community Courts, and, in particular, that of the CFI, over which I have the great privilege of presiding, in reviewing the Commission's decisions in the field of competition. This paper does not, therefore, focus on the preliminary rulings function of the ECJ under Article 234 EC, which concerns application of EC law to national competition litigation. It should, however, be noted that, in the context of national enforcement of the competition rules, the case law of the Community Courts and, in particular, the ECJ's preliminary rulings function will continue to play an important role. Indeed, it is expected that national courts, faced with increased litigation on Articles 81 and 82, will feel obliged to refer questions to the ECJ under Article 234 EC so that the Court can guide them by providing an authoritative legal interpretation of those provisions and, hence, ensure the uniform application of those rules throughout the European Community.

6 Article I-3(2) of the Constitutional Treaty. *See also* Article I-13 of the Constitutional Treaty where competition figures among the few areas where the Union has exclusive competence.

1/2003 and the Implementing Regulation.[7] For mergers, Regulation 139/2004 and the Merger Implementing Regulation[8] provide a specific instrument of control.

Under Regulation 1/2003 and, in the field of mergers, under the Merger Regulation, the Commission enjoys wide-ranging powers of investigation and enforcement, including powers to compel undertakings to provide it with information, to conduct dawn raids, to seal premises, and to adopt final decisions putting an end to infringements, imposing fines, or, in the mergers field, prohibiting or even undoing a merger transaction.

A. AN ADMINISTRATIVE SYSTEM OF COMPETITION LAW ENFORCEMENT: INTERNAL CHECKS AND BALANCES

It is evident from this short description of the EC system of competition law enforcement that both in the field of antitrust as well as in merger control, the Commission has significant powers not only to review and investigate anticompetitive conduct or mergers but also to conclude this investigation by adopting final, binding decisions and to impose fines.

Those powers of the administration in the field of competition have caused a number of commentators to criticize the system for allowing the Commission to be both investigator and decision maker, a criticism that became particularly prominent in the recent debate on the reform of the Merger Regulation.[9] In this respect, it is perhaps worth noting at the outset that a concentration of investigative, prosecutorial, and decision-making powers in the hands of a single body is not an unusual feature of administrative systems, including competition enforcement systems. Its acceptability is, however, subject to the important proviso that the administration's decisions are taken in full respect of due process and are subject to effective checks and balances, in particular, subject to effective judicial review by an independent tribunal.

It is perhaps worth noting at the outset that a concentration of investigative, prosecutorial, and decision-making powers in the hands of a single body is not an unusual feature of administrative systems, including competition enforcement systems.

7 Commission Regulation (EC) No. 773/2004 of Apr. 7, 2004 relating to the conduct of proceedings by the Commission pursuant to Articles 81 and 82 of the EC Treaty, 2004 O.J. (L 23) 18 [hereinafter Implementing Regulation].

8 Commission Regulation (EC) No. 802/2004 of Apr. 7. 2004 implementing Council Regulation (EC) No. 139/2004 on the control of concentrations between undertakings, 2004 O.J. (L 133) 1 [hereinafter Merger Implementing Regulation].

9 *See* Submissions received on the Green Paper on the review of Council Regulation (EEC) No. 4064/89, *at* http://europa.eu.int/comm/competition/mergers/review/comments.html.

The EC system of competition law enforcement contains such due process features and checks and balances of two different types: internal checks and balances applicable to the Commission's own administrative procedure which apply before a final administrative decision is reached and external checks and balances in the form of judicial review by the Community Courts.

A full enumeration of the various due process features of the administrative system is beyond the scope of this paper which focuses on judicial review.[10] It suffices to note that important due process rights include the requirement for the Commission to always address its objections in writing, the right of the parties to have access to the Commission's file, the right to respond in writing and orally, and the right to participate in a hearing chaired by an independent Hearing Officer.[11] With regard to internal checks and balances, it should be noted that the Commission's own internal processes provide that draft decisions are scrutinized by a variety of bodies within the Commission, but outside the primary investigative service, the Competition Directorate General (DG COMP),[12] including the Commission's Legal Service, the Hearing Officer, and associated services in the form of other Directorates General, such as the Directorate General for Enterprise and Industry and the Directorate General for Economic and Financial Affairs. The Advisory Committee (composed of representatives of the competent authorities of the Member States) provides an important consultative function in the process. Finally, it should be noted that decisions on important matters, such as fining decisions or merger prohibition decisions, are taken by the full College of Commissioners and not just the Commissioner for Competition.

B. EXTERNAL CHECKS AND BALANCES: JUDICIAL REVIEW

Despite those internal checks and balances in the administrative system of competition law enforcement, the system would remain inherently unfair if there were no possibilities for the companies concerned to seek review of the Commission's decisions by an independent external body.

10 For a discussion of the due process features of the administrative procedure, *see* E. Paulis, *Checks and Balances in the EU Antitrust Enforcement System*, *in* FORDHAM U. SCH. OF L., INT'L ANTITRUST L. & POL'Y (B. Hawke ed., 2002), at 381.

11 *See* Commission Decision 2001/462/EC (ECSC) of May 23, 2001 on the terms of reference of hearing officers in certain competition proceedings, 2001 O.J. (L 162) 21.

12 It is also worth noting here that DG COMP has announced a number of internal measures that also act as checks and balances in its own processes. These include the so-called Peer Review Panels which are composed of experienced officials and are entrusted with the task of scrutinizing the preliminary conclusions and findings of the case team at key stages of the procedure. *See* Speech by M. Monti (at the time, EC Competition Commissioner), *A reformed competition policy: achievements and challenges for the future,* Center for European Reform, Brussels, Oct. 28, 2004, *available at* http://europa.eu.int/comm/competition/speeches/index_2004.html.

Indeed, while the internal checks and balances built into the system provide important rights of defense and are designed to improve the Commission's own decision-making process, they remain internal. No amount of such internal checks and balances can provide the same amount of scrutiny as comprehensive review by an independent, external body.

In this respect, it is important to recall that the European Court of Human Rights has held that decision-making powers can be entrusted to administrative authorities as long as they are subject to effective judicial review by an independent and impartial tribunal.[13] Judicial review is therefore a crucial element of the EC system of competition law enforcement for the compatibility of the system with the notion of a "fair trial" as enshrined in Article 6 of the European Convention of Human Rights.[14] It is through judicial review that the administration's decisions are subject to control by an independent external tribunal where necessary.

The remainder of the paper focuses on the role of the Community Courts in ensuring that judicial review is a meaningful check on the administration's actions in the field of competition. It addresses the following questions: Is judicial review by the CFI and ECJ effective? Does it constitute an appropriate system of checks and balances on the Commission's powers? Can the system be improved and how?

III. The Role of the Community Courts

A. COMPETENCE OF THE COMMUNITY COURTS

The Community Courts' jurisdiction to review the legality of the Commission's decisions in the field of competition derives directly from the Community's founding document, the EC Treaty.

Article 230 of the EC Treaty gives the Community Courts competence to review the legality of acts adopted by the institutions, including the Commission. It allows any natural or legal person to seek the annulment of a Commission decision which is addressed to that person or is of direct and individual concern to it. In other words aggrieved persons can appeal the Commission's decisions before the CFI and then, on grounds of law only, to the ECJ.

The grounds for annulment are limited and are those stipulated in Article 230 EC, namely "lack of competence, infringement of an essential procedural

13 *See*, *e.g.*, A/73, Ozturk v. Germany, Judgment of the European Court of Human Rights (ECtHR) of Feb. 21, 1984.

14 Article 6(1) ECHR reads as follows: "In the determination of his civil rights and obligations or of any criminal charge against him, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law."

requirement, infringement of [the] Treaty or of any rule of law relating to its application, or misuse of powers."

THE SYSTEM ENVISAGES A SORT OF INSTITUTIONAL BALANCE. THE COMMISSION AND THE COURTS SHOULD FOCUS ON THEIR RESPECTIVE PRIMARY FUNCTIONS: COMPETITION POLICY AND ENFORCEMENT ON THE ONE HAND, JUDICIAL REVIEW ON THE OTHER.

Article 229 enables the grant of unlimited jurisdiction to the courts in the determination of penalties. This has been granted in both the antitrust field, in Article 31 of Regulation 1/2003, and the merger field in Article 16 ECMR.

The Community Courts' case law has sufficiently clarified which acts of the Commission can be challenged and who is entitled to bring such challenges. A detailed analysis of those conditions is beyond the scope of the present paper. Suffice it to say that the case law has effectively extended the scope of judicial review in the field of competition both ratione materiae (which acts can be attacked) and ratione personae (who can attack). All decisions producing binding legal effects such as to affect the interests of an applicant by bringing about a distinct change in his legal position are acts which may be the subject of an action for annulment under Article 230 EC.[15]

The system of judicial review is therefore comprehensive in that it allows for the review of all of the Commission's decisions producing legal effects. Is it also effective?

B. THE COURTS' ROLE IS ONE OF REVIEW OF LEGALITY, NOT RE-EXAMINATION ON THE MERITS

The first thing to bear in mind when looking at the role of the Community Courts in the EC system of competition enforcement is that their role is one of restricted and not full jurisdiction (except, as noted earlier, in the case of decisions imposing fines). It is judicial review and not re-examination of a case on the merits.

This stems from the basic foundations of the EC system of competition law enforcement. As noted earlier, the EC system is an administrative system of competition enforcement. The Commission has been entrusted with the general task of ensuring that "the provisions of [the] Treaty and the measures taken by the institutions pursuant thereto are applied" as stated in Article 211 EC. In the field of competition, the Council, through the adoption of Regulations 1/2003 and the Merger Regulation, has granted the administration, in the form of the Commission, and not the Courts, the power to adopt decisions at first instance.

15 This is established in the case law of the Community Courts. *See*, *e.g.*, Case T-125/97, Coca-Cola v. Commission, 2000 E.C.R. II-1733, at para. 77 and the previous case law cited therein.

The Community Courts' role is to ensure that "in the interpretation and application of [the] Treaty the law is observed" (Article 220 EC). In the field of competition, the Community Courts can achieve this primarily through their competence to review the legality of the Commission's decisions under Article 230 EC (as well as, in respect of fines, under Article 229 EC).

As a result, the system envisages a sort of institutional balance. The Commission and the Courts should focus on their respective primary functions: competition policy and enforcement on the one hand, judicial review on the other. It is a simple, but fundamentally important, premise which is enshrined in the EC Treaty itself.

This is settled case law and it is a fundamental principle of the institutional balance provided for in the Treaty. The principle is aptly captured in the following two quotations: one from the CFI's judgment in the *PVC* case and one from the recent Opinion of Advocate General Tizzano in *Tetra Laval*. In the words of the CFI in the *PVC* judgment:

> "The extent of the Commission's obligations in the field of competition law must be considered in the light of [ex] Article 89(1) of the Treaty, which constitutes the specific expression in this area of the general supervisory role conferred on the Commission by [ex] Article 155 of the Treaty.
>
> The supervisory role conferred upon the Commission in competition matters includes the duty to investigate and penalise individual infringements, but it also encompasses the duty to pursue a general policy designed to apply, in competition matters, the principles laid down by the Treaty and to guide the conduct of undertakings in the light of those principles..."[16]

Given this established role, AG Tizzano recently emphasized that:

> "The rules on the division of powers between the Commission and the Community judicature, which are fundamental to the Community institutional system, do not [...] allow the judicature to go further, and [...] to enter

16 Joined Cases T-305/94, T-306/94, T-307/94, T-313/94, T-316/94, T-318/94, T-325/94, T-328/94, T-329/94 and T-335/94, LVM v. Commission, Judgment of the European Court of First Instance of Apr. 20, 1999, 1999 E.C.R. II-931 [hereinafter *PVC*], at paras. 148–49.

> into the merits of the Commission's complex economic assessments or to substitute its own point of view for that of the institution."[17]

C. CONTROL BY THE COURTS IS CLOSE, COMPREHENSIVE, AND EFFECTIVE

In light of this respect for institutional balance the Community Courts have traditionally afforded the Commission a margin of discretion when reviewing its assessment of complex economic matters.

The classic formulation of this standard of judicial review, the so-called "manifest error standard," is well-established in the competition field, both in antitrust and mergers.

> "Examination by the Community judicature of the *complex economic assessments* made by the Commission must necessarily be confined to verifying whether the rules on procedure and on the statement of reasons have been complied with, whether the facts have been accurately stated and whether there has been any manifest error of appraisal or misuse of powers" (emphasis added).[18]

The intensity of control varies depending on whether the Courts are reviewing, on the one hand, the correctness of facts or the correct application of the law (full control) and, on the other, the correctness of the Commission's appreciation of complex economic matters (restrained control).

This distinction between control of law, facts, and appreciation of economic matters is an important one, albeit not always an easy one to make.

17 Case C-12/03 P, Tetra Laval v. Commission, AG Opinion, at para. 89.

18 Joined Cases C-204/00 P, C-205/00 P, C-211/00 P, C-213/00 P, C-217/00 P and C-219/00 P, Aalborg Portland and Others v. Commission, not yet published in the ECR, at para. 279. To the same effect, *see* Case 42/84, Remia and Others v. Commission, 1985 E.C.R. 2545, at para. 34 and Joined Cases 142/84 and 156/84, BAT and Reynolds v. Commission, 1987 E.C.R. 4487, at para. 62.

1. Law

With regard to matters of law, the Community Courts exercise full jurisdictional control. After all, "[i]t is emphatically the province and duty of the judicial department to say what the law is."[19]

Indeed, it is for the Community Courts to provide the definitive interpretation of EC law, be it Treaty provisions such as Articles 81 and 82 EC or secondary legal provisions such as those contained in Regulation 1/2003 or the Merger Regulation. This is applicable to both procedural and substantive legal provisions. The Community Courts interpret the law and then check whether the Commission has applied the correct legal principles in the case under examination. There is thus no margin of appreciation left to the Commission as to what are the legal criteria to apply.

First, with regard to procedure, the Community Courts have consistently held that respect of the rights of defense is a fundamental right of EC law, which must be respected in any contentious administrative procedure, even in the absence of specific provisions in the legislation.[20] The Community Courts have scrutinized the Commission's actions particularly closely with respect to observance of the procedural rules and the parties' rights of defense.[21]

Second, in matters of substance, the Community Courts have dealt with an enormous variety of issues and have established legal criteria applicable to many different aspects of economic conduct, including concerted practices, oligopolistic behavior, vertical restraints, and abusive behavior in the form of exclusionary conduct such as predatory pricing, refusals to supply, and leveraging. Whenever the Courts are faced with a new issue, they have to interpret the law and establish criteria which will guide the Commission and companies in their future conduct.

19 *See* Marbury v. Madison, Opinion of Chief Justice Marshall, Judgment of the U.S. Supreme Court, 5 U.S. 137, 1803.

20 As noted earlier, both Regulation 1/2003 and the Merger Regulation do contain specific provisions on rights of defense during the administrative procedure such as the right to be heard and the right of access to the file. For mergers, *see* Article 18 of the Merger Regulation and Articles 11–18 of the Merger Implementing Regulation. For antitrust, *see* Articles 27–28 of Regulation 1/2003 and Articles 10–16 of the Implementing Regulation.

21 There is a plethora of case law on procedural rights in the field of antitrust and mergers. As an example of the Court's close scrutiny of observance of procedural rights for antitrust, *see*, *e.g.*, Case T-236/01, Tokai Carbon and others v. Commission, Judgment of Apr., 29, 2004, not yet published in the ECR, and, for mergers, *see*, *e.g.*, Case T-310/01, Schneider Electric v. Commission, 2002 E.C.R. II-4071.

2. Facts

Control of primary facts by the CFI is intensive, with no room for discretion on the part of the Commission. This is inherent in the nature of a control of the accuracy of facts—either a fact is correct or it is not.[22]

In his Opinion in *Tetra Laval*, AG Tizzano acknowledged this intensity of the control of facts by the CFI as being correct. He stated:

> "With regard to the findings of fact, the review is clearly more intense, in that the issue is to verify objectively and materially the accuracy of certain facts and the correctness of the conclusions drawn in order to establish whether certain known facts make it possible to prove the existence of other facts to be ascertained."[23]

In this respect, it is important to recall that the CFI was created in part because there was the need for a court of first instance to review comprehensively and rigorously the factually complex decisions that the Commission adopts in the field of competition.

As Advocate General Cosmas aptly noted, in the *Masterfoods* case, judicial review in the field of competition, deals with decisions involving:

> "complex technical and economic assessments which, if they are to be correct, require exhaustive review of the substance by a specialised judicial authority. In order to meet that need ... the Community legislature on constitutional matters was led to set up the Court of First Instance. By its systematic hearing of actions for the annulment of Commission decisions ... that Court has succeeded in deepening and strengthening judicial review of

22 What is a fact and what falls within an appreciation of facts is, however, not always easy to discern. The issue must be decided on a case-by-case basis depending on the precise context. It seems to me, however, that whenever an issue involves a complex assessment which may lead two reasonable persons to disagree as to the conclusion to be drawn, we are not in the realm of pure fact, but in the realm of appreciation of facts.

23 Case C-12/03 P, Tetra Laval v. Commission, AG Opinion, at para. 86.

> those decisions, thus contributing to the improvement of the Community system for the provision of judicial protection."[24]

The CFI has been deeply aware of this role from the very first cases it dealt with. In *Italian Flat Glass*, the Court stated that "it is incumbent on it ... to *check meticulously the nature and import of the evidence taken into consideration by the Commission* in the decision" (emphasis added).[25] In the *Polypropelene* cartel case of the early 1990s, acting as Advocate General for the purposes of the case, I emphasized that:

> "[I]t is clear from the preamble of the Council's decision of 4 October 1988 [setting up the CFI] that the very creation of the Court of First Instance, as a court of both first and last instance for the examination of facts in cases before it, *is an invitation to undertake an intensive review in order to ascertain whether the evidence on which the Commission relies in adopting a contested decision is sound* (emphasis added)."[26]

It is now widely acknowledged that the CFI has more than adequately performed this role of scrutinizing the accuracy of the facts in the Commission's decisions closely. This close scrutiny of factual elements underpinning the Commission's competition decisions is more than evident in cases such as the CFI's merger judgments in *Airtours* v. *Commission*,[27] *Schneider Electric* v. *Commission*,[28] *Tetra Laval* v. *Commission*,[29] and *BaByliss* v. *Commission*,[30] and the

24 Case C-344/98, Masterfoods and HB v. Commission [hereinafter *Masterfoods*], 2000 E.C.R. I-11369, at para. 54.

25 Joined Cases T-68/89, T-77/89 and T-78/89, SIV v. Commission, 1992 E.C.R. II-1403, at para. 95.

26 Case T-7/89, Hercules v. Commission, 1991 E.C.R. II-1711.

27 Case T-342/99, Airtours plc v. Commission, 2002 E.C.R. II-2585 [hereinafter *Airtours*].

28 Case T-310/01, Schneider Electric SA v. Commission, 2002 E.C.R. II-4071 [hereinafter *Schneider*].

29 Case T-5/02, Tetra Laval BV v. Commission, 2002 E.C.R. II-4381 [hereinafter *Tetra Laval*].

30 Case T-114/02, BaByliss SA v. Commission, 2003 E.C.R. II-1279 [hereinafter *BaByliss*].

CFI's antitrust judgments in, for example, *Bayer*,[31] *Volkswagen*,[32] *General Motors and Opel* v. *Commission*,[33] *JCB* v. *Commission*,[34] and the *German Banks* case,[35] which resulted in annulment of the Commission's decisions. In all of those cases, the CFI did not shy away from examining closely, and without restraint, whether the Commission had gotten the core, material facts right.[36]

In contrast to this close control of law and facts, the Courts' review of the complex economic assessment that the Commission inevitably performs in the field of competition, is necessarily more restrained but remains, in my view, effective.

3. Appreciation of Complex Economic Matters: Restrained But Still Effective Control

In contrast to this close control of law and facts, the Courts' review of the complex economic assessment that the Commission inevitably performs in the field of competition, is necessarily more restrained but remains, in my view, effective.

It is worth repeating here the classic formulation of the manifest error standard that the Community Courts apply whenever reviewing the Commission's complex economic assessments. In the mergers area the standard has been re-confirmed recently by the ECJ in *Tetra Laval* where the ECJ confirmed that it remains the correct test to be applied.

Adjudicating on the Commission's appeal which had criticized the CFI for applying an incorrect judicial review standard, the Court held that:

> "[T]he Court of First Instance correctly set out the tests to be applied when carrying out judicial review of a Commission decision on a concentration as

31 Case T-41/96, Bayer v. Commission, Judgment of Oct. 26, 2000, 2000 E.C.R. II-3383.

32 Case T-208/01, Volkswagen v. Commission, Judgment of Dec. 3, 2003, not yet published in the ECR.

33 Case T-368/00, General Motors Nederland and Opel Nederland v. Commission, 2003 E.C.R. II-4491.

34 Case T-67/01, JCB v. Commission, Judgment of Jan. 13, 2004, not yet published in the ECR.

35 Case T-44/02, Dresdner Bank v. Commission, Judgment of Oct. 14, 2004, not yet published in the ECR.

36 The judgments cited in this paragraph resulted in (total or partial) annulment of the Commission's decisions in question. Even though the reasoning for the annulment in each of those judgments differs, from procedural requirements to incorrect interpretation of the law to insufficient evidence, they all show that the CFI examines the contents of the file for accuracy very closely.

laid down in the judgment in *Kali & Salz*. In paragraphs 223 and 224 of that judgment, the Court stated that the basic provisions of the Regulation, in particular Article 2, confer on the Commission a certain discretion, especially with respect to assessments of an economic nature, and that, consequently, review by the Community Courts of the exercise of that discretion, which is essential for defining the rules on concentrations, must take account of the margin of discretion implicit in the provisions of an economic nature which form part of the rules on concentrations."[37]

Despite this limited, judicial-review-type role in matters of complex economic appreciation, the exercise of control by the Community Courts of the Commission's actions in the competition field has been extremely effective.

As the Court of Justice noted in the recent *Tetra Laval* judgment, the fact that the Commission has a margin of discretion with regard to economic matters:

"does not mean that the Community Courts must refrain from reviewing the Commission's interpretation of information of an economic nature. Not only must the Community Courts, inter alia, establish whether the evidence relied on is factually accurate, reliable and consistent but also whether that evidence contains *all* the information which must be taken into account in order to assess a complex situation and whether it is *capable of substantiating the conclusions drawn from it*" (emphasis added).[38]

The Court's dicta are not, in my view, radical or revolutionary. I think everybody, including the Commission, agrees that, under the established standard of judicial review, the evidence must be reliable and accurate and the reasoning consistent. Indeed, in the *Tetra Laval* judgment the ECJ summarizes the Commission's arguments in its appeal as follows:

37 *Tetra Laval*, *supra* note 4, at para. 38.

38 *Id.* at para. 39.

> "The Commission concludes from the principles referred to in *Kali & Salz* and from the review carried out by the Court in that case that it is required to examine the relevant market closely, weigh up all the relevant factors, and base its assessment on evidence which is factually accurate, is not clearly insignificant and is capable of substantiating the conclusions drawn from it and that it must reach its conclusions on the basis of consistent reasoning."[39]

Still, it is submitted that the ECJ's judgment contains a message which could be interpreted as a slight tightening of the "manifest error" test. The ECJ's judgment indicates that, when reviewing the legality of the Commission's decisions, the CFI must also check whether "*all* the information" (emphasis added) which must be taken into account is included in the Commission's evidence and whether it is capable "of *substantiating the conclusions* drawn from it" (emphasis added). Thus, the CFI would need to check whether other factors not mentioned by the Commission, or mentioned but to which the Commission did not pay proper attention, should be taken into account and whether there are other obvious elements which should be taken into account for a proper assessment. The CFI would also then need to check whether all those factors lead logically and plausibly to the conclusion reached by the Commission.

The Commission certainly enjoys a certain margin of discretion when evaluating complex evidence, but where the CFI finds, after close scrutiny, that the evidence submitted is not up to the requisite legal standard it has a duty to say so and, if the errors found amount to an overall manifest error of appreciation, it has a duty to annul the Commission's decision.

IV. The Functioning of the Current System of Judicial Review

A review of the work of the Community Courts in reviewing the Commission's competition decisions reveals, in my view, that the Courts have exercised their judicial review function effectively. Nonetheless, it also reveals certain shortcomings in the current system that lead to thoughts for improvements to the system.

39 *Id.* at para. 26.

A. STATISTICS[40]

In total, 2,228 cases involving application of the competition rules (antitrust, mergers and state aid) have been lodged before the Community Courts since the beginning. Approximately 30 percent of those cases were lodged before the Courts in the last five years.

Since the CFI's birth in 1989, 1,168 competition cases (including state aid cases) have been introduced before the CFI. At the end of 2004, there were 140 competition cases (excluding state aid) and 219 state aid cases pending before the CFI. The total number of pending competition cases (excluding state aid) constituted approximately 12 percent of the total pending caseload of the CFI. If state aid cases are added, the total percentage is approximately 30 percent. Since 1989, the CFI has delivered over 100 judgments, in the field of competition, in which it annulled partially, or totally, the Commission's decision.

These annulments of a number of the Commission's decisions over the years cannot, in my view, be taken as a sign that the Commission is not doing its job properly, but rather that our system of judicial review is highly effective and does not permit the Commission to be judge and jury—contrary to frequent criticism to this effect. Annulments of the administration's decisions are an inherent feature of a system of judicial review and the Commission is certainly not the sole regulator to have recently lost cases before a judiciary.[41]

B. CERTAIN POSSIBLE SHORTCOMINGS OF THE CURRENT SYSTEM OF JUDICIAL REVIEW

While the EC system, an administrative system of competition enforcement coupled with judicial review by the Community Courts, works effectively in that it contains adequate due process features, produces a majority of decisions that withstand scrutiny and enables annulments in the fewer cases where such action is warranted, it, like any other system, has scope for improvement.

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40 For further statistical information, *see* European Court of First Instance, 2004 Annual Report, *available at* http://curia.eu.int/en/instit/presentationfr/rapport/stat/st04tr.pdf.

41 The U.K. agencies, the U.S. agencies, and the German Bundeskartelamt, and no doubt, other authorities around the world, have all received their fair amount of criticism by the judiciary in their respective jurisdictions. In a speech at the Fordham Antitrust Conference of 2002, Bill Kovacic (at the time General Counsel of the U.S. Federal Trade Commission (FTC)) discussed the 2002 annulments of the European Commission's merger decisions in *Airtours*, *Schneider*, and *Tetra Laval.* He stated that the FTC had suffered much worse in the hands of U.S. courts. *See* Speech by William Kovacic, *in* FORDHAM U. SCH. OF L., INT'L ANTITRUST L. & POL'Y (B. Hawke ed., 2002), at 413–414. At the same conference, Dr. Joachim Bornkamm, indicated that, since 1999, the German Bundeskartelamt had lost more than 60 percent of its appeals before the Court of Appeal at Düsseldorf. *See* Joachim Bornkamm, *Judicial Control and Review of Antitrust Administrative Authorities*, *in* FORDHAM U. SCH. OF L., INT'L ANTITRUST L. & POL'Y (B. Hawke ed., 2002), at 370. The newly established Competition Appeals Tribunal (CAT) has not shied away from annulling the OFT's decisions in the field of mergers or antitrust. *See*, *e.g.*, Case 1023/4/1/03, IBA Health Ltd v. OFT and Case 1018/3/3/3/03, BT v. Director General for Telecommunications.

In this section of the paper, I attempt to set out personal reflections on certain aspects of our system that may in the future be improved through changes to the rules of procedures of the Community Courts or through more fundamental changes to the structure of our judicial system.

1. Despite Judicial Review, Is the Commission Still Judge and Jury?

It is not an exaggeration to say that in recent years criticism against the current EC system of competition law enforcement, especially in the field of merger control, has been harsh. The responses the Commission received to its Green Paper on merger reform show how many commentators, in particular those from the Anglo-Saxon legal tradition, thought that some clearer separation of powers between investigative and decision-making powers was necessary.[42]

Critics of the current administrative system lament the fact that a single body, the Commission, is vested with the power to investigate, prosecute (via the Statement of Objections), and then also decide a case at first instance. It is thought that such a system is inherently flawed as it leads to so-called prosecutorial bias with the prosecutor being captured by his or her own arguments.[43]

The U.S. legal tradition of competition law enforcement through a system of direct prosecution of cases before a judge appears to be the exception rather than the rule in this field of the law.

It is important to make three comments on this aspect of the critique. First, the EC administrative system is not at all unique and falls squarely within a long legal tradition in continental Europe of entrusting a specialized administration with the power to take decisions at first instance and then subjecting those decisions to judicial review.[44] The overwhelming majority of EC member states have precisely such a system for national competition law enforcement. The U.S. legal tradition of competition law enforcement through a system of direct prosecution of cases before a judge appears to be the exception rather than the rule in this field of the law.

42 For a list of responses to the Green Paper and a summary of those responses, *see* Submissions received on the Green Paper on the review of Council Regulation (EEC) No. 4064/89, *at* http://europa.eu.int/comm/competition/mergers/review/comments.html.

43 For an interesting analysis of those issues, *see* Wouter Wils, *The Combination of the Investigative and Prosecutorial Function and the Adjudicative Function in EC Antitrust Enforcement: A Legal and Economic Analysis*, 27 World Competition 201, 224 (2004).

44 On this point, *see* E. Paulis, *supra* note 10, at 381 et seq.

Second, internal checks and balances go a long way toward minimizing any risk of prosecutorial bias that may exist. The recent measures adopted by DG COMP should improve its internal decision-making process further.[45]

Third, it is, however, clear that, in the absence of effective judicial review, the system would, indeed, be inherently flawed. Combination of important powers in a single body can only be acceptable where there is a real opportunity for effective review by another independent and impartial body.

Such effective judicial review exists as the preceding sections of the paper have attempted to explain. All decisions of the Commission producing legal effects are challengeable before the Community Courts; the CFI scrutinizes closely the Commission's case in terms of application of the law and of the accuracy of evidence produced, and also for consistent reasoning and manifest errors of appreciation.

There are, however, two aspects of the current system that may diminish the effectiveness of judicial review: the fact that the CFI lacks full jurisdiction (except in respect of fines) and that judicial review is not always timely.

2. Lack of Full Jurisdiction

As noted earlier, the CFI has limited jurisdiction under Article 230 EC. As the CFI noted in its early years of operation in the *Italian Flat Glass* case:

> "[Given its limited jurisdiction,] the Community court is not required to take cognizance of the entire administrative file, but only of that part of the file which is relevant to a review of the lawfulness of the contested decision.
>
> Accordingly, the Court considers that, although a Community court may, as part of the judicial review of the acts of the Community administration, partially annul a Commission decision in the field of competition, that does not mean that it has jurisdiction to remake the contested decision [... and] the Court considers that it is not for itself...to carry out a comprehensive re-assessment of the evidence before it, nor to draw conclusions from that evidence in the light of the rules on competition."[46]

45 *See* M. Monti, *supra* note 12.

46 Joined Cases T-68/89, T-77/89 and T-78/89, SIV v. Commission, 1992 E.C.R. II-1403, at paras. 318–20.

The CFI can only annul the Commission's decision on limited grounds and, most importantly, upon annulment it cannot re-take a decision on the merits of a case. The matter is sent back to the Commission for a re-examination.

This limited, judicial-review role of the CFI leads to certain idiosyncratic elements of the system which give it a distinctive flavor compared to systems of full jurisdiction. First, as far as the applicants are concerned, the fact that the case is sent back to the Commission seems ineffective. It is, of course, beyond any doubt that it is incumbent upon the Commission to draw the consequences of the Court's judgment having regard not only to the operative part of the judgment but also to the Court's reasoning. This is established in Article 233 EC and is settled case law.[47] Nonetheless, it is not always clear what measures the Commission must take and, in any event, a fresh (possibly long) examination would still be required. Take an example in the mergers area where the Merger Regulation itself governs the procedure to be followed in cases in which the CFI annuls the Commission's decision. Then Article 10(5) of the Regulation expressly provides that the administrative procedure before the Commission restarts, and that the examination must take into account the current market conditions. In the meantime, conditions in the market may have changed—sometimes dramatically. The parties face the uncertainty of having a new review of their case and, possibly, (if their deal can survive for that long) a new prohibition. From the parties' perspective, it would, therefore, be more effective if closure to the litigation could be achieved by allowing the CFI to take a final decision on the merits.

Second, the judicial review system (in contrast to a system of full jurisdiction) creates problems for the Commission as well. This merits further explanation. Under the current system what is really on trial before the CFI is not the merger or anticompetitive agreement or conduct in question; it is the Commission's decision. In other words, it is the legality of the decision that the CFI controls. This has some important consequences in terms of the type of trial conducted, the type of evidence admitted before the Court, and the responsibility incumbent upon the Court.

The trials before the CFI are administrative, judicial-review-type trials which are very different to what most U.S. lawyers would recognize as an antitrust trial. More emphasis is placed on written pleadings rather than the oral hearing, and there is far less reliance on expert reports and witness testimony. Most importantly, the decision, in principle, must stand or fall depending on what is in it, not

47 Article 233 EC reads as follows: "The institution...whose act has been declared void...shall be required to take the necessary measures to comply with the judgment of the Court of Justice." *See*, *e.g.*, Case T-48/00, Corus UK Ltd, formerly British Steel plc v. Commission, Judgment of Jul. 8, 2004, not yet published in the ECR, at paras. 222–25 and the case law cited therein.

what the Commission can subsequently produce before the Court.[48] If there are significant procedural breaches, inadequate reasoning, inconsistencies or other errors in the decision that amount to a manifest error appreciation, no amount of external evidence on the merits of the case can, in principle, correct them and save the decision from annulment. An annulment on such grounds does not, therefore, necessarily entail a substantive conclusion by the CFI that, on the merits, the merger or conduct in question should or should not be allowed.

The above idiosyncratic features of a judicial review system, in contrast to a system of full re-examination on the merits, are inherent features of a typical system of administrative judicial review and do not suffice to draw the conclusion that radical changes are needed. As noted earlier, the system works effectively with regard to the Court's ability and readiness to review the substance of the Commission's decisions in the field of competition. As a result, it would not, in all likelihood, be necessary at this stage to consider radical changes to the current system of judicial review which would result in a move to a U.S.-style prosecutorial system or even a system of full jurisdiction of the CFI (i.e. the ability to re-take a decision on the merits rather than simply annul the Commission's decision).

These radical changes (such as moving to a prosecutorial system or even a system where the CFI would have full jurisdiction in areas other than fines) would have significant consequences on the way the CFI deals with cases (e.g. the types of trial, evidence, etc.). Such changes would also, in all likelihood, necessitate change of the provisions of the EC Treaty and in particular Articles 229 EC and 230 EC and would, therefore, not be legally possible under the existing Treaties.

INDEED, IN MY VIEW, THE MAIN PROBLEM WITH OUR CURRENT SYSTEM OF JUDICIAL REVIEW IS NOT ITS EFFECTIVENESS IN TERMS OF HOW CLOSELY THE COURTS SCRUTINIZE THE COMMISSION'S DECISION, BUT IN TERMS OF THE SPEED OF THAT REVIEW.

However, less radical improvements can be made using the existing Treaty provisions, especially in terms of improving the current system's speed. Indeed, in my view, the main problem with our current system of judicial review is not its effectiveness in terms of how closely the Courts scrutinize the Commission's decision, but in terms of the speed of that review. This is of particular importance in the field of mergers as I explain in the following section.

48 Even though the Commission may, where appropriate, provide explanations and produce evidence contained in its file to support elements contained in a contested decision. It should be noted here that issues concerning adequacy of reasoning and the amount or types of evidence that the Commission may produce before the Court to support elements in a contested decision are complex; a detailed discussion of such evidentiary issues falls outside the scope of this paper.

3. Speed

Competition cases before the CFI (both antitrust and merger cases) are complex cases which involve lengthy pleadings, voluminous dossiers, important questions of law, and an enormous amount of factual evidence, such as economic studies, etc. They require significant attention on the part of the Court so that all arguments are assessed fully and comprehensively and that, hopefully, the right outcome is achieved. However, such full assessment does not tally well with speedy judicial review. Naturally, the more complex a case is, the longer it takes to adjudicate on it.

Currently, the average time required for the adjudication of an antitrust or merger case under the normal procedure of the CFI is approximately 33 months (in cases resulting in a final judgment, i.e. excluding cases resulting in orders) and approximately ten to twelve months under the expedited procedure (closer to nine-and-a-half months in merger cases).

In antitrust cases, this is perhaps not a major concern as such cases typically involve past events or conduct which has come to an end. Where this is not the case, an action for annulment can be successfully coupled with a request for interim measures suspending the Commission's remedial orders whenever this is necessary to avoid serious and irreparable damage to the companies concerned.[49] In addition, with respect to fines, companies are normally allowed to avoid paying the fine immediately, on the condition that they provide a bank guarantee.

By contrast, in the field of mergers, following a prohibition decision by the Commission, the parties find themselves in a situation where they can either abandon the deal or wait until final adjudication of the matter by the Court and, if successful, upon annulment, a subsequent reassessment of the case by the Commission. The realities of commercial life are such that few companies can or are willing to keep the deal alive for such a length of time. Speedy adjudication is of crucial importance.

The realities of commercial life are such that few companies can or are willing to keep the deal alive for such a length of time. Speedy adjudication is of crucial importance. The CFI has been aware of this problem and has attempted to improve the situation through the establishment of an expedited (fast-track) procedure.

The CFI has been aware of this problem and has attempted to improve the situation through the establishment of an expedited (fast-track) procedure. This procedure was successfully used in the *Schneider* and *Tetra Laval* cases which were decided by the CFI within ten months of their introduction (in the *Schneider* cases, judgments were actually delivered a little over seven months

49 *See* Articles 242 and 243 EC and Article 104 of the CFI's Rules of Procedure.

after acceptance by the CFI of the applicability of the procedure), while the judgments in *BaByliss* and *Philips* v. *Commission*[50] were both given within a year of those cases being lodged (and only nine months after the granting of the expedited procedure). Most commentators believe that this may still be too long for merger cases, but the realities of the Court's procedure and resources would mean that a shorter procedure would be difficult to follow as a generalized practice in all merger cases, although a shorter procedure can be achieved in specific cases.[51]

It should be noted here that these problems of speed should not be exaggerated. It is true that certain cases, in particular merger cases, require speedier adjudication because there is a real urgency to have the matter conclusively brought to an end within a short period of time. However, it should be kept in mind that the number of such cases remains particularly small and that the CFI has been able to adjudicate under the expedited procedure whenever necessary.[52]

4. Reflections on Possible Future Improvements

Having identified speed as the main aspect of the CFI's procedure that could be the subject of improvements, it is possible to identify some avenues of possible future changes which would enable the CFI to deal more effectively and expeditiously with competition cases.[53]

50 Case T-119/02, Royal Philips NV v. Commission, 2003 E.C.R. II-1433.

51 It should be noted that, during the late stages of the editing of this paper, the CFI delivered its judgment in EDP v. Commission (Case T-87/05, EDP v. Commission, Judgment of the European Court of First Instance of Sep. 21, 2005, not yet published in the ECR). The judgment concerned an action for annulment of the Commission Decision C(2004)4715 final of Dec. 9, 2004 declaring incompatible with the common market the concentration by which EDP-Energias de Portugal SA and Eni Portugal Investment Spa proposed to acquire joint control of Gas de Portugal SGPS SA (Case COMP/M.3440 – EDP/ENI/GDP). The judgment, which dismissed the appeal, was delivered using the expedited procedure in a record time of just under seven months (the action was lodged with the CFI on Feb. 25, 2005).

52 The CFI has delivered only 25 merger judgments in total since 1989 and there are normally not more than five to six such judgments per year. (From 2000 to 2004, the number of merger cases each year was: one in 2000, one in 2001, six in 2002, six in 2003, and one in 2004.) The CFI has granted the benefit of the expedited procedure in the overwhelming majority of merger cases in which it was requested. It should be noted that more than 70 percent of expedited procedure cases are merger cases. There are, however, many merger cases where the parties themselves decide not to request adjudication under the expedited procedure.

53 It should be stressed that the various options for improvement of our current system which are outlined in this paper are merely personal reflections on various avenues which could be adopted if one were to make changes to our system. I am not arguing that such changes are necessary right now. As noted at the start of this paper, the views expressed herein are entirely personal and do not necessarily represent those of my colleagues.

a. A specialized competition tribunal

A far-reaching change would be to establish a specialized competition tribunal under Article 225A EC,[54] which would have competence to hear appeals against the Commission's decisions in merger cases or antitrust cases, or both. Appeals would then lie to the CFI and exceptionally to the ECJ.

Such a system would entail many and, in my view, significant advantages. First, a specialized court composed of judges familiar with competition cases may be better suited to examine closely the complex economic assessments undertaken by the Commission in this field of the law. Second, a specialized tribunal could function on the basis of tailor-made procedures which would be optimized for the specific needs of competition cases. Third, it is possible that a specialized tribunal would be endowed with greater resources in order to deal more effectively and more expeditiously with competition cases. Fourth, the creation of a specialized tribunal could be a move towards a more coherent system of three levels of jurisdiction: first instance tribunals, appeals to the CFI, and exceptional appeals to the ECJ. Finally, the creation of a specialized tribunal would also reduce the workload of the ECJ by relieving it of systematic appeals against the CFI's competition judgments in areas that do not always merit adjudication by the highest court (e.g. determination of the correct amount of a fine).

However, such a change would also entail disadvantages. First, this change under existing Treaty rules would not entail a grant of full jurisdiction to the new tribunal. In essence, the new tribunal would have the same powers as those of the CFI in reviewing the Commission's decisions in the field of competition. Second, it is not clear that such a tribunal would be able to deal more expeditiously with competition cases, and systematic appeals to the CFI could lengthen the proceedings. Third, specialization is an advantage but also a disadvantage. Specialized judges may be more prone to the insularity that sometimes characterizes the competition law community.

b. Specialized CFI chambers

Another solution would be to create one or more specialized chambers for competition cases within the existing structure of the CFI. Under such a move, one or more chambers of three or five judges would become specialized in and focus

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54 Article 225A reads as follows:

> The Council, acting unanimously on a proposal from the Commission and after consulting the European Parliament and the Court of Justice or at the request of the Court of Justice and after consulting the European Parliament and the Commission, may create judicial panels to hear and determine at first instance certain classes of action or proceeding brought in specific areas The decision establishing a judicial panel shall lay down the rules on the organisation of the panel and the extent of the jurisdiction conferred upon it. Decisions given by judicial panels may be subject to a right of appeal on points of law only or, when provided for in the decision establishing the panel, a right of appeal also on matters of fact, before the Court of First Instance.

on competition cases. This could have the result of speeding up the treatment of such cases. The advantage of this system would be its relatively easy implementation within the current system's rules. A disadvantage, however, would be that the specialized chambers may be over- or under-utilized, depending on the precise workload of competition cases at any given time. Given that such chambers would be internal and that the CFI would still be required to deal with the whole range of cases (not just competition cases), it would be difficult to resist pressure to allocate non-competition cases to the specialized chambers in times of underutilization or not allocate competition cases to other chambers in times of overutilization. In addition, it would be more difficult to establish specific procedures for such chambers while keeping them within the existing structure of the CFI.

c. Removing other cases from the CFI's workload

A more practical and realistic solution would be to focus the CFI's resources more on competition cases by removing from its jurisdiction a number of other cases in specific areas such as those relating to EC officials and trademarks. This is a solution that the Council has already adopted with respect to civil service cases through the creation of a Civil Service Tribunal.[55] This new tribunal, subject to logistics being finalized, could be in place before the end of the year or in early 2006.

The removal of civil service cases would reduce approximately 20 percent of the current case load of the CFI. Another approximately 17 percent could be removed through the creation of a trademarks tribunal.[56] The removal of such a significant number of cases would alleviate the CFI's caseload and would enable it to use the expedited procedure more frequently and more effectively in cases which merit it, including competition and, in particular, merger cases.

It should be noted here that, if it were deemed necessary, it could be examined whether it would be possible to make further improvements to the CFI's expedited procedure such as a more generalized application of the expedited procedure to all merger prohibition cases where parties can show urgency, and a further shortening of the expedited procedure to a period of six to nine months.

d. Preliminary rulings

A final complexity with regard to case load and speed, which I would like to briefly touch upon in this paper, is that of the role of the Court's preliminary ruling procedure and the impact Regulation 1/2003 could have in this respect. If, as is expected, private litigation is increased—perhaps significantly thanks to the

55 Council Decision of Nov. 2, 2004 establishing the European Union Civil Service Tribunal, 2004 O.J. (L 333) 7.

56 These statistics are based on the number of pending cases at the end of 2004. It should be noted that, in terms of judgments and orders rendered in 2004, civil service cases represented approximately 30 percent and intellectual property cases approximately 22 percent. For further statistical information of this nature, *see* European Court of First Instance, 2004 Annual Report, *available at* http://curia.eu.int/en/instit/presentationfr/rapport/stat/st04tr.pdf.

newly decentralized antitrust regime, it will certainly be the case that national courts faced with complex competition law questions would refer questions to the ECJ for a preliminary ruling under Article 234 EC. In my view, in such a situation, it may be more coherent to allow the CFI the power to deal with such preliminary rulings as is possible under Article 225(3) EC. This would, however, inevitably increase the workload of the CFI even further and would be an additional factor to be considered in any discussion of changes with the aim of improving speed in the adjudication of competition cases before the Community Courts.

V. Concluding Remarks

There are, of course, many other issues pertinent to the discussion of the role of the judiciary in competition law enforcement, such as the desirability of encouraging private actions, which are beyond the scope of this paper but are, nonetheless, clearly linked to the discussion on the role of the courts in the overall system of competition law enforcement.

In this paper, I attempted to set out my personal views on the role of the Community Courts and, in particular, that of the CFI over which I have the privilege of presiding.

In my view, the CFI, under the review of the ECJ on appeals in matters of law, has discharged the burden imposed on it by the EC Treaty to review carefully the legality of the Commission's decisions in the field of competition and not to shy away from engaging in close scrutiny of the facts and economic data underpinning those decisions.

As a learned Advocate General of the Court of Justice, AG Cosmas, has, in my view, aptly stressed in the relatively recent, state aid *Ladbroke* case:

> "[A] comprehensive review as to the substance...does not, of course, supplant the administrative work of the Commission but constitutes a correct exercise of judicial tasks in a legal order—like the Community legal order—governed by the principle of legality and the rule of law."[57]

Judicial review has an important role to play in the EC system of competition law enforcement. Future judgments in this field will continue to clarify the law, provide guidance, and, above all, ensure that the administration's actions in this important area of the law remain subject to effective checks and balances.

57 Case C-83/98 P, France v. Ladbroke, 2000 E.C.R. I-3271, at para. 16 [hereinafter *Ladbroke*].

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Private enforcement of competition law has great potential to augment the necessarily limited government resources devoted to deterring and remedying the effects of anticompetitive conduct. A poorly designed scheme of private enforcement, however, can lead to abuse and can deter pro-competitive conduct. This paper offers a historical overview of private antitrust enforcement in the United States and an explanation of why private case filings have increased and decreased over the years. It addresses: **(1)** some of the general factors influencing the level of private litigation; **(2)** the historical trend in private antitrust litigation in the United States; **(3)** the cause of the significant increase in private antitrust case filings in the 1970s and the subsequent decrease in the 1980s; and **(4)** what the U.S. experience may suggest for those in the European Community and elsewhere who are considering how to expand the role of private enforcement.

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I. Introduction

On August 31, 2004, the European Commission released a comprehensive study of private competition law enforcement in the European Community.[1] The report concluded that private enforcement of both national and EC competition laws is in a state of "total underdevelopment," with only sixty decided cases on record.[2] In the United States, in contrast, private plaintiffs in the year ending March 31, 2004 filed 693 cases, or more than 95 percent of all the antitrust cases filed that year.[3]

Private enforcement of competition law has great potential to augment the necessarily limited government resources devoted to deterring and remedying the effects of anticompetitive conduct. At the same time, however, a poorly designed scheme of private enforcement can lead to abuse and can deter pro-competitive conduct. This paper offers a historical overview of private antitrust enforcement in the United States and offers an explanation of why private case filings have increased and decreased over the years. Specifically, we address:

1) some of the general factors influencing the level of private litigation;

2) the historical trend in private antitrust litigation in the United States;

3) what we believe caused the significant increase in private antitrust case filings in the 1970s and the subsequent decrease in the 1980s; and

4) what the U.S. experience may suggest for those in the European Community and elsewhere who are considering how to expand the role of private enforcement.

II. Factors Affecting Case Filings

The U.S. antitrust laws provide a right of recovery to "any person ... injured in his business or property by reason of anything forbidden in the antitrust laws."[4] Whether a private party accepts this seemingly broad invitation to sue, however, depends upon its expectations about the costs and benefits of proceeding. Among the most important of these are the costs of litigating a claim, meaning

1 D. Waelbroeck, D. Slater, & G. Even-Shoshan, *Study on the Conditions of Claims for Damages in Case of Infringement of EC Competition Rules: A Comparative Report*, Aug. 31, 2004, *available at* http://www.trends.be/attachments/2004/44/economic_clean_en.pdf.

2 *Id.* at 2. *See also* Speech by M. Monti, *Private Litigation as a Key Complement to Public Enforcement of Competition Rules*, IBA Annual Competition Conference, Fiesole, Sep. 17, 2004, at 2.

3 Administrative Office of the U.S. Courts, Federal Judicial Caseload Statistics 2004, Table C-2, *available at* http://www.uscourts.gov/caseload2004/tables/C02Mar04.pdf.

4 15 U.S.C. § 15(a).

primarily attorneys' fees; the likelihood of prevailing at trial, primarily a function of what the law requires and what the evidence will show; and the level of damages available.

The literature addressing the determinants of private litigation tends to focus largely upon the level of damages. For years commentators have argued that the current U.S. system—which provides for treble damages, costs, and attorneys' fees for prevailing plaintiffs—generates an excessive amount of litigation.[5] More recently, a number of commentators have argued also that, in fact, damages are much more than treble the injury. The U.S. government may assess fines, direct purchasers may recover treble damages, and, in many states, indirect purchasers may recover treble damages for the same injury.[6]

As for the costs of litigating an antitrust case, scholars have paid particular attention to the role of government antitrust litigation. Under Section 5(a) of the Clayton Act, a private plaintiff may use the civil or criminal judgment entered in a government antitrust action as prima facie evidence against the defendant.[7] In addition, a government case puts on the public record evidence that a private plaintiff can use in pursuing its own case.

Finally, the likelihood of prevailing at trial is a significant factor influencing a plaintiff's decision to file suit. As we will discuss further below, in the U.S. experience, the decision to classify particular types of conduct as per se unlawful, which significantly increases a plaintiff's chance of prevailing, has had a tremendous impact upon the level of private litigation.

III. Historical Trends

Few private plaintiffs brought antitrust suits in the early years of the Sherman Act. From 1890 to 1894 there were only two reported private antitrust cases.[8] Four private antitrust cases were reported from 1895 to 1899, eight more from 1899 to 1904, and roughly twenty for each five-year period from then until

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5 *See generally*, W. Breit & K. Elzinga, THE ANTITRUST PENALTIES: A STUDY IN LAW AND ECONOMICS (1976). *See also* W. Breit & K. Elzinga, *Private Antitrust Enforcement: The New Learning*, 28 J.L. & ECON. 405 (1985); H. Butler, *Restricted Distribution Contracts and the Opportunistic Pursuit of Treble Damages*, 59 WASH. L. REV. 27 (1983); W. Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. CHI. L. REV. 652, 678 (1983).

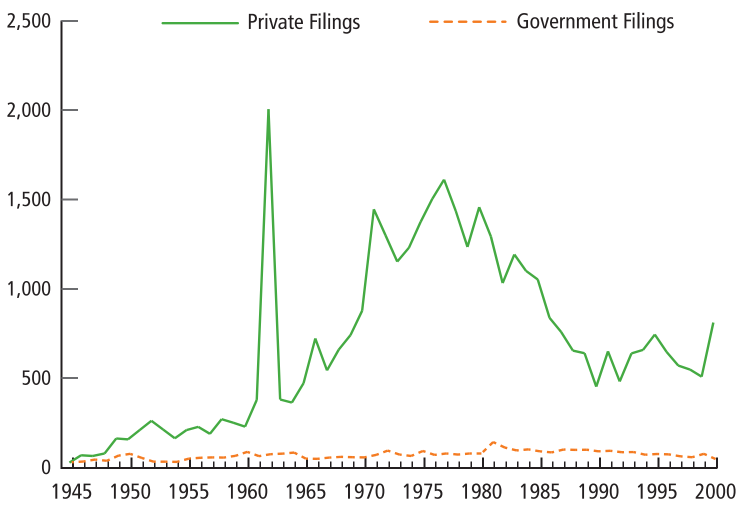
6 *See, e.g.*, R. Posner, *Antitrust In The New Economy*, 68 ANTITRUST L.J. 935 (2001); M. Denger & D.J. Arp, *Does Our Multifaceted Enforcement System Promote Sound Competition Policy?*, 15 ANTITRUST 41, 43 (2001).

7 15 U.S.C. § 16(a).

8 R. Posner, *A Statistical Study of Antitrust Enforcement*, 13 J.L. & ECON. 365, 371 (1970).

World War II.[9] During the war years, however, the number of cases nearly doubled, and it continued to rise rapidly thereafter.[10]

In the post-war era, private antitrust cases have consistently and significantly outnumbered government cases. The trends in case filings during this period are depicted in Figure 1 below, which shows two series—government and private antitrust case filings in the U.S. district courts—from 1945 to the present.[11]



Source: Administrative Office of the United States Courts, Proceedings of the Judical Conference of the United States

Figure 1

Government and private antitrust case filings in the U.S. district courts, from 1945 to the present

As Figure 1 illustrates, the number of government filings is both low and fairly constant in comparison to the much higher and more volatile number of private cases. Private filings have generally increased from 1945 to the present.

9 *Id.*

10 *Id.*

11 "U.S. government" antitrust case filings include cases brought by the U.S. Department of Justice (DOJ) and by the U.S. Federal Trade Commission (FTC). Because the FTC focuses a large part of its antitrust efforts on merger review, however, and because it operates its own internal tribunal, the FTC files far fewer cases in the regular law courts. The U.S. government antitrust enforcement activity captured in the tables is therefore primarily that of the DOJ. The U.S. government filing statistics also fail to reflect other important enforcement activities, principally merger review, in which the government's demands more often lead to voluntary compliance than to litigation. *See generally*, U.S. Federal Trade Commission and U.S. Department of Justice, Annual Report to Congress Pursuant to Subsection (j) of Section 7A of the Clayton Act Hart-Scott-Rodino Antitrust Improvements Act of 1976, Fiscal Year 2000 (Twenty-Third Report).

There are two periods, however, in which private antitrust case filings rose significantly above and then dropped back down to the basic upward trend line.

The first, a sharp spike in the number of private filings in 1962, reflects the wave of private antitrust cases that followed the U.S. government's investigation and prosecution of widespread market allocation agreements in the heavy electrical equipment industry. This spike in private filings peaked at 2,005 cases in 1962, after which filings dropped back immediately to the basic trend line.[12]

The second deviation from the basic upward trend line shows private filings increasing substantially through the 1970s and then decreasing through the 1980s. This increase peaked in 1977 with the filing of 1,611 private antitrust suits. Filings began to decline thereafter, but did not return to the long run trend line until the late 1980s. In the next section, we discuss a possible explanation for this phenomenon.

IV. Private Enforcement in the 1970s and 1980s

The increase in private antitrust case filings in the 1970s and the decrease in the 1980s cannot be explained by a change in the level of damages available to private plaintiffs. Nor can it be explained by a deluge of cases related to a specific conspiracy. As we discuss below, although commentators first attributed the variation to changes in the rules governing standing, and then to changes in government enforcement, we believe that the variation in filings was caused by the increase and decrease in the use of per se rules.

A. CHANGES IN STANDING

In the early 1980s, when the decline in filings first become apparent, a number of commentators hypothesized that it might be due to the U.S. Supreme Court's 1977 decision in *Illinois Brick v. Illinois*.[13] As noted above, the U.S. antitrust laws give a right of recovery to any person "injured ... by reason of anything forbidden in the antitrust laws." When price-fixing or some other violation unlawfully increases the price of an intermediate good, however, the immediate purchaser

12 Some of the leading companies in the electrical equipment industry received heavy fines, and 31 individuals were sentenced, in connection with the price-fixing, bid-rigging, and market allocation agreements that have been widespread in the industry. In addition to the slew of private suits that followed the U.S. government's action, however, the electrical equipment cases also had more subtle effects upon the private antitrust bar. Companies in many industries for the first time sought antitrust counseling and instituted internal antitrust compliance programs. *See generally*, H. Pitt & K. Groskaufmanis, *Minimizing Corporate Civil and Criminal Liability: A Second Look at Corporate Codes of Conduct*, 78 GEO. L.J. 1559 (1990). On the supply side, the electrical equipment cases raised awareness of the antitrust laws within the private bar, and likely made many lawyers more alert to opportunities to bring other antitrust law cases.

13 Illinois Brick v. Illinois, 431 U.S. 720 (1977) [hereinafter *Illinois Brick*].

may or may not be injured significantly, depending upon its ability to pass on the increase in price to its customers.

In *Hanover Shoe, Inc. v. United Shoe Machinery Corp.*, the U.S. Supreme Court held that a defendant in a price-fixing case could not reduce its liability by introducing evidence that the plaintiff, its customer, had passed on some of the overcharge to subsequent (or so-called "indirect") purchasers.[14] Instead, the defendant would be liable to the direct purchaser in full, regardless of the final incidence of the injury. Subsequently, in *Illinois Brick*, the Court concluded that because the defendant was required to reimburse the direct purchaser the full amount of the overcharge, the defendant should not also be liable to the indirect purchaser for the same overcharge.[15] Thus, even if the indirect purchaser could establish that it bore the brunt of the unlawful increase in price, only the direct purchaser would have standing to pursue a claim in court.

Private case filings began to decline noticeably in the years after *Illinois Brick*. Some commentators inferred that the restriction upon standing announced in that case caused the decline by barring indirect purchasers from bringing federal antitrust suits. Empirical attempts to correlate *Illinois Brick* and the decrease in case filings, however, were largely unsuccessful.[16] Upon examination, that is less surprising than it might at first appear. Shortly after *Illinois Brick* was decided, several states enacted statues granting standing to indirect purchasers under state antitrust laws. Courts in a number of other states interpreted pre-existing state antitrust laws to confer standing upon indirect purchasers.[17] As a result, in those states, both direct and indirect purchasers could seek treble damages for the same antitrust injury.

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14 Hanover Shoe, Inc. v. United Shoe Mach. Corp., 392 U.S. 481 (1968).

15 *Id.* at 729.

16 *See*, *e.g.*, *Report of the American Bar Association Antitrust Section Task Force to Review Proposed Legislation to Repeal or Modify* Illinois Brick, 52 ANTITRUST L.J. 841 (1984); T. Kauper & E. Snyder, *Private Antitrust Cases That Follow On Government Cases*, *in* PRIVATE ANTITRUST LITIGATION: NEW EVIDENCE, NEW LEARNING (L. J. White ed., 1988), at 358.

17 J. Cohen & T. Lawson, *Navigating Multistate Indirect Purchaser Lawsuits*, 15 ANTITRUST 29, 33 (2001) at n. 2 (citing Cal. Bus. & Prof. Code § 16750(a) (enacted in 1978); Wis. Stat Ann. § 113.18(1)(a) (enacted in 1979); N.M. Stat. Ann. § 57–1–3 (same); 740 Ill. Comp. Stat. Ann. 10/7(2) (same); R.I. Gen. Laws § 6–36–12(g) (same); S.D. Codified Laws § 37–1–33 (enacted in 1980); D.C. Code Ann. § 28–4509 (same); Md. Code. Ann., Com. Law §11–209(b)(2)(ii) (enacted in 1982); Mich. Comp. Laws § 445.778(2) (enacted in 1984); Minn. Stat. Ann. § 325D.57 (same); Kan. Stat. Ann. § 50–801(b) (enacted in 1985); Haw. Rev. Stat. §§ 480–3, 480–14 (enacted in 1987), and noting that "[a]ntitrust statutes in Alabama and Mississippi expressly permitted indirect purchaser suits prior to *Illinois Brick*." *See* Ala. Code § 6–5–60; Miss. Code Ann. § 75–21–9). Cohen and Lawson cite courts in Arizona, Florida, Massachusetts, North Carolina, Tennessee, and Washington as having interpreted pre-*Illinois Brick* statutes to permit suits by indirect purchasers. *Id.* at 33. The U.S. Supreme Court in California v. ARC Am. Corp., 490 U.S. 93 (1989), held that such statues were not preempted by federal antitrust law, and, accordingly, suits by indirect purchasers continue today.

Moreover, while indirect purchasers, following *Illinois Brick*, have a right of recovery only under state law, they are not necessarily limited to bringing suit in state court. In practice, many indirect purchasers have opted to join their state claims with federal claims and to bring suit in federal court.[18] For example, because the federal courts have held that *Illinois Brick* does not bar an action for injunctive relief,[19] indirect purchasers may request injunctive relief and, supplemental to that claim, include claims for damages under state law.[20] In light of the proliferation of *Illinois Brick* repealer laws, and the ease with which state damage claims may be joined with federal antitrust claims, it is unsurprising that *Illinois Brick* does not do much if anything to explain the decline in private antitrust case filings that began in the late 1970s.

IN LIGHT OF THE PROLIFERATION OF *ILLINOIS BRICK* REPEALER LAWS, AND THE EASE WITH WHICH STATE DAMAGE CLAIMS MAY BE JOINED WITH FEDERAL ANTITRUST CLAIMS, IT IS UNSURPRISING THAT *ILLINOIS BRICK* DOES NOT DO MUCH IF ANYTHING TO EXPLAIN THE DECLINE IN PRIVATE ANTITRUST CASE FILINGS THAT BEGAN IN THE LATE 1970S.

B. CHANGES IN GOVERNMENT FILINGS

A second hypothesis proposed to explain the decline in private filings starting in the late 1970s focuses on changes in government filings. Figure 2 plots the same data presented in Figure 1, but does so using dual vertical axes (with private case filings plotted on the left vertical axis and government filings on the right) in order to make it easier to compare trends in the two types of filings.

18 In theory, an indirect purchaser might also enter federal court in diversity jurisdiction, but in practice, according to the Administrative Office of the U.S. Courts, all federal antitrust case filings invoke federal question rather than diversity jurisdiction.

19 *See, e.g.,* Lucas Auto. Eng'g, Inc. v. Bridgestone/Firestone, Inc., 140 F.3d 1228, 1235 (9th Cir. 1998) ("indirect purchasers are not barred from bringing an antitrust claim for injunctive relief against manufacturers"); McCarthy v. Recordex Serv., Inc., 80 F.3d 842, 856 (3rd Cir. 1996) ("in contrast to the treble damage action, a claim for injunctive relief does not present the... risk of duplicative or ruinous recoveries...that the Supreme Court emphasized when limiting the availability of treble damages"); In re Brand Name Prescription Drugs Antitrust Litig., 878 F. Supp. 1078, 1083 (N.D. Ill. 1995) ("Regardless of whether they are deemed indirect purchasers under *Illinois Brick*, however, all of the plaintiffs may still pursue injunctive relief under § 16 of the Clayton Act").

20 In practice, many indirect purchaser cases involve multistate plaintiffs, and filing the claims in a consolidated federal action can tremendously alleviate logistical difficulties that might be presented by multiple actions proceeding in different state courts. In one recent case, for example, thirty-three states and the FTC brought a suit alleging the defendant unlawfully blocked competitors' access to the active ingredients for two anti-anxiety drugs, causing the price of the drugs to rise more than 2000 percent. *See* FTC v. Mylan Labs, Inc., 62 F. Supp. 2d 25 (D.D.C. 1999). The states filed one complaint alleging federal claims and, supplemental to them, indirect purchaser claims under state law. *See also* K. O'Conner, *Is the Illinois Brick Wall Crumbling?*, 15 ANTITRUST 34 (2001) (discussing the use of federal fora for indirect purchaser actions).

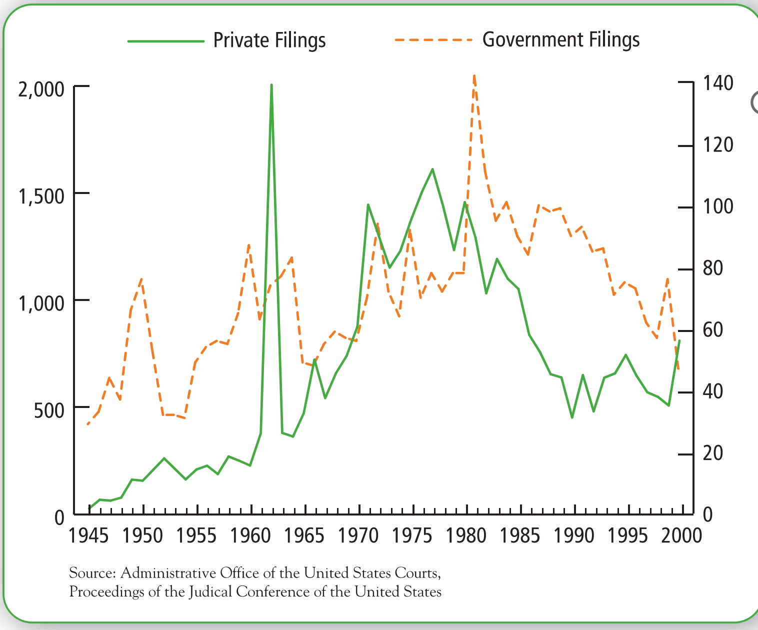


Figure 2

Government (right vertical axis) and private (left vertical axis) antitrust case filings in the U.S. district courts, from 1945 to the present

After hitting a high of 142 cases in 1981, government filings declined through the 1980s and 1990s. The decline in private filings started somewhat earlier than the decline in government filings and, by the 1990s, private filings were on the upswing. Thus, while the trend in private filings mirrors to some extent the trend in government filings, the two series clearly do not move in lockstep.

The Georgetown Project, a comprehensive study of private antitrust litigation, explored in some detail the phenomenon of private suits that follow on a government case. For the period from 1973 to 1983, the Georgetown researchers collected extensive data regarding private antitrust filings in five judicial districts, including the Southern District of New York (New York, NY), the Northern District of Illinois (Chicago, IL), and the Northern District of California (San Francisco, CA), where many private antitrust cases are filed. The final sample included roughly 2,000 cases—approximately one-sixth of all private antitrust cases filed over the decade surveyed.[21]

In a 1988 paper analyzing the Georgetown data, Professors Thomas Kauper and Edward Snyder found that roughly one quarter of all the private antitrust suits in the sample were based upon prior government cases.[22] That made clear the degree to which private cases depended upon public ones, and suggested that

21 *See* S. Salop & L. White, *Private Antitrust Litigation: An Introduction and Framework*, in Private Antitrust Litigation: New Evidence, New Learning (L. White ed., 1988).

22 Kauper & Snyder, *supra* note 16, at 358.

a change in government antitrust case filings could have a significant impact upon the number of private cases filed. The authors also noticed, however, a seemingly contrary fact: Although private follow-on suits had declined over the decade under study, government filings had not. The authors concluded that the decline in private cases was attributable to a change in the type of cases being filed by the U.S. government—in particular, a shift toward bid-rigging cases which, they observed, do not readily lend themselves to follow-on litigation. Although according to the authors, "the largest number" of the U.S. government's cases during the latter part of the sample period had involved bid-rigging, only one of the 173 private cases the authors identified as follow-on suits had involved bid-rigging.[23] The authors hypothesized that the U.S. government's bid-rigging prosecutions generated relatively little private activity because state governments were the usual victims in the bid-rigging cases of that era and the states, rather than bringing follow-on suits, might have used the threat of debarment under state procurement statutes to negotiate settlements with the offending companies.[24]

This hypothesis is plausible but incomplete. To the extent that a change in the mix of government cases led to a decline in the number of follow-on cases, it probably did contribute to the overall decline in private case filings during the latter part of the period from 1973 to 1983. But even if follow-on suits accounting for one quarter of all private suits had been eliminated entirely, that would not explain most of the decline in private litigation in the early 1980s. Nor does the follow-on litigation theory explain why filings increased substantially in the 1960s and early 1970s to the heights from which the decline in filings occurred.

C. THE RISE AND FALL OF THE PER SE RULE

We believe a third explanation offers a more complete account of the changes in private filings during this period. The substantive law changed—twice. During the 1960s, judicial resolution of private antitrust claims created something of a "plaintiffs' picnic," with the courts construing the antitrust laws to protect firms from their competitors without regard to whether the defendant had caused any injury to consumers or to the competitive process.[25] Most significant, the U.S. Supreme Court condemned various types of vertical restraints as per se unlawful.

23 *Id*.

24 *Id*; *see also* T. Kauper & E. Snyder, *Inquiry into the Efficiency of Private Antitrust Enforcement: Follow-On and Independently Initiated Cases Compared*, 74 Geo. L.J. 1163, 1178–79 (1986).

25 Others have cited overuse of *per se* rules as a possible source of over-deterrence. *See*, *e.g.*, ABA Section of Antitrust Law, *Report of the Task Force on the Federal Agencies*, Jan. 2001, *available at* http://www.abanet.org/antitrust/antitrustenforcement.pdf ("[T]he overly aggressive enforcement of the merger laws in the 1960s, and the relatively indiscriminate application of *per se* rules, may well have discouraged American companies from entering into...potentially efficient business relationships of the kind that have been routinely approved in recent years").

Although the Court overruled many of these per se cases within a decade, while they were good law they had a profound effect upon the level of private antitrust litigation.

Perhaps the largest category of cases brought to the plaintiffs' picnic involved non-price vertical restraints. In 1963, the U.S. Supreme Court had declined to condemn non-price vertical restraints as per se unlawful because, as the Court later explained, "[T]oo little was known about the competitive impact of such vertical limitations to warrant treating them as per se unlawful."[26] In 1967, however, in *United States v. Schwinn*, the Court held that non-price vertical restraints were per se unlawful after all, because restrictions upon a distributor's right to sell to certain customers or in certain areas "are so obviously destructive of competition that their mere existence is enough" to establish liability.[27]

Similarly, in 1967, the U.S. Supreme Court held in *Utah Pie Co. v. Continental Baking Co.* that a manufacturer trying to enter a new market by offering low prices had violated the antitrust laws by contributing to a "deteriorating price structure" and by "erod[ing] competition."[28] The "deteriorating price structure" argument was typical of the theories of harm urged upon the Court by companies suing their competitors during this period. By accepting the theory in *Utah Pie*, the Court signaled to firms facing vigorous competition that litigation was a viable alternative to meeting the competition. The following year, as private antitrust filings continued to rise, the Court decided *Albrecht v. The Herald*, in which it held that a daily newspaper had committed a per se violation of the Sherman Act when it set the maximum price at which vendors could resell the paper.[29]

Not surprisingly, the lower federal courts followed the U.S. Supreme Court's lead by turning increasingly toward per se condemnation of various business practices. To take a particularly important example, the U.S. Court of Appeals for the Ninth Circuit, in *Siegel v. Chicken Delight*, held that a franchise agreement requiring that the franchisee purchase its supplies from the franchisor was a per se unlawful tying arrangement.[30] Although the court in *Chicken Delight* was ostensibly just applying the U.S. Supreme Court's prohibition of tying first

26 State Oil Co. v. Kahn, 522 U.S. 3 (1997) (describing White Motor Co. v. United States, 372 U.S. 253 (1963)).

27 United States v. Schwinn, 388 U.S. 365 [hereinafter *Schwinn*], at 379 (internal citations omitted).

28 Utah Pie Co. v. Cont'l Baking Co., 386 U.S. 685 (1967) [hereinafter *Utah Pie*].

29 Albrecht v. The Herald, 390 U.S. 145 (1968) [hereinafter *Albrecht*].

30 Siegel v. Chicken Delight, 448 F.2d 43, 48–9 (9th Cir. 1971) [hereinafter *Chicken Delight*].

announced almost 25 years earlier in *International Salt Co. v. United States*,[31] its counterintuitive application of that approach in the field of franchising actually marked a significant extension. For years, the franchising industry had used the condemned arrangement as part of a relational contract in which the franchisee was charged a modest initial franchise fee and required to purchase all its branded supplies from the franchisor. This two-part pricing scheme had the advantages both of simplifying quality control and of permitting potential franchisees with modest resources to enter the market. By condemning such arrangements, the court both deterred pro-competitive business behavior and encouraged litigation by aggrieved franchisees with similar agreements.

By condemning such arrangements, the court both deterred pro-competitive business behavior and encouraged litigation by aggrieved franchisees with similar agreements.

Chicken Delight and the other major decisions served up at the plaintiffs' picnic were heavily criticized by academics, especially in and around Chicago, and are now almost universally regarded as having been misguided.[32] As such criticism of the antitrust courts' new solicitude for competitors mounted, the courts became less receptive to their claims. In 1977, the U.S. Supreme Court decided *Continental T.V., Inc. v. GTE Sylvania Inc.*, in which it discarded the per se rule against non-price vertical restraints that it had announced only ten years before in *Schwinn*.[33] That was the beginning of the end of the plaintiffs' picnic.

In 1984, in *Jefferson Parish Hospital Dist. 2 v. Hyde*, the U.S. Supreme Court tempered its earlier statements about tying, noting that only "certain tying arrangements...are unreasonable 'per se,'" and emphasizing the requirement that the defendant have power in the market for the tying good.[34] Four justices, in a concurring opinion by Justice O'Connor, advocated abandoning altogether the per se rule against tying.[35] And two of the five justices in the majority noted that

31 Int'l Salt Co. v. United States, 332 U.S. 392 (1947) (confirmed in Times-Picayune Publ'g Co. v. United States, 345 U.S. 594 (1953) and N. Pac. Ry. Co. v. United States, 356 U.S. 1 (1958)).

32 *See, e.g.*, W. Bowman, *Restraint of Trade by the Supreme Court: The Utah Pie Case*, 77 Yale L.J. 70 (1967–68); P. Areeda & D. Turner, *Predatory Pricing and Practices Under Section 2 of the Sherman Act*, 88 Harv. L. Rev. 697 (1975) (*reprinted in* 1 Competition Pol'y Int'l 177–212 (2005)); L. Popofsky, D. Goodwin, and A.M. Mazour, *Horizontal Restraints Under Section 1 of the Sherman Act*, Practising Law Institute PLI Order No. B4–7021, 15 (1993); S. Calkins, *In Praise of Antitrust Litigation*, 72 St. John's L. Rev. 1, 14 (1998).

33 Cont'l T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36 (1977).

34 Jefferson Parish Hosp. Dist. 2 v. Hyde, 466 U.S. 2 (1984) [hereinafter *Jefferson Parish*].

35 466 U.S. at 32 (Justice O'Connor, joined by Chief Justice Burger and Justices Powell and Rehnquist, concurring in the judgment).

they adhered to the per se condemnation of tying only because the Congress had not amended the Act to disapprove the Court's prior interpretation.[36]

Also in 1984, in *Copperweld Corp. v. Independence Tube Corp.*, the U.S. Supreme Court rejected the notion of an intra-enterprise conspiracy—a concept it had long applied without expressly approving, and which it now dismissed out of hand.[37] Two years later, in *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, the Court dropped the approach it had adopted in *Utah Pie*, and held that a predatory pricing case could not proceed unless the plaintiff alleged a sound theory of harm to competition.[38] And, in *Business Electronics Corp. v. Sharp*, the Court narrowly cabined future per se condemnations of business practices, saying that any "departure from [the rule of reason] standard must be justified by demonstrable economic effect."[39]

COPPERWELD REFLECTS THE SEA CHANGE IN JUDICIAL RULINGS OCCURRING AT THE TIME AND, AS PART OF THE OVERALL JURISPRUDENTIAL TIDE, NO DOUBT CONTRIBUTED SOME TO THE DEMORALIZATION OF WOULD-BE PRIVATE PLAINTIFFS.

The cases just discussed are indicated in Figure 3 alongside the trend in private filings. The black dots in the figure represent the plaintiffs' picnic cases discussed above, while the squares represent the later cases that reduced the scope of liability.

Of course, not all of the landmark cases of the era fit both trends. *Albrecht*, for example, was not overruled until 1997,[40] long after private antitrust case filings had returned to the basic trend line. Other changes in substantive doctrine fit the timeline but probably contributed only modestly to the changes in the number of private cases. *Copperweld*, for example, likely precluded a relatively small number of private cases that otherwise would have alleged antitrust violations under the intra-enterprise conspiracy doctrine.[41] Nonetheless, *Copperweld*

36 466 U.S. at 32 (Justice Brennan, joined by Justice Marshall, concurring).

37 Copperweld Corp. v. Independence Tube Corp., 467 U.S. 752 (1984) [hereinafter *Copperweld*], at 760.

38 Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp., 475 U.S. 574 (1986).

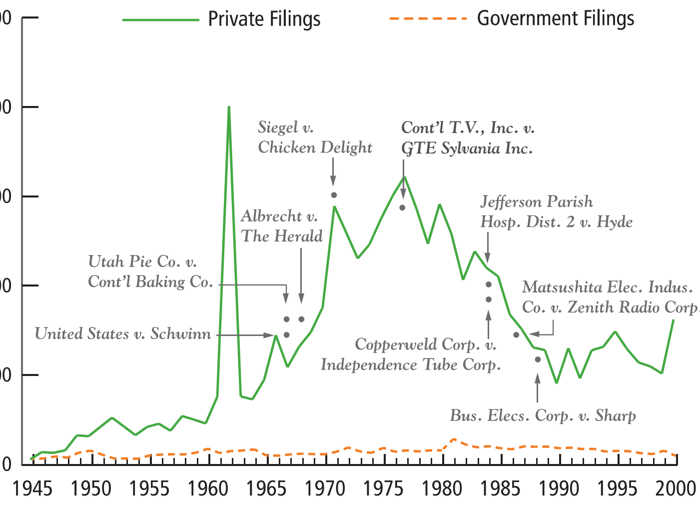
39 Bus. Elecs. Corp. v. Sharp, 485 U.S. 717 (1988). The U.S. Supreme Court also cut back on its liberal use of per se rules in Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1, 19, n. 33 (1979) and in FTC v. Ind. Fed'n of Dentists, 476 U.S. 447, 458–59 (1986).

40 State Oil Co. v. Khan, 522 U.S. at 3.

41 The case most clearly setting forth the intra-enterprise conspiracy doctrine, Perma Life Mufflers, Inc. v. Int'l Parts Corp., 392 U.S. 134, 141 (1968), received favorable treatment in forty-four reported federal decisions prior to its overruling in *Copperweld*, though the approbations in about one-half of those cases were dicta.

Figure 3

The plaintiffs' picnic and later cases charted against the trend in private filings, from 1945 to the present



Source: Administrative Office of the United States Courts, Proceedings of the Judical Conference of the United States

reflects the sea change in judicial rulings occurring at the time and, as part of the overall jurisprudential tide, no doubt contributed some to the demoralization of would-be private plaintiffs. Apart from these few exceptions, the landmark cases of the era fit well with the rise and fall in private filings.

The data generated by the Georgetown Project also lend some support to the hypothesis that the rise and fall of per se condemnation of various vertical restraints fueled the rise and fall in private antitrust case filings. In their paper based upon the project data, Kauper and Snyder grouped case filings into vertical and horizontal categories. Their sample shows the mix of cases shifting more or less steadily from 54 (32 percent) horizontal and 92 (54 percent) vertical cases in 1973, to 38 (41 percent) horizontal and only 36 (39 percent) vertical cases in 1983.[42] Although both horizontal and vertical cases declined in absolute terms over the sample period, the decline in vertical cases is much more dramatic. In relative terms, the percentage of horizontal cases increases over the sample period, while the percentage of vertical cases decreases. This shift in the mix of private litigation makes sense in light of the doctrinal shift away from per se condemnation of vertical arrangements that occurred during the sample period.

Additional support comes from examining the individual causes of action accorded per se treatment during the short-lived plaintiffs' picnic. If plaintiffs uniformly lost cases once per se condemnation ended and they were forced to

42 Kauper & Snyder, *supra* note 16, at 340.

show injury to competition, then presumably plaintiffs would cease to bring such claims. And, in fact, of 45 reported decisions involving non-price vertical restraints in the fourteen years following *Sylvania*, plaintiffs won four and lost 41.[43] This poor rate of success no doubt deterred many potential plaintiffs from filing vertical restraint cases.

Similarly, *Chicken Delight* appears to have inspired a large number of tying claims against franchisers, but only until *Jefferson Parish* came along. In the 13 years between *Chicken Delight* and *Jefferson Parish*, 65 reported district court decisions involved allegations that a franchise agreement was an unlawful tie. By contrast, in the 25 years following *Jefferson Parish*, there have been only six such cases. These numbers, too, tend to support the hypothesis that the landmark cases, variously casting doubt upon and abandoning the per se rules of the plaintiffs' picnic, substantially reduced the scope and number of private antitrust case filings.[44]

On the one hand, private litigation is indeed a powerful tool for enforcement of competition laws. On the other hand, the U.S. experience shows that private complainants can be trusted to press the courts to condemn business behavior that does not actually harm competition when doing so is in their interest.

V. Conclusion: Lessons for Europe

Private antitrust enforcement in the United States has generally increased over time, more or less consistent with the long-term growth of the economy. The most significant departure from this basic trend came with a sharp increase in filings in the 1970s followed by a decrease in filings in the 1980s. This rise and fall in filings appears to be attributable not to changes in standing rules, available damages, or government enforcement levels. Rather, the change appears to be the result of the contemporaneous rise and fall of the per se rule.

For the European Community and any other jurisdiction considering modifying its competition policy in order to facilitate private enforcement, the U.S. experience in instructive. On the one hand, it demonstrates that private litigation is indeed a powerful tool for enforcement of competition laws, both in helping plaintiffs recover for their injuries and in deterring future anticompetitive behavior. On the other hand, the U.S. experience shows that, as would be expected, private complainants can be trusted to press the courts to condemn

43 D.H. Ginsburg, *Vertical Restraints: De Facto Legality Under the Rule of Reason*, 60 ANTITRUST L.J. 67, 71 (1991).

44 It is also likely that case filings dropped to some extent simply because businesses abandoned practices as they became per se unlawful. That does not seem, however, to be a powerful explanation because the timing of the decline in case filings is more closely associated with cases cutting back on the per se rule than with cases extending it.

business behavior that does not actually harm competition when doing so is in their interest. For this reason, lawmakers should take care in developing per se rules, which relieve the courts of the need to inquire into actual competitive effects.[45]

More generally, the U.S. experience suggests the key to a successful public and private partnership in enforcing competition law lies in developing sound substantive doctrine. With sound doctrine in place, competition authorities can profitably take advantage of the energies and resources of private plaintiffs to help police anticompetitive conduct without repeating the mistakes made in the United States.

45 Even when conduct is clearly anticompetitive, lawmakers must still take care in developing remedies. *See supra* note 6 and accompanying text. As the U.S. Supreme Court recently noted, although there is substantial international agreement upon the anticompetitive nature of price-fixing, "nations … disagree dramatically about appropriate remedies" (Hoffman-La Roche v. Empagran, 124 S.Ct. 2359, 2368 (2004)).

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Vertical Restrictions and Antitrust Policy: What About the Evidence?

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Vertical Restrictions and Antitrust Policy: What About the Evidence?

James Cooper, Luke Froeb, Daniel O'Brien, and Michael Vita

Theories of vertical restraints have shown that vertical practices have the potential to harm competition. Although (or because) they are based on more realistic market structures and account explicitly for strategic interactions among competitions, the predictions of these models are necessarily more fragile than those of the earlier models. Practitioners who rely mainly on economic theory to assess the competitive impact of vertical restraints in any given setting face a formidable inferential problem: Not only must they decide which model best applies to the particular factual circumstances in which the restraint has been adopted, they also must then determine whether the model chosen has the particular combination of parameters that would result in an anticompetitive equilibrium. The theory of vertical control tells us that anticompetitive effects are possible, but until theory can be used to determine how likely it is that a restraint will lead to an anticompetitive outcome, decision makers will be left with a considerable amount of uncertainty. In this world, enforcement decisions should be guided by prior beliefs and loss functions. The authors' review of the existing empirical evidence—which informs their priors—suggests that vertical restraints are likely to be benign or welfare-enhancing.

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I. Introduction

Since the 1977 *Sylvania* decision[1]—in which the U.S. Supreme Court eschewed its prior "formalistic line drawing," and instead based its decision on demonstrable economic effects—a successful antitrust plaintiff in the U.S. courts must show that a challenged vertical restraint is likely to harm consumer welfare.[2] This movement is due, in part, to the Chicago School critique of then-current theories of harm from vertical relationships, which identified several compelling efficiency-enhancing rationales for vertical restraints.[3]

Over the past 20 years, post-Chicago theories of vertical restraints have shown that vertical practices have the potential to harm competition. Although (or

1 Cont'l T.V. Inc. v. GTE Sylvania Inc., 433 U.S. 36 (1977) [hereinafter *Sylvania*]. In *Sylvania*, the U.S. Supreme Court overruled United States v. Schwinn, 388 U.S. 365 (1967), and held that non-price vertical restrictions were to be judged under the rule of reason. Under the rule of reason, a plaintiff must show that the agreement is likely to have "genuine adverse effects on competition." In support of its abandonment of per se treatment, the Court observed in *Sylvania* how exclusive territories had the potential to "induce competent and aggressive retailers to make the kind of investment of capital and labor that is often required in the distribution of products unknown to the consumer" (*Sylvania,* at para. 55). A few years later, in Monsanto Co. v. Spray-Rite Service Co.*,* the Court again endorsed vertical restrictions that encourage retail service and supported a manufacturer's right to terminate a discounting dealer to prevent free riding ("independent action is not proscribed. [A supplier] has a right to deal, or refuse to deal, with whomever it likes as long as it does so independently"). (Monsanto Co. v. Spray-Rite Service Co., 465 U.S. 752, 760–61 (1984).) For a full discussion of this evolution, *see* T. Muris, *GTE Sylvania and the Empirical Foundations of Antitrust*, 68 ANTITRUST L.J. 899 (2001).

2 Since 1977, The Sherman Act, Section 1 cases involving vertical restraints—with the exception of explicit minimum resale price maintenance—are evaluated under the rule of reason. This standard requires a plaintiff to show that the agreement is likely to have "genuine adverse effects on competition." *See* Federal Trade Comm'n v. Indiana Fed'n of Dentists, 476 U.S. 447, 460 (1986). *See also* Virgin Atl. Airways, Ltd v. British Airways PLC, 257 F.3d 256, 264 (2d Cir. 2001) (plaintiff is required to show that the agreements in question "had an actual adverse effect on competition as a whole in the relevant market") and P. AREEDA & H. HOVENKAMP, ANTITRUST LAW (2003), para. 1503a ("Every antitrust suit should begin by identifying the ways in which a challenged restraint might possibly impair competition."). Likewise, under The Sherman Act, Section 2, the plaintiff must show that "a monopolist's act . . . [has] an 'anticompetitive effect.' That is, it must harm the competitive *process* and thereby harm consumers" (emphasis added). *See* United States v. Microsoft, 253 F.3d 34, 58 (D.C. Cir. 2001) [hereinafter *Microsoft*]. Based on his analysis of post-*Sylvania* case law, Ginsburg concluded that "non-monopolists have been effectively freed from antitrust regulation of vertical nonprice restraints" (D. Ginsburg, *Vertical Restraints: De Facto Legality Under the Rule-of-Reason*, 60 ANTITRUST L.J. 67–81 (1991)). A similar movement away from form-based competition analysis of vertical restraints is occurring in the European Union. In 1999 and 2000, the European Commission issued a new Block Exemption Regulation and accompanying guidelines that focus on the competitive effects of vertical restraints entered into by "non-dominant" firms under Article 81. *See* Commission Regulation (EC) No. 2790/99 on the Application of Article 81(3) of the Treaty to Categories of Vertical Agreements and Concerted Practices, 1999 O.J. (L 336) and Guidelines on Vertical Restraints, 2000 O.J. (C 291) 1. Vertical agreements entered into by firms exceeding a 30 percent threshold (but below the 50 percent level required for "dominance") are judged by their overall competitive effect, including an accounting of efficiencies (*id.* at para. 116). For a discussion of the Commission's greater reliance on economics when analyzing vertical practices involving non-dominant firms, *see* Vincent Verouden, *Vertical Agreements and Article 81(1) EC: The Evolving Role of Economic Analysis*, 71 ANTITRUST L.J. 525 (2003).

3 *See, e.g.*, ROBERT H. BORK, THE ANTITRUST PARADOX (1978).

because) they are based on more realistic market structures (i.e. oligopoly, instead of monopoly or perfect competition) and account explicitly for strategic interactions among competitions, the predictions of these models are necessarily more fragile than those of the earlier models. Accordingly, equilibria in which the restraints reduce welfare require very specific—and difficult to verify in real-world settings—assumptions about (among other things) costs, demand, the nature of input contracts, conditions of entry, the slope of reaction functions, and the information available to firms. Seemingly minor perturbations to these assumptions can reverse the predicted welfare effects of the practice in question.[4]

The sensitivity of equilibria to factors that are difficult to observe empirically means that it is extremely difficult for an antitrust practitioner to determine whether a given vertical restraint is anticompetitive in any particular set of circumstances. In contrast to mergers among competitors, there are intrinsic efficiencies to vertical control that render the ultimate competitive effects of a given vertical restraint inherently ambiguous, even in the absence of production efficiencies. Practitioners who rely mainly on economic theory to assess the competitive impact of vertical restraints in any given setting face a formidable inferential problem: Not only must they decide which model best applies to the particular factual circumstances in which the restraint has been adopted, they also must then determine whether the model chosen has the particular combination of parameters that would result in an anticompetitive equilibrium.

We argue that economic theory actually provides policymakers with very little guidance as to whether vertical restraints are likely to be beneficial or harmful in any particular factual setting. Importantly, the conditions necessary for vertical restraints to harm welfare generally are the same conditions under which the practices increase consumer welfare. For example, pre-existing market power in the primary market typically is necessary for vertical integration to raise price to un-integrated rivals, but vertical integration under these conditions normally also would eliminate double-markup distortions, a pro-competitive effect. Determining which effect dominates depends on a variety of parameters that typically are hard to observe. Further, although there are well-known theories of efficiencies from vertical restraints due to better alignment of upstream and downstream firms' incentives, none of the theories are developed enough to show how to weigh the potential harm from vertical restraints against claimed efficiencies.

If a theory does not allow a decision maker to use observable criteria to distinguish pro- from anticompetitive outcomes with a reasonable degree of precision, then its ability to inform policy decisions is quite limited. Absent a direct empirical evidence of the effects of the practice in question (for example, from com-

4 Of course, if one could establish which assumptions are appropriate (i.e. which assumptions yield predictions consistent with the evidence and which do not), then one could select and apply the appropriate theory. Our point is that this is extremely difficult to do in most cases.

paring markets with the restraint to those where the restraint is not present), enforcement decisions unavoidably will be subject to substantial uncertainty.

In the context of antitrust policymaking, decision making under uncertainty could be modeled as a process whereby decision makers use observed data to update their prior beliefs about the likely efficiency of a given vertical restraint, yielding a posterior belief. If empirical evidence is difficult to interpret, these observations will cause little, if any, modification to these prior beliefs. Enforcement decisions accordingly will mainly reflect the strength of these "priors." Although credible empirical evidence (i.e. evidence from peer-reviewed academic studies) on the equilibrium effects of vertical practices is somewhat limited, most studies show that vertical restraints increase (or at worst, do not reduce) economic welfare.

ALTHOUGH CREDIBLE EMPIRICAL EVIDENCE ON THE EQUILIBRIUM EFFECTS OF VERTICAL PRACTICES IS SOMEWHAT LIMITED, MOST STUDIES SHOW THAT VERTICAL RESTRAINTS INCREASE (OR AT WORST, DO NOT REDUCE) ECONOMIC WELFARE.

The remainder of the paper is organized as follows. Section II examines some of the pro-competitive virtues of vertical restraints and Section III examines static and dynamic theories of harm from vertical restraints. Section IV reviews the relevant empirical literature. Section V examines the implication for enforcement policies. Section VI offers some conclusions.

II. The Benefits of Vertical Restrictions

Vertical integration and other vertical contracts can mitigate inefficiencies that arise in the vertical relationship. In this section, we review the primary efficiencies that flow from vertical restraints.

A. ELIMINATING DOUBLE MARKUPS

When competition is imperfect at both levels (i.e. both upstream and downstream firms earn positive margins), total downstream output will be less than what a vertically integrated firm would produce. The limiting case of upstream and downstream monopolists illustrates this point. The downstream seller could increase its profits if it could obtain its input at marginal cost rather than at the monopoly price, and the upstream supplier could increase its profits if the downstream firm ceased marking up its output, thus expanding demand for the upstream monopolist's input. Clearly, both firms have an incentive to integrate and sell the final good at a price that equates marginal cost to the downstream firm's marginal revenue. In this case, output rises, prices fall, and joint profits increase. Note that elimination of the double markup can be thought of as the unilateral effect of a merger among complements.

In addition to vertical integration, maximum resale price maintenance allows a manufacturer directly to constrain the ability of a downstream retailer to exploit local market power, and so can accomplish the same result.

B. INCREASING INCENTIVES TO PROVIDE DEMAND-ENHANCING SERVICES

Because a manufacturer and a retailer may have different incentives to provide sales-generating effort, a manufacturer may find it efficient to restrict the distribution of its product. By limiting intra-brand competition, a manufacturer can enhance inter-brand competition with its rivals.

Retail promotion and service is an important complement to many consumer goods. To reach an optimal level of output, a manufacturer often will find it efficient to provide those consumers who are indifferent between purchasing or not with extra services to make the purchase worth their while. For instance, relatively uninformed consumers of high-end electronic equipment may require expert assistance to determine the proper product for them—without such assistance they may choose not to purchase a product at all. A manufacturer also may desire a retailer to take steps to assure that a product maintains the level of quality that consumers expect from a given brand. For example, a brewer may insist that a retailer store its beer in a certain way to preserve its quality. Without proper storage, total demand for the brand (i.e. not merely demand at the one retail location) would be lower because consumers would likely associate the poor quality not with the retailer's inadequate storage, but with the manufacturer's product.[5]

In many cases, however, retailers will have less of an incentive to engage in sales-generating effort than manufacturers. For instance, when the manufacturer's profit margin for additional sales is large in relation to the retailer's (as may be the case for branded products), the retailer rationally will provide a lower level of promotion than is optimal for the manufacturer.[6] Further, because retailers do not reap all of the benefit from a manufacturer's reputation, they are likely to have an incentive to provide suboptimal effort to maintain a level of qual-

5 *See*, *e.g.*, Adolph Coors Co. v. FTC, 497 F.2d 1178 (10th Cir. 1974).

6 For example, one study reports that apparel manufacturers' average gross profit margin is 46 percent compared to only nine percent for "multiple apparel retailers." The authors note that this disparity in compensation for marginal sales "will limit the incentive of retailers to invest in developing and promoting their Web sites unless there is some form of co-op funding or restructured pricing" (R. Gertner & R. Stillman, Vertical Integration and Internet Strategies in the Apparel Industry, 49 J. Indus. Econ. 417, 427 (2001)).

ity that is associated with a manufacturer's brand name.[7] Thus, a manufacturer will need to compensate the retailer for expending the desired effort and would like to enter into a contract that spells out the services that a retailer must perform. Because retail service provisions can be complex and difficult to measure, often a manufacturer will find it impracticable to specify in a contract the exact type and level of promotional services it desires from retailers.

One solution to this problem is for a manufacturer to have distribution policies that insulate retailers from intra-brand (other sellers of that manufacturer's product) competition. In this way, a manufacturer can provide its retailers with sufficient compensation to create incentives to supply the desired retail service.[8]

Limited distribution policies also can prevent discounters from free-riding on a full-service retailer's efforts to increase demand.[9] Under this special services free-riding argument, absent exclusive territories, a consumer may come to the full-service retailer to learn about the product from a knowledgeable and attentive sales staff, but purchase the product from a discounter that offers lower prices because it does not provide any service. Insulated from discounters, full-service retailers can capture the full return to their service efforts, thereby helping to assure that the optimal level of service is achieved.

Exclusive dealing arrangements may be necessary to prevent retailers and rival manufacturers from free-riding off of a supplier's direct investments. For instance, a supplier that provides distributors subsidized rent, displays, or sales-force training may be concerned that these distributors will use this investment to promote rival manufacturers' products.[10] Even when the investment cannot be used to promote rivals' products, exclusivity could be a way to prevent a distributor from holding up a manufacturer that has made a relationship-specific investment.[11]

7 This phenomenon may be likely to arise in a franchise context. For example, although a restaurant franchisee using low-quality ingredients would lose repeat sales at its outlet, it may also cause fewer patrons to visit other franchisees' outlets as well. The low-quality franchisee does not internalize the full costs of actions that depreciate the brand name capital of the franchisor. *See* B. Klein, *The Economics of Franchise Contracts*, 2 J. Corp. Fin. 9 (1995) and P. Rubin, *The Theory of the Firm and the Structure of the Franchise Contract*, 21 J.L & Econ. 223 (1978).

8 *See* B. Klein & K. Murphy, *Vertical Restraints as Contract Enforcement Mechanisms*, 31 J.L. & Econ. 265 (1988).

9 *See* L. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & Econ. 86 (1960). *See also* Isaksen v. Vermont Castings, Inc., 825 F.2d 1158, 1161–62 (7th Cir. 1987) (Posner, J.) (describing how minimum resale price maintenance can also be used to assure that dealers provide the proper level of service by preventing discounters from free-riding).

10 *See* H. Marvel, *Exclusive Dealing*, 25 J.L. & Econ. 1 (1982).

11 *See* B. Klein, *Exclusive Dealing as Competition for Distribution "on the Merits,"* 12 Geo. Mason L. Rev. 119, 139–40 (2003).

Where there is no obvious investment made by the manufacturer, there still may be a need for imposing exclusivity on distributors. As noted above, given misaligned incentives, a manufacturer typically will have to compensate a distributor for promotion and obviously, a supplier will want to assure that it is getting the promotion that it paid for. A distributor may have an incentive to steer marginal consumers—who are likely to be indifferent between brands—to higher-profit margin brands, or may have an incentive not to expend promotional effort to switch a consumer to the supplier's brand when a consumer has a preference for a rival brand. Exclusivity may be a way to prevent this sort of distributor opportunism.[12]

III. Theories of Competitive Harm From Vertical Restraints

Partly as a reaction to the Chicago School critique of vertical antitrust policy, new theories have been offered that show how vertical control can reduce equilibrium welfare . These models fall into two broad categories: static and dynamic. In static models, the competitive harm results from integrated firms softening competition with rivals. In dynamic models, integrated firms typically increase their profits and reduce welfare by preventing entry and/or inducing the exit of rivals. In either case, the concept of foreclosure plays a crucial role. The possibility that firms could profit from raising rivals' (and potentially their own) costs constitutes much of the basis for challenging the Chicago School view that vertical restraints seldom harm competition.[13] In this manner, the concept of foreclosure is a unifying theme across these post-Chicago models.

A. STATIC MODELS

In their seminal paper, Salop and Scheffman (1983)[14] point out that vertical integration or restraints sometimes provide ways for firms to raise their rivals' costs and thereby profitably reduce market output. They show how the dominant firm can raise input costs (both its own and its rivals') by "over-purchasing inputs" through either excessive purchases of inputs on the open market or

12 *See id.*

13 In this paper we focus on the case of fixed proportions technology, which formed the basis for most of the Chicago view that vertical integration and restraints are benign or efficient.

14 S. Salop & D. Scheffman, *Raising Rivals' Costs*, 73 AM. ECON. REV. 267 (1983). *See also* S. Salop & D. Scheffman, *Cost Raising Strategies*, 36 J. INDUS. ECON. 19 (1987).

excessive purchases of productive capacity through vertical integration.[15] This action may be profitable and may reduce partial equilibrium welfare, depending on cost and demand parameters and the cost-raising technology. However, there is no general incentive to raise rivals' costs, and even when it is privately profitable to do so, the attendant welfare consequences may be positive.[16] If the cost-raising strategy is profitable, it may lead to an increase or decrease in price. This is because the dominant firm may expand output enough to offset the contraction in the output of the fringe. If the strategy leads to an increase in price, total welfare still may rise if the dominant firm is more efficient than the fringe firms, as the shift in output from the fringe to the dominant firm can increase productive efficiency.

Another set of models focuses on the ability of profitable vertical mergers to lead to higher prices and lower output downstream.[17] Although they differ in their assumptions about the nature of upstream and downstream competition (i.e. Cournot or Bertrand), these models' anticompetitive results rest on integration causing an increase in the price that non-integrated downstream rivals pay for an input.

In softening-competition models, because the integrated firm has an incentive to compete less aggressively upstream, the remaining non-integrated suppliers have an incentive to raise their prices to the remaining non-integrated downstream firms. At the same time, however, the integrated firm's downstream output increases because it enjoys lower input costs than its rivals. This fact—combined with the elimination of the integrated firm's downstream unit's demand for the input—lowers demand for non-integrated input suppliers. The net effect of these two forces determines whether vertical integration will raise the input price for non-integrated firms. Of course, such foreclosure is only a necessary condition for competitive harm in these models—even if the input price rises, total output may increase if the integrated firm's costs fall sufficiently.[18]

15 A substitute for vertical integration in this context may be the cartelization of the upstream market. For example, Granitz and Klein argue that Standard Oil raised rival refiners' costs by cartelizing the oil transportation market (the railroads) and conspiring with them to charge rival refiners higher prices for transportation services. *See* E. Granitz & B. Klein, *Monopolization by Raising Rivals' Costs: The Standard Oil Case*, 39 J.L. & Econ. 1 (1996).

16 A cost-raising strategy is profitable if it raises the dominant firm's residual demand curve by more than its average cost curve. This generally depends on the cost and demand parameters and the cost-raising technology.

17 *See*, *e.g.*, M. Salinger, *Vertical Integration and Market Foreclosure*, 103 Q.J. Econ. 345 (1988); J. Ordover, G. Saloner, & S. Salop, *Equilibrium Vertical Foreclosure*, 80 Am. Econ. Rev. 127–42 (1990) [hereinafter OSS (1990)]; and, J. Ordover, G. Saloner, & S. Salop, *Equilibrium Vertical Foreclosure: Reply*, 82 Am. Econ. Rev. 698–703 (1992).

18 *See* D. Reiffen & M. Vita, *Comment: Is There New Thinking on Vertical Mergers?*, 63 Antitrust L.J. 917 (1996).

A necessary condition for these models to predict foreclosure is the ability of the integrated upstream supplier to commit credibly to a post-merger withdrawal from the input market, thereby allowing the remaining firm(s) to raise their price. Importantly, if the pre-merger upstream market is effectively competitive (i.e. Bertrand competition in homogeneous goods), then vertical integration does not change the integrated firm's decision to supply downstream rivals with the input unless the merger somehow creates an ability for the integrated firm to commit to competing less aggressively upstream.[19]

B. DYNAMIC MODELS

Dynamic models also involve foreclosure, focusing on exclusive dealing, tying, and bundling as ways to foreclose rivals from access to inputs, thereby deterring entry and/or inducing the exit of competitors. Whinston (1990) was the first to examine rigorously the potential entry-deterring effects of tying.[20] His model shows that a commitment to tying can cause a firm to price more aggressively against its rivals in the tied good market. If economies of scale characterize production in the tied good market, this commitment can deter entry because the potential tied good entrant realizes that the resulting low price will not permit it to cover its average costs. Carlton and Waldman (2002) show how a monopolist can use tying to preserve its monopoly in future periods or extend it into newly emergent markets.[21] Nalebuff (2004) shows that a company with market power in two products that can bundle them together can make it harder for a rival selling only one of the products to compete.[22]

The welfare effects of tying and bundling in these models are theoretically ambiguous, for a variety of reasons. In Whinston's model, for example, the commitment to compete more aggressively caused by tying can also lower price. In addition, the welfare effects of entry into the tied good market are typically ambiguous because of the usual tradeoff between greater product variety and the

19 Reiffen makes this point forcefully in his critique of OSS (1990), which shows how an upstream Bertrand competitor can create market power for itself by vertically integrating if the integrated firm can somehow commit to compete less aggressively for sales to the unintegrated downstream rival. *See* D. Reiffen, *Equilibrium Vertical Foreclosure: Comment*, 82 AM. ECON. REV. 694 (1996). *See also* Reiffen & Vita, *supra* note 18. Choi and Yi explore switching costs and investments in specific technology as possible means for an upstream Bertrand competitor to commit to supplying only its downstream unit. *See* J. Choi & S.-S. Yi, *Vertical Foreclosure with the Choice of Input Specification*, 31 RAND J. ECON 717–43 (2000). Chen uses switching costs as a way for a non-integrated downstream firm to commit credibly to purchasing its input only from the integrated firm, which has an incentive to continue supplying the unintegrated downstream rival because it has a cost advantage over its upstream rival. *See* Y. Chen, *On Vertical Mergers and Their Competitive Effects*, 32 RAND J. ECON 667–85 (2001).

20 M. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV 837 (1990).

21 D. Carlton & M. Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194–220 (2002).

22 B. Nalebuff, *Bundling as an Entry Barrier*, 119 Q. J. ECON. 159–88 (2004).

fixed costs of entry. Whinston summarizes the welfare and policy implications of his analysis as follows:

> "While the analysis vindicates the leverage hypothesis on a positive level, the normative implications are less clear. Even in the simple models considered here, which ignore a number of other possible motivations for the practice, the impact of this exclusion on welfare is uncertain. This fact, combined with the difficulty of sorting out the leveraged-based instances of tying with other cases, makes the specification of a practical legal standard extremely difficult."[23]

Carlton and Waldman also express caution in using their analysis to condemn tying. In the working paper version of their paper, they discuss the antitrust implications of their analysis:

> "It would be a grievous mistake to condemn such strategic behavior and attempt to use the antitrust laws to condemn it without an analysis of the welfare consequences of such behavior and without an analysis of the likelihood of being able to correctly identify such behavior without simultaneously condemning welfare enhancing behavior. Too often in the past, antitrust advocates have confused the theoretical possibility of harm with an empirical demonstration of such a harm."[24]

Similar to the dynamic effects of tying and bundling, the dynamic effects of exclusive dealing arise from denying rivals sufficient scale to be profitable.[25] Like most of the literature on vertical restraints, the exclusive dealing models are high-

23 Whinston, *supra* note 20, at 855–56.

24 D. Carlton & M. Waldman, The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries 37–39 (Nat'l Bureau of Econ. Research, Working Paper No. 6831, 1998), at 37.

25 *See, e.g.*, I. Segal & M. Whinston, *Naked Exclusion: Comment*, 90 Am. Econ. Rev. 296–309 (2000) and E. Rasmusen, J.M. Ramseyer & J. Wiley, Jr., *Naked Exclusion*, 81 Am. Econ. Rev 1137–44 (1991). Mathewson and Winter examine the case of two firms selling through a downstream monopolist using linear prices. Abstracting from economies of scale, they show that the effect of exclusive dealing (ED) on prices is ambiguous. For parameters in which ED is profitable, it may lead to more aggressive bidding for the right to be the exclusive supplier and, thus, a lower input price. This is a potential

ly stylized. For example, these papers assume that downstream markets are served by local monopolists, and that the scale economies in the upstream market take a particular form. Even in these simple settings, the welfare effects of exclusive dealing are theoretically ambiguous.

IV. Empirical Evidence

In reviewing existing empirical studies of vertical integration and vertical restraints,[26] two features immediately stand out: First, there is a paucity of support for the proposition that vertical restraints and vertical integration are likely to harm consumers. Of all the studies we reviewed, only one (a study of vertical integration between cable television franchises and cable programmers) purports to find unambiguously an instance where vertical integration was harmful to consumers. And, in this instance, the losses were minuscule (US$0.60 per cable subscriber per year). Second, a far greater number of studies found that the use of vertical restraints in the particular context studied improved welfare unambiguously (i.e. resulted in lower prices and larger quantities).

THERE IS A PAUCITY OF SUPPORT FOR THE PROPOSITION THAT VERTICAL RESTRAINTS AND VERTICAL INTEGRATION ARE LIKELY TO HARM CONSUMERS.

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footnote 25 cont'd

benefit of ED that must be weighed against possible entry-deterrent effects. *See* F. Mathewson & R. Winter, *Tying as a Response to Demand Uncertainty*, 28 RAND J. ECON. 566–83 (1997). O'Brien and Shaffer and Bernheim and Whinston consider the case of nonlinear contracts (but retain the downstream monopoly assumption). Bernheim and Whinston show that ED can potentially deter entry and thereby reduce competition in "non-coincident" markets (i.e. markets other than those in which exclusive dealing is used). Exclusive dealing is costly in the markets in which it is imposed because it induces more aggressive bidding by manufacturers for the right to be exclusive—as demonstrated by O'Brien and Shaffer. However, the benefit of less competition in non-coincident markets may outweigh this cost. The welfare effects of ED in these models are ambiguous. Among other difficulties, equilibria exist in which only one firm serves the market even without exclusive dealing (O'Brien and Shaffer), so entry deterrence can occur given the right scale conditions even if ED is not used (Bernheim and Whinston). *See* D. O'Brien & G. Shaffer, *Nonlinear Supply Contracts, Exclusive Dealing, and Equilibrium Market Foreclosure*, 6 J. ECON. & MGMT. STRATEGY 755–85 (1997) and B.D. Bernheim & M. Whinston, *Exclusive Dealing*, 106 J. POL. ECON. 64–103 (1998).

26 For a more thorough review of the relevant literature, see J. Cooper, L. Froeb, D. O'Brien, & M. Vita., *Vertical Antitrust Policy as a Problem of Inference*, 23 INT'L J. INDUS. ORG. 639 (2005), at Table 1 . In carrying out this survey, we limit our review to those papers that address issues of explicit antitrust policy interest. We do not discuss the extensive literature on contract choice in franchise relationships, nor do we discuss the literature (with one exception) that examines optimal contract/integration choice in the face of asset specificity (*see, e.g.,* P. Joskow, *Vertical Integration and Long-term Contracts: The Case of Coal-burning Electric Generating Plants*, 1 J.L. ECON. & ORG. 33–80 (1985)).

For example, studies have found support for the proposition that vertical restraints and vertical integration solve the double-markup problem and reduce costs in other ways in fast food, gasoline, beer, and cable television markets.[27] Other studies bearing on the double markup or other cost-savings issues analyze the competitive effects of vertical restraints in a broader cross-section of industries. For example, in her study of litigated resale price maintenance (RPM) cases, Ippolito (1991) found that 30 percent of litigated RPM cases involved maximum RPM, suggesting that in these instances vertical restraints were used as a means for constraining downstream market power.[28]

The empirical literature also provides at least indirect evidence that vertical restraints sometimes are used to induce the provision of demand-increasing activities by retailers.[29] Ippolito (1991) and Ippolito and Overstreet (1996) found that in their samples, the use of RPM generally was consistent with demand-increasing activities by retailers.[30] Also consistent with this rationale for vertical restraints are Sass and Saurman's (1996) findings that the ban on exclusive territories in beer sales reduced beer consumption by six percent.[31] Mullin and Mullin (1997) found vertical integration induced investment in relationship-

27 *See, e.g.*, T. Chipty, *Vertical Integration, Market Foreclosure, and Consumer Welfare in the Cable Television Industry*, 91 Am. Econ. Rev. 428, 428–50 (2001); M. Slade, *Beer and the Tie: Did Divestiture of Brewer-Owned Public Houses Lead to Higher Beer Prices?*, 108 Econ. J. 565, 565–600 (1998); M. Vita, *Regulatory Restrictions on Vertical Integration and Control: The Competitive Impact of Gasoline Divorcement Policies*, 18 J. Reg. Econ. 217 (2000); M. Vita, *Must Carry Regulations for Cable Television Systems: An Empirical Analysis*, 12 J. Reg. Econ. 159, 159–72 (1997). K. Graddy, *Do Fast-Food Chains Price Discriminate on the Race and Income Characteristics of an Area*, 15 J. Bus. & Econ. Stat., 391 (1997); J. Barron, T. Beck, & J. Umbeck, *Will Open Supply Lower Retail Gasoline Prices?*, 63 Contemporary Econ. Pol'y 22 (2004); and, J. Barron & J. Umbeck, *The Effects of Different Contractual Arrangements: The Case of Retail Gasoline Markets*, 27 J.L. Econ. 313 (1984).

28 P. Ippolito, *Resale Price Maintenance: Empirical Evidence from Litigation*, 34 J.L & Econ. 263–94 (1991).

29 That is, manufacturers might wish to induce their retailers to provide services to consumers that will increase demand for the product (e.g. showing consumers how to operate complicated electronic equipment). One problem is that these services may be subject to "free-riding;" that is, the customer goes to the full service retailer to learn about the product, and then proceeds to purchase the product from a no-frills discount retailer (this motive for vertical restraints was first articulated by Telser. *See* L. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & Econ. 86 (1960). Vertical restraints (such as minimum RPM) can be used to prevent this free-riding. More generally, vertical restraints can be used to provide incentives for the provision of any non-contractable service that enhances demand with or without service externalities among retailers. *See*, *e.g.*, Mathewson & Winter, *supra* note 25, at 27.

30 *See* Ippolito, *supra* note 28 and P. Ippolito & T. Overstreet, *Resale Price Maintenance: An Economic Assessment of the Federal Trade Commission's Case against the Corning Glass Works*, 39 J.L & Econ 285–328 (1996).

31 T. Sass & D. Saurman, *Efficiency Effects of Exclusive Territories: Evidence from the Indiana Beer Market*, 34 Econ. Inquiry 597–615 (1996).

specific assets in steel production.[32] Hersch (1994) also concluded that his stock market event study provided evidence consistent with the efficiency rationale for RPM.[33] Heide, Dutta, and Bergen's (1998) study of exclusive dealing contracts found that a key determinant of the use of exclusive dealing contracts was whether or not manufacturers compensated dealers for services potentially "free rideable" by rival manufacturers.[34] Notably, the study also found that the perception by managers of likely entry reduced the probability of using exclusive dealing contracts, thus casting doubt on the empirical importance of exclusionary motives for vertical restraints among the firms in their sample.

A few studies obtained results consistent with both pro- and anticompetitive characterizations of vertical restraints. Gilligan's (1986) event study obtained negative abnormal returns upstream when RPM contracts were challenged, a result consistent with efficiency and manufacturer collusion explanations for RPM (because manufacturer profits would be expected to fall under either of these possibilities).[35] In their study of cable television, Waterman and Weiss (1996) found that cable systems that owned pay movie channels were less likely to carry rival pay channels, a finding consistent both with pro- and anticompetitive behavior. A decision to integrate vertically into programming is presumptively profitable—the profits could arise either from greater efficiency (elimination of double markups) or from foreclosure of some sort.[36] Last, Hastings (2004) found that retail petrol prices increased when "unbranded" stations were acquired by a branded refiner.[37] However, she concludes that the change in price at newly acquired stations is attributable to the effects of "branding" formerly "unbranded" retailers, not to greater vertical control by refiners. Indeed, she notes explicitly that her empirical evidence does not support "divorcement" restrictions (i.e. proscriptions on the vertical control of gasoline retailers by refiners).

32 J. Mullin & W. Mullin, *United States Steel's Acquisition of the Great Northern Ore Properties: Vertical Foreclosure or Efficient Contractual Governance?*, 13 J.L. Econ. & Org. 74–100 (1997).

33 P. Hersch, *The Effects of Resale Price Maintenance on Shareholder Wealth: The Consequences of Schwegmann*, 42 J. Indus. Econ. 205 (1994).

34 J. Heide, S., & M. Bergen, *Exclusive Dealing and Business Efficiency: Evidence from Industry Practice*, 41 J.L. & Econ. 387, 387–404 (1998).

35 T. Gilligan, *The Competitive Effects of Resale Price Maintenance*, 17 RAND J. Econ. 544 (1986).

36 D. Waterman & A. Weiss, *The Effects of Vertical Integration Between Cable Television Systems and Pay Cable Networks*, 72 J. Econometrics 357 (1996).

37 J. Hastings, *Vertical Relationships and Competition in Retail Gasoline Markets: Empirical Evidence from Contract Changes in Southern California*, 94 Am. Econ. Rev. 317 (2004).

Overall, our review leads us to characterize the empirical literature on vertical restraints and vertical integration in much the same manner as LaFontaine and Slade:

> "[T]he empirical evidence concerning the effects of vertical restraints on consumer wellbeing is surprisingly consistent. Specifically, it appears that when manufacturers choose to impose such restraints, not only do they make themselves better off, but they also typically allow consumers to benefit from higher quality products and better service provision. In contrast, when restraints and contract limitations are imposed on manufacturers via government intervention, often in response to dealer pressure due to perceptions of uneven bargaining power between manufacturers and dealers, the effect is typically to reduce consumer welfare as prices increase and service levels fall. The evidence supports the conclusion that in these markets, manufacturers and consumer welfare are apt to be aligned, while interference in the market is accomplished at the expense of consumers (and of course manufacturers)."[38]

V. Implications for Antitrust Policy Towards Vertical Restraints

Antitrust enforcers seldom can be certain about whether a particular business practice is anticompetitive or not. Invariably, enforcers sometimes will make errors. Two types of errors, and concomitant losses, will attend any enforcement decision rule: losses from prosecuting pro-competitive practices (false positives),[39] and losses from failing to prosecute anticompetitive practices (false negatives). An optimal enforcement policy will challenge a vertical restraint only if the expected cost of false negatives is greater than the expected false positives. Thus, a (optimal) decision to challenge a given restraint is more likely if:

1) the cost of false positives is low relative to the cost of false negatives;

2) there are strong priors that a given practice is anticompetitive; and

38 F. LaFontaine & M. Slade, *Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy*, *in* Handbook of Antitrust Economics (Paola Buccirossi ed., forthcoming 2005), at 22.

39 If an investigation continues, but a court later finds against the enforcement authority, the loss may only be that associated with a temporary stay of the conduct at issue.

3) economic theory suggests strongly that the evidence likely was generated by an anticompetitive rather than a pro-competitive or benign practice.

In this framework, the degree to which specific evidence is helpful, and the prior beliefs about the competitive impact of a practice, may vary according to the type of vertical restraint at issue and the pro- and anticompetitive theories posited. For example, based on the empirical evidence reviewed in Section IV, our priors that RPM or exclusive dealing are pro-competitive may be stronger than our priors for other forms of vertical control on which there has been little empirical work. Further, evidence of downstream foreclosure and economies of scale will affect the likelihood differently in the case of maximum RPM than in the case of exclusive dealing.

SHOWING FORECLOSURE ALONE SHOULD NOT SHIFT THE BURDEN ONTO THE DEFENDANT TO JUSTIFY THE RESTRAINT (OR INTEGRATION) THAT IS BEING CHALLENGED. INSTEAD, BECAUSE FORECLOSURE IS ONLY A NECESSARY CONDITION FOR HARM, AN ENFORCER (OR PLAINTIFF) MUST ALSO HAVE THE BURDEN OF SHOWING A CAUSAL LINK BETWEEN FORECLOSURE AND SOME INDICATION OF REDUCED CONSUMER WELFARE.

Assuming the decision maker can measure the relevant evidence accurately, theory may allow us to define safe harbors. Some evidence may contradict the necessary conditions for anticompetitive effects under the relevant theory. For instance, upstream market power is a necessary condition for anticompetitive effects in many models. Thus, if highly competitive upstream markets are observed, a policymaker can rule out most theories of competitive harm. It is important, however, for policymakers to avoid creating safe harbors that allow necessary conditions for harm to evolve into de facto sufficient conditions. For example, showing foreclosure alone should not shift the burden onto the defendant to justify the restraint (or integration) that is being challenged. Instead, because foreclosure is only a necessary condition for harm, an enforcer (or plaintiff) must also have the burden of showing a causal link between foreclosure and some indication of reduced consumer welfare (i.e. lower downstream output or higher downstream costs).

As a threshold matter, however, we must be careful about what we mean by "foreclosure." Foreclosure in the abstract—denial of the ability to purchase an input from a particular firm—has no competitive effect if firms can still purchase the input at the same price. A more precise definition centers on an increase in rivals' costs. As Salinger notes with respect to a softening of competition, an economically meaningful definition of foreclosure is an increase in the price of an input.[40] Further, in dynamic models foreclosure is relevant in terms of competi-

40 M. Salinger, *Vertical Integration and Market Foreclosure*, 103 Q. J. ECON. 345–56, 53 (1988).

tion only if it raises rivals' costs by denying scale economies. It is also important to note that in both static and dynamic models, foreclosure is only a necessary condition for harm. Even if a vertical practice forecloses rivals, efficiencies inherent to the vertical relationship among firms must be considered.

Current U.S. antitrust law appears to be consistent with the view that foreclosure is only a necessary condition for an antitrust challenge. As a threshold matter, a plaintiff must show foreclosure.[41] But even if a plaintiff shows substantial foreclosure, at least some courts have held that it also must show that the defendant's agreements are likely to result in prices above (and thus output below) the competitive level.[42] To assess the likely competitive effects of market foreclosure, courts examine such factors as the defendant's market share and entry barriers, and the likelihood that rivals can find alterative means to reach the downstream market.[43] Because courts look at foreclosure from specific input suppliers instead of increased rivals' costs, and because a defendant bears the burden of showing efficiencies, including elimination of the double markup, a rule of reason inquiry is likely to give too much weight to evidence of foreclosure. Nevertheless, it is promising that at least some courts view foreclosure as only a necessary condition, and not a sufficient condition, for harm to competition.

Once we depart from evidence that contradicts necessary conditions for competitive harm, theory becomes less useful as a guide for enforcement decisions. Decision makers may observe evidence that is consistent with the necessary conditions for anticompetitive harm, but that is at least equally consistent with procompetitive theories. For example, upstream market power is necessary for theo-

41 *See* Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320, 327–28 (1961) (a plaintiff challenging an exclusive deal must show that it "foreclose[s] competition in a substantial share of the line of commerce affected," so that "the opportunities for other traders to enter into or remain in that market must be significantly limited"). Courts have suggested that a plaintiff must show that the defendant's exclusive deals have foreclosed rivals from at least 40–50 percent of the relevant market for there even to be the potential for anticompetitive effects. *See Microsoft*, *supra* note 2, at 70 and United States v. Microsoft Corp., 87 F. Supp. 2d 30, 52 (D.D.C. 2000). Courts also look at the temporal dimension of foreclosure, analyzing duration and terminability. *See* Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039, 1063 (8th Cir. 2000) [hereinafter *Concord Boat*] (78 percent of downstream market covered by de facto exclusive deals are not anticompetitive when the boat builders "were free to walk away from the discounts at any time"). *See also* Omega Environ., Inc., v. Gilbarco, Inc., 127 F.3d 1157, 1163–64 (9th Cir. 1997) (exclusive contracts covering 38 percent of market unlikely to foreclose competition when contracts were terminable with 60 days notice, and all were terminable within a year).

42 *See* Barr Labs., Inc. v. Abbott Labs., 978 F.2d 98, 111 (3d Cir. 1992) ("the degree of market foreclosure is only one of the factors involved in determining the legality of an exclusive dealing arrangement") and Roland Mach. Co. v. Dresser Indus., Inc., 749 F.2d 380, 394 (7th Cir. 1984) (in addition to substantial foreclosure, a necessary condition for exclusive dealing to be unlawful is that "the probable (not certain) effect of the exclusion will be to raise prices above (and therefore reduce output below) the competitive level, or otherwise injure competition"). *See also* H. Hovenkamp, Antitrust Law (1998), at para. 1821c1 ("[A]ntitrust is not concerned with denial of access in the abstract, but only with denial of access that foreseeably results in an output reduction and attendant increase in price").

43 *See Concord Boat*, *supra* note 41, at 1059 and *id.* at para. 1821d.

ries of harm, as well as efficiencies resulting from elimination of double markups, to obtain. In the case of tying or exclusive dealing, moreover, even large levels of downstream foreclosure and scale economies may not suggest a net anticompetitive effect because such evidence does not rule out an inference that plausible efficiencies from these practices—such as enhanced promotional incentives or the attenuation of hold-up problems[44]—outweigh any competitive loss.[45]

Further complicating this problem is that the use of dynamic models to guide policy requires enforcers to speculate about potential harm that may occur as entry is deterred or exit hastened and weigh this against current benefit. Significantly, this kind of short-run benefit versus long-run harm analysis is the opposite of the kind of policy calculus typically conducted with horizontal mergers. There we focus on the short run because the long run is inherently ambiguous, and there are competitive forces, like entry and product repositioning, that tend to mitigate long-run harm. Bringing vertical cases under a dynamic theory of harm when current benefits are already in existence would turn this logic on its head.

DIFFERENT JURISDICTIONS CAN SHARE THE SAME BELIEFS REGARDING THE THEORETICAL AND EMPIRICAL EFFECTS OF VERTICAL RESTRAINTS, BUT QUITE LEGITIMATELY CAN ARRIVE AT DIFFERENT ENFORCEMENT POSTURES IF THE RELATIVE WEIGHT ACCORDED FALSE NEGATIVES AND FALSE POSITIVES VARIES ACCORDING TO CONDITIONS IN DIFFERENT MARKETS.

These observations yield some important implications for decisions regarding vertical practices. First, to the extent that theory provides little guidance in classifying evidence beyond allowing us to determine safe harbors, a decision maker's beliefs that a specific vertical practice is pro- or anticompetitive should closely mimic his or her prior beliefs regarding such practices in general.

Second, even with uninformative theory and priors that suggest vertical practices to be efficient, if the expected loss from false negatives is sufficiently large, then it makes sense to challenge a particular restraint. This means that different jurisdictions can share the same beliefs regarding the theoretical and empirical effects of vertical restraints, but quite legitimately can arrive at different enforcement postures if the relative weight accorded false negatives and false positives varies according to conditions in different markets.

It is possible, for example, that the U.S. and EU enforcement regimes agree on the likely welfare effects of vertical agreements, but because other considerations are an important determinant of EC competition policy, the cost of false-positive

44 *See, e.g.*, Klein & Murphy, *supra* note 8 and H. Marvel, *Exclusive Dealing*, 25 J.L. & Econ. 1 (1982).

45 *See* D. Carlton & M. Waldman, *supra* note 24 (noting how plausible claims of efficiencies should defeat an "antitrust attack" on physical tying, and urging courts to "demand much more than mere theoretical possibility" when balancing competitive harms versus benefits for contractual and virtual ties).

errors from vertical agreements may be perceived as higher in the European Community. For example, certain vertical restraints—like exclusive territories based on national boundaries—can impair integration, which is the European Community's paramount goal. Such considerations rationally may lead EC officials to treat vertical restraints with greater hostility than their U.S. counterparts. Likewise, more flexibility in U.S. markets and the legal doctrine of stare decisis (which counsels against the overturning of legal precedents except in extraordinary circumstances) may lead U.S. authorities to be more concerned with avoiding false positives.[46]

VI. Conclusion

The outcome-based approach to antitrust ushered in by *Sylvania* in the United States (and gaining momentum in the European Community) requires enforcement officials to demonstrate likely adverse effects on welfare. We view this primarily as a problem of inference: Given the evidence, what is the probability that a given practice is anticompetitive? One approach to the inference problem is to establish screens based on structural conditions like market share, where harm is presumed if the conditions are met. Unfortunately, the search for a screen that works well in all but a few well-specified instances has proved elusive.[47]

A second approach is one based on an economic model of the restraint. Under this approach, policymakers posit a theory under which the restraint in question can harm competition, against alternatives in which the restraint is benign or pro-competitive, and then determine which theory best explains the available evidence. In this paper, we have argued that it is difficult to distinguish welfare-enhancing from welfare-reducing vertical practices based on evidence. The the-

46 The reluctance to overrule precedent, and the collective action problem associated with private incentives to challenge bad precedent, is likely to insulate the deterrent effect of a type-I error, while the market may be self-correcting with respect to type-II errors. As Easterbrook observes:

> "If the court errs by condemning a beneficial practice, the benefits may be lost for good. Any other firm that uses the condemned practices faces sanctions in the name of *stare decisis*, no matter the benefits. If the court errs by permitting a deleterious practice, though, the welfare loss decreases over time. Monopoly is self-destructive. Monopoly vices eventually attract entry."

See Frank Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 2–3 (1984) (*reprinted in* 1 COMPETITION POL'Y INT'L 179–215). *See also* F. McChesney, *Talking 'Bout My Antitrust Generation: Competition for and in the Field of Competition Law*, 52 EMORY L.J. 1401, 1412 (2003) ("The cost of Type II errors . . . will be low, as long as barriers to entering markets plagued by suspected anticompetition are also low. As prices rise because of anticompetitive contracts or practices, new entrants emerge to alleviate or even eradicate the problem").

47 For a discussion of screens, *see* J. VICKERS, ABUSE OF MARKET POWER (U.K. Office of Fair Trading, Working Paper, 2004).

ory of vertical control tells us that anticompetitive effects are possible, but until theory can be used to determine how likely it is that a restraint will lead to an anticompetitive outcome, decision makers will be left with a considerable amount of uncertainty. In this world, enforcement decisions should be guided by prior beliefs and loss functions. Our review of the existing empirical evidence—which informs our priors—suggests that vertical restraints are likely to be benign or welfare-enhancing.

Given the current state of knowledge, we suggest a third approach to guide enforcement policy. Under this approach, policymakers draw inferences about the competitive effects of the restraint by comparing markets with and without the restraint to determine the effect of the restraint. This could be a comparison of the same market before and after adoption of the constraint, or a comparison of a cross-section of markets in different geographic areas. The quality of the experiment and how closely it mimics the effect of the restraint would be issues for the court or decision maker to resolve.

It is trite to conclude with a call for more empirical work in this area, but the demand is acute. Practitioners in all countries, including those in the United States, are begging for clarity in the area. Uncertain enforcement standards chill the use of these restraints and, if the studies reviewed in this paper, in general, reflect the effects of these restraints, then antitrust policy could be acting as a tax on wealth-enhancing activity. In addition, economic analysis has provided the basis for a global convergence of policy towards horizontal restraints. If it is going to have a similar effect on vertical policy, then it is going to have to provide guidance to practitioners. Empirical evidence will not only shift our prior beliefs about the probability that a given practice is anticompetitive, but it will also inform theory, and hopefully, identify a set of circumstances under which anticompetitive effects are not just possible, but likely.

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Comment on Cooper et al.'s "Vertical Restrictions and Antitrust Policy"

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Comment on Cooper et al.'s "Vertical Restrictions and Antitrust Policy"

F. M. Scherer

This paper provides a critical analysis of the paper on vertical restraints and competition policy by James Cooper et al. The author expresses mild disagreement concerning the origins and content of the relevant theory, although he agrees that theory offers ambiguous guidance to antitrust enforcers. Instead of the go/no-go decision-theoretic framework advocated by Cooper et al., the author endorses the nuanced sequential decision-making approach used in the real world of antitrust enforcement. And most importantly, the author argues that the sample of empirical studies Cooper et al. propose to use as the underpinning of their decision-theoretic guidance is seriously biased toward arguably benign cases. Some important cases ignored by the authors, but in which vertical restraints had serious anti-consumer effects, are also summarized.

The author is a Professor Emeritus at Harvard University. The suggestions of William S. Comanor and Robert L. Steiner are gratefully acknowledged.

I. Introduction

This paper comments on a paper by James Cooper, Luke Froeb, Daniel O'Brien, and Michael Vita on antitrust enforcement approaches to vertical restraint practices.[1] It agrees with Cooper et al. that theory provides guidance too complex to be of much help when used unaided in selecting cases, but dissents on some detailed theoretical points. It suggests that instead of the one-stage decision-theoretic approach proposed by Cooper et al., a sequential decision-making strategy is preferable. It argues that the survey of papers on vertical restraints by Cooper et al. is severely biased, ignoring important cases in which vertical restraints had significant anti-consumer consequences. Even if a decision-theoretic framework were adopted, biased evidence would be an inappropriate foundation.

Cooper et al. make three important points:

1) Existing economic theory on the welfare consequences of vertical restraints is at best "fragile." In effect, the models are so sensitive to assumptions and parameter variations that anything is possible.

2) Given the fragility of theory, agencies responsible for enforcing antitrust policy should base their strategies on a generalized weighing of possible beneficial and adverse effects, with prior experience playing a key role in the weighting.

3) The prior experience, or so-called empirical evidence, that should be factored into that weighting reveals vertical restraints to be preponderantly benign.

This paper will address each point in turn.

II. The Theory

I concur in most respects with the authors' pessimism about the predictive power of economic theory,[2] adding only three quibbles.

1) First, Cooper et al. attribute the change in theoretical views toward vertical restraints to the Chicago School. This, I believe, is a gross oversimplification. Lester Telser's 1960 paper[3] was an important contribution, but at the time there was already an extensive economic lit-

1 J. Cooper, L. Froeb, D. O'Brien, & M. Vita, *Vertical Restrictions and Antitrust Policy: What About the Evidence?*, 1(2) Competition Pol'y Int'l 45–63 (2005) [hereinafter Cooper et al.].

2 *See also* the concurring view of F. Fisher, *Organizing Industrial Organization*, *in* Brookings Papers on Economic Activity, Microeconomics (M. Baily & C. Winston eds., 1991) , at 201–225.

3 L. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. Econ. 86–105 (1960). I confess negligence in not citing it in the first (1970) version of my industrial organization textbook (F. M. Scherer, Industrial Market Structure and Economic Performance (1970)).

erature on vertical restraints, pro and con, from all parts of the academic and legal worlds. One of the most powerful early critiques of tying came from a former University of Chicago economics professor, John McGee.[4]

2) Second, I agree with Cooper et al. that vertical integration can sometimes solve a serious problem: double (or pyramided) markups. I have endorsed that inference in print for at least 35 years, but on each occasion, I erred in identifying the first correct economic analysis of the problem. My latest attribution is that Alexander Hamilton had the correct insight first in his analysis, in *Federalist Paper No. 22* (1787), of multiplied river tolls in Germany. And in that very important case, which as Hamilton recognized impeded German economic development, the remedy was not vertical integration, but abolition of the Raubritters' toll-setting monopoly power.[5] Hamilton speculated that the genius of the American people would guard against such restraints on trade.

3) Third, Cooper et al. accept the conventional, Borkian view that if vertical restraints such as resale price maintenance are output-enhancing, they are also welfare-enhancing. I confess frustration that virtually no one acknowledges (and no one has challenged) my proof, and the parallel one by William S. Comanor, that the Bork theorem is not true in generality.[6] It is interesting that Cooper et al. twice emphasize the case—when extra services induce consumers to purchase an item when otherwise they "are indifferent between purchasing or not"—in which vertical restraints are likely to be welfare-reducing.

III. The Decision-Theoretic Tradeoff

Given the ambiguities of theory, Cooper et al. propose that in deciding whether to challenge particular vertical restraints, antitrust enforcers should follow the metaphor of statistical decision theory, weighing all the empirical evidence (summarized as "prior beliefs") one has on the adverse welfare effects of vertical restraints, ignoring which would lead to false negatives, against the welfare-enhancing effects, ignoring which would lead to false positives. In doing this, decision makers would be cramming together huge amounts of heterogeneous past experience, much of it different from, or irrelevant to, the specific practice at issue. That in itself is a problem. But ignoring that point, such general rules

4 J. McGee, *Compound Pricing*, 25 Econ. Inquiry 315–39 (1987).

5 *See* F. M. Scherer, *Vertical Relations in Antitrust: Some Intellectual History*, 49 Antitrust Bull. (Winter 2004), at 852.

6 F. M. Scherer & D. Ross, Industrial Market Structure and Economic Performance (3rd ed. 1990), at 541–48 (recasting a 1983 article) and W. Comanor, *Vertical Price Fixing and Market Restrictions and the New Antitrust Policy*, 98 Harv. L. Rev. 990–98 (1985).

are no better than the quality of the evidence weighted, and as I shall argue in Section IV, severe biases pervade the weighting—call it the garbage compactor approach—proposed by Cooper et al.

More importantly, Cooper et al. show no recognition of how actual antitrust enforcement actions are taken and, therefore, propose a faulty decision-making approach. The true and correct model—much like the way both private enterprises and government agencies pursue research and development under uncertainty[7]—applies sequential decision-making theory. The process begins with an external complaint or a media exposé. Especially in government agencies, the next step is to assign an economist or attorney to spend at most a few person-months preparing a preliminary analysis using all the evidence readily and inexpensively at hand, mostly from public sources. Only if the analysis predicts public benefit from an enforcement action—and from my experience at the U.S. Federal Trade Commission (FTC), most proposals founder at that early stage—are complaints and subpoenas issued, escalating costs but still causing no long-term consequences (unless the respondents' own analysis reveals that they bear a substantial risk of losing a litigated case). More analysis follows, permitting an able staff to make reasonably well-considered judgments about the costs and benefits of full-scale litigation. ("Able" implies inter alia the ability to select suitable theoretical constructs.) Respondents are likely to settle at this point only if they consider the costs of settlement—including the profit losses from abandoning a restraint—less than the cost of fighting. Cooper et al. wrongly compress all of these stages into a single global go/no-go decision. The costs of litigation can of course be substantial, but if the litigation is sensibly conducted (not all cases are, to be sure, and improvements are much to be desired), remedies with adverse long-term consequences (false positives) are likely to be minimized. And even when litigation is expensive, the costs in well-managed proceedings are usually modest in relation to the benefits from more effective competition. In the fully litigated *Toys "R" Us* case,[8] for example, which involved a narrow array of products, the estimated annual sacrifice of gross margins (i.e. the price reductions competition could force upon Toys "R" Us (TRU)), avoidable through a success-

> THE TRUE AND CORRECT MODEL APPLIES SEQUENTIAL DECISION-MAKING THEORY.... COOPER ET AL. WRONGLY COMPRESS ALL OF THESE STAGES INTO A SINGLE GLOBAL GO/NO-GO DECISION.

7 L. Branscomb & P. Auerswald, Taking Technical Risks: How Innovators, Executives, and Investors Manage High-Tech Risks (2001), at 44–54.

8 Toys "R" Us v. FTC, 221 F.3d 928, 937 (7th Cir. 2000).

ful campaign to have manufacturers boycott warehouse clubs, was estimated by TRU at US$55 million per year.[9]

IV. The Empirical Evidence

Urging application of an approach I suggest to be wrong-headed, Cooper et al. proceed to inform decision makers' "prior beliefs" through a survey of 22 "empirical" studies.[10] I enclose the word "empirical" in quotes because economists use the word as shorthand to connote econometric analyses of large data sets. I shall argue that this criterion is too narrow. My own preference is to follow the first definition in my *Webster's New 20th Century Dictionary Unabridged* (1980) which states, "relying or based solely on experiments or experience, as, an *empirical* method" (emphasis added).

A second criterion applied by the authors in selecting their evidence is that the studies were published in peer-reviewed economics journals. From considerable experience being peer-reviewed and as an editor utilizing peer reviewers, I am not convinced that peer review is a guarantor of quality. On this I am not alone. As the editor of the prestigious *British Medical Journal* observed at a conference on the subject, "We know that [peer review] is expensive, slow, prone to bias, possibly anti-innovatory, and unable to detect fraud. We also know that the published papers that emerge from the process are often grossly deficient."[11]

Nor does selection only of empirical studies from economics journals ensure that these studies provide unbiased estimates of some underlying reality. It is well-known that economists are like the inebriated person searching for his lost wallet at night under a street lamp, when he dropped it in the dark 50 yards down the street. Economists, and especially (because funds for special surveys are seldom available) industrial organization economists, focus their econometric research where the data are available, and not necessarily in the areas of greatest policy interest. Among other things, most of the cases egregious enough to draw federal antitrust challenges were covered by protective orders making it difficult

9 *See* F. M. Scherer, *Retailer-Instigated Restraints on Suppliers' Sales: Toys "R" Us (2000), in* The Antitrust Revolution (J. Kwoka Jr. & L. White eds. 2004), at 376 (summarizing *In the matter of* Toys "R" Us, Docket No. 9273, 126 F.T.C. 415 (1998), aff'd at 221 F. 3d 928 (2000)).

10 The studies are described in much more detail in J. Cooper, L. Froeb, D. O'Brien, & M. Vita, *Vertical Antitrust Policy as a Problem of Inference*, Int'l J. Indus. Org. (forthcoming 2005). For evidence that even in the studies chosen, vertical restraints were sometimes absent or had less benign effects, *see* W. Comanor, F.M. Scherer, & R. Steiner, Vertical Antitrust Policy as a Problem of Inference: The Response of the American Antitrust Institute (American Antitrust Institute, Working Paper No. 05–04, 2005), *available at* http://www.antitrustinstitute.org/recent2/408.pdf.

11 R. Smith, *Peer Review: Reform or Revolution?* 315 Brit. Med. J. (Sep. 1997), *available at* http://www.bmjjournals.com/archive/7111/7111e3.htm.

for economists to secure the data needed for a quantitative study that could generate an economics journal article.

This leads to my strongest criticism of the Cooper et al. study—their striking neglect of published research on situations in which it was well-known, and often demonstrated through trial by fire, that vertical restraints did have serious anti-consumer or welfare-reducing effects. Many of the cases have been discussed, even if not analyzed econometrically, in law journal articles, books, collections of industry studies, FTC staff reports, and (without the provocation of formal litigation) reports of the U.K. Competition Commission. But none of that substantial literature analyzing the negative side of vertical restraints is surveyed by Cooper et al. In the *Toys "R" Us* case mentioned earlier, the U.S. Court of Appeals for the Seventh Circuit broadly affirmed the FTC's finding that TRU's boycott of warehouse clubs "was illegal under a full rule of reason analysis because its anticompetitive effects 'clearly outweighed any possible business justification.'"[12]

THIS LEADS TO MY STRONGEST CRITICISM OF THE COOPER ET AL. STUDY—THEIR STRIKING NEGLECT OF PUBLISHED RESEARCH ON SITUATIONS IN WHICH IT WAS WELL-KNOWN, AND OFTEN DEMONSTRATED THROUGH TRIAL BY FIRE, THAT VERTICAL RESTRAINTS DID HAVE SERIOUS ANTI-CONSUMER OR WELFARE-REDUCING EFFECTS.

There are several other examples of this in addition to the *Toys "R" Us* case. Early in the 20th Century, Coca-Cola, Pepsi-Cola, and other soft drink firms assigned their franchised bottlers exclusive territories adapted to the economic conditions of the time. But with the shift in emphasis from bottles to cans, advances in canning technology, the decline in transportation costs, and the rise of supermarkets, the minimum efficient scale of a soft drink bottling plant rose sharply, and as a result, the old territorial allocations became wildly uneconomic. The syrup makers could have been rescued from this obsolete equilibrium when the FTC declared their exclusive franchise arrangements illegal in 1978.[13] However, in 1980, the bottlers secured special legislation from the U.S. Congress invalidating the FTC's decision. The syrup makers were forced to attack their problem by buying out franchised companies or having their largest franchisees acquire them at prices reflecting the acquired entities' local monopoly power. Only then could obsolete plants be closed and territories reallocated.

12 They are abridged from Comanor et al., *supra* note 10. On *Toys "R" Us*, *compare* Scherer, *supra* note 9, and D. Carlton & H. Sider, *Market Power and Vertical Restraints in Retailing*, *in* The Role of the Academic Economist in Litigation Support (D. Slottje, ed, 1999), at 67–93.

13 *In the matter of* Coca Cola Co. et al., 91 F.T.C. 517 (1978) and *In the matter of* Pepsico Inc., 91 F.T.C. 680 (1978).

That another geographic exclusivity system harmed consumers is evident from the *Sealy* case.[14] Sealy had granted exclusive territorial franchises to 29 geographically dispersed mattress makers, eight of whom in turn owned Sealy. The price-fixing and territorial restraints were condemned by the U.S. Supreme Court, altered, and again found to violate the Sherman Act.[15] A few licensees saw the territorial limitations as an impediment to their growth. They avoided the restraints by shipping into others' territories, opening bulk warehouses, and merging with other franchise holders. Willard F. Mueller's (1989) analysis of the litigation record revealed that prices were lower, and that Sealy's share of the relevant markets was higher, in cities where competitive inter-territorial penetration was most extensive.[16]

Similarly, after other resale price-fixing tactics were ruled illegal, General Electric and the other leading U.S. light bulb manufacturers adopted a consignment system which in effect fixed retail prices and maintained exclusivity among chosen retail outlet-agents, who handled three-fourths of GE's bulb sales. In 1973, the U.S. Department of Justice prevailed in having the policy declared illegal.[17] However, the dominant position of the Big Three (General Electric, Philips, and Osram Sylvania) persisted at first, despite the presence of smaller producers who priced their products at substantially lower levels. Eventually, prodded by (among other things) FTC lawyers and economists, and in turn the White House, major grocery chains introduced lower-priced private label light bulbs. The generic competition led to sharp declines in branded and (given the rising generic share) non-branded bulb prices, with an estimated reduction in General Electric soft white bulb prices of more than 30 percent between 1980 and 2002.[18]

Cooper et al. ignore much of the literature on the effects of resale price maintenance (RPM), including inter alia the admirable survey by Thomas Overstreet (1983), which found RPM to be used in both socially desirable and undesirable ways.[19] Overstreet's analysis was published when RPM-induced output increases were assumed (we now know erroneously) to be unambiguously welfare-increasing. But there may be another important reason for the heterogeneity of effects.

14 United States v. Sealy, Inc., 388 U.S. 350 (1967) and Ohio-Sealy Mattress Mfg. Co. v. Kaplan et al., 745 F. 2d 441 (1984), cert. den. 471 U.S. 1125 (1985).

15 *Id*.

16 W. Mueller, *The Sealy Restraints: Restrictions on Free Riding or Output?* 6 Wisc. L. Rev. 1255–321 (1989). Professor Mueller was a member of Michael Vita's Ph.D. dissertation committee.

17 United States v. General Electric Co., 358 F. Supp. 731 (1973).

18 R. Steiner, *Exclusive Dealings + Resale Price Maintenance: A Powerful Anticompetitive Combination*, 33 Sw. Univ. L. Rev. 468–75 (2004).

19 T. Overstreet, Retail Price Maintenance: Economic Theories and Empirical Evidence (Federal Trade Commission Staff Report, Nov. 1983), *especially* at 161–63.

It seems plausible that the larger and more diverse a national market is, the more likely it is that large-scale retailing innovations can take root (at first, erratically) despite such impediments as resale price maintenance. The reason lies partly in Adam Smith's division of labor logic and also in the political faction logic of James Madison's *Federalist Paper No. 10* (1787).

In an earlier era, RPM was both pervasive and legal in most nations, but legislative support has gradually been withdrawn because of its recognized innovation-impeding effects. In the United Kingdom, it was initially adopted in response to pressure from small retailers seeking to protect themselves from more efficient large-scale merchandisers. It lost support after World War II when branded good manufacturers found that the smaller outlets satisfied consumer preferences less effectively than the newly emerging self-service stores, causing a loss of RPM-adhering manufacturers' sales.[20] Grocery retailing was a leading change agent, with adherence to RPM dropping precipitously between 1956 and 1958, influenced in part by the passage of the generally permissive Restrictive Practices Act in 1956. The number of self-service food stores rose from 3,000 in 1956 to 10,830 in 1962. More broadly, RPM coverage had declined to cover only 33 percent of consumer goods distribution when the Resale Prices Act of 1964 rendered it presumptively illegal.

In France, manufacturers responded to pressure from their smaller retailers after RPM was outlawed by refusing to supply retailers who discounted below recommended prices. The refusals were challenged by President de Gaulle and declared illegal in 1962, after which further legislation-based restraints against the spread of supermarkets endured for several years.[21] From a careful study of the less complicated history in the small, relatively homogeneous Swedish economy, Trolle (1966) concluded that:

> "The year 1954 marked the beginning of a series of dramatic changes in the structure of Swedish distribution. Although it cannot be proved conclusively, there does not seem to be any doubt that most of these changes would not have taken place without the abolition of r.p.m. (in its earlier form of rigidly fixed prices) and of the restrictions on entry of new firms. The changes have to such a great extent manifested themselves in the development of new types of retail outlets in conjunction with price competition on branded articles that it seems safe to assume a cause-and-effect relationship. As far

20 *See* B. Yamey, *The Origin of Resale Price Maintenance: A Study of Three Branches of Retail Trade*, 62 Econ. J. 522–45 (1952); J. Pickering, Resale Price Maintenance in Practice (1966), at 116–30; and J. Pickering, *The Abolition of Resale Price Maintenance in Great Britain*, 26 Oxford Econ. Papers 522–45 (1974).

21 W.J. Adams, Restructuring the French Economy (1989), at 208–29.

> as the author is aware, no one seriously contends that these changes would have taken place if the restrictions had not come to an end….Suffice it to say that low-cost distributors today [1965] operate on low margins which were unheard of in the early 1950s."[22]

In the United States, lobbying in favor of state and federal laws authorizing RPM was led by the National Association of Retail Druggists.[23] A U.S. government taskforce found that passage of the RPM laws during the 1930s was a significant factor in the cessation of chain drug store growth.[24] Although fair trading had eroded despite legal permissiveness in most product lines, it was still widely applied in pharmaceuticals when federal support for RPM was withdrawn in 1975. (In the United Kingdom, too, drug distributors were among the last two trades to retain RPM, having successfully sought a legal exemption.) The average retail margin on U.S. pharmaceutical product sales in 1966, before RPM was outlawed, conformed to the traditional 40 percent.[25] By 1989, average margins at retail had declined into the 31 to 32 percent range,[26] and by 2003, according to the National Association of Chain Drug Stores, they had dropped to an average of 20 percent.[27] Some of the decrease would undoubtedly have occurred even if RPM had not been outlawed as RPM contracts were overridden by Medicaid requisites and by pharmacy benefit managers' bargaining. A 20 percentage point reduction in pharmacists' margins implies consumer (or health-care reimburser) savings at 2003 volume levels of US$40 billion.

To avoid overkill, I add only one further case, ignoring among other things the plethora of documented vertical restraint problems in the automobile industries of the United States and European Community.[28] In response to an FTC com-

22 U. af Trolle, *Sweden*, *in* RESALE PRICE MAINTENANCE (B. Yamey ed., 1966), at 134–35, 140.

23 *See* F.M. Scherer, *How U.S. Antitrust Can Go Astray: The Brand Name Prescription Drug Litigation*, 4 INT'L J. ECON. BUS. (1997), at 244–45.

24 U.S. DEPARTMENT OF HEALTH, EDUCATION, & WELFARE, TASK FORCE ON PRESCRIPTION DRUGS, THE DRUG MAKERS AND THE DRUG DISTRIBUTORS (1968), at 68. *See also* L. WEISS, ECONOMICS AND AMERICAN INDUSTRY (1961), at 385.

25 *Id.* at 54–55.

26 Scherer, *supra* note 23, at 245.

27 National Association of Chain Drug Stores, Facts and Resources, *at* http://www.nacds.org/wmspage.cfm?parm1=507.

28 On automobiles, *see* F. M. SCHERER, INDUSTRY STRUCTURE, STRATEGY, AND PUBLIC POLICY (1996), at 295–98, 308–12. *See also* D. Lawsky, *EU New Price Gap Narrows*, REUTERS, Mar. 8, 2005. Cooper et al. acknowledge the European Community's concern with the conflict between exclusive territories and the EC's "paramount" goal of market integration, which, they imply (wrongly, I believe) may ignore efficiency goals.

plaint in 1976, Levi Strauss ended its policy of vertical price restraints, leading to large price savings for consumers. It is estimated that the annual gain in consumer surplus from these changes exceeded US$200 million for men's jeans alone.[29] Robert Steiner found further that, "Levi's supra-competitive retail margins and prices had held an umbrella over the prices of competing makers and apparel dealers alike," so that when the restraints were eliminated, the prices and margins of rival brands were also reduced.

V. Conclusion

Many additional examples of vertical restraints that raised prices to consumers and inhibited the growth of least-cost marketing methods can be found in the literature. The survey method employed by Cooper et al. systematically overlooked or excluded the cases summarized here and other examples at odds with their conclusion that vertical restraints are almost uniformly benign. Their sample is severely biased. No amount of statistical decision theory and weighting of prior beliefs will yield good decisions if the evidence that goes into formulating the prior beliefs is biased. Nor is a global decision-theoretic approach appropriate for legal strategy toward specific vertical restraints. Prejudicing one's enforcement decisions on the basis of average empirical evidence is like suggesting that the health authorities refrain from combating influenza because relatively few deaths are attributable to it for the period on which we have the best statistics, and that most deaths resulted not from influenza per se, but from complications. One expects more subtlety from economists associated with a federal enforcement agency. And there are times, as in the uniform enforcement of resale price maintenance, when the restraints can impose massive anti-consumer burdens. In contrast to Cooper et al., I see a sequential decision-making approach as the proper and economical method of identifying that minority of cases in which antitrust intervention is warranted.[30] There is no rational basis for a presumption that vertical restraints should receive blanket antitrust exemptions.

MANY ADDITIONAL EXAMPLES OF VERTICAL RESTRAINTS THAT RAISED PRICES TO CONSUMERS AND INHIBITED THE GROWTH OF LEAST-COST MARKETING METHODS CAN BE FOUND IN THE LITERATURE.

29 R. Steiner, *The Nature of Vertical Restraints*, 30 ANTITRUST BULL. 143–97 (1985), at 180. As the former president of a consumer goods manufacturer and later an FTC economics staff member, Steiner is arguably the most perceptive student of vertical restraints and their consequences. *See The Implications of the Work of Robert L. Steiner* (symposium), 49 ANTITRUST BULL. (Winter 2004).

30 My own view has long been that vertical restraints are benign or efficiency enhancing more often than not, leading me to recommend that a rule of reason be applied. *See* F.M. Scherer, *The Economics of Vertical Restraints*, 52 ANTITRUST L.J. 706–07 (1983).

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Vertical Restraints and Antitrust Policy: A Reaction to Cooper, Froeb, O'Brien, and Vita

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Vertical Restraints and Antitrust Policy: A Reaction to Cooper, Froeb, O'Brien, and Vita

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Cooper, Froeb, O'Brien, and Vita argue that **(1)** economic theory, especially post-Chicago theory, provides little in the way of unambiguous predictions of when vertical restraints are pro-competitive versus anticompetitive, forcing antitrust decisions to rely mainly on prior empirical evidence rather than case-specific facts; and **(2)** prior evidence indicates that vertical restraints are unlikely to harm consumers. Antitrust policy, therefore, should be lenient towards the restraints. The author takes an opposing view that each case must be assessed on its own merits, with only modest reliance on prior empirical evidence, and that existing economic theory is very useful for this assessment. In some actual cases, vertical restraints are clearly anticompetitive and in others the restraints are pro-competitive, whatever the prior evidence shows about the relative frequency of these effects across markets. The author develops the argument for two specific vertical restraints: exclusivity contracts and minimum resale price maintenance.

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I. Introduction

The paper by James Cooper, Luke Froeb, Daniel O'Brien, and Michael Vita offers a high-level overview of the theoretical and empirical literature on vertical restraints and vertical integration with the aim of distilling implications for antitrust policy.[1] The authors reach two main conclusions.

Their first conclusion is that economic theory—post-Chicago theory in particular—is of little value to policymakers on its own as because it almost always predicts ambiguous welfare effects from vertical restraints. Nor does it offer clean tests of when these practices are likely to be anticompetitive and when they are not. As Cooper et al. state: "Economic theory actually provides policymakers with very little guidance as to whether vertical restraints are likely to be beneficial or harmful in any particular factual setting."[2]

In Cooper et al. and a companion paper, the authors set out a Bayesian framework for antitrust policy.[3] In the context of vertical restraints, the framework is one in which the view of the decision maker as to whether a particular practice (in a particular case) is anticompetitive depends on:

(a) prior beliefs from empirical evidence regarding the competitive effects of vertical restraints in general;

updated by:

(b) case-specific data interpreted in light of available theory.

From their first conclusion, that available theory provides very little guidance as to when a practice is anticompetitive, Cooper et al. are drawn to a second conclusion that antitrust policy must rely almost entirely on prior evidence to determine the competitive impact of vertical restraints in general. And their strongly held view is that vertical restraints are efficient since an empirical review finds "a paucity of support for the proposition that vertical restraints and vertical integration are likely to harm consumers."[4]

That the authors find vertical restraints to be efficient is not unusual. What is striking is the authors' position that this very general statement about vertical restraints is almost all that policymakers can rely on. Theory applied to case-specific data will hardly budge the prior because economic theory provides almost no correspondence between the data and whether a given vertical restraint is anticompetitive.

1 J. Cooper, L. Froeb, D. O'Brien, & M. Vita, *Vertical Restrictions and Antitrust Policy: What About the Evidence?*, 1(2) COMPETITION POL'Y INT'L 45–63 (2005) [hereinafter Cooper et al.].

2 *Id.* at 47.

3 J. Cooper, L. Froeb, D. O'Brien, & M. Vita, *Vertical Antitrust Policy as a Problem of Inference*, INT'L J. INDUS. ORG. (forthcoming 2005).

4 Cooper et. al, *supra* note 1, at 55.

In this commentary, I take the opposite position. The correct assessment of an antitrust practice flows mainly from the case-specific facts. The economic theory available to interpret these facts, including post-Chicago theory, is, in fact, very useful. Some fact situations clearly support intervention; others clearly support a hands-off policy. Whether one's prior is that 85 percent of vertical practices are pro-competitive or that 99 percent are pro-competitive, is less important in antitrust decision making than the facts of the case at hand and the case-specific theory available or developed in light of the facts.

Let me make this position more concrete with an example of a fact situation, which is motivated by a case that I discuss later in this paper. A monopolist produces a good using, among other factors, an essential input produced by two (and only two) upstream suppliers. A potential entrant into the downstream market emerges with the threat of changing the market structure from a downstream monopoly to intense price competition at both stages of production. The entry thus carries the threat of elimination of monopoly profits. The incumbent monopolist responds with a naked exclusion strategy. That is, it secures the exclusive right to the output of each upstream firm in exchange for a fixed fee. Thus, monopoly rents are protected and shared. (The entrant may attempt to offer exclusive contracts as well and, to the extent that the entrant is nearly as efficient as the incumbent, the rents will flow upstream via the fixed fees to the owners of essential input production assets.) Consumers face monopoly prices for the final output instead of competitive prices that entry would yield, and the court or policymaker entering the scene must decide if the exclusivity contracts are anticompetitive.

Contrary to Cooper et al.'s conclusion, there are many, not few, fact situations in which economic theory (both Chicago and post-Chicago) guides us to the right decision...a convincing theory, tested against the specific facts of a case, trumps prior empirical evidence on the relative frequency of pro-competitive versus anticompetitive uses of a practice.

How should the courts and policymakers respond to this fact situation? Should they throw up their hands, because there is no general theory that tells us when vertical restraints are pro- versus anti competitive? Must the decision rest on the established prior from empirical studies that vertical restraints are usually pro-competitive?

The answer is clearly "no." The decision must follow the facts of the case. Contrary to Cooper et al.'s conclusion, there are many, not few, fact situations in which economic theory (both Chicago and post-Chicago) guides us to the right decision. Antitrust cases almost invariably present us with a unique set of facts. In terms of its value to an antitrust decision, a convincing theory, tested against the specific facts of a case, trumps prior empirical evidence on the relative frequency of pro-competitive versus anticompetitive uses of a practice. We often know that the practice at issue in a case can be pro-competitive sometimes and anticompetitive other times. The relative frequency of these uses in a (generally non-random) sample of examined historical cases can be important in adding to our existing knowledge of economic practices, but is generally not vital information for a particular antitrust case. And U.S. antitrust law is comprised almost entirely of case decisions (i.e. it is based on common law).

Debating this point in the abstract is unlikely to be of great value. I certainly agree with Cooper et al. that no completely general theory exists regarding the welfare effects of vertical restraints. No theory in this area can anticipate all fact situations, and the economic theory of competition policy is in large part a set of examples. But it is a set of examples that we can usefully draw from or add to when we encounter a particular case or fact situation.

I am also skeptical of the benefits of aggregating across such a variety of practices—exclusivity contracts, resale price maintenance, tying, vertical integration—in trying to reach a general conclusion or establish a prior about the welfare impact of vertical restraints. Prior information about the effects of exclusive dealing is of little value in a case involving resale price maintenance. Accordingly, in this paper I shall be selective. I discuss one practice, exclusivity contracts, in which the power of post-Chicago theories is much greater than Cooper et al. acknowledge and another practice, resale price maintenance, in which I believe the traditional Chicago approach is most helpful in understanding incentives. For both practices, I argue that case-specific evidence is the essential input into the right antitrust decision.

II. Exclusionary Contracts

Two main theories of the potential anticompetitive effect of exclusivity contracts have been offered. One theory pertains to exclusivity in contracts with suppliers upstream from the market at focus and one pertains to contracts with buyers in the downstream market. The upstream exclusivity theory, captured in the example discussed earlier in this paper, is, in a sense, the extreme form of the seminal Salop-Scheffman (1983) raising-rivals'-costs theory.[5] The welfare impact of some raising-rivals'-costs strategies is ambiguous, but in the naked-exclusion example discussed above, welfare is unambiguously harmed by monopolization of the market. Upstream exclusionary contracts are the simplest example of contracts as barriers to entry. Downstream buyers are unambiguously harmed. Since they are not parties to the contracts, the buyers are not compensated for the detrimental impact of exclusivity. The impact on buyers is an externality in the contract design.

5 S. Salop & D. Scheffman, *Raising Rivals' Costs*, 73 AM. ECON. REV. 267–71 (1983). *See also* T. Krattenmaker & S. Salop, *Antitrust Analysis of Exclusionary Rights: Raising Rivals Costs to Gain Power Over Price*, 96 YALE L.J. 209 (1986).

The post-Chicago theory on the impact of exclusivity in downstream contracts is described in the classic paper by Aghion and Bolton (1987).[6] Suppose that the potential entrant will emerge in the future and that successful entry requires that a substantial number of buyers are unencumbered by exclusivity contracts with the incumbent or are willing to leave such contracts. The incumbent has the incentive from the onset to offer buyers long-term exclusive contracts with very high liquidation damage clauses. The amount of the price concession that the incumbent must offer each buyer to accept the long-term contract will be very modest because the cost to each buyer of entering the contract individually is small. It is a Nash equilibrium for all buyers to enter the contract because if all other buyers accept the contract, then the cost to a single buyer of doing so is zero (or, if the event of entry is stochastic, very small). Buyers face a collective action problem or negative externality. All buyers are better off if they refuse the contract, but individually, all are easily induced to accept the contract. The incumbent monopolist exploits this collective-action problem among buyers to create a barrier to entry into the market. If this is the only incentive to enter into the long-term contracts, then the contracts are inefficient.[7] As Aghion and Bolton point out (and in fact emphasize) a long-term contract can emerge as an inefficient barrier to entry even when there is only one buyer, because the two parties to the contract ignore the impact of the contract on the potential entrant.

In this commentary on a paper about evidence, I sketch these two central ideas of post-Chicago economic theory to help make the point that evidence relevant for antitrust policy is not just aggregate statistical evidence on previous uses of a practice, but also—in fact, mainly—the facts in whatever case is at issue.

Consider, for example, *Canada (Director of Investigation and Research)* v. *The D&B Companies of Canada Ltd.* (*Nielsen*).[8] In *Nielsen*, the product was scanner-based information. Nielsen provides reader-friendly information on market shares, demand elasticities, the predicted impact of sales promotions, and so on to grocery product manufacturers such as Proctor & Gamble or General Mills as well as to grocery chains. In 1986, both Nielsen and Information Resources Incorporated (IRI) were established in this market in the United States, but Nielsen held a monopoly in Canada. Then IRI attempted to enter the Canadian market.

6 P. Aghion & P. Bolton, *Contracts as a Barrier to Entry*, 77 AM. ECON. REV. 388–401 (1987). The Aghion-Bolton model is not explicitly about exclusive contracts, but is easily interpreted to include exclusivity restraints. (Each buyer in the Aghion-Bolton model purchases one unit of a product or none, which makes exclusivity implicit.)

7 This argument, based on multiple buyers, is sometimes attributed to subsequent literature, but is clear in Section 3 of the Aghion-Bolton paper (*id.*). Salop offers an earlier and very clear discussion of the exploitation of buyers' "negative free-riding problem" by sellers to establish barriers to entry. *See* S. Salop, *Practices that (Credibly) Facilitate Oligopoly Coordination*, *in* NEW DEVELOPMENTS IN THE ANALYSIS OF MARKET STRUCTURE (J. Stiglitz & F. Mathewson, eds., 1986).

8 *See* Canada (Director of Investigation and Research) v. The D & B Companies of Canada Ltd., 64 C.P.R.3d 216 (Comp.Trib. 1995) [hereinafter *Nielsen*].

The essential inputs into production of the information products are the raw scanner data produced as a by-product of sales at grocery stores across Canada. Each day these data are sent electronically from grocery stores to Nielsen. Nielsen successfully deterred the entry of IRI by inducing the ten significant grocery store chains across Canada to enter into exclusivity contracts for provision of their raw scanner data. (In fact, both IRI and Nielsen attempted to sign up grocery suppliers of this data in a bidding war that Nielsen eventually won.) Once the five-year exclusive contracts were in place, entry was essentially impossible for IRI—the loser in the bidding war.

Thus, the result of the contracts was to ensure monopoly in the market instead of a competitive duopoly. Since the opportunity costs to each grocery chain were essentially zero to supply the scanner data to a second firm, the potential welfare gains from removing the contractual restrictions on sharing inputs were particularly strong. The Canadian Competition Tribunal considered the anticompetitive and pro-competitive arguments for the practice. The Tribunal, correctly in my non-objective opinion,[9] tested the theories of the case against the facts and found the anticompetitive theory persuasive, striking down the exclusivity contracts. The case illustrates the simplest form of naked exclusionary contracts.

A different set of contracts in *Nielsen* illustrates very nicely the second theory of post-Chicago economics, which concerns the impact of exclusivity contracts with downstream buyers. It was almost as if the managers of Nielsen had read the paper by Aghion and Bolton. The buyers that IRI was most likely to attract in its attempt at entry were the thirty or so Canadian subsidiaries of IRI customers in the United States. (There are clear economies achieved by a parent corporation and a subsidiary that rely on the same software and information supplier.) Nielsen tripled the length of the contracts offered to these buyers, with substantial liquidation penalties. The buyers accepted the contracts individually (even with only small price concessions), since the impact of each individual acceptance on the likelihood of IRI's entry into the market was small. Collectively, however, the buyers' decisions to accept the contracts significantly decreased IRI's chance of entry. Again, the Tribunal struck down the contracts as anticompetitive. The correct antitrust policy in this instance was not, I surmise, much affected by prior evidence regarding how frequently exclusive dealing was efficient in the economy.

Nielsen is but one example of the applicability of economic theories of exclusivity as anticompetitive. Many such case studies are available in the literature but are not addressed by Cooper et al. Gravitz and Klein (1996) and Higgins and Scheffman (2003), for example, offer particularly convincing case analyses.[10]

The lessons of *Nielsen* extend further. Among the many other strategies that were employed in the case was the strategy of staggered contracts. After signing

9 The author was the expert for the Commissioner for Competition in this case.

10 E. Gravitz & B. Klein, *Monopolization by Raising Rivals' Costs*, 39 J. L. & Econ. 1 (1996); R. Higgins & D. Scheffman, *20 years of Raising Rivals' Costs*, 12 Geo. Mason L. Rev. 371 (2003).

contracts with identical (five-year) terms with all of the data suppliers, Nielsen recognized that five years hence (the summer of 1991), it could potentially face the identical bidding war with IRI for the rights to the essential inputs. The prospect was that, again, the battle for the right to be the monopolist would shift all monopoly rents upstream to the suppliers of the essential inputs—raw scanner data. Nielsen responded by renegotiating the contract of one of its largest suppliers (including the contract termination date). The result was that IRI could no longer look forward to the end of a common term and a date at which its power would again be nearly symmetric with that of Nielsen's in order to establish itself in the market. The outcome was a barrier to entry to the position of sole supplier to the market. The social cost of this staggered contract strategy was, at a minimum, that the most efficient monopolist would not necessarily be the one to occupy the market. In addition, the strategy strengthened Nielsen's monopoly position against possible entry by IRI as a differentiated duopolist.

The strategy of staggered contracts was not challenged by the government in the case, for an obvious reason: The prohibition of staggered contracts would have been an unworkable remedy. Requiring a firm to coordinate the beginning and ending dates of its contracts with suppliers would have been too intrusive and left the firm with a rigid policy that it could not have adapted to the inevitable uncertainties in contracting. Moreover, continual monitoring and perhaps adjustment of the remedy would have been simply too costly and too intrusive. Even if the conduct had been anticompetitive, staggered contracts could not have been prohibited practically.[11]

THE DESIGN OF REMEDIES MUST INCLUDE A THEORETICAL PREDICTION OF HOW THE MARKET WILL REACT TO PROPOSED REMEDIES AND AN EVALUATION OF WELFARE AT THE MARKET EQUILIBRIA WITH AND WITHOUT THE PROPOSED REMEDIES.

The staggered contract example illustrates the need for a broader conception of the antitrust problem than that offered by Cooper et al. The antitrust problem is not merely to distinguish, with an optimal decision rule, those strategies that are anticompetitive from those that are pro-competitive based on prior evidence and case-specific evidence. Effective antitrust policy includes the design of remedies that increase social welfare in circumstances where an anticompetitive strategy is taken. This design must include a theoretical prediction of how the market will react to proposed remedies and an evaluation of welfare at the market equilibria with and without the proposed remedies.

11 The Competition Tribunal, with substantial foresight, recognized that even the basic remedy in its decision (striking down the exclusivity contracts) might not resolve the lack of competition because exclusivity could continue to be maintained with (in economists' terminology) implicit contracts. Each major supplier of the essential input rationally recognizes that if it sells to a second downstream supplier, then the medium-term consequence is a breakdown of the monopoly in the market and termination of the flow of monopoly profits to the upstream suppliers. While the monopoly has indeed been sustained in the ten years since the case, as the Tribunal recognized might happen, no more powerful remedy was available.

The broad conception of the antitrust problem is perhaps most important in tacit collusion, which is anticompetitive, but effectively legal, because of the impossibility of preventing firms from taking into account rivals' reactions to their pricing or output decisions. Within the area of vertical restraints, the various *Microsoft* cases come to mind as illustrating the importance of framing antitrust policy design as broader than the issue of identifying anticompetitive behavior.[12] With respect to the most recent case before the European Commission, which involves the tying or embedding of Microsoft's media player within its operating system, the set of economists and antitrust experts convinced of a workable remedy is smaller than the set who believe that Microsoft's strategy is anticompetitive.[13]

III. Resale Price Maintenance

The second vertical restraint on which I focus my comments is minimum resale price maintenance. Minimum resale price maintenance has been much more popular than maximum price restrictions during periods when both practices are legal, and has also been the more contentious policy issue. Maximum price restraints are not per se illegal, consistent with the economic theory that they can be explained as resolving double mark-up problems, but minimum resale price maintenance is per se illegal.[14]

I elaborate on Cooper et al's discussion of resale price maintenance to clarify the economic theory explaining the practice (correcting an analytical error on their part) and to sharpen conclusions as to the optimal policy that economic theory supports. The theoretical framework allows us to identify the kind of evidence necessary for optimal antitrust policy with respect to this practice.

The first issue that must be addressed in a specific resale price maintenance case is the positive economic question: Why has a firm imposed minimum retail prices on its retailers or distributors? Minimum retail prices may facilitate the establishment of a cartel at the manufacturers' level when wholesale prices are difficult to observe or otherwise difficult with which to coordinate. This expla-

12 *See* United States v. Microsoft Corp., 56 F.3d 1448, 1458 (D.C. Cir. 1995); United States v. Microsoft, 147 F.3d 935 (D.C. Cir. 1998); and, United States v. Microsoft Corp., 253 F.3d 34, 55–56 (D.C. Cir. 2001).

13 European Commission COMP/C-3/37.792, Microsoft (Mar. 24, 2004, not yet reported). To be fair to Cooper et al., however, if one accepts their conclusion that vertical restraints and integration are rarely anticompetitive, then the issue of designing a remedy rarely arises so that, under their view of the world, a relatively narrow conception of the antitrust policy problem is sufficient.

14 A manufacturer can, however, unilaterally adopt a plan (known as a Colgate plan) to establish suggested resale prices in advance and lawfully terminate retailers who fail to adhere to those prices (United States v. Colgate & Co., 250 U.S. 300 , 39 Sup. Ct. 465, 7 A.L.R. 443). *See* Speech by C. Varney, *Vertical Restraints Enforcement at the Federal Trade Commission*, FTC Speech, Jan. 16, 1996, *available at* http://www.ftc.gov/speeches/varney/varnmg.htm.

nation is emphasized by Telser (1960) in his classic paper on the practice.[15] A minimum price floor may support a retailer cartel. For example, if retail competitors in a market jointly establish an upstream distributor which enforces minimum price floors, then the distributor is enforcing cartel pricing.[16] An historically important explanation for resale price maintenance is that traditional, high-priced retail associations coerced manufacturers to impose resale price maintenance to defer or delay the entry of discount stores (e.g. drugstore markets in North America). The price coordination was across products and across retailers.

The more contentious and interesting case, however, is the adoption of a resale price floor by a manufacturer independent of any cartel structure. This is a puzzle because once the manufacture sets a wholesale price, a lower retail price would seem to be in the manufacturer's interest since it should lead to a higher quantity demanded and, therefore, to higher profits. The price floor may be adopted, as Cooper et al. explain, to alter the retail mix of price and service (or advertising, effort, enthusiasm, shorter cashier lines—any decision that affects demand).

But why would retailers choose the wrong mix if the manufacturer simply sets a uniform wholesale price and then sells to retailers without restrictions? One approach to this question is suggested by the Dorfman-Steiner (1954) theorem.[17] The collectively optimal mix of service and pricing maximizes profits for the distribution system as a whole. By the Dorfman-Steiner theorem, the optimal ratio of expenditure on service to revenue equals the ratio of the service-elasticity of demand to the price-elasticity of demand for the entire product or market: $\varepsilon_s^m/\varepsilon_p^m$.[18] By the same theorem, an individual retailer, unconstrained by any vertical restrictions, sets its own optimal service and price so that the ratio of its service expenditure to revenue equals the ratio of its own elasticities: $\varepsilon_s^r/\varepsilon_p^r$. Only when these ratios are identical at the retail level and the product level (i.e. the market level if we have in mind a monopolist) will the unconstrained retailer choose the optimal level. Under the following condition, the individual retailer will decide on a mix of service and pricing that is excessively oriented towards low pricing rather than high-service levels:

$$\varepsilon_s^r/\varepsilon_p^r < \varepsilon_s^m/\varepsilon_p^m \tag{1}$$

Under condition (1), it is easy to show that if a manufacturer raises its wholesale price to the point where the resulting retail price maximizes collective prof-

15 L. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L & ECON. 86–105 (1960).

16 In U.S. v. Sealy, Inc., 388 U.S. 350 (1967), the upstream distributor, imposing resale price maintenance (and territorial restrictions) on downstream retailers, was owned by eight of the downstream retailers.

17 R. Dorfman & P. Steiner, *Optimal Advertising and Optimal Quality*, 44 AM. ECON. REV. 826–36 (1954).

18 Elasticities are in absolute values.

it, then retailer service will be too low. The manufacturer can respond by lowering its wholesale price, preventing the retail price from falling by imposing a retail price floor. Expanding the retail margin in this way adds to the marginal benefit of service provisioned by each retailer, thus eliciting greater service, until the optimum is reached. Profits are maximized for the system as a whole and can be redistributed (e.g. to the manufacturer via fixed fees or other instruments). In short, minimum resale price maintenance is profitable whenever retailers are biased towards excessive price competition.

This reduces the question of why resale price maintenance might be profitable to the following: Why might the inequality **(1)** be satisfied (i.e., why might a retailer be biased towards excessive price competition)? Cooper et al. offer a clear discussion of the sources of incentive distortions—for example, in reputational spillovers to the entire product or distribution system from the failure of an individual retailer to deliver adequate quality.

The authors err, however, in stating that inadequate retailer incentives can be traced to differences between the wholesale margin and the retail margin. ("[W]hen the manufacturer's profit margin for additional sales is large in relation to the retailer's...the retail rationally will provide a lower level of promotion than is optimal for the manufacturer.")[19] The upstream manufacturer's profit margin determines a portion of profits flowing to the entire production and distribution system from a retailer's effort to attract a marginal sale, and that is not appropriated by the retailer. It is sometimes termed the vertical externality. The vertical externality, however, distorts the retailer's decisions on sales effort whether it is smaller than, equal to, or larger than the retailer's own marginal gain. Incentive distortions arise not because of the size of externalities relative to appropriated benefits, but simply because of the existence of externalities or non-appropriabilities.[20]

A key to understanding retailers' incentives is the fact that retailers compete. Therefore, a retailer's effort and pricing decisions affect other retailers in the distribution system by attracting consumers away from them. This horizontal, or competitive, externality acts in the opposite direction as the vertical externality for both pricing and service decisions. The manufacturer has an incentive to use

19 Cooper et al., *supra* note 1, at 49.

20 Cooper et al. follow Gertner and Stillman (2001), who report apparel manufacturers' average gross profit margins of 46 percent compared with only 9 percent for multiple apparel retailers. *See* R. Gertner & R. Stillman, *Vertical Integration and Internet Strategies in the Apparel Industry*, 49 J. Indus. Econ. 417–27 (2001). Cooper et al. cite Gertner and Stillman as stating that this disparity in compensation for marginal sales "will limit the incentive of retailers to invest in developing and promoting their Web sites unless there is some form of co-op funding or restructured pricing" (at ftnt. 6). The fact that retailers appropriate only one-sixth of the marginal gain (combined profit margin) from additional effort certainly dampens their incentives for sales, as Gertner and Stillman state. But, contrary to Cooper et al.'s interpretation, any upstream profit margin will compromise retailers' incentives to provide effort—the margin need not be large.

price floors whenever the horizontal externality in pricing dominates the horizontal externality in service decisions—measured relative to the vertical externalities. In an earlier paper, I showed this logic leads precisely to condition **(1)** as the necessary and sufficient condition for resale price maintenance.[21]

This condition is met under the spillover circumstances described by Cooper et al. But condition **(1)** shows that it is met more generally, that is whenever retailers face relatively price-sensitive consumer demand. Equivalently, if consumers that are likely to switch retailers are relatively more price sensitive than other consumers, then resale price maintenance will be profitable. This ties into the Klein-Murphy (1984) argument that simple consumer heterogeneity can lead to distortions in retailer sales effort and that there is a need for corrective action such as resale price maintenance.[22] Suppose, for example, that consumers vary in their opportunity costs of time and that retailer "services" represent activities that save consumers time (e.g. activities such as adequate sales staff and well-stocked inventory). Then a retailer, focused on attracting consumers away from other retailers and not just into the market, will be biased towards low prices and away from high service because retailer-switching consumers tend to have low time costs. These are the consumers willing to search.[23]

Klein and Murphy develop another important role for resale price maintenance and other vertical restraints. The protection of retailer profits from erosion by horizontal competition enhances retailer incentives for maintaining high-service quality when retailers are monitored (imperfectly) by the manufacturer, because the retailer has something to lose from the threat of being terminated.[24]

How does this positive economic analysis relate to the design of antitrust policy for minimum resale price maintenance? A critical set of evidence relates to whether the practice is facilitating a cartel. If the market structure and conduct are consistent with a cartel and point clearly to the use of resale price maintenance as a facilitating device, then the practice should be prohibited. (As Richard Posner (1981) has pointed out, however, since cartels are illegal, a law against resale price maintenance is not necessary for this prohibition.[25]) If the cartel explanation is implausible, then the simplest explanation for the practice is as an

21 R. Winter, *Vertical Control and Price versus Non-price Competition*, 63 Q. J. ECON. 61–78 (1993).

22 B. Klein & K. Murphy, *Vertical Restraints as Contract Enforcement Mechanisms*, 31 J.L & ECON. 265–97.(1988)

23 For further development of the Klein-Murphy theory, *see also* Winter, *supra* note 21.

24 This is as analogous to the "efficiency-wage" theory of economics.

25 R. Posner, *The Next Step in the Antitrust Treatment of Restricted Distribution: Per Se Legality*, 48 U. CHI. L. REV. 6 (1981).

attempt by the manufacturer to alter the mix of price and service offered at the retail level.[26] Must the use of resale price maintenance for this purpose always raise welfare as a matter of theory? That is, does the manufacturer's willingness to trade off higher prices for greater service signal that the same tradeoff is in the public interest? The answer is "no." It is not hard to come up with numerical examples where the manufacturer's strategy decreases consumer welfare or total welfare. As a matter of theory, a monopolist does not always select the right mix of price and service. But it is at least as easy to come up with theoretical examples—and easier to come up with case examples—where the manufacturer's decision to trade off higher prices for greater service or product availability is consistent with higher welfare.[27]

MARKETS DO A BETTER JOB OF ALLOCATING RESOURCES THAN GOVERNMENT INTERVENTION WHEN THERE IS NOT A CLEAR AND CONVINCING BASIS FOR INTERVENTION. GOVERNMENT POLICY DOES NOT ATTEMPT TO SHIFT THE MIX OF PRICES AND SERVICE OR PRODUCT QUALITY FOR VERTICALLY INTEGRATED MANUFACTURERS. NOR SHOULD IT ATTEMPT TO ALTER A MONOPOLIST'S CHOICE OF PRICE AND SERVICE COMPETITION WHEN THIS CHOICE IS IMPLEMENTED THROUGH RESALE PRICE MAINTENANCE.

Without a completely unambiguous rule provided by economic theory as to the welfare effects of allowing firms to enhance service (or sales effort, or advertising, or simply distribution of their products) via resale price maintenance, it is possible to turn to various historical cases where the practice appears to be efficient in order to at least shift the burden of proof onto the side of intervention. However, a more fundamental basis for a prior position on the welfare impact of resale price maintenance in the case of a single manufacturer follows simply from the empirical judgment that markets do a better job of allocating resources than government intervention when there is not a clear and convincing basis for intervention. Government policy does not attempt to shift the mix of prices and service or product quality for vertically integrated manufacturers. Nor should it attempt to alter a monopolist's choice of

26 I do not mean to suggest that other explanations have not been offered for the practice. Daniel O'Brien and Greg Shaffer, for example, suggest that resale price maintenance may be explained by the inability of a manufacturer to commit to a public contract with each retailer, i.e. to commit against renegotiation with each retailer towards a lower retail price (D. O'Brien & G. Shaffer, *Vertical Control with Bilateral Contracts*, 23 RAND J. ECON. 299–308 (1992). The effect of resale price maintenance in this theory is to raise retail prices to the detriment of consumers. I cannot, of course, prove that a case will never arise in which this explanation is convincing, but have not seen such a case to date.

27 A number of examples are discussed in G.F. MATHEWSON & R. WINTER, COMPETITION POLICY AND VERTICAL EXCHANGE (1985), at 95 and in T. Overstreet, *Resale Price Maintenance: Economic Theories and Empirical Evidence*, (1983) (mimeo, U.S. Federal Trade Commission). When resale price maintenance was terminated for Schick shavers in the United States in 1958, to take one example, the number of dealers willing to carry the product fell from 35,000 to 7,000 apparently because of price cutting. It would be hard to argue that this was in the public interest. Klein & Murphy, *supra* note 22, provide convincing examples in which resale price maintenance is efficient.

price and service competition when this choice is implemented through resale price maintenance. In the case of resale price maintenance, this empirical judgment is at least as important in developing antitrust policy as existing cross-sectional empirical evidence on the impact of resale price maintenance.

IV. Concluding Thoughts

Cooper et al. argue that economic theory provides little in the way of unambiguous predictions about when vertical restraints are pro- versus anticompetitive, forcing appropriate antitrust decisions to rely on prior empirical evidence rather than case-specific facts. In taking the opposite position—that each case must be assessed on its own merits and that there is much useful economic theory available for this assessment—I do not mean to diminish the general importance of empirical evidence on the impact of vertical restraints. Empirical evidence is vital for understanding the role of these practices in the economy and more empirical analysis is needed. In developing appropriate antitrust policy, however, prior information is simply not comprehensive enough to anticipate the facts of every case. And every case is different.

In developing appropriate antitrust policy, prior information is simply not comprehensive enough to anticipate the facts of every case. And every case is different.

Resale price maintenance is a useful restraint with which to illustrate this point. When resale price maintenance was permitted, it was used in a wide variety of retail markets, including many lines of clothing (jeans, shoes, socks, underwear, shirts), jewelry, sports equipment, candy, biscuits, automobiles, gasoline, and small and large appliances (stereos, shavers, washing machines).[28] Estimates of the proportion of retail sales subject to resale price maintenance in the United States during the 1950s run from 4 to 10 percent.[29] In both the United Kingdom and Canada, the practice was even more popular than in the United States. In 1960, some 25 percent of goods and services were subject to resale price maintenance in the United Kingdom and, in Canada, before the law prohibiting resale price maintenance was enacted in 1951, an estimated 20 percent of goods sold through grocery stores and 60 percent sold through drugstores were fair-traded.[30] The range of products for which the practice was used is enough to cast doubt on the importance of cartel explanations of resale price maintenance (the only

28 *See* G. Mathewson & R. Winter, *The Law and Economics of Resale Price Maintenance*, 13 Rev. Indus. Org. 57–84 (1998).

29 *See* F.M. Scherer & D. Ross, Industrial Market Structure and Economic Performance (3rd ed. 1990), at 549 and T. Overstreet, *supra* note 27, at 6.

30 Overstreet, *supra* note 27, at 153, 155.

explanation that, I have argued, can form a legitimate basis for prohibiting the practice in a particular case). Furthermore, Ippolito (1991) found in an extensive study of resale price maintenance cases that evidence in fewer than 15 percent of the cases revealed cartel hypotheses as even a possibility.[31] Whether the percentage of resale price maintenance cases explained as cartel facilitation is 5 percent or 15 percent or 30 percent, this hypothesis must be considered in any particular case. It is a plausible hypothesis under some fact situations and not under others. It is ultimately the facts of the particular case that must guide the right antitrust decision.

31 P. Ippolito, *Resale Price Maintenance: Empirical Evidence from Litigation*, 34 J.L & ECON. 263–94 (1991).

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Loyalty Rebates: An Assessment of Competition Concerns and a Proposed Structured Rule of Reason

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Loyalty Rebates: An Assessment of Competition Concerns and a Proposed Structured Rule of Reason

David Spector

Like most pricing practices, loyalty rebates may benefit or harm consumers according to the circumstances. This paper reviews the pro-competitive and anticompetitive motives for loyalty rebates. Several conclusions emerge. First, every particular type of loyalty rebates can be pro-competitive in some circumstances. There is, therefore, little basis for a per se prohibition, even restricted to a particular category of suspicious-looking schemes. Second, dominant firms willing to engage in an exclusionary strategy may find that cleverly fine-tuned pricing schemes involving loyalty rebates possess several advantages over simple predatory pricing strategies: they can achieve exclusion at a lower cost, be more credible, and erect a permanent barrier to entry without any need for a recoupment period. Loyalty rebates thus deserve the scrutiny with which they have been gratified lately. This paper concludes by proposing a structured rule of reason for the antitrust handling of loyalty rebates cases.

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I. Introduction

Two recent decisions on both sides of the Atlantic have aroused renewed interest in the antitrust treatment of loyalty rebates. On September 30, 2003, the Court of First Instance of the European Communities (CFI) upheld a decision by the European Commission to impose a fine of almost EUR 20 million on the tire company Michelin because of its pricing practices in France.[1] The Commission had focused on the scheme of conditional rebates—mostly, but not only, simple quantity discounts—granted by Michelin to its non-exclusive retailers. It claimed that these rebates, because of their "loyalty-inducing" effects, amounted to an abuse of the dominant position held by Michelin in the relevant markets in France. The Court's concurring ruling stated a very simple criterion as to the abusive character of quantity discounts granted by dominant firms in that they are to be considered abusive unless they reflect the firm's cost structure.[2] The decision and subsequent ruling have been broadly construed as marking a shift toward an increasingly repressive handling of loyalty rebates—the decision and the Court's claims to the contrary notwithstanding.[3] In the United States, the recent *LePage's* judgment, which found 3M guilty of exclusionary practices based on the structure of loyalty rebates granted to several large retailers, has often been interpreted in the same way.[4] But, the two cases are different in many respects, in particular because the issue of loyalty rebates in *LePage's* conflates with that of bundling.[5]

Critics of the *Michelin* ruling stressed that it too readily presumed the anticompetitive effects of loyalty rebates and failed to consider their possible pro-competitive ones.[6] Regarding the possible adverse effects of the disputed practices, neither the decision nor the ruling even purported to prove harm to competitors,

1 Commission Decision 2002/405/EC, Michelin, 2002 O.J. (L 143) and Case T-203/01, Manufacture française des pneumatiques Michelin v. Commission (Sep. 30, 2003, not yet reported). Throughout this paper, the expressions "Michelin decision" and *Michelin* refer to this case, and not to the earlier (and oft-quoted) Commission decisions in other cases involving Michelin.

2 *Id. at* § 58.

3 D. Waelbroeck, *Michelin II: A per se rule against rebates by dominant companies?*, 1 J. Comp. L. & Econ. 149–71 (2005) and J. Kallaugher & B. Sher, *Rebates revisited: Anti-Competitive Effects and Exclusionary Abuse Under Article 82*, 25(5) Eur. Competition L. Rev. 263–85 (2004). The European Commission's view is laid out in L. Gyselen, *Rebates: Competition on the Merits or Exclusionary Practice?*, *in* European Competition Law Annual (2003). For a general discussion, *see* J. Temple Lang & R. O'Donoghue, *Defining legitimate competition: how to clarify pricing abuses under Article 82 EC*, 26 Fordham Int'l L.J. 86–162, 115 (2002).

4 LePage's v. 3M, 324 F.3d 141 (3rd Cir. 2003) [hereinafter *LePage's*].

5 For a discussion, *see* D. Rubinfeld, *3M's Bundled Rebates: An Economic Perspective,* 72 U. Chi. L. Rev. 243 (2005).

6 *See*, *e.g.*, Waelbroeck, *supra* note 3.

let alone to consumers, or acknowledged the possibility that loyalty rebates might be pro-competitive absent economies of scale.

Among the reproaches leveled at Michelin was the claim that loyalty rebates "made access to the market more difficult for competitors." The expression "more difficult access" was apparently used synonymously for lost sales, since neither the decision nor the ruling considered any impact of the disputed schemes beyond the possible diversion of some sales away from rivals.[7] But since this would also have been true of a price cut or a quality enhancement, the notion of "making access more difficult" cannot, as such, form the basis of a sound handling of loyalty rebates.

The current state of the case law, especially in the European Community, leaves open the question of how loyalty rebates should be handled under a more economics-based approach. The goal of this paper is to shed some light on this question by looking at the possible causes and consequences of loyalty rebates and considering both exclusionary and pro-competitive motives.[8] Of course, "the principal result of [industrial organization] theory is to show that nearly anything can happen,"[9] and loyalty rebates are no exception. Despite this slightly distressing truth, economic analysis may help clarify a few questions:

1) In what types of markets should the courts and competition authorities be concerned about loyalty rebates?

2) Do some types of rebates deserve more scrutiny than others?

Of particular importance, in my view, is a comparison of different types of exclusionary practices in order to know, for example, whether loyalty rebates should be analyzed through the lens of predatory pricing or whether a specific treatment is warranted. This requires a comparison of the likelihood and the conditions of the possible different types of exclusionary behavior.

This paper is organized as follows. First, in Section II, I briefly review the well-known pro-competitive explanations for loyalty rebates. The main conclusion is that all types of loyalty rebates may be pro-competitive in some circumstances. Then, in Section III, I show that in markets in which rivals' exclusion is possible and may increase the excluding firm's market power, loyalty rebates may be used as a very efficient and cheap tool for entry deterrence or eviction. In particular, the corresponding exclusionary strategies may be far more effective, and

7 *Michelin*, *supra* note 1, at § 110.

8 As explained in Section II, loyalty rebates may also belong to a so-called "grey zone" in that they reduce social welfare without any eviction or strengthening of market power. The same holds true of bundling and tying practices.

9 F. Fisher, *Organizing Industrial Organization*, *in* Brookings Papers on Economic Activity, Microeconomics (M. Baily & C. Winston eds., 1991), at 201–225.

more credible, than predatory pricing. I conclude by outlining a possible structured rule of reason to handle loyalty rebates cases in Section IV.

II. The Pro-competitive Explanations for Loyalty Rebates

A. LOYALTY REBATES ARE PERVASIVE AND FACILITATE THE PROVISION OF INCENTIVES TO RETAILERS

Loyalty rebates are pervasive in many sectors, including those in which there is no dominant firm and no firm can realistically hope to exclude rivals so as to increase market power. For example, nobody would claim that the coffee shop on the street corner offering a free espresso for every ten euro of sales is doing so with sinister exclusionary motives. Loyalty rebates may take many different forms. For example, market share discounts, discounts based on the year-to-year change in sales, and discounts granted conditional on reaching thresholds defined differently for different customers (three types of discounts specifically targeted by the Commission in *Michelin*), exist in many sectors and are often part of price schemes set by firms lacking substantial market power.

LOYALTY REBATES ARE PERVASIVE IN MANY SECTORS, INCLUDING THOSE IN WHICH THERE IS NO DOMINANT FIRM AND NO FIRM CAN REALISTICALLY HOPE TO EXCLUDE RIVALS SO AS TO INCREASE MARKET POWER. FOR EXAMPLE, NOBODY WOULD CLAIM THAT THE COFFEE SHOP ON THE STREET CORNER OFFERING A FREE ESPRESSO FOR EVERY TEN EURO OF SALES IS DOING SO WITH SINISTER EXCLUSIONARY MOTIVES.

Nonlinear pricing (of which loyalty rebates are a subset) may be used for several reasons.[10] One of them is a firm's attempt to discriminate across consumers. For example, a two-part tariff (comprising a fixed fee and a variable, per-unit part) may help a firm exploit the heterogeneity in its customers' willingness to pay for its product. Nonlinear pricing based on such motives may either increase or decrease aggregate and consumer welfare. (There is no general result, but some evidence points to specific cases in which it vastly increases welfare.[11])

There also exists another, more universal (in the sense that it applies even without any customer heterogeneity) explanation for nonlinear pricing. Customers' decisions (whether they are final consumers or retailers) depend chiefly on the prices they pay at the margin, and in general, efficient decisions

10 For an all-encompassing treatment of the subject, *see* R. WILSON, NONLINEAR PRICING (1992).

11 E. MIRAVETE & L.-H. RÖLLER, COMPETITIVE NONLINEAR PRICING IN DUOPOLY EQUILIBRIUM: THE EARLY CELLULAR TELEPHONE INDUSTRY (CEPR Discussion Paper No. 4069, 2003).

are induced when the price faced by customers on their marginal purchases is equal to their supplier's marginal cost. Therefore, in the simplest circumstances, efficiency requires this marginal price to be equal to marginal cost. However, profit maximization requires average price to be above average cost—and thus, above marginal cost in the many cases in which marginal cost is constant. Unless average and marginal price are allowed to differ, there is a tension between the supplier's legitimate goal of profit maximization and the goal to induce efficient decisions.[12]

Since most of the case law relates to wholesale markets, this point can be illustrated by considering how a retailer's decisions depend on the wholesaler's price scheme. A retailer makes several decisions that affect the sales of a given product. It sets the retail price, decides how much effort it will devote to learning about the product and promoting it, and decides to what extent it wants to provide its customers with goods or services complementing the product (e.g. at what price, etc). Since these decisions only affect the volume of sales at the margin, their impact on the retailer's profit only depend on the price paid on marginal units. Therefore, the lower this price, the more the retailer is induced to set low retail prices, to promote the product, and to supply complementary goods and services at a low price.

The wholesaler, meanwhile, would like to encourage such behavior as much as it can without decreasing its average price too much. The obvious solution is to set a low price for marginal units and a higher price for the other units (called infra-marginal units). For example, if the wholesaler knows that, regardless of which price and non-price actions it takes, a given retailer will sell between 1,000 and 1,500 units of its good, then it may rationally decide to set a high price for the first 1,000 units and a lower per-unit price for all units above 1,000. But prohibiting loyalty rebates would make it more costly for wholesalers to cut the price of marginal units. Thus, they would set higher marginal prices, which would raise retail prices and decrease retailers' incentives to learn about products, promote them, and provide affordable complementary goods and services.

B. MANY TYPES OF LOYALTY REBATES MAY BE PRO-COMPETITIVE

1. Discriminatory Rebate Schemes

In the real world, retailers differ in size. Which unit is marginal thus depends on the retailer considered. For example, when facing a small retailer expected to sell approximately 100 units per year, a wholesaler would like to set a low price for all units above the 90th unit. But doing the same for a retailer expected to sell approximately 100,000 units per year would be tantamount to offering that

12 For the sake of simplicity, the presentation of the argument ignores the question of competition among retailers. When retailers compete against each other, the argument becomes more complex because suppliers may want to have marginal prices above marginal costs in order to induce retail prices to be close to the price that a vertically integrated monopoly would set.

retailer a linear price schedule and earning a very small margin on the sales to that retailer, which would be economically unsound. Thus, the only way to account for the heterogeneity of retailers is to allow the pricing scheme to be heterogeneous as well.[13]

2. Market Share Discounts

The pro-competitive properties of market share discounts may be less clear than those of discounts based on absolute levels. This is because encouraging a retailer to increase Firm A's market share is equivalent to encouraging it to decrease rival suppliers'. Faced with such incentives, a retailer's rational response is to cut the price of Firm A's product and raise the price of rival products. The overall effect on retail prices is ambiguous. However, this reasoning misses the possibility that market share discounts could simply be used by all suppliers to induce a low marginal price when aggregate demand is uncertain. For example, assume that suppliers A and B do not know whether a retailer's total sales will be around 1,000 or around 10,000 (which depends on an unpredictable demand shock), but they know that regardless of the choices the retailer makes, consumer preferences imply that each firm will have at least a 40 percent market share. Then, a very simple way for each supplier to provide good incentives to the retailer is to set a high per-unit price for all units below 40 percent of total sales, and a low per-unit price for units above this threshold. The retailer then faces a low marginal price for both products and the ensuing retail prices are likely to be low. In this example, market share discounts do not aim to induce retailers to make efforts to reach a threshold above which discounts take effect. They simply ensure that the price of marginal units is lower than that of infra-marginal ones.

3. Negative Marginal Prices, Quantity Forcing, and Exclusivity

Some rebate schemes may induce strong incentives for retailers to achieve a minimum level of sales or a given market share, or even encourage quasi- or full exclusivity. This is the case in particular when they include rollback rebates (i.e. rebates that apply to the entirety of a customer's purchases conditional on reaching a given target, expressed in absolute or in market share terms). Setting a very high unit price together with a large rollback discount granted conditional on reaching a given target is, in fact, tantamount to quantity forcing in that a retailer signing such a contract can do so profitably only upon reaching the target. At the limit, such contracts may amount to requiring exclusivity. Exclusivity or quasi-exclusivity requirements have aroused a lot of suspicion (not altogether undeservedly, as explained in Section III). But it should be noted that they can also be pro-competitive tools that increase suppliers' incentives to provide knowledge or other types of services to their retailers. The reason is that an

13 An additional argument in favor of allowing discriminatory discounts is developed in D. O'Brien & G. Shaffer, *The Welfare Effects of Forbidding Discriminatory Discounts: a Secondary Line Analysis of Robinson-Patman*, 10(2) J.L. Econ. & Org. 296–318 (1994).

upstream firm may be reluctant to train retailers in order to make them more efficient at promoting goods or offering complementary services if there is a risk that retailers will use their resulting skills to the benefit of competing suppliers—in effect expropriating the upstream firm of its investment in training. Absent any commitment mechanism, this reluctance results in a socially suboptimal level of training. An extreme way to overcome this problem is to sign exclusive contracts with retailers.[14] A less extreme possibility is to provide retailers with strong financial incentives to devote a large share of their efforts to promoting the products of the upstream firm providing the training, rather than competitors' products.

LOYALTY REBATES MAY ACHIEVE PROFITABLE EXCLUSION OF RIVALS IN SITUATIONS IN WHICH PREDATORY PRICING WOULD BE COMPLETELY INEFFECTIVE. THIS RAISES THE QUESTION OF WHETHER THE COURTS AND COMPETITION AUTHORITIES SHOULD ANALYZE THEM THROUGH THE LENS OF PREDATORY PRICING, OR WHETHER DIFFERENT RULES SHOULD APPLY TO DIFFERENT TYPES OF PRACTICES.

Finally, marginal prices below marginal costs can also be rational for a firm absent any exclusionary strategy in situations in which additional sales provide side-benefits, such as increasing product awareness, allowing learning-by-doing, testing market demand, or increasing the demand for complementary products (e.g. in two-sided markets).

III. Exclusionary Loyalty Rebates

When rival firms face significant fixed costs, reducing the demand they face may deprive them of the minimum viable scale and trigger exit or deter entry, thus removing a competitive constraint. This is the general logic of predatory pricing and anticompetitive exclusionary practices. This section reviews the main ways in which loyalty rebates may be used for exclusionary purposes. The main finding of the economics literature is that loyalty rebates, in some circumstances, may constitute less costly and more efficient exclusionary tools than predatory pricing. Furthermore, loyalty rebates may achieve profitable exclusion of rivals in situations in which predatory pricing would be completely ineffective. This raises the question of whether the courts and competition authorities should analyze them through the lens of predatory pricing, or whether different rules should apply to different types of practices.

14 This classical pro-competitive explanation for exclusive contracts has been formulated in, *e.g.*, H. Marvel, Exclusive Dealing, 25 J. L. & ECON. 1–25 (1982).

A. LOYALTY REBATES AS CHEAPER PREDATION

1. An Example

In some circumstances, loyalty rebates may be equivalent to a cheaper, and thus more efficient, form of predatory pricing. This idea can be illustrated through an example. Let us assume the following:

1) Two firms, Firm A and Firm B, compete in the market for widgets in which 10 retailers purchase 100 units each, as long as prices are not too high. Total demand is therefore 1,000 units. For simplicity, Firm A's variable costs are assumed to be zero.

2) Consumer preferences are asymmetric. 90 percent of consumers will never purchase product B, regardless of its price, because the characteristics of that product do not fit their needs. This means that the real battle is over the remaining 10 percent of the market. More precisely, we assume that absent Firm B, all retailers are ready to pay up to EUR 10 for Firm A's product. This means that, even with Firm B in the market, each retailer is ready to pay up to EUR 10 for the 90 units of Firm A's product which are not subject to competition from Firm B.

3) The setting is one in which predatory pricing at the expense of Firm B could a priori be a rational strategy for Firm A in that Firm B is a cash-constrained firm (lacking good access to credit markets), facing significant fixed costs and prohibitive re-entry costs should it exit. This means that if Firm B does not manage to earn sufficient revenues, then it will be forced out of the market forever. Let us assume that this happens as soon as the wholesale price of Firm A's product falls below EUR 1.

Whether Firm A will choose to engage into predatory pricing depends on whether the discounted future profits arising from increased market power following Firm B's eviction outweigh the short-term loss. Under linear pricing, evicting Firm B requires Firm A to charge a uniform price of EUR 1, earning total revenues between EUR 900 and EUR 1,000, while it could earn at least EUR 9,000 by charging a price of EUR 10 (since Firm A necessarily serves at least 90 percent of aggregate demand equal to 1,000 units). Therefore, simple predatory pricing would involve a loss of at least EUR 8,000.

This is where nonlinear pricing may help. Consider the loyalty rebate program in which Firm A sets a price of EUR 10 and grants an overall rebate varying from 1 to 10 percent as a retailer's volume of purchases varies from 91 to 100 units. For example, a retailer purchasing 93 units from Firm A will get an overall rebate of 3 percent, applicable to all 93 units. For a retailer purchasing at least 90 units, an additional unit purchased from Firm A costs EUR 10, but raises the overall discount by 1 percent, and applies to purchases worth at least EUR 900 (90 units multiplied by EUR 10). The overall balance is such that the true marginal price is less than EUR 1, because the EUR 10 unit price is partly offset by an additional discount worth more than EUR 9. Such a scheme allows Firm A to bring the price of its product in the battleground below EUR 1—that is, below the threshold triggering Firm B's eviction.

This scheme is also far less costly than simple predatory pricing. Under this scheme, the overall discount is at most 10 percent, so that the average price is at least EUR 9, applying to at least 900 units. Firm A's overall revenues are thus above EUR 8,100. While in the case of simple predatory pricing, evicting Firm B requires Firm A's revenues to fall below EUR 1,000, a cleverly fine-tuned loyalty rebates scheme achieves the same result at a far lower cost to Firm A.[15] As a result, nonlinear pricing may tilt the balance of short-term losses and long-term gains in a way that makes eviction more likely to be profitable.

What are the consequences for antitrust treatment? In the absence of any qualitative difference with simple predatory pricing, such a strategy should probably be dealt with using the same tools and criteria—taking into account the fact that the relevant prices are not the average prices, but the marginal ones, which may differ from the explicit post-discount prices. For instance, in the above example, while the apparent price is always above EUR 9 (EUR 10 less a discount between 1 and 10 percent), the economically relevant price is that of a marginal unit, after subtracting the entirety of the gains induced by the purchase of that unit through the discount system. As shown in the previous example, that price is in fact below EUR 1.

To sum up, cases involving claims of nonlinear predatory pricing should probably be handled like ordinary predatory pricing claims. The only difference is that, to the extent that a price-cost test is used, the relevant price is not an easily defined, and readily observed price, but rather the true marginal price, which may be very far from the average post-discount price. Therefore, the suggestion to treat these cases like predatory pricing cases leaves open the question of how to adapt price-cost tests. Two suggestions are made in Section IV of this paper. Notice, however, that price-cost tests are becoming less central than they previously were in the handling of predatory pricing claims, which should facilitate a unified treatment of simple and nonlinear predatory pricing.[16]

15 The mechanism is akin to that of targeted price cuts, rather than uniform price cuts following a rival's entry—departing from uniform pricing decreases the cost of predation.

16 In the United States, price-cost tests lost their primacy after the *Brooke Group* judgment (Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993)). *See* P. Bolton, J. Brodley, & M. Riordan, *Predatory Pricing: Strategic Theory and Legal Policy*, 88 Georgetown L.J. 2239 (2001). In the European Community, while the interpretation of the existing case law often stresses the centrality of these tests, recent evolutions point toward bridging the transatlantic divide. For instance, a recent decision by the Conseil de la concurrence (the French competition authority) mentioned price-cost comparisons as one of many criteria for the assessment of predatory pricing claims and stated that proof of predation requires, among other elements, proof that initial losses can be recouped later thanks to the existence of barriers to entry. *See* Decision No. 04-D-17 of May 11, 2004 "relative à la saisine et à la demande de mesures conservatoires présentées par les sociétés AOL France SNC et AOL Europe SA," at § 66, *available at* http://www.conseil-concurrence.fr/pdf/avis/04d17.pdf.

B. LOYALTY REBATES AS A TOOL FOR COSTLESS ENTRY DETERRENCE

1. The Theory of Nonlinear Predatory Pricing Is at Odds with the Facts of the *Michelin* Case

Just like predatory pricing theories in general, the above example is essentially dynamic. In the example, nonlinear pricing is used for a limited period of time to deter or evict an entrant by lowering the price of the marginal units of the predator's product. Then, once the entrant's threat has subsided, the price of these marginal units can be raised again. This ulterior reversal of the disputed price scheme is indeed the only rationale of predatory strategies.

However, this dynamic story fails to fit the facts of some of the most important loyalty rebates cases. For example, in the *Michelin* case, neither the Commission nor the CFI claimed that the disputed pricing schemes were temporarily enacted in order to deal with a specific threat, only to be modified later. These pricing schemes were long-lasting, with occasional amendments described in the Commission's decision more like refinements than like reversals intended to recoup initial losses. Such cases clearly cannot be analyzed in terms of a predatory strategy that comprises a predatory period followed by a recoupment period.

Can loyalty rebates be the instrument of a profitable anticompetitive strategy lacking the dynamic nature of predatory strategies? Can a long-lasting, little-changing loyalty rebates scheme be consistent with a profitable exclusionary strategy? The answer is "yes."

This observation raises the following questions: Can loyalty rebates be the instrument of a profitable anticompetitive strategy lacking the dynamic nature of predatory strategies? Can a long-lasting, little-changing loyalty rebates scheme be consistent with a profitable exclusionary strategy? The answer is "yes", as explained in the next section. The following scenarios of anticompetitive behavior draw mostly from the theoretical literature on exclusive dealing. There is indeed a continuum between loyalty rebates conditional on absolute purchases, those conditional on market share targets, and exclusive dealing. If a retailer's total demand is equal to 10, then setting a very large price with a very large discount conditional on purchasing 10 units is equivalent to requiring exclusivity.[17]

17 Case law on both sides of the Atlantic recognizes this continuum. For a discussion of case law in the European Community, *see* Waelbroeck, *supra* note 3, and for the United States, *see* W. Tom, D. Balton, & N. Averitt, *Anticompetitive aspects of market-share discounts and other incentives to exclusive dealing*, 67 ANTITRUST L.J. 615 (2000).

2. Nonlinear Pricing as a Costless Entry Deterrent: Exploiting the Lack of Coordination across Buyers

Consider the following example.[18] Firm A is a monopolist facing possible entry by Firm B and serving many customers (retailers or final consumers), each of whom has an aggregate demand of 5 units. Assume that, as long as it faces no competition, it can charge a monopoly price equal to EUR 10. Assume also that, because of the need to cover fixed costs, Firm B's entry cannot be profitable unless it can sell its product to at least one half of its potential customers.

Firm A can deter entry very simply by offering its customers the option to sign an exclusive contract (i.e. to commit to procure 100 percent of their needs from it) against a per-unit price of EUR 9.99, or equivalently, by offering a contract setting a very high per-unit price together with a discount granted upon purchase of 5 units, applicable to all units, and leading to an average post-discount per-unit price of EUR 9.99. This contract could deter entry for the following reason. First, if all customers sign it, then there is no room left for Firm B and it will not enter. Second, if buyers fail to coordinate, then they may end up all signing the contract because it is in a single buyer's interest to do so if it expects others to sign the contract as well even though it is not in the buyers' collective interest. Indeed, if a buyer expects all others to sign this contract, then it believes that Firm B's entry is precluded anyway (because Firm B will not want to enter if it can sell only to a single customer). Thus, signing the contract will not have any impact on Firm B's decision, but it will afford the buyer a small price cut of EUR 0.01. In this setting, the lack of coordination across buyers allows the excluding firm to deter entry and entrench its market power at no cost.

3. Nonlinear Pricing as a Not-Too-Costly Entry Deterrent: Discriminating across Buyers

The above scenario relies on the lack of coordination across buyers and may lack relevance if a few large buyers are able to coordinate and collectively defeat Firm A's exclusionary attempts. However, a variant of this strategy could still allow Firm A to profitably deter Firm B's entry, albeit at a higher cost. In the above example, Firm A only needs one half of its customers to enter into exclusive agreements (or equivalent quantity-forcing contracts) in order to deter entry. Of course, these potential customers may try to coordinate. To defuse this threat, Firm A should ensure that the contract offered to them is generous enough (in terms of price) to make the customers better off signing it (at the price of deterring Firm B's entry) than they would be should Firm B enter and intensify competition. Then, even if the customers offered such contracts could coordinate to defeat Firm A's exclusionary strategy, they would have no collective interest to

18 The following example is adapted from two contributions to the recent theoretical literature on exclusive dealing: E. Rasmusen, J. Wiley, & M. Ramseyer, *Naked Exclusion*, 81 Am. Econ. Rev. 1137–44 (1991) and I. Segal & M. Whinston, *Naked Exclusion: Comment*, 90 Am. Econ. Rev. 296–309 (2000). *See also* J. Farrell, *Deconstructing Chicago on Exclusive Dealing*, Antitrust Bull. (forthcoming).

do so. Offering such contracts is costly for Firm A because they involve price cuts. But this cost is proportional to the number of buyers that sign the contract (i.e. half the entire set of customers). As a consequence of this profit sacrifice, Firm A should be able to deter entry and exploit its monopoly power at the expense of all consumers—not just those who were granted a price cut and, in some sense, bribed to cooperate in deterring Firm B from entering.

This type of strategy falls outside the reach of the standard Chicago critique which stresses that inefficient entry deterrence cannot take place because the compensation to be paid to buyers for willingly submitting to Firm A's increased market power is greater than the excluding firm's extra profit. The reason the Chicago critique fails is that the need for Firm B to reach a minimum viable scale creates externalities across buyers. When one of them agrees not to purchase from Firm B, it decreases the likelihood that Firm B will enter at all, thereby harming all other buyers. As a consequence, the excluding firm does not need to compensate all buyers for the loss they may suffer from Firm B's eviction, but only half of them. If the per-customer harm is less than twice the per-customer gain to the excluding firm, exclusion may occur even though it is socially harmful.[19]

4. Loyalty Rebates May Deter Entry in Settings in which Predatory Pricing Is of No Use

Beyond deterring entry at little or no cost, loyalty rebates may be effective in settings in which threats to react to entry using predatory pricing are not only costly (if realized), but also ineffective. Consider the case in which Firm A wants to deter Firm B from entering because Firm B's presence in the market decreases the demand for Firm A's product, forcing it to cut price, and in which the demand for Firm B's product is independent of Firm A's prices. In that case, threats of predatory pricing are toothless. But Firm A may still deter entry if enough of its customers sign contracts containing strong incentives to procure at least a given fraction of their needs from Firm A, denying Firm B the minimum viable scale.

C. LOYALTY REBATES AS AN EVICTION TOOL

1. Accounting for the Alleged Victims' Presence in the Market

The above theories of costless entry deterrence consider situations in which the excluded firms are unable to counter the exclusionary strategy targeting them by offering contracts of their own, in order to deter customers from signing the disputed contracts. These theories may be justified in some cases, but this limitation is at odds with the facts of several recent antitrust cases involving loyalty rebates. For example, in *Michelin* and *LePage's*, the alleged victims were already present in

19 The example in which Firm A deters entry by offering some customers a contract with quantity discounts (or an equivalent exclusivity discount) could give the impression that this strategy requires explicit discrimination. This need not be the case. If retailers differ in size, then a uniform scheme may result in very different average prices for different retailers—the essence of this type of strategy.

the market and able to offer contracts of their own. This was also the case in the landmark U.S. cases involving exclusive dealing, such as *Lorain Journal* and *Tampa Electric*.[20] Therefore, assessing whether the courts' and competition authorities' hostility to loyalty rebates is well-grounded requires one to determine whether these pricing practices may facilitate eviction, rather than entry deterrence.

The fact that the alleged victims were already active when the disputed contracts were offered by the defendant and taken up by its customers has two important consequences which could warrant some skepticism when addressing claims that a given loyalty rebates scheme was aimed at evicting rivals. First, these firms may already have sunk their fixed costs so that no exclusionary strategy will succeed in evicting them and removing the competitive pressure emanating from them—even if they lose market share. Second, the alleged victims could have reacted to the disputed contracts by offering contracts of their own.

Each of these two arguments contains some truth and implies that evicting already active rivals by offering loyalty rebates is more difficult than deterring entry. But neither of them is strong enough to imply that such strategies can never be observed. The first argument is, indeed, theoretically correct, but it relies on assumptions which often do not fit the facts. The second argument, regarding the alleged victims' possible reactions, starts from a factually correct basis (that, in general, the alleged victim already active in the market may offer the same type of contract as the allegedly excluding firm), but it reaches an incorrect conclusion (that such reactions are sufficient to prevent socially inefficient eviction).

2. Exclusionary Strategies Make Sense if the Victims Face Decisions about Future Fixed Costs

The first argument is theoretically correct, but its factual premises are often at odds with the facts. Clearly, if the alleged victims have already incurred all of their fixed costs in the past, then there is no point to even discussing the possibility of exclusionary strategies. However, in most markets, firms must continuously re-invest in research and development, new production facilities, and advertising. At the very least, they have to decide whether to continue to incur the recurrent fixed costs (e.g. administrative costs) induced by the presence in a given market. In such markets, a strategy allowing a firm to credibly commit to reduce its rivals' future revenues below a certain threshold may induce them to rationally decide to reduce the magnitude of their future investments, or to leave the market altogether, thereby reducing the competitive pressure they exert.

20 These cases are discussed in D. Carlton, *A General Analysis of Exclusionary Conduct and Refusal to Deal - Why Aspen and Kodak are Misguided*, 68 Antitrust L.J. 659–83 (2001).

3. The Targeted Firms' Ability to Offer Contracts Early On May Not Suffice to Counter Exclusionary Strategies

Everything else being equal, a firm attempting to evict a rival using loyalty rebates will find it more difficult to reach its goal if the targeted firm is able to respond by offering contracts of its own—possibly with loyalty rebates. This is, indeed, the logic of the Coase theorem which states that if eviction is socially harmful and if all the affected parties (the excluding and excluded firms as well as their actual and potential customers) can enter into contractual arrangements at an early enough stage, then an inefficient outcome cannot occur because all of the parties could agree to improve on any hypothetical inefficient outcome by shifting to an efficient one (as long as transaction costs are low).

This panglossian conclusion appears to imply that, if the firms targeted by the allegedly exclusionary scheme are present in the market when the disputed contracts are offered, then they should be able to offer counter-contracts so as to defeat the exclusionary attempt. There are, however, several circumstances in which this view is wrong and eviction through nonlinear pricing is possible, even when taking into account the evicted firms' reactions.

First, even if the firms targeted by the disputed contracts are present and able to make counteroffers when these contracts are offered, this may not be true of all of the adversely affected parties. For example, future consumers, who risk falling prey to the defendant's market power, may be absent from the market—and thus unable to react—at the time when the exclusionary contracts are offered. Therefore, if there are intertemporal economies of scale (e.g. if a given investment in, say, research and development, capacity, marketing, or administrative costs, raises demand, cuts variable costs, or raises quality over the current period and the future as well), then it may be the case that part of the welfare loss caused by eviction is borne by future consumers. These future customers, whose identity is likely unknown when the disputed pricing schemes are in effect, cannot participate in the kind of grand bargaining that is necessary for the Coase theorem to hold. When this is the case, the premise behind the Coase theorem breaks down. Indeed, countering the excluding firms' contracts would require some agents to be subsidized by those future consumers who cannot take part in the contracting game (and who may not even know that they will be consumers in this market).[21]

A second possible rebuttal of the skeptical view of the risk of eviction through nonlinear pricing hinges on the fact that the types of counterstrategies which would allow the targeted firms to counter the exclusionary scheme may be very complex—to the point of being unrealistic. For example, assume that, even absent any exclusionary strategy targeting it, Firm B would earn very low prof-

21 A similar argument has been formulated in the context of tying in D. Carlton & M. Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194–220 (2002).

its—just enough to justify staying in the market. Assume, however, that Firm B's presence vastly raises overall welfare and consumer welfare (in the sense that consumers gain a lot from Firm B's presence in the market, and that their gains vastly outweigh the loss to Firm A from increased competition). If Firm A attempts to evict Firm B using one of the abovementioned strategies (namely by having one half of its customers—the "lucky half"—sign a nonlinear contract that effectively denies Firm B the minimum viable scale, in exchange for a substantial discount off Firm A's price), then the only way for Firm B to counter this strategy is to offer these customers a very low price so as to deter them from accepting Firm A's offer.

The problem with this reaction is that if Firm B's profit is very low even in the absence of any exclusionary strategy, then such a counterstrategy would not be profitable. The reason is that Firm B would have little room to cut prices below their equilibrium levels. In this example, the only agents who could, in principle, pay in order to avoid Firm B's eviction would be its customers, or, more precisely, the customers who were not offered low prices by Firm A but would be the primary victims of Firm B's eviction and Firm A's ensuing market power—the "unlucky half." Therefore, avoiding eviction would require Firm B to organize monetary transfers from the unlucky half to the lucky half, who were offered a generous exclusive contract by Firm A, so as to induce them to not accept these contracts. While theoretically possible, such transfers would involve very complex contracts. They could also face informational difficulties, since Firm B would have to convince the unlucky half that it is indeed in their interest to agree to pay high prices in order to allow Firm B to offer low prices to the lucky half and induce them not to cooperate in Firm A's exclusionary scheme. Therefore, the grand bargaining, which could in theory prevent inefficient eviction, may be unrealistic in practice.[22]

THE VICTIMS' ABILITY TO OFFER CONTRACTS OF THEIR OWN IN ORDER TO COUNTER AN EXCLUSIONARY STRATEGY INVOLVING LOYALTY REBATES RAISES THE COSTS OF EXCLUSION FOR THE EXCLUDING FIRM, BUT MAY NOT BE SUFFICIENT TO MAKE THE EXCLUSIONARY STRATEGY UNPROFITABLE.

To summarize, the victims' ability to offer contracts of their own in order to counter an exclusionary strategy involving loyalty rebates raises the costs of exclusion for the excluding firm, but may not be sufficient to make the exclusionary strategy unprofitable.

22 For a formal presentation of this argument, *see* D. Spector, Demand foreclosure through exclusive contracts (2005) (unpublished manuscript, on file with the author). This paper shows that, as long as too complex contracts are ruled out, socially inefficient eviction may occur even if all adversely affected parties may enter into contracts. *See also* Z. Neeman, *The Freedom to Contract and the Free-Rider Problem*, 15 J.L. ECON & ORG. 685–703 (1999).

The idea that the alleged victim's ability to offer contracts at the same time as the excluding firm limits the feasibility of exclusion is true, however, in the following limited sense. The use of loyalty rebates for exclusionary purposes cannot occur if the excluding firm and its alleged victim are equally efficient (i.e. they have an identical cost structure) and, say, the demand function is symmetric in both products. The reason is simply that any strategy allegedly used by the excluding firm in order to drive its victim out of the market, and thus earn large profits, could be matched by the victim. The victim, by offering a small discount relative to the excluding firm's contracts, could avoid exclusion, reverse the situation, and earn large profits itself. This remark should not be construed to mean that when eviction takes place, the evicted firm is necessarily less efficient than the excluding firm, and thus, deserves its fate. In differentiated product markets, comparing the efficiency level of different firms makes little sense, and a firm's exclusion may be detrimental to welfare even when its products are less demanded, or its costs are greater than the excluding firm's.[23] In other words, in cases in which the plaintiff and the defendant were on an equal contractual footing when contracts were offered, eviction through the strategic use of loyalty rebates requires some fundamental asymmetry in terms of consumer preferences or costs.[24] But this asymmetry cannot be considered an excuse for eviction.

4. Differences with Predation

The different types of strategies considered above (no-cost entry deterrence, loyalty rebates as an eviction tool) share a common property in that their profitability does not require that the firm implementing them change its pricing policy after the goal (entry deterrence or eviction) has been reached, nor does it require that the evicted firms face significant barriers to entry. In this sense, the exclusionary contracts essentially pay for themselves. This implies that when checking whether market structure is consistent with claims that the disputed pricing schemes are exclusionary, it would be wrong to conclude from the absence of barriers to entry that exclusionary strategies are implausible—as is often the case in the United States when handling predatory pricing claims.[25]

23 This remark implies that defining anticompetitive practices by resorting to the "as efficient competitor test" may not be satisfactory in differentiated product markets. This test is discussed in a Speech by J. Vickers, *Abuse of market power*, European Association for Research in Industrial Economics, Berlin, Sep. 3, 2004, *available at* http://www.ibanet.org/images/downloads/John%20Vickers%20-%20Paper1.pdf.

24 A similar result had been established under the assumption that nonlinear pricing is precluded but exclusive dealing is allowed. *See* F. Mathewson & R. Winter, *The Competitive Effects of Vertical Agreements: Comment*, 77 Am. Econ. Rev. 1057–62 (1987).

25 Notice, however, that not all theories of predation require barriers to re-entry. For example, in the models of reputational predation, the predator's aggressive response to entry deters future entrants even if they do not face any barriers to entry. As Bolton, Brodley, & Riordan, *supra* note 15, explain, it is the predatory strategy itself which creates a reputational barrier to entry, and U.S. courts' insistence that predation is not possible absent barriers to entry could cause them to treat predatory pricing in an overly lenient way.

D. HOW CREDIBLE ARE EXCLUSIONARY STRATEGIES INVOLVING LOYALTY REBATE?

1. Exclusionary Strategies Relying on the Use of Loyalty Rebates May Lack Credibility

All of the above scenarios about the possible exclusionary use of loyalty rebates, whether about entry deterrence or eviction, assume that the targeted firm (Firm B) knows that, should it enter the market (or stay in the market, or make additional investments), it will face a low demand because most or all of its potential customers are bound by contracts with the excluding firm (Firm A). If Firm A's strategy were expected to change after Firm B decides to, in fact, enter the market (or stay in the market, or make additional investments), then the exclusionary strategy would lose all its bite.

This may seriously hamper the efficiency of exclusionary strategies based on loyalty rebates. Consider, for example, the scenario of costless entry deterrence. In this scenario, all buyers sign a contract containing a quantity-forcing clause and setting a price equal to the monopoly price less a small discount, and the forced quantity purchased from Firm A is so large that the residual contestable demand is too little to make Firm B's entry economically rational. However, if Firm B nevertheless decides to enter the market, then there is no reason for Firm A to insist that its customers abide by the quantity-forcing clause. Rather, it could choose to increase its profits by selling its customers the right to purchase from Firm B (i.e. by allowing them to breach their contract in exchange for a fee). But Firm B could anticipate this and enter the market irrespective of whether buyers are locked up in contracts containing loyalty rebates clauses. Of course, buyers should also anticipate such behavior by Firm B and take it into account when considering contracts offered by Firm A. If buyers expect Firm B to enter anyway and Firm A to ask for a payment in exchange for granting them the right to breach the quantity-forcing contracts, then they will not sign such contracts in the first place, or in any case, not on the same price terms.[26]

Loyalty rebates, since they are only contractual terms, cannot offer the same commitment value as technical choices like tying. However, the recent theories of predatory pricing have identified factors making contractual commitments at least partly credible. As discussed in the following section, the corresponding analyses are at least as persuasive in the case of exclusionary loyalty rebates as in the case of predatory pricing. Even when the credibility problem is recognized, loyalty rebates may still constitute an effective exclusionary tool.

26 In game-theoretic terms, this argument implies that the strategy underpinning costless entry deterrence is not a renegotiation proof. On the strategic use of breach penalties to extract rents from entrants, *see* P. Aghion & P. Bolton, *Contracts as a Barrier to Entry*, 77 Am. Econ. Rev. 388–401 (1987). They show that exclusivity provisions may be used by incumbents in order to force entrants to cut prices upon entry, because incumbents may then appropriate part of the entrant's rent through breach penalties paid by their customers. In this theory, exclusive contracts together with breach penalty clauses do not aim at exclusion, but induce it as a side-effect with positive probability.

2. Reputational Concerns as a Commitment Device: Application to Loyalty Rebates

In settings in which potential entrants may repeatedly appear, incumbents may solve the credibility issue by building a reputation for making life hard for entrants. For example, in the reputational theory of predatory pricing, price cuts following entry do not aim to evict the firm which actually entered, but rather to deter future entrants. In the situations considered in such theories, the predator would have a short-term interest to accommodate the entrant and not to cut price too much, but it refrains from doing so in order to sustain its reputation for toughness and dissuade other potential entrants[27]. The likelihood of a successful exclusionary strategy thus depends on how the tradeoff between credibility and reputation is solved.

This argument carries over to any exclusionary strategy. In fact, it applies more forcefully to exclusionary strategies based on loyalty rebates than to traditional predatory pricing, because the former are less costly than the latter. Consider again the case in which the excluding firm signs exclusive (or quantity-forcing) contracts against a very small discount relative to the monopoly price. The credibility problem comes from the fact that, should entry take place despite the price scheme meant to deter it, the excluding firm could increase its profits by releasing its buyers from their commitment to purchase exclusively from it.

While the tension between long-term reputational concerns and short-term profit maximization exists both in the case of entry deterrence through predatory pricing and in the case of entry deterrence through exclusive contracts, the balance between these two effects is not the same in the two cases. For a firm engaging in predatory pricing, the urge to depart from the exclusionary strategy is likely to be strong because sticking to very low prices in order to sustain a reputation generates large losses in the short run and may worry shareholders. In contrast, for a firm implementing a strategy relying on customers signing exclusive contracts in exchange for a small discount off monopoly prices, sticking to these contracts yields monopoly profits (less a small discount)—which is far less worrying. True, the firm implementing the disputed scheme could, after entry unexpectedly took place, further increase its profits above monopoly levels. But the urge to do so is certainly easier to resist than the urge to stop the large losses generated by very low prices. This means that exclusionary strategies based on the use of loyalty rebates are likely to be more credible than those based on predatory pricing.

27 *See* D. Kreps & R. Wilson, *Reputation and Imperfect Information*, 27 J. ECON. THEORY 253–79 (1982).

This argument is all the more relevant if the disputed contracts are long-term. As long as customers are bound by an exclusive contract with a small discount relative to the monopoly price (for example), the excluding firm will earn almost its monopoly profit even after entry. This limits its incentives to accommodate the entrant. However, once these contracts expire, continuing to bleed the entrant becomes more costly. While long-term exclusive contracts do not remove the credibility problem, they do help to mitigate it.

3. The Multiplicity of Possible Motivations for Loyalty Rebates May Increase the Credibility of Exclusionary Strategies

Among the various theories of predatory pricing are some that rely on the idea that predation may be credible because the targeted firms may not know for sure whether the predator's low prices result from a predatory strategy (in which case they would lack credibility should the entrant resist the predator's bluff) or from fundamentals such as the predator's low costs. If there is uncertainty about the predator's costs, then the targeted firms may (wrongly) interpret the predator's low prices as evidence of its low costs, implying that future prices will be low and that the prospects in this market are dim. This possible interpretation may trigger exit. As a consequence, a predator with not-so-low costs could cut prices so as to mislead the targeted firm about its true prospects if it stays in the market, and to induce its exit.

This type of argument is even more forceful in the case of loyalty rebates. In many markets, firms are able to gauge their rivals' costs with enough accuracy and may see predatory prices for what they are if prices are too far below a normal competitive level. A firm that sees a rival engaged in predatory pricing could rationally anticipate that, should it stay in the market and sink its fixed costs (eliminating the possibility of eviction), the predator will rationally raise price. This type of reasoning is likely to reduce the effectiveness of predatory pricing.

In the case of loyalty rebates, identifying an exclusionary strategy is much more difficult. For example, consider a firm contemplating a costly entry into a market and observing that the incumbent monopolist offers its customers a very large discount in exchange for an exclusivity commitment. Assume that the potential entrant considers that, should the monopolist continue to offer such contracts, it will not manage to earn enough to cover its entry costs. The entrant should then try to answer the following question: Are these contracts intended to deter entry into the market? If the answer is "yes", then it should enter, because once it has entered there is no rationale any more for the monopolist to offer such contracts (it is assumed for simplicity that entry entails a large, irreversible, once-and-for-all fixed cost and that there are no reputational concerns). But if the answer is "no" (i.e. if it can be expected that it will be in the monopolist's interest to offer such contracts even after entry), then the potential entrant should back away.

The difference between predatory pricing and entry deterrence strategies based on loyalty rebates is that in the latter case, it may be very difficult to know whether the entry-deterring properties of loyalty rebates are the rationale for these contractual clauses, or merely a side-effect. This is because there are many reasons why a firm might want to offer contracts including loyalty rebates, based either on absolute amounts or on market shares, even when it is impossible to have an impact on other firms' entry or exit. These reasons are related to the belief of the firm offering loyalty rebates as to the shape of each customer's demand function and customer heterogeneity. Ascertaining this belief and the underlying reality is a far more complex task than discerning prices below costs. The targeted firms cannot, in general, tell whether a given scheme of loyalty rebates is there for exclusionary purposes (in which case they should not be impressed) or for other reasons (in which case they might be better off leaving the market, because the disputed scheme will not change).

THE DIFFERENCE BETWEEN PREDATORY PRICING AND ENTRY DETERRENCE STRATEGIES BASED ON LOYALTY REBATES IS THAT IN THE LATTER CASE, IT MAY BE VERY DIFFICULT TO KNOW WHETHER THE ENTRY-DETERRING PROPERTIES OF LOYALTY REBATES ARE THE RATIONALE FOR THESE CONTRACTUAL CLAUSES, OR MERELY A SIDE-EFFECT.

This analysis points to the existence of an inherent degree of uncertainty. The exclusionary use of loyalty rebates (or predatory pricing) is facilitated by the uncertainty regarding the rationale for such contractual clauses. Thus, loyalty rebates are likely to be used for exclusionary purposes precisely in situations in which they could also plausibly be used for other reasons. This apparent paradox should be kept in mind when trying to devise an efficient rule for competition authorities and courts to handle antitrust claims regarding loyalty rebates. It implies that it would be wise to design rules which limit the need to delve into the detailed motivations for the disputed contractual practices.

IV. Which Structured Rule of Reason for Loyalty Rebates?

A. THE NEED FOR SAFE HARBORS

Like most pricing practices, loyalty rebates may be used for pro-competitive as well as exclusionary purposes. In particular, they may in some settings constitute a more effective and cheaper exclusionary tool than predatory pricing. This precludes any general per se rule which would apply to all types of rebates. Nevertheless, the above analyses lend support for some type of safe harbor clause, under which some types of rebates would be per se legal. In the simplest possible settings, a firm has every reason to set price as close as possible as marginal cost for each customer's marginal units, regardless of any exclusionary strategy, and this is, in general, pro-competitive. On the other hand, most of the exclusionary strategies, as depicted in Section III, involve far more extreme behavior, such as quantity-forcing or exclusivity requirements, which are equivalent to price schemes involving negative marginal prices for some units. Therefore, it appears reasonable to have the antitrust treatment of loyalty rebates contain a safe harbor clause stating that price schemes including marginal prices above some measure of cost should be considered per se legal. Several remarks must be made:

> LOYALTY REBATES ARE LIKELY TO BE USED FOR EXCLUSIONARY PURPOSES PRECISELY IN SITUATIONS IN WHICH THEY COULD ALSO PLAUSIBLY BE USED FOR OTHER REASONS. THIS APPARENT PARADOX SHOULD BE KEPT IN MIND WHEN TRYING TO DEVISE AN EFFICIENT RULE FOR COMPETITION AUTHORITIES AND COURTS TO HANDLE ANTITRUST CLAIMS REGARDING LOYALTY REBATES. IT IMPLIES THAT IT WOULD BE WISE TO DESIGN RULES WHICH LIMIT THE NEED TO DELVE INTO THE DETAILED MOTIVATIONS FOR THE DISPUTED CONTRACTUAL PRACTICES.

- Such a rule would make sense only with reference to the true, economically relevant, marginal prices, taking into account how the scheme of rebates works. These prices may be far below average post-discount prices.

- A price scheme inducing a discount applicable to all purchases conditional on total purchases reaching a certain threshold would never benefit from the proposed safe harbor clause, because such a scheme induces a negative marginal price at every threshold.

- An additional reason to have such a safe harbor would be the need to ensure consistency between the treatment of loyalty rebates and the treatment of predatory pricing. This goal could help competition authorities to define the applicable cost measure. One could a priori think of three possibilities: (i) marginal cost; (ii) average total cost of serving an additional customer (i.e. including customer-specific fixed costs only); and, (iii) average total cost.

- The proposed safe harbor should not imply that marginal prices below marginal costs are illegal, only that they deserve further scrutiny. Indeed, there are many settings in which prices below marginal costs are the outcome of a normal competitive process (e.g. in the presence of two-sided markets, complementary goods, learning-by-doing effects, promotional efforts, or if exclusive dealing is necessary to induce a supplier to provide customer-specific investments).

- It must be recognized that, just like the "Areeda-Turner" rule for predatory pricing, the proposed safe harbor would not be fully grounded in economic theory: the possibility of above-cost predatory pricing is well-known.[28] This is why economic theory cannot authoritatively prescribe a specific cost threshold.

28 *See* A. Edlin, *Stopping above-cost predatory pricing*, 111 YALE L.J. 941 (2002).

B. THE PLAUSIBILITY OF AN ANTICOMPETITIVE IMPACT SHOULD BE A FIRST FILTER

A basic question for handling complaints regarding loyalty rebates not covered by the proposed safe harbor is whether the first filter should address the possible pro-competitive explanations (in the absence of which the disputed rebates would be deemed illegal) or the possible anticompetitive impact (in the absence of which they would be deemed legal). I argue that the latter solution is better.

First, assessing the plausibility of the pro-competitive explanations for such practices is likely to be much more difficult than assessing the plausibility of an exclusionary strategy. This is simply because the pro-competitive motives for nonlinear pricing depend chiefly on the demand side. This gives rise to several questions:

- How will a retailer change its retail prices as a consequence of changes in the marginal wholesale prices?
- How will it change the amount of promotional effort it chooses to devote to a given product as the marginal wholesale price changes?
- How will the provision of non-contractible complementary services be affected?

The practical difficulty of answering these questions cannot be overestimated. It is precisely because a wholesaler and a retailer cannot mention all aspects of the retailer's actions in a contract that the wholesaler needs to provide pricing incentives or to require exclusivity. If the actions which the wholesaler seeks to promote through loyalty rebates are difficult to promote using contracts, it may be because they are also difficult to monitor or even to describe in words. But then, a court or a competition authority would face the same difficulties and thus might not be able to grasp the magnitude or the nature of the incentive problem—and it might thus overlook and wrongly dismiss relevant pro-competitive explanations for the disputed practices. Besides the pro-competitive explanations based on the provision of incentives, it should be stressed that checking even the simplest justifications for nonlinear pricing (i.e. those based on the heterogeneity of buyers' willingness to pay or the shape of each buyer's demand function), would require very detailed information about demand.

On the contrary, in spite of the diversity of the abovementioned anticompetitive scenarios, they all share some common properties. In order to be exclusionary, the disputed schemes should deny the targeted firms a sufficient scale to enter, or stay in, the market or to make additional investments. This allows for a relatively simple checklist:

- What is the plaintiff's cost structure[29]?
- What fraction of the plaintiff's addressable market is foreclosed because of the disputed practices, and is it large enough to induce a rational firm to exit or give up some cost-reducing or demand-enhancing investment?
- Could the plaintiff have countered the disputed scheme (e.g. by cutting price or by offering similar rebates)?
- Would the plaintiff's exclusion remove a significant competitive pressure from the defendant and allow it to exert market power?[30]

In short, because the pro-competitive explanations for loyalty rebates depend a lot on demand factors, while the anticompetitive ones rely a lot (though not only) on supply factors which are often more tangible (the plaintiff's cost structure, in particular), a structured rule of reason should probably assess the plausibility of an anticompetitive effect first, in order to minimize the number of cases in which the difficult assessment of the possible pro-competitive explanations is carried out. The idea of the proposed rule is that this assessment should take place only if the exclusion of rivals has been found to be possible and likely to harm consumers.

Under the proposed rule, pricing schemes which decrease consumer welfare without excluding rivals would not be challenged. Assessing the welfare effects of complex pricing schemes absent any exclusionary strategy would be very difficult indeed in practice because it would require one to have very precise information about the shape of each consumer's demand function. Since there are good reasons to consider that, absent any exclusionary strategy, nonlinear pricing increases welfare more often than not (see Section II), the best policy is probably to focus the antitrust handling of nonlinear pricing on the risk of it being used as an exclusionary tool.

29 Direct or indirect network effects may play the same role as fixed costs in the exclusionary strategy scenarios discussed above. Network effects are essentially the demand-side equivalent of scale economies on the supply-side since they induce positive externalities across customers.

30 This and the above condition are equivalent to the criteria known as "impact on competitors" and "impact on consumers." The approach to allegedly exclusionary strategies in recent U.S. case law is close to these principles. In several rulings, U.S. courts declined to consider exclusive distribution contracts as anticompetitive because there existed alternative means of distribution or because there was no evidence that the disputed practice had had any adverse effects on prices or output (*see*, *e.g.*, Omega Environmental, Inc. v. Gilbarco, Inc., Gilbarco, Inc., 127 F.3d 1157 (9th Cir. 1997), at 1162 and CDCTech. V. IDEXX Labs., 186 F.3d 74 (2d Cir. 1999)). It cannot be stressed enough that lost sales, or even a market share driven to zero because of the disputed practice, would not constitute sufficient evidence. For example, a practice in a given country may cause the alleged victims to sell nothing in that country. But, if they are able to continue offering the same products at the same price thanks to their Foreign branches, then they continue to exert the same competitive pressure on the allegedly excluding firm in the country where the disputed practice took place. Thus, the question is whether the loss of sales caused the alleged targets to make decisions that resulted in a decreased ability to offer the same price-quality combinations in that country.

To summarize, we advocate a structured rule of reason of the following sort:

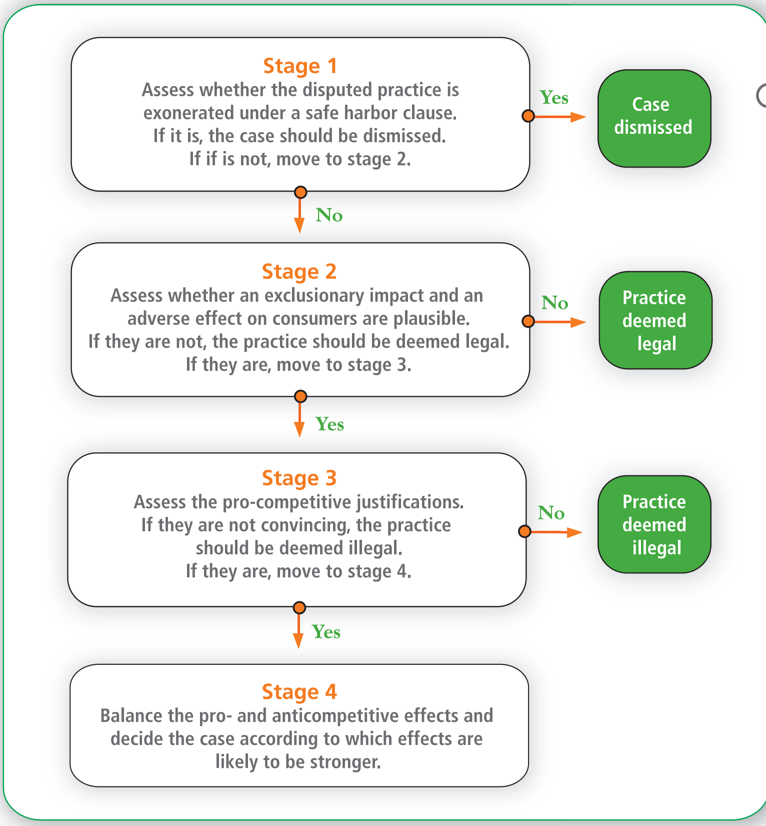

Figure 1

A proposed structured rule of reason

C. SOME TYPES OF MARKETS AND REBATES DESERVE PARTICULAR SCRUTINY

For any scheme of loyalty rebates, there are corresponding theories that explain why it could be pro-competitive or anticompetitive, depending on the setting. However, some types of settings and some types of rebates are more prone to anticompetitive effects than others. In particular:

- Loyalty rebates are less likely to be pro-competitive in markets characterized by a low elasticity of aggregate demand. The reason is that they simply encourage retailers to change the market shares of the various suppliers, but not to increase aggregate sales (which is, by assumption, very difficult). Thus, there is no clear reason that rebates should cause aggregate retail prices to fall.

- Rebate schemes inducing locally negative marginal prices are prevalent in all theories of exclusionary strategies based on loyalty rebates. Even though such schemes also may have pro-competitive explanations, the standard of proof regarding their pro-competitive effects should be quite demanding.

- Contracts committing buyers for a very long period of time may facilitate exclusionary strategies because they help to solve the credibility problem that often impedes them.[31] However, long periods of reference may also have pro-competitive explanations (e.g. in cases in which specific training or knowledge is expected to be useful for a long period of time, they may encourage the transfer of such knowledge to retailers by decreasing the risk that it will be used to the benefit of rivals). Thus, this factor alone should not be sufficient to make a practice illegal.

Many other factors do not lend themselves to a one-sided interpretation. For example, in the *Michelin* case, the Commission and the CFI considered that the lack of clarity of the overall scheme and the difficulty for retailers to know whether they qualified for a given rebate were aggravating circumstances because they increased the loyalty-inducing properties of the overall scheme. Whether this was true or not, it was above all irrelevant absent an appraisal of the overall impact on competition because an increased loyalty-inducing effect alone could be pro- or anticompetitive, depending on market structure and firms' costs.

Also, it should be noted that the anticompetitive strategies outlined above may apply both when buyers are final consumers and when they are retailers competing against each other in a downstream market.[32]

V. Conclusion

Loyalty rebates have the potential to be pro-competitive inasmuch as they induce favorable incentives in retail markets, but they may also achieve anticompetitive exclusion more effectively and cheaply than alternative strategies such as predatory pricing. Since almost any type of scheme could be pro- or anticompetitive depending on the circumstances, treating them under a formalistic, per se rule would induce many wrong decisions as it would fail to address one of the most important questions: Does the market structure permit exclusion in

31 *See* Section III, *supra*. The European Commission followed this kind of reasoning in several cases reviewed in J. Temple Lang & R. O'Donoghue, *supra* note 3.

32 Recent theoretical research found contrasting results about the relationship between the intensity of downstream competition and the feasibility of exclusion through nonlinear contracts. *See* C. Fumagalli & M. Motta, *Exclusive Dealing and Entry, When Buyers Compete*, AM. ECON. REV. (forthcoming), *available at* http://www.iue.it/Personal/Motta/Papers/AERMreresub-proposta_latex.pdf; C. Stefanadis, *Selective Contracts, Foreclosure, and the Chicago School View*, 41 J.L & ECON. 429–50 (1998); and J. SIMPSON & A. WICKELGREEN, THE USE OF EXCLUSIVE CONTRACTS TO DETER ENTRY, (Federal Trade Commission, Working Paper No. 24, Jul. 2001) *available at* http://www.ftc.gov/be/workpapers/wp241.pdf

order to increase or protect market power? However, a pure rule of reason would be impractical because it would require courts and competition authorities to delve into the often inextricable complexities of price discrimination and to assess incentive problems which may be as intangible as they are economically important. This paper's proposed structured rule of reason, which would include a safe harbor clause, is an attempt to avoid the drawbacks of these two extreme solutions.

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The Economics of Loyalty Discounts and Antitrust Law in the United States

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The Economics of Loyalty Discounts and Antitrust Law in the United States

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The courts' treatment of loyalty discounts under U.S. antitrust laws is broadly consistent with an approach that recognizes the high costs of erroneously condemning behavior that would lower prices and increase welfare, and the speculative nature of the anticompetitive harm that might result. Courts have used the U.S. Supreme Court's *Brooke Group* test for predatory pricing to evaluate loyalty discounts involving a single product. Under this test, loyalty discounts that result in above-cost prices are presumptively legal. While this presumption has not been carried over to cases involving multi-product settings or bundled loyalty discounts, the courts have generally rejected theories of anticompetitive harm that are not accompanied by sufficient proof that the conditions for anticompetitive harm exist. In two cases, the use of bundled loyalty rebates was found to be unlawful. However, the courts' analyses in both of these cases are flawed. In *SmithKline*, a flawed standard based on the exclusion of an equally efficient competitor was used. In *LePage's*, the court not only suggested use of the same flawed standard, it found liability without requiring sufficient proof that the standard even applied to the facts of the case.

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I. Introduction

This paper analyzes the use of loyalty discounts by firms and their implications for antitrust enforcement in the United States. The pricing conduct described by the term "loyalty discount" has not been precisely defined in the literature or in practice. Generally, loyalty discounts are a particular form of non-linear pricing in which the unit price of a good declines when the buyer's purchases meet a buyer-specific minimum threshold requirement.[1] The use of buyer-specific thresholds differentiates loyalty discounts from traditional quantity or volume discounts, which are offered on a nondiscriminatory basis to all potential buyers. The courts and economists have examined quantity discounts and volume discounts extensively. Yet, despite considerable interest by the courts, economists have given little attention to the use of loyalty or market share discounts.

In addition to the use of buyer-specific thresholds, other features have been used to characterize loyalty discounts.[2] One is the use of an all-units discount. That is, when the buyer's purchases meet the predetermined threshold, the discount or rebate d is applied to all units. Another is the use of buyer-specific thresholds that require a buyer to allocate a significant share of his total purchases to a single seller in order to obtain the discount or rebate. This threshold can be a specific volume of purchases made during a given time period (a traditional, discriminatory volume discount), or it can be based on the buyer's share of his total purchases of a defined group of products exceeding a target share (a market share discount).[3]

Programs labeled "loyalty programs" are used by firms both to sell directly to end users and to sell to those who distribute and sell their products. When used by manufacturers to sell their products and services to retailers and distributors,

1 Non-linear pricing occurs when the buyer's total expenditure on an item does not rise linearly with the amount purchased. *See* D. Carlton & J. Perloff, Modern Industrial Organization (1990), at 459.

2 *See* P. Greenlee & D. Reitman, *Distinguishing Competitive and Exclusionary Uses of Loyalty Discounts* (Dec. 22, 2004) (mimeo, U.S. Department of Justice).

3 In general, the choice of the particular form of the threshold is determined by the relative costs and benefits associated with each type of threshold. In the absence of transactions and information costs, the form of the threshold does not matter, as any market share target could be mimicked by an appropriately set volume threshold. For example, uniform market share discounts allow small as well as large firms to participate in the loyalty programs. However, volume-based thresholds could mimic such uniform market share targets by setting lower volume-based targets for smaller firms. Under uncertainty, the different thresholds imply a different set of risks for the market participants. The relative risk of share-based versus volume-based targets depends on whether the distribution of demand across brands is more or less stable than the overall level of demand. *See* P. Greenlee & D. Reitman, Competing with Loyalty Discounts (U.S. Department of Justice, EAG Discussion Paper 04–2, 2004, *revised* Feb. 4, 2005), at 6. Moreover, market share thresholds may be harder to administer if the manufacturer cannot easily monitor and track all purchases by the retailer. In contrast, volume targets simply require that the manufacturer track his own shipments to a given retailer. *See* A. Heimler, *Below-Cost Pricing and Loyalty-Inducing Discounts: Are They Restrictive and If So, When?*, 1(2) Competition Pol'y Int'l 149–71 (2005).

such loyalty discounts give retailers strong incentives to sell a given firm's product. Thus, loyalty discounts given to retailers and other distributors serve many of the same functions as other vertical control practices, such as tying and exclusive dealing.[4] Indeed, exclusive dealing can be thought of as the limiting case of a market share loyalty discount with the market share threshold set equal to one.

As is the case with vertical control practices generally, firms' use of loyalty discounts has the potential to be used for both pro- and anticompetitive purposes. Recent scholarship and U.S. case law have focused on whether loyalty discounts can serve as an exclusionary device that violates Section 2 of the Sherman Act.[5] In addition, firms' use of loyalty discounts in the distribution of their products has also been attacked as unlawful primary-line price discrimination under the Robinson-Patman Act.[6] In the U.S. federal courts, use of above-cost loyalty discounts in the single-product setting generally has been viewed as a pro-consumer form of price competition, and antitrust challenges to such programs have not been successful.[7] Antitrust challenges to above-cost loyalty programs involving multiple markets, however, have met with greater success. In two cases, *LePage's v. 3M* and *SmithKline v. Eli Lilly*, the U.S. Court of Appeals for the Third Circuit has upheld jury verdicts condemning the use of loyalty discounts under Section 2 of the Sherman Act that involved bundled multi-product rebates.[8]

At the retail level, programs called "loyalty programs" are ubiquitous. Pioneered by the airline industry, frequent buyer programs are now used in a wide variety of markets. Examples include those offered by grocery stores, book stores, sporting goods stores, and coffee shops. They are used by large chains and individually owned business in competitive and concentrated industries. While such frequent shopper programs can reduce both shopping and marketing costs, and may benefit both firms and consumers,[9] economic analyses of such programs have

4 *See* R. Epstein, *Monopoly Dominance or Level Playing Field? The New Antitrust Paradox*, 72 U. Chi. L. Rev. 49 (2005) (suggesting that use of bundled rebates in 3M's loyalty program falls "between the cracks" of tying, predatory pricing, and exclusive dealing). *See* P. Greenlee, D. Reitman & D. Sibley, An Antitrust Analysis of Bundled Loyalty Discounts (U.S. Department of Justice, EAG Discussion Paper 04–13, Oct. 2004) (suggesting analysis of bundled rebates as a form of de facto tying); W. Tom, D. Balto, & N. Averitt, *Anticompetitive Aspects of Market-Share Discounts and Other Incentives to Exclusive Dealing,* 67 Antitrust L.J. 615 (2000) (analyzing market share discounts as a form of de facto exclusive dealing); and, A. Gavil, *Exclusionary Distribution Strategies by Dominant Firms: Striking a Better Balance,* 72 Antitrust L.J. 3 (2004) (examining loyalty discounts as vertical control devices).

5 15 U.S.C. § 2.

6 15 U.S.C. §13.

7 *See* § III.A, B, *infra.*

8 *See* § III.C, *infra.*

9 *See* D. Bell & R. Lal, The Impact of Frequent Shopper Programs in Grocery Retailing (Harvard Business School Review of Marketing Science, Working Paper, 2002).

generally focused on the effect the use of such programs has on increasing consumer switching costs. These analyses have shown that loyalty programs can cause consumers who would otherwise be indifferent to homogenous products to become brand loyal in order to qualify for discounts, prizes, or rebates based on their cumulative purchases. These increased switching costs make the demand for an individual firm's product more inelastic, resulting in higher equilibrium prices and lower consumer welfare.[10] Use of loyalty programs can also change the nature of competition and alter the intensity of price competition.[11]

While these economic analyses show that loyalty programs used to sell goods and services to end users can reduce welfare, such programs generally have not raised antitrust concerns. In addition, many of the ubiquitously used programs do not use customer-specific discounts, and thus lack the primary characteristic used in this paper to define loyalty programs. For these reasons, the focus of this paper will be on firms' frequent use of volume- and market-share-based loyalty discounts to sell their products and services to retailers and distributors, and not on programs used to sell goods and services to end users.

The organization of this paper is as follows. Section II examines the academic literature on loyalty discounts. Section III examines the antitrust treatment of volume and loyalty discounts in the United States. Section IV offers some conclusions.

II. The Law and Economics of Loyalty Discounts

A. THE ECONOMIC LITERATURE ON LOYALTY DISCOUNTS

The economic literature on loyalty discounts has been developed only rather recently. As noted above, loyalty programs have been analogized as a way to engage in de facto exclusive dealing, as a way to engage in predatory foreclosure, and as a way to engage in de facto tying.[12] And, in contrast to loyalty programs aimed at end users, loyalty discounts at the wholesale level have been successfully challenged under the antitrust laws and have generated interest in the academic community. The primary focus of this recent literature is on the use of loy-

10 *See, e.g.*, P. Klemperer, *The Competitiveness of Markets with Switching Costs,* 18 RAND J. ECON. 138 (1987); P. Klemperer, *Markets with Consumer Switching Costs,* 102 Q. J. ECON. 375 (1987); and R. Caminal & C. Matutes, *Endogenous Switching Costs in a Duopoly Model,* 8 INT. J. INDUS. ORG. 353 (1990).

11 *See, e.g.*, B.D. Kim, M. Shi, & K. Srinivasan, *Reward Programs and Tacit Collusion,* 20 MARKETING SCI. 99 (2001) and J. Gans & S. King, *Paying for Loyalty: Product Bundling in Oligopoly* (2004) (mimeo).

12 *See supra* note 4 and accompanying text.

alty programs as a way to exclude competitors. Loyalty programs exclude by giving strong incentives for distributors to purchase a large share from one supplier.

To see the strong incentives generated by loyalty discounts, suppose that Firm A offers a price P_A if the buyer purchases q_T or fewer units during a certain time period, and price $P_A - d_A$ on all units purchased if the buyer purchases more than q_T units during that time period. All-units discounts generate strong incentives with small per-unit discounts. From the perspective of the total discount given, for a buyer purchasing q' units above the threshold, such an all-units discount is equivalent to giving a incremental discount on the q' units of $d_i = d_A(q_T + q')/q' > d_A$. Moreover, the non-linear prices yield strong marginal incentives to purchase at least q_T units, but lower marginal incentives for $q > q_T$.[13] This allows Firm A to give these strong discounts while keeping the nominal per-unit price of their products above cost.

The use of such discounts by Firm A also affects competing sellers. A competing Firm B that wants to compete away $q_B \leq q'$ units from Firm A would have to offer a price $P_B \leq P_A - d_A$. However, if Firm B wanted to compete away $q_B > q'$ units from Firm A, then it would have to compensate the buyer for the forgone loyalty discount on q_T units. As a result, Firm B would have to offer a price $P_B < P_A - d_A((q_T + q') / q_B)$. Thus, as long as q_B is less than or equal to $q_T + q'$, Firm B's price would have to be lower than Firm A's net per-unit price. Moreover, this effect is greatest for relatively small firms (i.e. when q_B is much smaller than $q_T + q'$).

To illustrate how offering such discounts affects marginal incentives, suppose that $q_T = 100$ and that a representative customer purchases 10 units over the loyalty threshold, so that $q' = 10$. In addition, suppose that the constant marginal cost of producing a unit of the good c equals 10. Let $P_A = 12$ and $d_A = 1$, so that Firm A's price of the good, net of the discount, equals 11 and is above the marginal cost of 10. Suppose that Firm B has a capacity of 20 units. Holding constant the number of units purchased, Firm B could sell up to 10 units to a representative customer without causing them to lose their loyalty discount. Moreover, holding Firm A's prices constant, it could make sales by offering them at a price lower than 11. However, if Firm B wanted to sell more than 10 units to a representative consumer, it would have to compensate the buyer for the loss of the discount $d_A = 1$ on $q_T = 100$ units. In addition, Firm B would have to match the discount $d_A = 1$ on the $q' = 10$ units. Spread over 20 units, matching the total discounts of 110 would require a per-unit discount of 5.5 relative to P_A to cover the lost discounts and would result in net price $P_B = 6.5$. Thus, in order to successfully compete away 20 units from Firm A, Firm B would have to price below marginal cost. Thus, even if Firm B could produce units of the good at the same marginal cost as Firm A, it would not be able to make sales at prices at or above the marginal cost of producing the good.

13 *See* Heimler, *supra* note 3.

Some have suggested that this shows that a hypothetical equally efficient competitor would be foreclosed by the use of an all-units discount. This foreclosure result, however, requires that Firm B is constrained in some way from selling a large number of the q_T units. To see this, consider an example where $q_B = 55$. In this case, the required discount shrinks to 2 and the price required to compensate consumers for the loss of the loyalty discount from A is $P_B = 10$. Thus, at current prices, Firm B would be able to make at-cost sales. Moreover, if Firm B could enter at the same scale as Firm A, then there would be no differential discount required. That is, suppose that $q_B = 110$. It is easy to see that in order to match the total discounts offered by A spread over $q_B = 110$ units, Firm B would only require a discount equal to 1—the same as that given to the firm with the all-units discount.

Besides capacity constraints, one way in which Firm B could be constrained from producing a large fraction of the q_T units is if Firm A currently produces goods for sale in multiple markets, while Firm B produces and sells goods in a subset of these markets. If the loyalty discount is based on meeting thresholds that span multiple markets—or if the loyalty discount in each market is bundled—a firm able to operate in only a subset of these markets would be in an analogous position to the severely capacity-constrained Firm B in the above numerical example.[14]

To see this, take the simple example where there are two separate markets—Market X and Market Y—where the representative customer participates in both markets. Suppose that Firm A offers a loyalty discount on all purchases of X and Y if a multi-market consumer's total purchases $q_X + q_Y$ exceed q_T. Let $q_X = q_Y = 55$ and $q_T = 100$. Consider a consumer who currently purchases all of his demand for X and Y from Firm A and is currently receiving a loyalty discount. Under the assumption that Firm B is only in Market X and cannot enter the remaining Market Y, it would only be able to compete for q_X. And, if the consumer purchased his required X from Firm B, he would lose his bundled loyalty discount on both X and Y. As in the above example, such a setting would require Firm B to offer discounts twice as large as the per-unit discounts offered by Firm A, which would drive prices to marginal cost. Moreover, if Firm A bundled three products, X, Y, and Z, the discount required for Firm B to make X sales would drive its prices below cost. To see this, suppose that $q_Z = 55$ and q_T is raised to 150. If Firm B cannot enter the Y or Z markets, the required discount for Firm B to sell in Market X would equal 3 and would result in a below-cost price of $P_B = 9$.[15]

14 Under this theory, one must consider why the single-product firm cannot enter multiple markets. The analysis here assumes that such a consideration is possible. If not, Firm *B* could enter multiple markets and the bundled discounts would not provide any advantage.

15 Alternatively, the loyalty discount can be set so that it is awarded only if the consumer purchases 50 units each of *X, Y,* and *Z*. It is easy to show that such a program yields similar incentives.

While loyalty discounts can increase switching costs or be exclusionary, they also can be a powerful instrument of competition. Volume discounts and non-linear pricing are an equilibrium outcome in a variety of models where exclusionary motives are absent.[16] For example, Kolay, Schaffer, and Ordover (2003) show that all-units discounts can be used to address efficiently double marginalization problems in the presence of bilateral monopoly. Intuitively, the manufacturer can use the minimum threshold required to qualify for the discount to induce the retailer to choose the joint, profit-maximizing retail price. The all-units discount is used to divide the maximized surplus between the manufacturer and retailer. Use of the all-units discount eliminates the double marginalization problem and increases welfare relative to the use of linear pricing. Moreover, use of the all-units discount can increase welfare relative to the use of a two-part tariff—which also eliminates the double marginalization problem. They also note that an all-units discount can be used to engage in price discrimination.[17]

WHILE LOYALTY DISCOUNTS CAN INCREASE SWITCHING COSTS OR BE EXCLUSIONARY, THEY ALSO CAN BE A POWERFUL INSTRUMENT OF COMPETITION. VOLUME DISCOUNTS AND NON-LINEAR PRICING ARE AN EQUILIBRIUM OUTCOME IN A VARIETY OF MODELS WHERE EXCLUSIONARY MOTIVES ARE ABSENT.

Loyalty programs can also be used to reduce the divergence in incentives that exist between manufacturers and those who distribute their products. The provision of promotional and other point-of-sale services for a manufacturer's products at the retail level may be necessary for the manufacturer to increase the demand for his products and reach his optimal level of output. However, retailers will often have divergent incentives to provide such promotional and point-of-sale services. The use of bundled rebates can ensure that distributors and retailers of a manufacturer's goods have strong incentives to promote and sell these goods. Bundled rebates can be used by manufacturers as a way to compensate retailers for their efforts on behalf of the manufacturer, and thus, can serve to mitigate retailer free-riding and hold-up problems.

16 *See* Greenlee & Reitman, *supra* note 3 (citing literature).

17 Marx and Shaffer examine the use of market share discounts, slotting allowances, and predatory pricing in a three-party sequential contracting environment. In their model, two sellers negotiate sequentially with one buyer. Market share discounts and slotting allowances are used to shift rents between the contracting parties, with no short-run consequences for social welfare. One result is that these rent-shifting equilibria generally result in both sellers remaining in the market. In the long run, they suggest that preventing the use of such devices results in the adoption of strategies that are more likely to result in one of the sellers being excluded. However, the model does not explicitly analyze the welfare effects of such long-term effects. *See* L. Marx & G. Shaffer, *Rent Shifting and Efficiency in Sequential Contracting* (2004) (mimeo).

Thus, loyalty discounts and rebates can serve the same efficiency-promoting vertical control functions as have been identified in the literature examining the use of tying, exclusive dealing, and other forms of vertical restraints.[18] However, unlike exclusive dealing, use of bundled rebates does not prevent retailers from offering consumers other manufacturers' products. This difference is likely to be important when retailers' point-of-sale services and consumers' demand for variety at the retail level are both important.[19] In this respect, discounts are often much cheaper for the discounting firm than other forms of incentives.[20]

Another difference between loyalty discounts and exclusive dealing is that formal analyses of efficiency-promoting uses of loyalty discounts have not been undertaken. There are no systematic empirical analyses of why or when firms use loyalty discounts to distribute their products, and the theoretical literature on loyalty discounts has not generally considered efficiency-based reasons for using loyalty discounts. One exception is Mills (2004), who presents a formal model of how market share discounts can be used by manufacturers to induce promotional effort by retailers.[21] In his model, promotional effort on the part of retailers allows consumers to make more informed purchasing decisions. Specifically, the promotional effort provides uninformed consumers with information about the availability of a premium brand that is more valuable, ceteris paribus, than the alternative brand. As a result of the promotion, more consumers choose the higher-quality and higher-value brand in equilibrium. Moreover, because it increases the proportion of consumers that make an informed decision, the use of market share discounts increase welfare. While market share discounts increase the market share of the firm offering the discounts and decrease the share of other firms, their use does not drive these competing firms out of the market except under extreme conditions.

THERE ARE NO SYSTEMATIC EMPIRICAL ANALYSES OF WHY OR WHEN FIRMS USE LOYALTY DISCOUNTS TO DISTRIBUTE THEIR PRODUCTS, AND THE THEORETICAL LITERATURE ON LOYALTY DISCOUNTS HAS NOT GENERALLY CONSIDERED EFFICIENCY-BASED REASONS FOR USING LOYALTY DISCOUNTS.

18 *See, e.g.,* H. Marvel, *Exclusive Dealing*, 25 J.L. & Econ. 1 (1982); B. Klein, *Exclusive Dealing as Competition for Distribution "on the Merits"*, 12 Geo. Mason. L. Rev. 119 (2004); and, J. Heide, S. Dutta, & M. Bergen, *Exclusive Dealing and Business Efficiency: Evidence from Industry Practice*, 41 J.L. & Econ. 387 (1998).

19 *See* B. Klein & J. Wright, *The Economics of Slotting Arrangements* (2005) (mimeo) (noting a similar dual function as an explanation for the use of category management).

20 *See* Heimler, *supra* note 3, at 4.

21 D. Mills, *Market Share Discounts* (2004) (mimeo, University of Virginia).

B. TESTS FOR ANTICOMPETITIVE LOYALTY DISCOUNTS

From an antitrust standpoint, the primary issue is how to distinguish pro-competitive from anticompetitive loyalty discounts. In the single-product setting, cost-based tests have been used to judge the lawfulness of loyalty discounts. Under these cost-based tests, the lawfulness of a firm's pricing conduct, including its use of loyalty discounts, is judged based on whether the resulting prices are above or below an appropriate measure of cost (usually marginal cost or long-run average variable cost).[22] Pricing below the appropriate measure of cost is presumed to be unlawful, while pricing above this benchmark is presumed to be lawful.

These cost-based tests, especially those implemented by the U.S. Supreme Court, have been shown to allow some anticompetitive behavior.[23] However, such tests have the virtue of minimizing the costs of false positives (i.e. they deter the chilling of legitimate price competition). Moreover, such tests are relatively easy to administer. Moreover, if one assumes that predatory pricing, while theoretically possible,[24] is rare, the costs of false negatives will not be large.[25] Thus, use of such tests can plausibly minimize the sum of error costs and direct costs.[26]

Economists have suggested more refined cost-based predation tests.[27] In theory, use of such tests lowers error costs relative to the use of cost-based tests. Several recent papers have suggested more refined tests that can be applied to loyalty programs. In a series of papers, Greenlee and Reitman (2004, 2005) and Greenlee, Reitman, and Sibley (2004) examine the use of loyalty discounts in both the single- and multiple-product settings.[28] In the single-product setting, Greenlee and Reitman examine loyalty programs as a form of predation and derive such a test. In order to derive their test, they first characterize the equilib-

22 *See generally*, P. Areeda & D. Turner, *Predatory Pricing and Practices Under Section 2 of the Sherman Act,* 88 Harv. L. Rev. 697 (1975).

23 *See* the discussion in § III.A, *infra.*

24 *See*, *e.g.*, P. Milgrom & J. Roberts, *Predation, Reputation, and Entry Deterrence,* 27 J. Econ. Theory 280 (1982).

25 *See*, *e.g.*, F. Easterbrook, *Predatory Strategies and Counterstrategies,* 48 U. Chi. L. Rev. 263 (1981); J. Lott, Jr., Are Predatory Commitments Credible? Who Should the Courts Believe? (1999); and, J. McGee, *Predatory Pricing Revisited,* 23 J.L. & Econ. 289 (1980).

26 *See generally*, R. Posner, Economic Analysis of Law (6th ed. 2002), at 536, D. Evans & A.J. Padilla, *Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach,* 72 U. Chi. L. Rev. 27 (2005).

27 *See generally*, J. Ordover & R. Willig, *An Economic Definition of Predation: Pricing and Product Innovation*, 91 Yale L.J. 8 (1981).

28 *See* Greenlee & Reitman (2004), *supra* note 2 and Greenlee & Reitman (2005) *supra* note 3 [together hereinafter Greenlee and Reitman], and Greenlee, Reitman, & Sibley, *supra* note 4 [hereinafter Greenlee et al].

rium under the assumption that firms are maximizing short-term profits. Specifically, they characterize the loyalty program that emerges in equilibrium when firms are maximizing short-term profits. Observed deviations from this equilibrium are then used to infer non-compensatory and presumably anticompetitive behavior.

Specifically, the model has duopoly Firms A and B competing with differentiated products. There is a constant unit cost of producing a unit of the product equal to c. The products are differentiated by a parameter q, which represents the consumer's preference for product B over A, ceteris paribus. Large or repeat consumers purchase multiple units of the product, and the consumer's relative value of q for each purchase is assumed to have a strictly positive support and is independently and identically distributed with cumulative distribution function $F(q)$. Large consumers may purchase products from both firms and simultaneously purchase products under and separate from the loyalty program. There are also consumers who only buy at the spot prices. Firms compete by setting non-loyalty unit prices P_i, i = A,B, and by defining a loyalty program with discount d_i and threshold q_i.[29] In equilibrium, one firm (e.g. Firm A) has a loyalty program, while the other does not. Relative to the equilibrium without loyalty programs, non-loyalty prices increase, so that small consumers are worse off with loyalty programs. Large consumers receive discounts through the loyalty program. Under some circumstances, consumer surplus for large buyers increases. However, the discount is based on an inflated, non-loyalty price, so it is possible that large consumers are not made better off. Moreover, the loyalty program can reduce consumer surplus by steering large consumer's purchases toward goods they view as inferior, ceteris paribus. Overall consumer surplus may rise or fall.

Assuming that Firm A is maximizing short-term profits, it would set the threshold of its loyalty program so that a buyer wishing to qualify for its loyalty discount must purchase from A for all values of $q \leq q_A = P_B - c$. Intuitively, Firm A's loyalty program would not attempt to include those purchases where the consumer's preference for Firm B's product is so great that there is no joint surplus for the buyer and Firm A to share. Thus, a firm maximizing short-term profits would set the threshold of its loyalty program so that the incremental profits equal the incremental increase in the discount—that is when $P_A - c = d$.[30]

The authors use the latter condition to set out a test that distinguishes "competitively motivated loyalty discounts from those that are potentially exclusion-

29 For Firm A, this threshold requires that the consumer make all purchases from Firm A where $q < q_A$ in order to receive the discount d. Setting a threshold q_A is equivalent to a market share requirement that $F(q_A)$ of the consumer's purchases of the good are from Firm A.

30 To see this, suppose that Firm A sought to induce an incremental purchase through the loyalty program by increasing the threshold to a point where $q_A > P_B - c$. In order to do this, Firm A would have to incrementally increase the discount so that $P_A - d + q_A = P_B$. But this implies that $P_A - d + P_B - c < P_B$, or, equivalently, $P_A - c < d$. Thus, such an incremental increase in the loyalty threshold would reduce Firm A's short-term profits.

ary."[31] Loyalty programs that set high purchase requirements—so that the profits on the incremental unit are less than the incremental increase in the discount required—are non-compensatory[32] and "suggestive of a motive beyond short-run profit maximization."[33] The authors note that the data required by the test might not be generally available. However, they suggest that such a test may be feasible when examining changes in loyalty programs, especially those that increase the thresholds above historical levels. Under these circumstances, one could look at revenue and cost data to test the hypothesis that the incremental profits from the change in the programs equaled the incremental increase in the discounts against the alternative hypothesis that incremental profits were less than the incremental discounts.

In the multiple-product setting, several tests have been suggested. First, some have advocated the use of cost-based tests. One issue is how to apply such tests to multi-product bundled rebates. One approach would be to compare the price of the bundle to the relevant cost of producing the bundle. Pricing conduct that results in bundled prices that exceed the relevant cost of producing the bundle would be presumptively lawful.[34] Some have criticized such a standard as too permissive and suggest allocating the bundled discount between the component goods and then examining whether the price of each component good, net of this allocated discount, is greater than the appropriate measure of cost. The problem with such an approach is that there is no consensus, in theory or practice, regarding how to make such an allocation.[35] Unless the allocation is done in an arbitrary way, such a task is likely to increase the costs of administering such a rule and may even increase both types of error costs.[36]

Greenlee and Reitman also examine the use of loyalty discounts in the case of parallel markets—that is, when Firm A is in all N markets and facing competition from single-product firms in each market.[37] In their model of parallel markets, each market has a duopoly structure, where Firm A is one of the duopolists in all markets. Firm A can link the loyalty programs across the N markets, so that

31 *See* Greenlee & Reitman, *supra* note 2, at 11.

32 *See* Ordover & Willig, *supra* note 27.

33 *See* Greenlee & Reitman, *supra* note 2, at 12.

34 *See, e.g.,* T. Muris, *Comments on Antitrust Law, Economics, and Bundled Discounts*, submitted on behalf of the United States Telecom Association in response to the Antitrust Modernization Commission's Request for Public Comments (Jul. 15, 2005).

35 For an example of this issue, *see* the text accompanying notes 102 and 103, *infra*.

36 *See* the text accompanying note 56, *infra*.

37 *See* Greenlee & Reitman, *supra* note 3, at § 3.

the loyalty discount is dependent on a buyer qualifying in all N markets. If all N single-market firms offer loyalty programs, then the equilibria in each of the N markets, including the loyalty thresholds, are the same as that in the single-market case studied above. The authors also consider the case where some of the single-product firms do not, for some reason, offer loyalty discounts. Greenlee and Reitman show that such a change only affects the equilibrium size of the loyalty discount. The optimal target levels for their loyalty programs remain the same. Under these conditions, they show that moving from a single market to multiple, parallel markets does not change the test used to distinguish between loyalty programs motivated by maximization of short-run profits and those that "are non-compensatory and only make sense if driven by something other than short-run profit maximization."[38] Thus, they advocate use of the incremental cost-based tests under these conditions.

Greenlee et al. and a recent paper by Nalebuff have suggested tests to distinguish pro- and anticompetitive uses of bundled discounts in markets where a monopoly seller in one market (Y) faces competition in a second market (X).[39] Both papers demonstrate how bundled discounts, including loyalty discounts, can be used by a monopolist in one market to exclude firms in a second market. Both papers use similar models where a monopolist in product Y engages in the bundling of Y and a competitively supplied product X. Absent bundling, the price of Y equals m, the stand-alone monopoly price, and the price of X equals c, the cost of production. If bundling is feasible, the monopolist can also offer a bundle with stand-alone prices (P_Y, c) and a bundled price ($P_Y - e$, P_X).

To see how bundling serves as an exclusionary device, consider a bundled discount with prices ($m - e$, $c + d$), where e and d are small, positive deviations from the non-bundled equilibrium prices. At the monopoly price m, the small decrease in the price of Y would have a second-order effect on profits. However, the small increase in the price of X would have a first-order effect on profits. Thus, for some small e and d, offering the bundled discount would increase the profits of the monopolist. Moreover, for some small e and d, the bundle would be preferred by consumers to the stand-alone prices m and c. Thus, such bundled discounts are welfare-increasing.

Because the bundle is preferred to the stand-alone prices m and c, such a bundled discount can exclude an equally—or even more—efficient competitor.[40] Moreover, such exclusion does not require the monopolist to price either the

38 *See Greenlee & Reitman, supra* note 2. at 13.

39 B. Nalebuff, *Exclusionary Bundling* (2005) (mimeo).

40 Exclusion does not result if the monopolist can source production of X from competitive suppliers. The monopolist is indifferent between producing X himself and purchasing X from an equally efficient competitive supplier at 10. Indeed, if the competitive supplier is more efficient, then the monopolist is better off purchasing these units at a price below 10 and reselling them in the bundle at 11. *See* R. Schmalensee, *Commodity Bundling by Single Product Monopolies,* 25 J.L. & Econ. 67 (1982).

product or the bundle below cost. Because this bundled discount would exclude a hypothetical equally efficient competitor, Nalebuff condemns these uses of bundling based on this outcome.[41] However, based on a consumer welfare standard, use of such a test under these circumstances would erroneously condemn a welfare-increasing use of bundling.[42]

However, not all forms of bundled discounts increase consumer surplus or total surplus. Consider a bundled discount where the bundle is priced at $m + c$, but the stand-alone price for the monopoly product is increased above m. Once again, consumers prefer the bundle to the stand-alone prices and the equally efficient competitor would be excluded as he would not be able to make sales at c. Moreover, in this case, consumer welfare unambiguously falls. Consumers who purchase the bundle are indifferent, as the bundled prices are equal to the non-bundled, stand-alone prices. The same is true for those who purchase X at the stand-alone price c. But consumers are made worse off when they purchase Y at the stand-alone price. Thus, consumer surplus must fall under these circumstances.

Because it would exclude an equally efficient competitor, this bundled offer fails the hypothetical equally efficient competitor test. Such a bundled discount does pass a cost-based test, as both X and Y, as well as the bundle, are priced above cost. Because consumer welfare falls, Greenlee et al. also condemn such a bundled offer on antitrust grounds. This leads Greenlee et al. to propose the following test for welfare-decreasing bundled discounts: Under the assumption that the bundled prices are optimal, a bundled discount would decrease consumer surplus if the stand-alone price for good Y is above the monopoly price of Y in the absence of bundling. Such welfare-reducing bundled discounts would be found to violate the antitrust laws. This test is more conservative than the hypothetical equally efficient competitor test, as it leaves bundled discounts that would actually yield lower prices to consumers alone and only condemns those where the bundled discount would only be a discount compared to inflated stand-alone prices. It is more aggressive than the cost-based tests, as it condemns welfare-decreasing, but above-cost, bundled discounts.

Taken as a whole, the paper provides a useful consumer welfare test for bundled discounts. On the other hand, such a test may be difficult to implement. Accepting the validity of the model for the moment, the test suggested by Greenlee et al. requires a comparison of the existing stand-alone price for the monopoly product Y offered as part of the mixed bundle with the optimal monopoly price of product Y that would have been charged in the absence of bundling. While this task is well-defined within the context of a theoretical model with known and stable demand, such a task is likely to be much more dif-

41 *See* Nalebuff, *supra* note 39. *See also,* P. Areeda & H. Hovenkamp, Antitrust Law ¶749 (2005 supp.), at 183–4 (advocating use of the hypothetical equally efficient competitor test in limited circumstances).

42 *See* Greenlee, Reitman, & Sibley, *supra* note 4.

ficult to administer in practice.[43] In addition, there may be no identifiable pricing regimen before the loyalty rebate program was implemented. Moreover, the test's results are ambiguous when the loyalty program involves an increase in the stand-alone price and a decrease in the discounted price relative to the previous monopoly price. It also depends on the assumptions that the monopolist fully extracts consumer surplus under the loyalty program and that, prior to the rebate program, the Market X equilibrium was at the perfectly competitive price. Thus, while Greenlee et al.'s test would, in theory, result in lower error costs than either the cost-based tests or the hypothetical equally efficient competitor test, the costs of implementing such a test may be higher. Moreover, potential errors in administering this test may reduce any theoretical error-cost advantage.[44] Both of these effects tend to favor the use of a simpler, easier to administer test.[45]

III. Loyalty Discounts and Antitrust Law in the United States

There have been several challenges to firms' use of market share and loyalty discounts under U.S. antitrust laws. While frequent buyer programs aimed at end users can, in theory, increase prices and decrease welfare, challenges under U.S. antitrust laws have not been successful. Reported U.S. antitrust cases with claims involving loyalty programs marketed to end users have not directly challenged the firms' use of the programs. Rather, these cases have attacked the firms' attempts to change the terms of the program[46] or firms' attempts to prevent resale of frequent-buyer rewards in a secondary market.[47]

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43 The test would require the estimation of the but-for optimal bundled price of Y. One proxy for this would be the direct observation of the price of good Y before the monopolist began bundling. However, such prices are not always available, and changes in demand and cost conditions may make such a proxy unreliable. In such cases, estimating the but-for monopoly price would require an econometric estimation that controlled for these changing variables.

44 *See* text accompanying note 56, *infra.*

45 *See* text accompanying note 26, *supra*. For an explicit analysis of these issues, *see* B. Kobayashi, *Two Tales of Bundling: Implications for the Application of Antitrust Law to Bundled Discounts* (2005) (mimeo, George Mason University School of Law).

46 *See, e.g.,* American Airlines v. Wolens, 513 U.S. 219 (1995).

47 *See* TransWorld Airlines v. American Coupon Exchange, Inc., 689 F. Supp. 1476 (1988) (the airline's actions to prevent the brokering of frequent flyer miles did not violate the Sherman Act) and Haas, et al., v. Delta Airlines, et al., U.S. District Court, S.D.N.Y. 03 Civ. 0589, complaint filed Jan. 27, 2003 (class action complaint alleging that restrictions on the brokering of frequent flyer miles violate the antitrust laws). *See generally,* K. Braden, *Frequent Flyer Coupon Brokering: A Valid Trade?*, 55 J. Air L. & Comm. 727 (1990). While allowing the resale of frequent buyer credits would mitigate the effects such programs have on consumer switching costs, it would likely reduce firms' benefits from offering such programs. Such an outcome would not necessarily be beneficial either. The overall effect of eliminating or restricting frequent flyer and other loyalty programs would depend on what form of

Most of the recent antitrust claims involving loyalty programs have involved use of such programs at the wholesale level. In the remainder of this section, we examine these recent cases and the economic theories of harm underlying the claims. These cases were chosen because they involve volume discounts with customer-specific thresholds. In Part A, we examine the single-product case with near-exclusionary volume discounts in *Barry Wright v. ITT Grinnell* and *Brooke Group v. Brown & Williamson*.[48] The first case involved an above-cost volume discount that was based on buyers agreeing to take nearly all of their requirements from one seller. In the second, the U.S. Supreme Court increased the burden on the plaintiff in predation cases involving individualized, below-cost volume discounts. Part B examines the use of market share discounts in *Concord Boat Corp. v. Brunswick Corp*.[49] All of the three cases resulted in judgments for the defendant, and all three cases focused on "the actual facts or realities of the marketplace rather than on hypotheticals."[50]

Part C examines the loyalty discounts in the multi-market or multi-product setting in *SmithKline v. Eli Lilly*, *Ortho v. Abbot*, *Virgin Atlantic v. British Airways*, and *LePage's v. 3M*.[51] The courts treated these cases differently from the cases involving single products. They did not extend the *Brooke Group* standard that yielded a safe harbor to above-cost pricing conduct to these multi-market cases. In *SmithKline*, the appeals court found that the bundled rebates would have foreclosed an equally efficient competitor and upheld judgment for the plaintiff. However, in *Ortho* and *Virgin*, the courts granted summary judgment for the defendant because the plaintiffs failed to present sufficient evidence in support of their theory. Finally, in *LePage's*, the court upheld a verdict for the plaintiff. However, unlike the other cases reviewed in this paper, the court did not require the plaintiff to demonstrate through sufficient evidence that the defendant's bundled rebates were exclusionary. Figure 1 summarizes the cases reviewed in this section.

footnote 47 cont'd

promotional expenditures replaced these programs. *See*, *e.g.*, E. Gellhorn, *Trading Stamps, S&H and the FTC's Unfairness Doctrine,* Duke L.J. 903 (1983) (discussing the economics of trading stamps and the FTC's oversight of them following FTC v. Sperry & Hutchinson, 405 U.S. 223 (1972)).

48 Barry Wright v. ITT Grinnell. 724 F.2d 227 (1983) [hereinafter *Barry Wright*] and Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993) [hereinafter *Brooke Group*].

49 Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039 (8th Cir. 2000) [hereinafter *Concord Boat*].

50 *Id.* at 1062.

51 SmithKline Corp. v. Eli Lilly & Co., 575 F.2d 1056 (3rd. Cir.1978) [hereinafter *SmithKline*]; Ortho Diagnostic Systems v. Abbot Labs, Inc., 920 F. Supp. 455 ((S.D.N.Y. 1996) [hereinafter *Ortho*]; Virgin Atlantic Airways, LTD. v. British Airways PLC., 257 F.3d 256 (2nd Cir. 2001) [hereinafter *Virgin Atlantic*]; and LePage's v. 3M, 324 F.3d 141 (3rd Cir. 2003) [hereinafter *LePage's*].

Case	Below Cost	Thresholds = Near Exclusivity	Market Share Discount	All Units Discount	Multi-market	Bundled Rebates	Disposition of Case
SmithKline (1978)	N	N	N	Y	Y	Y	Judgment for plaintiff, Aff'd 3rd Cir.
Barry Wright (1983)	N	Y	N	Y	N	N	Judgment for defendent, Aff'd 1st Cir.
Brooke Group (1993)	Y	N	N	?	N	N	JMOL for defendant Aff'd 4th Cir., SCT
Advo (1995)	N	N	N	N	Y	N	Summary Judgment for defendant, Aff'd 3rd Cir.
Ortho (1996)	N	N	N	Y	Y	Y	Summary Judgment for defendant
Concord Boat (2000)	N	N	Y	Y	N	N	Judgment for plantiff, Rev'd 8th Cir.
Virgin Atlantic (2001)	N	N	N	Y	Y	Y	Summary Judgment for defendant, Aff'd 2nd Cir.
LePage's (2003)	N	N	N	Y	Y	Y	Judgment for plaintiff, Aff'd en banc 3rd Cir.

Figure 1

Recent U.S. loyalty discount cases

A. SINGLE-PRODUCT VOLUME DISCOUNT CASES WITH NEAR EXCLUSIVITY

Near-exclusive volume discounts were the subject of *Barry Wright v. ITT Grinnell*.[52] This case was decided before the U.S. Supreme Court's predatory pricing decisions in *Brooke Group* and *Matsushita*.[53] While its holding is consistent with these later U.S. Supreme Court cases, its analysis of the potential for above-cost pricing behavior to be anticompetitive and its treatment of near-exclusive thresholds are useful for evaluating whether the existence of these factors yield potential reasons to deviate from the *Brooke Group* standard.

In this case, Pacific was the only domestic manufacturer of mechanical snubbers, which are used in building pipe systems for nuclear power plants.[54]

52 *Barry Wright*, *supra* note 48.

53 Matsushita Elec. Co. v. Zenith Radio Co., 475 U.S. 574 (1986) [hereinafter *Matsushita*].

54 Foreign mechanical snubbers did not meet regulatory requirements and hydraulic snubbers were viewed as less reliable, so customers often required the use of mechanical snubbers.

Grinnell built these pipe systems and was a large consumer of Pacific's snubbers. Faced with the lack of a viable alternative to Pacific, Grinnell entered into a contract under which it would help the Barry Wright Corporation develop a full line of mechanical snubbers. Under the contract, Grinnell agreed to contribute to Barry Wright's development costs and to use them as its exclusive source for two years (1977 and 1978). While Barry Wright was developing its product, Grinnell continued to purchase snubbers from Pacific at the normal 20 percent off the list price.

At some point, Pacific realized that Grinnell was attempting to develop an alternative source of mechanical snubbers. It offered Grinnell larger discounts of 30 percent off the list price for small snubbers and 25 percent off the list price for large snubbers if Grinnell would agree to a large purchase of US$5.7 million—which would have satisfied Grinnell's demands for snubbers through the end of 1977. Grinnell initially rejected Pacific's offer and placed a small order of US$1 million at the standard 20 percent off the list price. Subsequently, Barry Wright failed to meet the agreed on production schedules and announced it would not be able to produce small snubbers until August 1977, and large ones until February 1978. As a result, in January 1977, Grinnell met with Pacific and entered into a contract to purchase US$4.3 million of Pacific's snubbers—enough to fill its demands through 1977. The contract price specified the large 30/25 percent discounts off the list price and gave Grinnell an option, open until July 1977, to buy its 1978 requirements at these prices. Grinnell also agreed to a non-cancellation clause and informed Barry Wright that it had breached its contract. In late May, Grinnell agreed to buy US$6.9 million of snubbers from Pacific in 1978 (estimated to be its entire demand for that year) and US$5 million of snubbers in 1979 from Pacific, both at the 30/25 percent discount off the list price. Soon thereafter, Grinnell notified Barry Wright that its collaboration was at an end. Barry Wright subsequently abandoned its efforts to develop mechanical snubbers.

Barry Wright brought an antitrust lawsuit against Grinnell and Pacific, alleging that the contracts between Pacific and Grinnell violated Sections 1 and 2 of the Sherman Act and Section 3 of the Clayton Act and that Pacific had tortuously interfered with Barry Wright's contract with Grinnell to develop snubbers. The U.S. district court entered judgment for the defendant on all counts. On appeal, the U.S. Court of Appeals for the First Circuit affirmed. One of Barry Wright's central claims under Section 2 of the Sherman Act was that the 30/25 discounts were "unreasonably low." The court found this argument unconvincing because the 30/25 percent discount, while "lower than normal," did not result in prices that were below average total cost.

The court then examined Barry Wright's argument that discounts that leave prices above total average cost may still prove unlawful. The court noted that economists had demonstrated that it was theoretically possible that above-cost price cuts "might be viewed as lying outside the range of normal, desirable, competitive processes" if such price cuts were unprofitable but for their ability to:

(1) drive out competitors and

(2) allow the firm to charge higher prices later.[55]

The court, however, rejected this argument on the grounds that consideration of such claims would be difficult to administer and counterproductive. The court noted that:

> "[W]hile technical economic discussion helps to inform the antitrust laws, those laws cannot precisely replicate the economists' (sometimes conflicting) views. For, unlike economics, law is an administrative system the effects of which depend upon the content of rules and precedents only as they are applied by judges and juries in courts and by lawyers advising their clients. Rules that seek to embody every economic complexity and qualification may well, through the vagaries of administration, prove counter-productive, undercutting the very economic ends they seek to serve."[56]

The court also considered Barry Wright's claim that the contracts between Grinnell and Pacific were exclusionary, long-term contracts. The court noted that the contracts included fixed dollar amounts and not true requirements contracts. And, although the contracts for 1977 and 1978 were for dollar amounts that would have covered the entire demand and would have resulted in near exclusivity—the contract for 1979 was for significantly less than the total estimated market demand for that year (approximately 72.4 percent of total estimated demand). Thus, any de facto exclusivity was from a sequence of contracts, and these near-exclusive contracts would last two, not three, years. The court did not find such near exclusivity problematic. Moreover, the court noted that both Grinnell and Pacific had legitimate business reasons to enter into these forward contracts. Because there was often significant lead time between orders and their delivery, contracts specifying delivery at a later date were the norm. Furthermore, the contracts would give Grinnell a stable source of supply at a favorable price and allow Pacific to take advantage of production efficiencies.[57]

55 *See* Greenlee & Reitman, *supra* note 3 (discussing literature).

56 *See Barry Wright, supra* note 48, at 234.

57 *See also* Barr Labs, Inc. v. Abbot Labs, 978 F.2d 98 (3rd Cir. 1992) (holding that volume discount to large buyer with 15 percent of the market did not constitute unlawful exclusive dealing).

The issue of volume discounts or rebates was addressed by the U.S. Supreme Court in *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*[58] This case involved competition between two cigarette manufacturers. Prior to the mid 1980s, both companies produced branded cigarettes. In the mid 1980s, Liggett, which eventually became a part of Brooke Group, pioneered the development of generic cigarettes, which were sold at a lower price (approximately 30 percent lower) than branded cigarettes. Liggett promoted its generic cigarettes at the wholesale level by giving rebates that increased with the volume of cigarettes ordered. In response, Brown & Williamson introduced their own line of generic cigarettes and also promoted them using volume rebates.

After a price war developed in which successively larger volume rebates were offered to wholesalers, Liggett filed a suit alleging, among other things, that Brown & Williamson's "discriminatory volume rebates to wholesalers violated the Robinson-Patman Act by furthering a predatory pricing scheme designed to purge competition from the economy segment of the cigarette market."[59] Both the price war and the filing of the suit occurred prior to the actual market introduction of Brown & Williamson's generic cigarettes.

The volume discounts in *Brooke Group* had several features that differentiated them from standard volume discounts. First, the volume discounts were discriminatory, as the largest volume rebates were targeted to wholesalers currently carrying Liggett's generic cigarettes. Moreover, there was evidence that the prices, net of the rebates, were below the average variable costs of production. Further, the incentives given by the volume discounts often led to de facto exclusivity. However, it is not clear that the exclusivity resulted from Brown & Williamson's setting of near-exclusionary thresholds. Given the undifferentiated nature of the generic products and the volume discounts, distributors commonly preferred to purchase their entire demand for generic cigarettes from one supplier.

After a lengthy trial, a jury returned a verdict in favor of the plaintiff on the primary-line Robinson-Patman claim and awarded Liggett US$49.6 million—which was trebled to US$146.8 million. However, the U.S. district court judge granted the defendant's motion for judgment as a matter of law and set aside the jury verdict on three separate grounds: lack of injury to competition, lack of antitrust injury to Liggett, and lack of a causal link between the discriminatory rebates and Liggett's alleged injury.[60] The U.S Court of Appeals for the Fourth Circuit affirmed. The U.S. Supreme Court granted certiorari in the case. Under then-existing precedent, most courts applied a rebuttable presumption of legali-

58 *Brooke Group*, *supra* note 48.

59 15 U.S.C. § 13a. This type of injury, which harms direct competitors of the discriminating seller, is known as primary-line injury.

60 Liggett Group, Inc. v. Brown & Williamson Tobacco Corp., 748 F.Supp. 344 (M.D.NC. 1990).

ty to pricing below average total cost, but above average variable costs. Pricing below average variable costs was generally held to be presumptively unlawful, subject to the existence of market conditions (such as the absence of barriers to entry) that would make predatory pricing "implausible." Pricing above average total cost was almost always held to be lawful.[61]

The U.S. Supreme Court in *Brooke Group* further increased the burden placed on the plaintiff in predatory pricing cases. Noting that "primary-line competitive injury under the Robinson-Patman Act is of the same general character as the injury inflicted by predatory pricing schemes actionable under § 2 of the Sherman Act,"[62] the Court held that the two prerequisites to recovery remain the same whether the claim alleges predatory pricing under Section 2 of the Sherman Act or primary-line price discrimination under the Robinson-Patman Act. Although the Court declined to set out a rule of per se non-liability when recoupment is alleged to have taken place through supra-competitive oligopoly pricing, it set out two not-easy-to-establish prerequisites for recovery in predatory pricing cases. First, a plaintiff seeking to establish competitive injury resulting from a rival's low prices must prove that the prices it objects to are below an appropriate measure of its rival's costs. Second, it must show that "the competitor had a reasonable prospect, or, under § 2 of the Sherman Act, a dangerous probability, of recouping its investment in below-cost prices."[63] The high burdens placed on the plaintiff were appropriate, in the Court's view, because "predatory pricing schemes are rarely tried, and even more rarely successful,"[64] and because of the high costs of an erroneous finding of liability—the deterrence of pro-competitive price competition.

Applying these two prerequisites to the facts of the case, the U.S. Supreme Court found that despite evidence of anticompetitive intent and evidence that Brown & Williamson's prices net of the volume discounts were below the appropriate measure of cost,[65] they were entitled to judgment as a matter of law because the plaintiff failed to demonstrate competitive injury as a matter of law. The Court, focusing on the actual facts of the marketplace rather than on hypotheticals, held that the evidence in the case was "inadequate to show that in pursuing this scheme, Brown & Williamson had a reasonable prospect of recovering its

61 *Matsushita, supra* note 53.

62 *Brooke Group*, *supra* note 48, at 221.

63 *Id.* at 224.

64 *Id.* at 226 (*citing Matsushita*, *supra* note 53, at 589).

65 *Id.* at 231 (noting that: "There is also sufficient evidence in the record from which a reasonable jury could conclude that for a period of approximately 18 months, Brown & Williamson's prices on its generic cigarettes were below its costs...and that this below-cost pricing imposed losses on Liggett that Liggett was unwilling to sustain, given its corporate parent's effort to locate a buyer for the company").

losses from below-cost pricing through slowing the growth of generics."[66] Specifically, the Court rejected the theoretical possibility of harm as a basis for liability, noting that "[w]hen an expert opinion is not supported by sufficient facts to validate it in the eyes of the law, or when indisputable record facts contradict or otherwise render the opinion unreasonable, it cannot support a jury's verdict."[67]

B. THE COURTS TREATMENT OF ABOVE-COST MARKET SHARE DISCOUNTS IN *CONCORD BOAT*

The Court's evaluation of the volume rebates in *Brooke Group* placed a high burden of proof on plaintiffs alleging that pricing conduct, including discriminatory volume discounts, violated either Section 2 of the Sherman Act or Section 2(a) of the Robinson-Patman Act. As noted above, loyalty discounts, however, can have additional features that differentiate them from standard volume discounts. The volume discounts in *Barry Wright* and *Brooke Group* had many of these features, including the use of all-units discounts and volume discounts with customer-specific thresholds that require or result in near exclusivity. However, other features of loyalty discount programs can, in theory, distinguish the use of such loyalty discounts from the case of the near-exclusive, discriminatory, all-units volume discounts considered in *Brooke Group*, and they can provide a reason to deviate from the *Matsushita* and *Brooke Group* rule and condemn above-cost pricing.

One additional feature is the use of market share discounts. Market share discounts were considered by the U.S. Court of Appeals for the Eighth Circuit in *Concord Boat Corporation v. Brunswick Corporation*.[68] Brunswick produced stern drive engines for boats, and was the market leader with a 75 percent market share in 1983. Beginning in 1984, Brunswick offered market share discounts. To receive these discounts, boat builders could agree to purchase a certain percentage of their engines from Brunswick for a fixed period of time. These agreements specified a 3 percent discount to boat builders who bought 80 percent of their engines from Brunswick, a 2 percent discount for a 70 percent share and a 1 percent discount for a 60 percent share. In 1994, Brunswick attempted to increase its market share requirement to 95 percent, but was unsuccessful due to complaints from boat builders. Beginning in 1995, the top two share requirements were lowered. The program was changed to a 3 percent discount for a 70 percent share, and a 2 percent discount for a 65 percent share. The program was discontinued in the middle of 1997.

66 *Id.* at 231.

67 *Id.* at 242.

68 *Concord Boat*, *supra* note 49.

The plaintiffs, who were boat builders, filed an antitrust suit in 1995 alleging, among other things, that Brunswick's market share and volume discounts were de facto exclusive dealing contracts that violated Section 1 of the Sherman Act. Moreover, the plaintiff argued that the discount programs and acquisitions violated Section 2 of the Sherman Act because they were part of a deliberate plan to exclude competitors from the stern drive engine market, and that this exclusion would enable Brunswick to charge supra-competitive high prices for its engines.[69]

The boat builders' primary evidence used to establish Brunswick's antitrust liability was the testimony of their expert economic witness. He testified that Brunswick had market power, and that its market share discount programs were used to impose a "tax" on boat builders and dealers who purchased engines from other manufacturers equal to the all-units discounts these purchasers gave up by not buying from Brunswick.[70] This tax forced Brunswick's competitors to charge substantially lower prices in order to convince customers to purchase from them and forgo the all-units discounts. He testified that the discount programs, combined with the market power Brunswick acquired by having purchased two boat builders, enabled Brunswick to capture a large share of the stern drive engine market, which in turn deterred entry into the market.

A jury found for the plaintiff on all of the antitrust claims and counterclaims, and the judge denied the defendant's motion for judgment as a matter of law. The U.S. Court of Appeals for the Eighth Circuit reversed. The court evaluated the testimony of the plaintiff's expert economic witness, and found that this testimony should have been excluded.[71] Specifically, they found that the plaintiff expert's testimony "was not grounded in the economic reality of the stern drive engine market, for it ignored inconvenient evidence."[72] Because of the deficiencies in the foundation of the opinion, and because the expert's opinion did not separate lawful from unlawful conduct, the court concluded that the expert's resulting conclusions were "mere speculation." As a result, the court held that

69 They also alleged that Brunswick's acquisition of two boat builders in 1986 violated Section 7 of the Clayton Act. The Eighth Circuit disposed of these claims by ruling that the statue of limitations had tolled.

70 For a discussion of this effect, *see* text accompanying note 13, *supra*.

71 *See Concord Boat, supra* note 49 (applying the Court's test for admissibility in Daubert v. Merrill Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993)).

72 For example, the plaintiff's expert's damage calculations ignored that fact that boat builders often exceeded the volume discount thresholds. Moreover, his theoretical model did not reflect the realities of the market, including other plausible reasons that caused Brunswick to attain a high market share (such as a recall of their competitor's engines). *See Concord Boat, supra* note 49, at 1055–7.

the plaintiffs failed to carry their burden of proof and that Brunswick's motion for judgment should have been granted for this reason.[73]

Of particular interest is the court's analysis of the legality of above-cost price cuts. The court noted that no one had argued that the discounts drove Brunswick's prices below costs, and that the "decisions of the U.S. Supreme Court in *Brooke Group* and *Matsushita* illustrate the general rule that above cost discounting is not anticompetitive."[74] The court then discussed Brunswick's theory that "any pricing practice that leads to above costs prices is *per se* lawful under the antitrust laws."[75] In discussing several cases that had explicitly rejected a rule of per se legality, the court noted that these cases "examined by the district court all involve bundling or tying."[76] Because "only one product, stern drive engines, is at issue here and there are no allegations of tying or bundling with another product," the court did not find these cases persuasive.[77]

3. Multiple-Market Volume Discounts

As set out in the previous part of this paper, the U.S. federal courts have set out broad rules for pricing conduct involving single markets. These rules have set out "hard to satisfy conditions" for plaintiffs to prevail, or even survive, summary judgment with predatory pricing claims. And, given the facts and evidence in the cases reviewed by the federal appellate courts, above-cost volume discounts,

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73 In contrast, the European Community has generally condemned the use of market share discounts. *See*, *e.g.*, Case T-203/01, Manufacture française des pneumatiques Michelin v. Commission (Sep. 30, 2003, not yet reported) [hereinafter *Michelin II*], upholding Commission Decision 2002/405/EC, Michelin, 2002 O.J. (L 143). For a discussion of EC law, *see* Heimler, *supra* note 3 and RBB Economics, Selective Price Cuts and Fidelity Rebates (U.K. Office of Fair Trading, Economic Discussion Paper, Jul. 2005). For a discussion of the differences between EC and U.S. approaches to vertical antitrust policy, *see* J. Cooper, L. Froeb, D. O'Brien, & M. Vita, A Comparative Study of United States and European Approaches to Vertical Policy (Vanderbilt University, Working Paper No. 05–11, 2005).

74 *Concord Boat, supra* note 49, at 1062.

75 *Id.*

76 *Id.*

77 Market share discounts are similar to the use of promotional payments in exchange for specific percentages of total display space. *See*, *e.g.*, R. J. Reynolds Tobacco Co. v. Phillip Morris Inc., 199 F. Supp 2d 362 (2002); *aff'd per curiam*, 67 Fed. Appx. 810 (4th Cir. 2003) (granting summary judgment for the defendant in antitrust challenge to promotional payments in exchange for near-exclusive shelf space allocations). *See also* Bayou Bottling v. Dr. Pepper, 725 F.2d 300 (5th Cir. 1985) (rejecting a monopolization claim based on shelf space requirement not exceeding firm's market share). Such programs have also resulted in challenges under the Robinson-Patman Act with differing outcomes. *See*, *e.g.*, FTC v. McCormick, FTC file No. 961–0050 (FTC challenge to payments by McCormick in exchange for near-exclusive shelf space allocations as secondary-line price discrimination under the Robinson-Patman Act). For a discussion of these cases, *see* J. Wright, *Antitrust Law and Competition for Distribution* (2005) (mimeo, George Mason Law School).

including those that have near exclusivity and those that use market share discounts, have resulted in judgment for the defendant.

However, the U.S. Supreme Court did not adopt a rule of per se legality for above-cost pricing conduct. And courts examining loyalty discounts in cases involving multiple markets or products have distinguished the single-product case from the multiple-product or multliple-market case, and have not extended the above-cost safe harbor in *Brooke Group* to the latter set of cases. Thus, while above-cost pricing is presumptively legal in the single-product setting, the courts have generally considered allegations that above-cost loyalty discounts can have anticompetitive effects and violate the antitrust laws in the multiple-market setting. Moreover, they have also considered alternatives to the cost-based *Brooke Group* test that attempt to more accurately differentiate between pro- and anticompetitive bundled loyalty discounts. However, while the courts have considered the plaintiff's theoretical arguments, they generally have not ruled for the plaintiffs based on the theoretical possibility of harm. Rather, these cases have turned on the sufficiency of the evidence offered in support of a theory or test. Thus, the vast majority of cases are consistent with the Court's focus in *Brooke Group* on actual market realities over hypotheticals.

While the courts have considered the plaintiff's theoretical arguments, they generally have not ruled for the plaintiffs based on the theoretical possibility of harm. Rather, these cases have turned on the sufficiency of the evidence offered in support of a theory or test.

This requirement, if taken seriously, is not a trivial one. The theoretical literature on loyalty discounts reviewed above does not go beyond showing that such effects are possible. The models reviewed in Section II contain many restrictive assumptions. For example, the models assume that the firm using the bundled loyalty program has an actual monopoly. In practice, firms rarely are monopolists protected from entry with a market share equal to one. Little attention has been paid to considering how the existence of competition in the market for the assumed monopoly good might affect their results. This latter point is important given that under the antitrust laws, firms that face some competition in all markets can be found to possess market power, which is often erroneously equated with monopoly power.[78] And because of the lack of empirical work analyzing loyalty discounts, there is little or no evidence that harm is likely under these conditions.

Moreover, these papers suppress the large and varied reasons for why bundling might be used. For example, none of these papers raises the possibility that bun-

78 *See, e.g.*, B. Klein, *Market Power in Antitrust: Economic Analysis After Kodak*, 3 Sup. Ct. Econ. Rev. 43 (1993).

dled discounts are being used to price discriminate in the face of heterogeneous consumers.[79] Nor do these models consider how their results may be affected by efficiencies from bundling. Moreover, while the use of bundled rebates has been analogized to tying and exclusive dealing, they do not consider the pro-competitive reasons why manufacturers adopt such policies. And, while others have studied these pro-competitive uses in the context of exclusive dealing and tying, this work has not been undertaken in the context of bundling and bundled rebates.[80] As a result, these models do not provide a reliable way to gauge whether the potential for harm would outweigh any demonstrable benefits from the practice.

Despite the relative lack of knowledge regarding their effects, bundled discounts were held to violate Section 2 of the Sherman Act in *SmithKline Corp. v. Eli Lilly & Co*.[81] In this case, decided before the U.S. Supreme Court's decisions in *Matsushita* and *Brooke Group,* both SmithKline and Lilly sold cephalosporin antibiotics to hospitals. Lilly was the dominant seller of cephalosporin antibiotics. Beginning in October 1972, Lilly instituted a Cephalosporin Savings Plan (CSP) which gave volume rebates of 2 to 12 percent, based on a hospital's total purchases of Lilly cephalosporins. The original program covered four patented cephalosporins.[82] In October 1973, Lilly added Kefzol, an unpatented cefazolin cephalosporin antibiotic to the CSP program. By this time, SmithKline was selling a competing cefazolin under the brand name Ancef. In April 1975, Lilly came out with a revised CSP, which contained a base dividend with a schedule of volume rebates based on total purchases.[83] However, compared to the initial CSP volume discounts, the percentage rebates under the revised CSP base dividend were generally reduced by 3 percent across the board.[84] To compensate for this, Lilly allowed hospitals to obtain an additional 3 percent bonus rebate if they met individual target volumes for three out of the five cephalosporins sold by

79 Consideration of such issues further complicates application of the Greenlee et al. test, as the stand-alone prices for *X* and *Y* associated with mixed bundling are often higher than the optimal prices for *X* and *Y* in the absence of bundling. For an example, *see* W.. Adams & J. Yellen, *Commodity Bundling and the Burden of Monopoly,* 90 Q. J. ECON. 475 (1976) (containing an example of mixed bundling with these characteristics).

80 *See*, *e.g.*, J. Heide, S. Dutta, & M. Bergen, *Exclusive Dealing and Business Efficiency: Evidence from Industry Practice,* 41 J.L. & ECON. 387 (1998) and H. Marvel, *Exclusive Dealing,* 25 J.L. & ECON. 1 (1982).

81 *SmithKline*, *supra* note 51.

82 These included Keflex, Keflin, Loridine, and Kafocin. *See* SmithKline Corp. v. Eli Lilly & Co. 427 F. Supp 1089, 1094 (E.D.P.A.1976).

83 *Id.* at 1104–5.

84 For example, a hospital purchasing over 96,000 grams per quarter would have received a 12 percent rebate (the maximum) under the CSP. Under the revised CSP, the same hospital would have received a 9 percent rebate.

Lilly. Thus, a hospital could generally receive the same rebate under the revised CSP as it did under the initial CSP. However, to do so, it would have to meet the new product-specific targets.[85]

On its face, the added requirement for the bonus rebate does not seem exclusionary or targeted at SmithKline. However, the court noted that in most cases, the bonus-rebate thresholds set by Lilly made it unlikely that a hospital would meet the individual thresholds for its low-volume products, Loridine and Kafocin. Thus, in order to get the bonus rebate, most hospitals were required de facto to meet the individual targets for Keflex, Keflin, and Kefzol. The U.S. Court of Appeals for the Third Circuit noted that the rebates were "actually paid largely in Keflin and Keflex."[86] Moreover, the individual thresholds could be set so that meeting the threshold for Kefzol would be difficult if a hospital purchased Ancef from SmithKline.[87]

SmithKline challenged Lilly's use of bundled discounts (in the form of rebates) and its revised CSP. The U.S. district court, after a bench trial, held that Lilly's revised CSP violated Section 2 of the Sherman Act. The court, confronting the fact that Lilly's volume discounts did not result in net prices below cost, noted that:

> "[A] monopolist does not receive immunity merely because it has priced the product in issue above its average cost. For that immunity is lost when it uses a pricing scheme linking the monopolistic products (Keflin and Keflex) with another competitive product (Kefzol) to deter SmithKline from entering or effectively competing in the cephalosporin market. We should be ever mindful that the gravamen of this complaint and my holding are not that the price which Lilly separately charges for Keflin or Keflex are unreasonable

85 Thus, the hypothetical hospital in the prior note, *supra*, would have received a 9 percent rebate under the revised CSP. However, if it bought over 2,000 grams of three different Lilly cephalosporins in a given quarter, its total rebates would have risen back to 12 percent.

86 *SmithKline, supra* note 51.

87 In a case decided after *Brooke Group,* the same circuit court applied the *Brooke Group* standard to the use of discounts in the monopoly product (in this case, run of the press advertising) based on total purchases from the defendant (including ROP and direct mail advertising). *See* Advo, Inc. v. Philadelphia Newspapers, Inc., 51 F.3d 1191 (1995). The plaintiff in the case sold only direct mail advertising. The court differentiated this case from *SmithKline* on the grounds that the discounts in that case were "tied to the purchase of specific items," whereas the discounts in *Advo* were "total quantity" discounts (at 1203). From the standpoint of direct mail marketing, such a discount structure would disadvantage the single-product plaintiff, so, in theory, such total market discounts could exclude. However, even if one rejects this distinction, the same result could have been reached by holding that the plaintiff filed to provide sufficient evidence of such an exclusionary effect.

> from an antitrust standpoint; the nub of this case is the linkage of these latter products in a pricing scheme to deter competition in Kefzol."[88]

While the district court did not find that the revised CSP constituted an illegal tying arrangement, it did find that "the effect of Lilly's revised CSP was likely the same as if a tie-in was used namely, the expansion of Lilly's monopoly power into previously competitive areas of the cephalosporin market."[89] In analyzing the substantive effect of the revised CSP on SmithKline, the court noted that "the revised CSP raised substantially the discount Smith-Kline would have to offer hospitals on sales of Ancef," resulting in a negative return on sales on both average and large accounts.[90] The court noted that even if SmithKline were able to reduce the costs of goods to Lilly's levels, it would be unable to compete successfully for larger accounts without extraordinarily high rebates.

Thus, in finding liability, the district court adopted a form of the hypothetical equally efficient competitor test.[91] The court found that the plaintiff, through evidence of profits and the likely size of the rebates necessary to match Lilly's bundled rebates, had met its burden of proof. From an economic standpoint, the hypothetical equally efficient competitor test is flawed, as it focuses on the harm to competitors and does not distinguish between bundled rebates that decrease welfare from those that do not. Thus, use of such a test, as noted above, can be over-inclusive and condemn welfare-increasing bundled rebates.

On the other hand, Greenlee et al. note that the facts of the case are consistent with a welfare-decreasing use of bundling and would likely fail their consumer welfare test. They note that the change from the initial CSP to the revised CSP generally resulted in a 3 percent decrease in the rebate if a hospital did not meet its bonus rebate, but that there was no change from the initial CSP to the revised CSP for those that did qualify for the 3 percent additional bonus rebate. Thus, the revised CSP resulted in higher prices, ceteris paribus, for those who did not meet the bonus rebate thresholds and the same prices with more conditions for those who did. Thus, relative to the CSP, Lilly's revised CSP was a de facto tie and likely reduced welfare. Thus, while they do not agree with the district court's use of the hypothetical equally efficient competitor standard, Greenlee et al. suggest that the court reached the correct result, but for the wrong reasons.

88 SmithKline Corp. v. Eli Lilly & Co. 427 F. Supp 1089, 1094 (E.D.P.A.1976), at 1129.

89 *Id.* at 1121.

90 *Id.* at 1122–3.

91 *See* text accompanying note 40, *supra*.

Other courts have considered similar above-cost pricing behavior, but have come to the opposite conclusion. The equally efficient competitor test was used by the district court in *Ortho Diagnostic Systems v. Abbot Labs, Inc.*,[92] decided after *Brooke Group*. In this case, Abbot Labs sold five tests used to detect viruses in the blood supply. These tests included the HCV (a test for Hepatitis C virus), the Anti-core (tests for the core of the Hepatitis B virus), the HTLV (test for a virus associated with leukemia), the HIV 1/2 (tests for two strains of the HIV virus), and the HBsAg (tests for the Hepatitis B surface antigen). The tests were not interchangeable and tested for the presence of different viruses. The plaintiff, Ortho, sold only the HCV test.

Ortho sued Abbot over a contract between Abbot and the Council of Community Blood Centers (CCBC). Under the terms of this contract, CCBC's members were entitled to advantageous pricing if they purchased a package of four or five tests from Abbot. Ortho argued that the terms of this contract served to foreclose or impair competition by Ortho. Specifically, the contract specified prices such that a buyer that only purchased three tests would pay more than a buyer that purchased all five tests. Ortho argued that this resulted from the de facto penalty structure built into the prices of the HTLV and HIV 1/2 tests when three, rather than four or five, tests were purchased.[93]

The judge granted the defendant's motions for summary judgment on the Section 2 claims. While the plaintiff conceded that Abbot had priced each component of the package above average variable costs,[94] the court held that this alone was not sufficient to shield it from Section 2 liability. Rather, the court ruled that the existence of package pricing prevented it from disposing of the case under the *Brooke Group* test, as such pricing could be used to exclude an equally or more efficient competitor.[95] However, the judge found that in this case, Abbot's package discounts would not have in fact excluded an equally efficient competitor, as even its most discounted prices were above both its and Abbot's average variable costs.

The judge also considered the deposition testimony of Ortho's expert economic witness, who suggested using an incremental profit test to examine whether or not the incremental discounts on the five product package, while resulting in net prices that were above costs, were compensatory.[96] The plaintiff's expert argued

92 *Ortho*, *supra* note 51.

93 Purchase of only the HTLV, HIV 1/2, and HCV tests from Abbot cost US$7.57, while purchase of all five tests, plus data management services, only cost US$7.37 when purchased as a bundle. *Id.* at 461.

94 *Id.* at 470.

95 *Id.* at 467–8.

96 For a fuller discussion of incremental predation tests, *see* the text accompanying notes 29 and 30, *supra.*

that if the incremental discounts were not compensatory, Abbot would not have used such discounts absent an anticompetitive motive. While the court did not reject the compensatory pricing theory as a matter of law, it did reject application of the theory because of a lack of rigorous data and analysis showing that Abbot's bundled pricing was in fact non-compensatory, noting that:

> "[I]n order to defeat a properly supported motion for summary judgment, a party may not rest on economic theories that may or may not apply to the facts of the case or on conclusory or incomplete expert analyses any more that it may rest on unsubstantiated allegations of its pleadings."[97]

A similar example is contained in *Virgin Atlantic Airways, LTD. v. British Airways PLC*.[98] In this case, the plaintiff, Virgin, sued British Airways under Sections 1 and 2 of the Sherman Act, alleging that the defendant used anticompetitive volume discounts with travel agents and corporate clients. The district court granted the defendant's motion for summary judgment, principally on the grounds that the plaintiff failed to support its expert's theories of anticompetitive practices with factual evidence. The U.S. Court of Appeals for the Second Circuit affirmed. With respect to the Section 2 claims, the court held that the volume discounts did not constitute below-cost pricing, nor did they constitute an attempt by British Airways to leverage its monopoly at London's Heathrow Airport to other markets.[99]

The incentive agreements used by British Airways were based exclusively on measures such as sectors flown or revenue earned. The agreements were not uniform, with some of the agreements having all British Airways travel count toward the thresholds, while in other agreements only certain routes were specified. The discounts, once reached, were applied to all units.[100]

Virgin charged British Airways with engaging in predatory foreclosure and the bundling of ticket sales in an attempt to foreclose transatlantic competition by diverting passengers from Virgin and other airlines to itself. The plaintiff's economic expert testified that incremental sales induced by the volume discounts were priced below the incremental cost of the program. This foreclosed entry or

97 *Ortho*, *supra* note 51, at 471.

98 *Virgin Airlines*, *supra* note 51.

99 The same loyalty discounts for travel agents were successfully challenged under Article 82 in EC courts. *See* Heimler, *supra* note 3.

100 *Virgin Airlines*, *supra* note 51, at 261.

expansion by competitors, and allowed British Airways to immediately recoup any losses on these below-cost sales by maintaining supra-competitive prices on routes that were protected from more vigorous competition.

To show incremental below-cost pricing, the plaintiff's expert attempted to implement an incremental cost test.[101] Specifically, he estimated that British Airways' incremental cost of adding an additional transatlantic flight was approximately 90 percent of incremental revenue. Based on British Airways' incentive payment schedule, he then calculated the ratio of incremental incentive payments to incremental revenues. He found that, in many cases, this ratio exceeded 10 percent. Under these circumstances, the incremental revenue net of the incremental incentive payments would not have covered their incremental costs.[102]

The U.S. Court of Appeals for the Second Circuit did not explicitly reject the plaintiff's theory of predatory foreclosure, nor did it reject the expert's proposed incremental cost test. Rather, it found that the plaintiff had failed to present sufficient evidence in support of its theory and test. The court noted that the plaintiff's economic expert assumed that the entire cost of an additional flight was attributable to the use of incentive agreements. It was not clear to the court, for several reasons, that this was the correct measure of incremental costs. In addition, the court noted the lack of specific market data regarding the use of incentive agreements on the particular routes where antitrust harm was alleged to have occurred. As a result, the court held that "summary judgment was properly granted, for where 'deficiencies in proof would bar a reasonable jury from finding that the scheme alleged would likely result in sustained supracompetitive pricing, the plaintiff's case has failed.'"[103]

While the courts have not extended the above-cost safe harbor in *Brooke Group* to cases involving bundled discounts, they have, in general, followed the Court's focus in *Brooke Group* on the facts rather than on hypotheticals. This latter focus was not, however, followed in *LePage's v. 3M*.[104] In *LePage's*, the U.S. Court of Appeals for the Third Circuit upheld a jury verdict that found that 3M's use of bundled rebates violated Section 2 of the Sherman Act. 3M's bundled rebates gave large retailers (such as Wal-Mart, K-Mart, and Target) discounts if they purchased

101 *See* text accompanying notes 29–30, *supra*.

102 For a loyalty discount program to be compensatory, the incremental revenues net of the incremental discounts must exceed any incremental costs. If incremental discounts were 10 percent of incremental revenues and incremental revenues equaled 90 percent of incremental costs, the plaintiff's expert's calculations imply that incremental revenues net of incremental discounts were about 0.81 percent of incremental costs and, thus, were non-compensatory.

103 *Virgin Atlantic*, *supra* note 51, at 273 (*citing Brooke Group*).

104 *LePage's*, *supra* note 51.

certain volumes of various 3M products. The size of the bundled rebates increased when retailers met volume goals across six product categories—with the largest rebates given to retailers that met the volume targets in all six categories. The use of bundled rebates was challenged by LePage's, the leading manufacturer of unbranded transparent tape. LePage's alleged that 3M's use of bundled rebates caused retailers to drop LePage's as a supplier not because of competition on the merits, but rather, because of the possibility that they might fail to qualify for the largest rebates. A jury found that 3M's practices violated Section 2 of the Sherman Act. A panel for the U.S. Court of Appeals for the Third Circuit reversed, but the court, sitting en banc*,* upheld the jury's verdict on the bundling claims.[105]

Despite noting that the court's en banc decision rested on an incomplete record and a poorly articulated theory of economic harm, the U.S. Department of Justice (DOJ), representing the United States, urged the U.S. Supreme Court not to take the case in its brief to the Court.[106] While the DOJ recognized that "the business community and consumers would benefit from clear, objective guidance on the application of the Section 2 to bundled rebates," it had little confidence that this case would provide the Court with "a suitable vehicle" for providing such guidance.[107] In addition to the identified shortcomings of the case record and decision, the DOJ's position was influenced by the judiciary's relative lack of experience with this issue and the underdeveloped nature of the "relatively recent and sparse" academic literature on bundled rebates.

The U.S. Supreme Court declined to review the case.[108] By deferring consideration of the issues presented in *LePage's*, the Court implicitly chose to await a case that had a record better adapted to development of an appropriate standard and, as urged by the DOJ in its brief, one that would allow "the case law and economic analysis to develop further." In principle, the cautious approach urged by the DOJ in its brief—and implicitly chosen by the Court—is understandable, and is consistent with the cautious approach taken by the courts generally in the expansion of Section 2 liability.[109] Even in cases where the economic literature on vertical practices is relatively developed, the ability of courts to distinguish between pro- and anticompetitive vertical restrictions is not so easy in practice. And, without a reliable way to distinguish pro- and anticompetitive uses, any rule that condemns ubiquitous business practices without a showing of likely

105 For a detailed discussion of the economics of the case, *see* D. Rubinfeld, *3M's Bundled Rebates: An Economic Perspective,* 72 U. Chi. L. Rev. 243 (2005).

106 *See Brief of the Unites States as Amicus Curiae,* 2004 W.L. 120591 (May 28, 2004).

107 *Id.* at 8.

108 LePage's v. 3M, 124 S. Ct. 2932 (2004) (*cert. denied*).

109 *See* Evans & Padilla, *supra* note 26.

harm to competition would result in the widespread condemnation of efficient practices. Such a result would be particularly damaging to the economy as it would chill the very conduct the antitrust laws are designed to protect.

Given the courts' lack of experience with the practice of bundled rebates, and given the lack of empirical evidence regarding the relative prevalence of exclusionary versus pro-competitive uses of bundled rebates, these arguments for a cautious approach seem to apply a fortiori to bundled rebates. The problem with the cautious approach taken by the DOJ and by the U.S. Supreme Court is that the U.S. Court of Appeals for the Third Circuit, in its en banc opinion in *LePage's*, failed to exercise such caution. The court concluded that it was sufficient for *LePage's* to prove that it could not compete with 3M's bundled rebates because "they may foreclose portions of the market to a potential competitor who does not manufacture an equally diverse group of products and who therefore cannot make a comparable offer."[110] Although the court suggested that 3M's bundled rebates could exclude an equally efficient competitor, it did not cite any specific evidence. Thus, in contrast to its approach in *SmithKline* (and the other circuit courts' approach to cases involving multi-product discounts), the court's approach in *LePage's* would allow a jury to find a dominant firm liable under the antitrust laws based on the possibility that bundled rebates, including those that yield customers discounts, could exclude an equally efficient competitor that produces a less diverse set of products. The plaintiff would not have to show that it was an equally efficient competitor, nor would it have to prove that the bundled rebates in question would have, in fact, excluded a hypothetical equally efficient competitor.

WITHOUT A RELIABLE WAY TO DISTINGUISH PRO- AND ANTICOMPETITIVE USES, ANY RULE THAT CONDEMNS UBIQUITOUS BUSINESS PRACTICES WITHOUT A SHOWING OF LIKELY HARM TO COMPETITION WOULD RESULT IN THE WIDESPREAD CONDEMNATION OF EFFICIENT PRACTICES. SUCH A RESULT WOULD BE PARTICULARLY DAMAGING TO THE ECONOMY AS IT WOULD CHILL THE VERY CONDUCT THE ANTITRUST LAWS ARE DESIGNED TO PROTECT.

As a result, *LePage's* has generated much uncertainty over the legality of using a ubiquitous practice. The U.S. Court of Appeals for the Third Circuit has exposed to potential antitrust liability any firm that possesses sufficient market power and offers discounts on a bundle of products also sold by rival firms that sell only a subset of these products. The potential for liability could deter such firms from using bundling that would have otherwise led to reduced prices for consumers and higher welfare. Thus, this decision is likely to impose the high Type I error costs the court has been so careful to avoid in the past.

110 *LePage's*, *supra* note 51, at 155.

IV. Conclusion

While there have been recent advances in the economic analysis of loyalty discounts, the literature is still relatively recent and sparse. Though some of these papers provide tests that serve either to identify deviations from short-run profit maximization or—in the case of bundled discounts—a reduction in consumer welfare or the exclusion of a hypothetical equally efficient competitor, these tests have several shortcomings. The incremental cost tests and the consumer welfare tests may be difficult to implement and administer. And tests based on whether an equally efficient competitor could be excluded may condemn welfare-increasing behavior. Furthermore, the literature on loyalty discounts is almost exclusively theoretical, and the models and their specific assumptions have not been subjected to rigorous empirical testing. Moreover, these theoretical models, and the academic literature in general, have not rigorously examined pro-competitive reasons that firms might use loyalty programs. As a result, the economic literature currently does not provide a reliable way to gauge whether the potential harm from the use of loyalty discounts outweighs any demonstrable benefits from their use.

A review of the major cases involving loyalty and other volume discounts suggests the following general observations. In the single-product case, courts have consistently applied the U.S. Supreme Court's holding in *Brooke Group* and its not-easy-to-establish, two-part test. As a result, they have generally ruled that above-cost volume discounts, including those that use market share discounts and near-exclusive thresholds, are lawful and do not violate the antitrust laws. In cases involving multi-market or bundled rebates, however, courts have not generally followed the Court's presumption in *Brooke Group* that above-cost bundled discounts are presumptively legal. However, they have generally followed the Court's preference in *Brooke Group* for the actual facts or realities of the marketplace rather than on hypotheticals. Thus, while the lower courts have considered the theories and tests contained in the recent theoretical literature on loyalty discounts, they have generally refused to find liability, absent sufficient proof that the conditions required by these tests apply and that the underlying tests reflect market realities. This approach is consistent with the federal courts' generally cautious approach to expanding Section 2 liability and the underdeveloped and untested state of the academic literature.

WHILE THE LOWER COURTS HAVE CONSIDERED THE THEORIES AND TESTS CONTAINED IN THE RECENT THEORETICAL LITERATURE ON LOYALTY DISCOUNTS, THEY HAVE GENERALLY REFUSED TO FIND LIABILITY, ABSENT SUFFICIENT PROOF THAT THE CONDITIONS REQUIRED BY THESE TESTS APPLY AND THAT THE UNDERLYING TESTS REFLECT MARKET REALITIES.

Moreover, there are significant flaws in the two cases where courts have found the use of bundled loyalty rebates to be unlawful. In *SmithKline*, the court did focus on data and concluded that an equally efficient competitor would have been excluded by the bundled discounts evaluated in the case. However, economic theory suggests that the court may have used a flawed standard and should have instead focused on the fact that changes to the bundled rebate programs served to increase rather than decrease prices. And the court's decision in *LePage's* not only suggested use of the same flawed standard, it found liability without requiring sufficient proof that the standard even applied to the facts of the case.

In this area, the challenge for both antitrust law and economics is the same. In order to reliably distinguish between pro- and anticompetitive uses of loyalty discounts, a broader understanding of this area is required. Systematic research on why loyalty discounts are used should consider pro- as well as anticompetitive theories and should focus on verifiable hypotheses and the data required to test them. Until this is done, the courts are likely, in many more cases, to be forced to make uninformed decisions and to choose flawed over- or under-inclusive tests based on incomplete theories and insufficient facts.

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Below-Cost Pricing and Loyalty-Inducing Discounts: Are They Restrictive and, If So, When?

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Below-Cost Pricing and Loyalty-Inducing Discounts: Are They Restrictive and, If So, When?

Alberto Heimler

Abuse of dominance is the area where the divergence between U.S. and EC antitrust enforcement practices is still very significant. In particular, in the European Community, the identification of price abuses is mostly based on the abstract ability to exclude, while in the United States, the emphasis is mainly on visible and tangible effects. Some refinements in the analysis may be necessary in both jurisdictions. In the European Community, the lack of sound economic analysis is a clear problem. In the United States, the emphasis on actual exclusions is probably too rigid. A more sensible approach based on the ability of an equally efficient competitor to match the pricing policy of the dominant firm may be a constructive way forward in both jurisdictions.

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I. Introduction

The debate over the convergence and divergence of U.S. and EC antitrust enforcement has been based less on the different wording of legal provisions (which indeed is quite substantial) than on the way in which these provisions actually are interpreted in enforcement decisions.

In the area of cartels, irrespective of the different formulations of the relevant laws, the provisions of both jurisdictions against hard-core violations are sternly enforced—although with some differences in the nature of the sanctions (e.g. only fines for the companies in the European Community, prison terms for executives as well as fines in the United States). As for the broader area of restrictive agreements, the European Commission was strongly criticized in the past for the lack of economic reasoning used in the evaluation of the restrictiveness of vertical agreements. With the adoption of the Block Exemption Regulation on Vertical Agreements in 1999[1] and the Guidelines on Vertical Restraints in 2000,[2] that gap has been filled. In this area, EC and U.S. practices are now largely convergent. One remaining difference is that absolute territorial restrictions are treated more severely in the European Community than in the United States. But that is the result of the European Community's commitment to the political and economic objective of creating a single common market.

In mergers, irrespective of the fact that the legal test in the European Community has been different from that in the United States, there has been a substantial convergence of enforcement practices. In both jurisdictions, the definition of the relevant market is strongly based on economic analysis, as is the evaluation of the substantive restrictions of competition originating from the merger. Instances of genuine disagreement have been quite rare in practice and, in general, the analysis follows very similar steps so that there is a high degree of probability that the results of a merger investigation on both sides of the Atlantic will lead to a very similar conclusion. This is especially true now that, since the introduction of Regulation 139/2004,[3] the substantive tests have become closer.

The situation is very different in abuse of dominance and monopolization cases. In the particular case of price abuses, in the European Community, the assessment of their restrictiveness is mostly based on the abstract ability to exclude, more

1 Commission Regulation (EC) No. 2790/1999 of Dec. 22, 1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices, 1999 O.J. (L 336) 21–5.

2 Commission Notice on Guidelines on Vertical Restraints, 2000 O.J. (C 291) 1–44.

3 Council Regulation (EC) No. 139/2004 of Jan. 20, 2004 on the control of concentrations between undertakings (the EC Merger Regulation), 2004 O.J. (L 24) 1–22.

than on the actual effects[4]. In the United States, on the contrary, the emphasis is mainly on realized effects so that, in the absence of visible and tangible exclusions, the courts have tended to conclude that there is no violation.

Indeed, while excessive pricing abuses are extremely rare in the European Community (and non-existent in the United States where high prices are not an antitrust violation), low-pricing abuses have been found to be restrictive much more frequently than in the United States. In this area, dominant firms in the European Community are not only prohibited from effectively excluding competitors, but also from hurting them too much with aggressive pricing strategies. What counts in EC case law is the abstract possibility of excluding competitors: evidence of intent to exclude becomes a sufficient (but not necessary) element for proving the case. In U.S. case law, on the other hand, the courts require direct evidence that the practice has or will lead to an increase in market power and, in this respect, actual evidence of exclusion seems to be a very important element for proving a case.

A more sensible approach to low-pricing abuses, as proposed in this paper, is one based on the evaluation of the ability of an equally efficient competitor to match the pricing policy of the dominant firm. This approach may provide a constructive way forward in both jurisdictions.[5]

After a brief discussion of the EC and U.S. practices on predation, the paper provides a detailed analysis of the effects of target and sliding scale discounts. It then proposes a possible checklist for identifying abusive discounts. It defends the proposed approach with respect to recent theoretical criticism and then applies it to one EC case (*Michelin II*[6]) and to two leading U.S. cases (*Concord Boat v. Brunswick*[7] and *LePage's v. 3M*[8]).

4 The EC concept of abuse of dominance originates from the German ordo-liberal tradition which, by the 1920s, had distinguished "impediment competition" (to be prohibited), which included predatory pricing, loyalty rebates and boycotts, from "performance competition" (to be favored), which included all conduct that made a firm's product more attractive to consumers. *See* D. Gerber, *Constitutionalizing the Economy: German Neo-Liberalism and the "New" Europe*, 42(1) AM. J. COMP. L. (1994).

5 Judge Richard Posner, in his book *Antitrust Law*, takes a very similar position. *See* RICHARD A. POSNER, ANTITRUST LAW (2nd ed. 2001).

6 Case T-203/01, Manufacture française des pneumatiques Michelin v. Commission (Sep. 30, 2003, not yet reported) [hereinafter *Michelin II*], upholding Commission Decision 2002/405/EC, Michelin, 2002 O.J. (L 143).

7 Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039 (8th Cir. 2000) [hereinafter *Concord Boat*].

8 LePage's v. 3M, 324 F.3d 141 (3rd Cir. 2003) [hereinafter *LePage's*].

II. Predatory Prices and Loyalty Rebates: Is There a Common Theory?

The theory of predation as developed in the United States is based on two pillars:

1) a dominant firm sells its products at prices below cost so as to drive competitors out of a market and

2) new entry or re-entry in the market is prevented.

Therefore,

2b) the dominant firm is able to increase its prices so as to recoup the losses it made while predating.

Indeed, on this last point, U.S. courts have made it clear that in order to successfully prosecute predation it is not just pricing below costs that matters, but that there were also realistic expectations of recoupment.[9] In other words, predation is condemned not because it results in lower prices now, but because it is likely to lead to reduced output and higher prices in the future and, therefore, ultimately harm consumers. In order for this to occur, other firms must be weak, there must be barriers to re-entry into the market so that restoration of competition is not possible after existing competitors have exited, and the profits to be gained in the post-predation period must outweigh all losses. These conditions are quite rigorous (and rightly so), and as a result, genuine instances of predatory pricing have been extremely rare.

In the European Community, predation has been assessed on a somewhat weaker standard and recoupment has not been considered essential in an explicit way. In particular, in the *Akzo v. Commission* judgment,[10] the European Court of Justice (ECJ) noted that a dominant firm has no interest in pricing below cost except for the purposes "of eliminating competitors so as to enable it subsequently to raise its prices by taking advantage of its monopolistic position."[11] As a consequence, the Court presumed recoupment and did not expressly require the need to prove it in order to establish predation. A slightly different position was taken in the *TetraPak II* case where, "according to the specific circumstances of the case," the ECJ ruled that it was not necessary to prove recoupment.[12] By explicitly stating that recoupment does not need to be proven given the specific

9 *See* Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993),

10 Case C-62/86, AKZO Chemie BV v. Commission, 1991 E.C.R. I-3359.

11 *Id.* at para. 71.

12 *See* Case C-333/94 P, Tetra Pak International SA v. Commission, 1996 E.C.R. I-5951 [hereinafter *Tetra Pak II*], at para. 44.

circumstances of the case, the *Tetra Pak II* judgment implies that recoupment does need to be proven in most other cases.

In any case, while predation is a very challenging subject theoretically, it is not very common to see genuine instances of predation. First of all, firms that consider engaging in predatory behavior are certain to incur some costs in the initial period, while future benefits are uncertain. Furthermore, the strategy can be very risky because these costs can persist for a long time if the prey does not exit the market as quickly as expected (and costs are much higher for the dominant firm than for its much smaller prey).

The awareness of the high costs involved in a predatory strategy has led dominant firms to devise alternative low-cost predatory pricing strategies. For example, dominant firms can price below cost in a selective way so as to achieve the goal of keeping competitors out, but without incurring any overall losses (e.g. recouping marginal losses with infra-marginal profits). While competitors can certainly match this low-marginal pricing strategy, the resulting relative effect on total profits can be very different. In some cases, it can lead competitors to incur heavy losses overall and, therefore, function as a powerful exclusionary device.

The U.S. and EC approaches to this more indirect, but more plausible, form of predation stand in contrast. The United States has a very lenient standard (which I will argue too lenient) whereas the European Community has a very strict one (which I will argue too strict). In *Hoffman-la Roche v. Commission*, the ECJ has prohibited loyalty rebates per se or, in EC terminology, by object.[13] In its judgment, the Court stated that foreclosure does not originate only from exclusive purchasing agreements, but also in circumstances in which "the (dominant) undertaking...applies...a system of fidelity rebates, that is to say discounts conditional on the customer's obtaining all or most of its requirements—whether the quantity of its purchases be large or small—from the undertaking in a dominant position."[14] After *Hoffman-la Roche*, the Commission found loyalty rebates to be abusive by object in many other cases. In particular, the Commission elaborated on the notion that discounts need to be "objective" and should reflect genuine savings associated with additional sales.

The cost-savings argument for justifying discounts, under EC law, is quite ambiguous because it can lead enforcers to consider even quantity discounts to be abusive. In fact, while cost savings may actually arise from a truckload shipment, it is unclear how objective savings can result by reaching a certain volume of sales during a reference period via a number of different shipments. What seems difficult for EC antitrust enforcers to acknowledge is that discounts pro-

13 Case 85/76, Hoffmann-La Roche v. Commission, 1979 E.C.R. 461 [hereinafter *Hoffman-La Roche*], at 461.

14 *Id.* at § 7.

vide a built-in incentive mechanism to continue buying from a given company. In this respect, discounts are often quite cheaper for the discounting firm than other more costly forms of incentives that would very rarely fall under antitrust scrutiny (e.g. telephone calls by a sales representative or an invitation to dinner or fancy sea resort). However, the Commission has never accepted this incentive argument and has always taken a very negative view of discounts.

Discounting practices have almost always been considered legal in the United States because the standard of proof remains that of classical predation (revenues that are below costs and eventual recoupment through higher prices). However, several decades ago Director and Levi (1956) pointed out that discounts by monopolists may sometimes impose even greater costs on rivals, a comment which has been largely ignored by the U.S. courts.[15]

In both jurisdictions, sound economic analysis can improve decision making and enforcement practices. Indeed, from the perspective of a firm offering discounts, what matters is total profits—that is, the difference between revenues and costs. Therefore, if the profits of a discounting, single-product dominant firm are positive, then competition problems may only arise if the discounting policy can be matched only at a loss by an efficient competitor. The same is true of a multimarket context, when a firm, dominant in market A and operating in B, bundles the two purchases with a discount so as to also achieve dominance in market B, and in doing so, excludes an equally efficient competitor either in A or B.

III. Dominance, Rebates, and Marginal Predation

Discounts, as Ridyard (2003) argues, can be structured in different ways: standard quantity discounts, loyalty discounts granted in exchange for exclusivity, or target discounts where a discount is granted on all purchases after a pre-specified level of sales (which may differ for different retailers) has been reached.[16] In the European Community, quantity discounts are not considered abusive in so far as they imply some objectively identified cost savings.[17] Loyalty discounts are always prohibited, while non-objectively justified target discounts have been considered abusive, irrespective of the impact on prices that such discounts have or whether competitors are able to match them profitably. The economic justification of such a rigorous approach is that these discounts, since they drastically

15 A. Director & E. Levi, *Law and the Future: Trade Regulation*, 51 Nw. U. L. Rev. 281, 292–294 (*as cited in* E. Elhauge, Defining Better monopolization Standards, (Harvard Law School, Working Paper 434, 2003)).

16 D. Ridyard, *Article 82 Price Abuses – A More Economic Approach* (2003) (mimeo).

17 As I have already argued, the reason that an estimate of the actual savings was never considered necessary to prove that such discounts were not abusive, was probably because such cost savings are really conjectural and almost impossible to prove.

reduce marginal prices around the threshold, may transform the type of competition occurring in a market. As Gary Hewitt (2003) argues, these discounts may change competition from "something occurring continually at the margin, to periodic rivalry for each buyer's total requirement."[18] This strategy may be abusive in so far as firms differ in terms of reputation, of productive capacity, or of portfolio of products, so that only the dominant firm is able to get de facto exclusivity in supply.

An analysis of market characteristics is necessary for evaluating the restrictiveness of discount schemes. The difficulty in the analysis lies in the fact that while non-linear prices can sometimes be exclusionary, they can also be a very powerful instrument of competition.

An analysis of market characteristics is necessary for evaluating the restrictiveness of discount schemes. If all firms compete for the total demand of a given customer, rivalry occurs at the beginning of the reference period and target discounts cannot be predatory in so far as they lead to total revenues above costs. However, if there are asymmetries among firms, in the sense that only the dominant firm can supply total demand and its competitors either do not have the capacity to do so, do not have enough reputation so as to satisfy all potential customers, or supply only a limited part of the portfolio of products of the dominant firm, then discounts can become exclusionary. The difficulty in the analysis lies in the fact that while non-linear prices can sometimes be exclusionary, they can also be a very powerful instrument of competition.

I will concentrate next on two very common forms of discounts—target rebates and volume sliding scale discounts.

A. TWO COMMON FORMS OF DISCOUNTS

1. Target Rebates

Target rebates are discounts granted when purchases by the retailer exceed a predetermined, customized turnover. These discounts are lost by the retailer if additional purchases from a competitor impede the retailer from achieving the established target. Although there is uncertainty on the part of the retailer about whether the target will be reached or not, there is no uncertainty about the amount of savings the retailer achieves by reaching the target. In this sense, although target discounts can be costly to match by a competitor, the amount of savings they entail is certain and, therefore, in the case of turnover-based target rebates, competitors have all the information necessary to replicate the discounting policy of the dominant firm.

18 G. Hewitt, *Background note*, *in* OECD Competition Committee, Loyalty and Fidelity Discounts and Rebates, Roundtable on Comp. Pol'y 40 (2003).

Another characteristic of target discounts is that retailers that have a similar level of purchases from a given supplier (but different targets) receive different discounts. On many occasions, the European Commission has considered this "discrimination" a separate violation of competition rules because it allegedly restricts competition among retailers.[19] I will not pursue this further because of the lack of economic analysis underlying such arguments. In fact, the Commission never asks why it would be in the interest of a supplier to reduce competition among its retailers, provided that a reduction of competition downstream reduces sales upstream. Furthermore, applying discount rates which are independent of the size of the retailer and in some sense in proportion to its sales efforts tends to increase, not decrease, competition among retailers, eliminating possible disadvantages that a small retailer would possibly have with respect to a larger one. Such discrimination, at least at first sight, looks pro-competitive.

Market share discounts (i.e. the discount that is granted when purchases from the firm exceed a given share of the retailer's total purchases) are a special case of target rebates and reflect what a supplier would like to achieve with these discounts—that is to improve its performance with respect to its competitors in terms of sales to a given retailer. In order to analyze the impact of target rebates, I will use the particular example of market share rebates since it is much easier to study them analytically. In any case, the conclusions that I will draw in the case of market share discounts are quite general. The major difference with respect to turnover-based target discounts is that market share discounts are much more uncertain for both competitors and retailers in terms of the level of discounts that will be granted to the retailer that has reached the target. This is because total purchases cannot be known with certainty until the end of the reference period. However, the experience a firm gains by being in the market year after year can strongly reduce such uncertainty.

Market share discounts by a dominant firm can be exclusionary when a competitor, willing to compete away a small but significant share of the dominant firm sales (in principle, the incremental sales originating from the discounting policy), has to match the discounts lost to the retailer with a discount that forces his total revenues with that retailer below his costs. The entrant's resulting loss is called "lost discounts," because it at least equals the discounts that the retailer foregoes by purchasing from the entrant instead of the dominant firm.[20] The discount rate the competitor has to offer in order to make the retailer indifferent is higher than the discount rate offered by the dominant firm, the lower the competitor's relative sales to the retailer and the lower the incremental sales originat-

19 *See, e.g.*, Commission Decision 2000/74/EC, Virgin/British Airways, 2000 O.J. (L 30) 1 [hereinafter *Virgin/BA*].

20 For a more formal analysis of target rebates and sliding scale discounts, *see* the Appendix contained in §V of this paper.

ing from the introduction of the discounting policy. If the competitor is a new entrant, market share discounts by a dominant firm can be very penalizing.

2. Sliding Scale Volume Discounts

Sliding scale volume rebates are discounts that are granted when retailers reach a predetermined level of purchases. Such discounts are not customized for each retailer, but are set up in a general scheme and made known to all retailers at the beginning of the year. The uncertainty that retailers face is that, ex-ante, they do not know which turnover bracket they will find themselves at the end of the year, and so are uncertain about the actual savings they will achieve. If this is the case, then it is difficult for a competitor to match an uncertain outcome. However, such uncertainty should not be over-emphasized because retailers are in the market period after period and purchases from a given supplier are, to a certain extent, predictable.

Sliding scale volume discounts are much less exclusionary than target rebates because they are exclusionary only in so far as the sales a competitor needs to compete away lead the retailer to move to a lower discount bracket. Furthermore, the lost discount a competitor has to match depends only on the difference between the discount rates of the two brackets—the brackets into which the retailer would have fallen with and without entry.

B. A CHECKLIST FOR ESTABLISHING ABUSIVE DISCOUNTS

In order to establish the abusive nature of loyalty-inducing discounts, the proposed analysis requires that one:

1) prove dominance in a relevant market;
2) show that purchases by retailers are neither too far above nor too far below the target (otherwise a competitor could not be excluded because if purchases are far below the target then the target is unreachable for the retailer even without entry; if purchases are far above then the target also would be reached with entry[21]); and,
3) prove that matching discounts have or will lead an equally efficient competitor to price below costs.

The below-cost character of discounts should be calculated with respect to a small but significant increase in sales by the competitor—in principle, equal to the incremental sales originating from the discounting policy. As in the case of predation, it should also refer to the price-cost margin of the dominant firm (and only in very exceptional circumstances, i.e. when there are clearly demonstrated efficiencies to be gained by the new entrant, calculated with respect to the aver-

21 As it will be argued later in this paper, this was the case in *Concord Boat* where, notwithstanding the target of 80 percent, Brunswick was selling 100 percent of the stern engines to many boat builders.

age incremental cost associated with the small but significant increment in sales), so as to ensure that exclusion is assessed with respect to an equally efficient competitor.

Appropriate consideration should be given to the fact that in a pluralistic market structure (where the number of competitors is greater than two), expansion or new entry is limited by rivalry from all market participants, not just from the dominant firm. In this respect, the record of entry in the industry and the relative movements of market share from year to year should be given proper consideration.

While classical predation can occur only when the dominant firm is losing money, abusive discounting leads to prices below costs only at the margin and the dominant firm remains profitable overall. The exclusionary nature of discounts is related entirely to the inability of competitors to spread discounts over the same turnover as the dominant firm.

Loyalty-inducing discounts can exclude competitors both in single-market and multiple-market contexts. The common feature of single and multiple markets is that competitors of the dominant firm are much smaller, either in the single market where the firm is dominant or across markets. In the particular case of discounts across multiple markets, Greenlee and Reitman (2005) state that "if a firm sets the target level so high that it loses money on incremental sales, then there is a valid inference of exclusionary intent."[22]

Greenlee and Reitman (2005) also address the case of a monopolist that links a rivalrous market through a discount, a case also addressed by Nalebuff (2004).[23] According to these authors, if the discount is a lump-sum, as I assumed in the previous section, the equally efficient competitor test continues to hold. If, however, the discount takes the form of a lower price in the monopolized markets in exchange for loyalty and an associated supra-competitive price in the rivalrous market, the equally efficient competitor test is only a safe harbor. According to these authors, bundle discounts cannot be abusive if they exclude less-efficient rivals. On the other hand, they suggest that there are instances when an equally efficient competitor is excluded but bundled discounts may nonetheless be consumer welfare-increasing.

22 P. Greenlee & D. Reitman, Competing with Loyalty Discounts (U.S. Department of Justice, EAG Discussion Paper 04–2, 2004, *revised* Feb. 4, 2005).

23 B. Nalebuff, Bundling as a Way of Leveraging Monopoly (Yale School of Management, Working Paper No. 36, 2004).

However, the pricing strategy suggested by Nalebuff (2004) and Greenlee and Reitman (2005),[24] where consumer welfare increases even though an equally efficient competitor is excluded, does not lead to a long-run equilibrium. While this can be seen easily in the numerical analysis proposed by Greenlee and Reitman (2004),[25] the same argument applies to more general theoretical results where the monopolist in the first market, having monopolized the second market with his discounting strategy, always has the incentive to increase prices in both markets to their monopoly levels, leading to a decrease, not an increase, of consumer welfare.

Moreover, as Greenlee and Reitman (2004) argue, consumers benefit from the lower prices that originate from rebates. As a matter of fact, short-run consumer welfare can increase in the case of predatory prices. They argue, however, that in predatory pricing, contrary to what happens with respect to loyalty discounts, the "consumer benefit…is presumed to be transitory if the predator can eventually recoup the costs of predation through higher prices."[26] Indeed, the same happens with loyalty-exclusionary discounts. They may benefit the consumer in the short run, but they can also lead to monopolization of a previously rivalrous market if they exclude equally efficient competitors. In addition, while loyalty-exclusionary discounts can be as harmful as predatory prices, they are much less costly for the dominant firm to implement because recoupment occurs through the higher prices of infra-marginal units. In this sense, exclusionary discounts should not be treated with any more leniency than should predatory prices. Therefore, the equally efficient competitor standard remains valid since the increase in consumer welfare that can exist even when an equally efficient competitor is excluded, most of the time, only exists in the short run—as in predation.

THE EUROPEAN COMMISSION, WHEN ANALYZING THE EFFECT OF DISCOUNTS, HAS NEVER LOOKED SERIOUSLY AT THE ABILITY OF COMPETITORS TO PROFITABLY MATCH THE PRICING STRATEGY OF THE DOMINANT FIRM.

C. THE EC PRACTICE WITH DISCOUNTS AND THE *MICHELIN II* CASE

Contrary to what is suggested in this paper, the European Commission, when analyzing the effect of discounts, has never looked seriously at the ability of competitors to profitably match the pricing strategy of the dominant firm. For exam-

24 Nalebuff (*id.*) and Greenlee & Reitman (2005) (*supra* note 22) show that a discounting policy that takes the form of a lower price in the monopolized markets in exchange for loyalty and an associated supra-competitive price in the rivalrous market may exclude equally efficient competitors, but may nonetheless be consumer welfare-enhancing.

25 P. Greenlee & D. Reitman, *Distinguishing Competitive and Exclusionary Uses of Loyalty Discounts* (2004) (mimeo, U.S. Department of Justice).

26 *Id.* at p. 20.

ple, in 1999, the Commission found British Airways (BA) travel-agent-discounting schemes abusive.[27] In that case, which was confirmed by the Court of First Instance (CFI),[28] discounts were granted to travel agents according to predetermined, customized turnover targets. The Commission tried to show that BA discounts led to very strong increases in the commissions an aggressive competitor might be obliged to provide to travel agents so as to make them indifferent to the BA offer. The Commission calculated the effect of the discounting scheme on a new entrant wishing to compete away 2 percent of the BA market. However, in its calculation, the Commission did not consider that BA's market share was slightly below 50 percent and that a competitor also competed with other airlines—not just with British Airways. Furthermore, after showing that matching the discount was more costly to a competitor, the Commission simply presumed that competing airlines did not have the ability to profitably match BA discounts. This is quite an unrealistic presumption considering that, irrespective of the discounts, Virgin was able to enter the market profitably.

Finally, the Commission's analysis of the way travel agents operate was quite abstract and incomplete. In particular, the exclusionary nature of target discounts was ascertained without an analysis of the way travel agents actually competed in the market and whether consumers were actually misled by travel agents who withheld less-expensive alternatives or strongly discounted BA tickets in order to achieve the BA target. There was no analysis of any kind of the extent to which consumers directly informed themselves by contacting the airlines and were not completely captive to the suggestions of the travel agent.

After the case, the Commission outlined its policy on commissions paid by airlines to travel agents.[29] First, the Commission required that discounts be cost-justified. It limited the reference period for extra discounts to six months and prohibited target discounts. Moreover, discounts had to increase linearly, they could not be retroactive, and travel agents had to be free to sell the tickets of all airlines. There was no reference in the list of prohibited discounting practices that addressed the effect the allegedly abusive discounts might have on competition or the ability of competitors to match them. The only flexibility that the Commission seemed to grant, and that was clearly related to the practice's effect on the ability of competitors to compete, was to limit the period during which target rebates should be calculated to six months.

27 *Virgin/BA*, *supra* note 19.

28 Case T-219/99, British Airways plc v. Commission (Dec. 17, 2003, not yet reported), upholding *Virgin/BA*, *supra* note 19, appeal to the ECJ is pending as Case C-95/04, British Airways v. Commission.

29 *See* J. Finnegan, *Commission sets out its policy on commissions paid by airlines to travel agents*, 3 Competition Pol'y Newsl. 23 (1999).

As for other more substantive aspects, EC case law does not leave much room for an evaluation of the actual foreclosure exercised by such discounting schemes. Recently, the judgment by the CFI in *Michelin v. Commission*[30] upheld the Commission's decision on the abusive character of both volume and target rebates.

1. The *Michelin II* Case

In May 1996, the Commission started an investigation into the commercial practices of Michelin in order to ascertain its abusive character. During the course of the investigation, the Commission established that Michelin—which held more than 50 percent of the French market for tires while its competitors held much lower shares[31]—was a dominant firm that operated a complex system of quantitative rebates, bonuses, and commercial agreements. The Commission alleged that this system constituted a loyalty-inducing and unfair pricing scheme vis-à-vis its dealers. And, furthermore, the effect of such a discounting policy was to keep dealers dependent on Michelin and prevent them from freely choosing their suppliers.

The Commission's decision and the subsequent judgment of the CFI found that the volume and target rebates were abusive in so far as they were able to exclude competitors from the market. The decision is largely based on the following elements:

1) Although it is not necessarily contrary to EC law for a company in a dominant position to grant a system of discounts under which the rate of the discount increases with the volume of purchases made, the system must be based on a countervailing advantage which is economically justifiable (e.g. economies of scale which are passed on to the customer). However, Michelin gave no economic justification for its system of quantity discounts, which, because it was loyalty-inducing, tended to prevent French dealers in truck and bus tires not only from ascertaining the price at the time of purchase, but also from obtaining supplies from competing manufacturers.

2) The system of preferential prices linked to Michelin's loyalty club, Michelin Friends Club, also amounted to an abuse. Conditions of club membership included requiring dealers to give Michelin undertakings related to market share, to stock a certain number of Michelin tires, and to promote the Michelin brand, in return for which Michelin provided dealers with training and financial support towards investment. According to the CFI, those conditions were intended, overall, to

30 *Michelin II*, *supra* note 6.

31 Note that over the period covered by the inquiry this share fell quite substantially.

> eliminate competition on the part of other manufacturers as well as to ensure that Michelin's position was maintained and that competition in the market for new replacement truck and bus tires was restricted.

In what follows, I will try to provide some counter arguments to the above lines of reasoning based on some estimates of the harm the system of discounts operated by Michelin might have had on competition.

2. The *Michelin II* Case: Some Additional Considerations

Besides not considering the possibility that competitors could have profitably matched Michelin's pricing policy, the Commission's decision is based on the questionable assumption that all discounts that cannot be objectively justified are unlawful. As I have argued above, the main reason that such discounts may be efficiency-enhancing is that they align the interest of the supplier with that of the retailer and induce extra sales efforts on the part of the retailer. Furthermore, some of the benefits the retailer receives are passed on to consumers via lower prices. These discounts may exclude more efficient rivals because of predation operating at the margin. Unfortunately, the Commission's decision contains enough information to cast doubt on the analysis used and the conclusions reached; at the same time it does not contain enough information to assess whether these discounts have resulted in significant exclusion of competitors. Further doubts about the analysis and conclusions come from the observation that, in the period under consideration, when the alleged exclusionary policy was in place, Michelin lost a significant size of the market to competitors.

THE COMMISSION'S DECISION CONTAINS ENOUGH INFORMATION TO CAST DOUBT ON THE ANALYSIS USED AND THE CONCLUSIONS REACHED; AT THE SAME TIME IT DOES NOT CONTAIN ENOUGH INFORMATION TO ASSESS WHETHER THESE DISCOUNTS HAVE RESULTED IN SIGNIFICANT EXCLUSION OF COMPETITORS.

a) Michelin's sliding scale volume discounts

The grid contained in the Commission's decision shows that the discounts varied from a minimum of 7.5 percent (associated with total annual revenues of FF 9000) to a maximum of 13 percent (associated with annual revenues of FF 22 million), and progressed by 0.5 percent at the beginning of the scale and by 0.05 percent at the end. In its judgment, the CFI calculated the effect on an additional FF 1 worth of purchases right at the amount of purchases where discounts change.[32] The CFI concluded that these marginal discounts were as high as 7500 percent of the list price and that the amount was impossible to compete away.

32 *Michelin II*, *supra* note 6, at para. 87.

A more realistic calculation could be made by applying formula (10) in the Appendix (Section V). Assume, for example, that a competitor wishes to compete away a share of Michelin's sales to the retailer, say 5 percent. Also assume that Michelin is a monopolist so that the starting sales of the potential competitor with a given retailer are zero (note that this assumption maximizes the alleged exclusionary nature of Michelin's discounts). In order for the retailer to accept the deal, the competitor has to offer him a rebate slightly higher than the rebate he gets from Michelin. For example, if the total purchases of Michelin's products by the retailer allow him an 11.05 percent discount (a realistic assumption according to the sliding scale volume rebates that Michelin was actually offering), then a competitor has to match it with a 13 percent discount. This additional 1.95 percent discount for the very extreme assumption that Michelin is a monopolist hardly seems exclusionary.

b) Michelin's target discounts

Michelin also offered retailers an additional discount if a predetermined individualized level of turnover was achieved. The impact of target discounts on competitors depends, as illustrated by formula (3) in the Appendix, on the turnover base a competitor has already achieved with a given retailer. For example, assume Michelin has a 60 percent share of total purchases with a given retailer and offers a 1.5 percent target discount. A competitor wishing to challenge 5 percent of Michelin's market share (corresponding to 3 percent of the retailer's total purchases), would find that it costs him 30 percent of total revenues to attract the retailer if he is a new entrant. If his share of total retailer's purchases is already 5 percent, it costs him 11.3 percent. And ,if his share is 10 percent, it costs him 6.9 percent. Again, these numbers do not take into account the fact that a competitor competes with everybody in the market, not just with the dominant firm, and so would have to be weighted down to some extent. In any case, this simple calculation shows that the exclusionary effect of target discounts may be much stronger than sliding scale volume discounts. However, whether such discounts are predatory at the margin and would exclude an equally efficient competitor from the market is an empirical question that, if one is to answer, requires some information about Michelin's price-cost margins and the proper estimation of incremental sales. Unfortunately, the facts contained in the Commission's decision do not provide this information.

D. THE U.S. PRACTICE AND THE *CONCORD BOAT* AND *LEPAGE'S* CASES

Contrary to EC practices, in the United States, loyalty rebates have often been considered non-restrictive (although they may be challenged under the Robinson-Patman Act if competing firms have to pay a different price for the same product). Indeed, in a recent paper presented at an OECD Competition Committee roundtable on loyalty discounts, the U.S. authorities stated that they "cannot recall any enforcement actions challenging 'market share' discount schemes, but a number of recent private suits have started to develop the law in this area."[33]

In particular, there are a number of judgments on discounts based on private lawsuits. In July 2001, the U.S. Court of Appeals for the Second Circuit affirmed the summary judgment of the district court, stating that a loyalty discount scheme by British Airways, allegedly used to exclude Virgin Atlantic Airways from the market, was not anticompetitive. The practice was very similar to the one the Commission prohibited in 1999, described in the previous section. An analysis of the U.S. Court of Appeals' judgment provides a good opportunity to identify the main differences underlying the approaches of the two jurisdictions. In particular, according to the U.S. Court of Appeals, Virgin failed to demonstrate that BA's discounts to travel agents harmed competition, since they did not lead to lower output, higher prices, or decreased quality. Furthermore, no evidence was provided to support the argument that BA's discounting policy might lead to a monopoly. A major point in the court's judgment was that, during the period under consideration, there was no actual exclusion. On the contrary, Virgin was able to gain considerable market share (and profitably so), becoming a major player along the U.S.-London routes.

NO EVIDENCE WAS PROVIDED TO SUPPORT THE ARGUMENT THAT BA'S DISCOUNTING POLICY MIGHT LEAD TO A MONOPOLY. ON THE CONTRARY, VIRGIN WAS ABLE TO GAIN CONSIDERABLE MARKET SHARE (AND PROFITABLY SO), BECOMING A MAJOR PLAYER ALONG THE U.S.-LONDON ROUTES.

1. The Judgment of the U.S. Court of Appeals for the Eighth Circuit in *Concord Boat v. Brunswick*

On considerations analogous to *Virgin Atlantic*, on March 21, 2000, the U.S. Court of Appeals for the Eighth Circuit denied the abusiveness of a market share discounting scheme by Brunswick in *Concord Boat Corp. v. Brunswick Corp.*[34] The case originated from an antitrust action by a number of boat builders against stern drive engine manufacturer, Brunswick Corporation. The boat builders contended that Brunswick had used "market share discounts, volume discounts, and long term discounts and contracts, coupled with the market power it had achieved in purchasing Bayliner and Sea Ray, to restrain trade and to monopolize the market of stern drive engines in violation of section 1 and 2 of the Sherman Act."[35] In particular, Brunswick had put a market share discounting scheme in place under which, from 1984 to 1994, it offered a 3 percent discount to boat builders who bought 80 percent of their engines from the company, a 2 percent discount for

33 *See* Hewitt, *supra* note 18, at 185.

34 *Concord Boat*, *supra* note 7.

35 *Id.* at § 1.B, p. 7.

70 percent of all purchases, and 1 percent for those who bought 60 percent. Boat builders could then receive additional discounts if they signed a market share agreement extending over a number of years.

The U.S. Court of Appeals for the Eighth Circuit did not conclude that such discounts were exclusionary. The court found that, throughout the more than ten years during which the discounting scheme had been in place, there had been some occasions of new entry and of very strong reductions in Brunswick's market share. The court, therefore, concluded that "boat builders failed to produce sufficient evidence to demonstrate that Brunswick had foreclosed a substantial share of the stern drive engine market through anticompetitive conduct."[36] According to the court, boat builders had not shown that Brunswick's superior market share was achieved or maintained by means other than competition on the merits.

As in *Virgin Atlantic*, the court did not analyze the effect of the market share discounts on competitors' profitability. In particular, since target discounts can be matched only at great cost to the competitor, it seems a bit contradictory to conclude—like the court did—that imposing additional costs on others is competition on the merits. In fact, if formula (3) in the Appendix is applied to this case, then a competitor selling to a boat builder 5 percent of his yearly demand of stern engines and wishing to achieve a 6.6 percent share has to reduce his prices by 12.1 percent if, as a consequence of this increase in his sales, the discount from Brunswick has fallen from 3 to 2 percent. In other words, in this particular example, keeping a competitor out would cost Brunswick one percent of its revenues, while entry would cost a competitor 12.1 percent. Determining whether the discounting policy of Brunswick was indeed exclusionary would have to be evaluated with more information than that available in the judgment.

The significant challenge to a conclusion that the discounting policy was exclusionary is that in the U.S. Court of Appeals judgment reference is made to situations where, notwithstanding the target of 80 percent, Brunswick was selling 100 percent of the stern engines to a specific boat builder. If such cases were frequent, then the exclusionary character of the discount would be more difficult to argue.

2. The Judgment of the U.S. Court of Appeals for the Third Circuit in *LePage's v. 3M*

In March 2003, reaching a decision contrary to that of *Concord Boat*, the U.S. Court of Appeals for the Third Circuit found that a multi-product rebate program by 3M was abusive in *LePage's v. 3M*.[37] A US$68 million treble damage

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36 *Id.* at § 1, p. 30.

37 *LePage's*, *supra* note 8.

award was issued against 3M. The interesting issue in the *LePage's* case was that above-cost pricing was considered abusive in so far as it excluded competitors from the market without considering the cost of matching the discounting policy by competitors.

The issue to be solved, as 3M put it, was whether an above-cost pricing practice was considered a violation of Section 2 of the Sherman Act. Both LePage's and 3M agreed that 3M had a monopoly in the U.S. transparent tape market, with a market share above 90 percent. The court found that:

1) 3M, after LePage's entry into the market, offered discounts to certain customers conditional on purchases spanning over six of 3M's diverse product lines. In addition to bundling the rebates, 3M set customer-specific target growth rates in each product line. If a customer failed to meet the target for any one product, then he would lose the rebate across the line. In the judgment by the court, some consideration was given to the fact that these rebates were of a substantial amount—Kmart received almost US$1 million in 1997 and Wal-Mart received US$1.5 million—but no analysis was provided regarding their ability to foreclose rivals. The court just stated that the principal anticompetitive effect of bundled rebates, as offered by 3M, was that when offered by a monopolist they may have foreclosed portions of the market to a potential competitor that did not manufacture an equally diverse group of products.

2) There was evidence that, in order to reach the targets set by 3M, distributors dropped or drastically reduced purchases from LePage's. 3M's discounts were shown to strongly affect the ability of LePage's to compete—in fact, its earnings as a percentage of sales plummeted to below zero (to negative 10 percent) during 3M's rebate program.

3) There was substantial evidence that significant entry barriers prevented competitors from entering the tape market in the United States. Thus, the case presented a situation in which a monopolist remained unchecked in the market.

What is clear from the U.S. Court of Appeals for the Third Circuit's judgment is that the alleged Section 2 violation by 3M was analyzed in terms of the effects of 3M's discounting scheme on LePage's profitability and whether it was a permanent strategy. However, the court was satisfied to see LePage's share decline and its profits deteriorate. As the DOJ's amicus curiae brief to the U.S. Supreme Court stated, "the court of appeals was unclear as to what aspect of bundled rebates constituted exclusionary conduct, and neither it not other courts have definitely resolved what legal principles and economic analyses should control."[38] The Court did not require a formal analysis of whether the discounting practice had or

38 *See Brief of the Unites States as Amicus Curiae,* 2004 W.L. 120591 (May 28, 2004).

would lead an equally efficient competitor to price below cost. Instead it was satisfied with the evidence that competitors suffered losses as a result of the practice.

Indeed, the judgment of both courts was taken, despite a sharp dissent. In particular, according to three dissenting judges (out of ten), LePage's did not prove the direct harm it suffered because of the abusive practice. The dissent was on the rigor of the proof, and in particular, on the consideration that LePage's had not proven the amount to which it had to reduce its prices in order to match 3M's discounts. According to the dissenting judges, the below-cost character of 3M's discounts was not rigorously assessed and was only presumed in consideration of the effect 3M's pricing policy had on LePage's sales and profits.

While controversial, the judgment in *LePage's* is, in this respect, in line with the U.S. practice of placing great importance on the exclusionary effect of a discounting practice. In particular, the main reason the courts concluded that 3M had violated Section 2 by using above-cost price cuts was that LePage's and other 3M competitors actually lost significant market share after the discounting policy was introduced. It was the effect of the discounting policy in the market that induced the U.S. Court of Appeals for the Third Circuit to conclude that it was unmatchable by competitors.

WHILE CONTROVERSIAL, THE JUDGMENT IN *LEPAGE'S* IS, IN THIS RESPECT, IN LINE WITH THE U.S. PRACTICE OF PLACING GREAT IMPORTANCE ON THE EXCLUSIONARY EFFECT OF A DISCOUNTING PRACTICE.

The same reasoning was used in both *Concord Boat* and *Virgin Atlantic*, where the courts concluded that there was not a violation because companies that allegedly suffered from the discounting policy saw their market share increase, not decrease. In *LePage's*, the reduction in market share was documented and the U.S. Court of Appeals for the Third Circuit confirmed the violation.

IV. Conclusion

Abuse of dominance and monopolization cases are still treated very differently on the two sides of the Atlantic—U.S. policy is more permissive and EC policy is more severe. This is particularly true in the area of selective discounting. In the European Community, the only proper justification for discounts is some objective measure of the cost savings associated with the corresponding level of sales. Otherwise, exclusionary effects are presumed. In the United States, exclusionary effects have to be proven, not as a hypothesis or logical possibility, but as a reasonable possibility. In both jurisdictions, greater reliance on economic analysis would strengthen decision making.

All of the cases surveyed in this paper deal with dominant firms imposing high reductions in average prices on competitors that try to match the pricing strategy of the dominant firm. The abuse corresponds to situations where the dominant firm is globally profitable and where matching the discounting practice has or will lead an equally efficient competitor to price below cost—implying that incremental pricing is also below cost for the dominant firm.

If the discounting firm is dominant in a relevant market, the features of abusive discounting practices are such that:

1) there is evidence that targets are fine-tuned around the actual purchases of the dominant firm customers (otherwise competitors would not face any extra costs when matching the dominant firm's discounting policy);

2) if targets are on average just reached (as we should expect), then the matching of such discounts by an equally efficient competitor will lead to prices below costs;

3) the calculation of the below-cost character of discounts is made with respect to a small but significant increase in sales and refers to the price-cost margin of the dominant firm to ensure that exclusion is assessed with respect to an equally efficient competitor.

As in predation, if an equally efficient competitor is excluded because of the discounting strategy, then there is no need to look for efficiencies and a reduction of consumer welfare can be presumed.

In all of the EC cases, there is no evidence that matching the discount of the dominant firm has or will lead competitors to price below cost. The evidence provided is mainly on the absence of cost savings and the loyalty-inducing effect of a scheme that is uncertain in terms of the benefits it may provide. I have argued in this paper that the cost-saving argument is not taken to its logical conclusion, and that the cost savings and efficiencies associated with using discounts as incentive-enhancing devices are not even considered. Furthermore, uncertainty, sometimes mentioned in EC decisions as an additional factor that enhances the anticompetitive nature of the scheme, is not always an issue. In fact, there is no uncertainty when the target is expressed in terms of turnover, because the retailer knows exactly to what the discount amounts. On the other hand, with a market share target, the retailer does not know the level of discounts until the end of the reference period and matching the discounts of a competitor is not so easy. However, the experience a firm gains by being in the market year after year can help greatly. Experience can also help reduce the uncertainty of sliding scale discounts since, again, the bracket that the retailer will ultimately reach is not known until the end of the reference period.

As for the U.S. courts, the actual exclusion of competitors and their sustained losses is necessary for identifying a violation, as shown by both *Concord Boat* and *LePage's*. I have argued that the existence of competitors that are sustaining losses directly linked to the discounting practice of the dominant firm should be sufficient (in so far as the competitors are not less efficient than the dominant firm), and that the U.S. case law's requirement that competitors show significant loss of market share may be an unjustified additional burden. Of course, evidence to the contrary—that is, competitors' market share increases profitably as in *Michelin II* or in *Virgin Atlantic*—should significantly increase the burden of proof.

An important point worth mentioning is whether a merger should be prohibited on the grounds that there is the potential for such discounting practices to be put in place. The answer is "no." Indeed, in its judgment annulling the Commission's prohibition of the *Tetra Laval/Sidel* merger,[39] the CFI stated that the Commission, in assessing the effects of a merger, is required to assess whether the prohibition of abusive conduct makes discounting practices less likely.

A final question not really addressed in the paper is whether antitrust enforcement can really be based on fine-tuning arguments—for example, whether it is abusive to exclude a less efficient competitor because, in the future, he may become more efficient. The answer is a reasoned, "yes." In very special circumstances—those where there is direct and strong evidence of near-term efficiencies—the assessment of the exclusionary nature of rebates should be made with respect to the average incremental cost of the dominant firm associated with the small but significant increase in sales of the competitor.

39 Case T-5/02, Tetra Laval v. Commission, 2002 E.C.R. II-4382, declaring void Commission Decision 2004/103/EC, Tetra Laval/Sidel, 2004 O.J. (L 38) 1, appeals to the ECJ are pending as Cases C-12/03 and C-13/03, Commission v. Tetra Laval; Case T-310/01.

V. Appendix

Market share discounts can be formally described as such:

(1) $p_d q_d < mPQ \qquad R = r = 0$

(2) $p_d q_d > mPQ \qquad R = r p_d q_d > 0$

where:

p_d and q_d are respectively the price and quantity vectors of the dominant firm;

P and Q are respectively the price and quantity vectors of retailer's purchases on all substitute products;

m is the target market share;

R is the total amount of the granted discount; and,

r is the rate of discount.

In an asymmetric duopoly, assuming that the target m set by the dominant firm is reached (or that the retailer believes that it is reachable), a competitor with a share s on all purchases by a retailer and willing to compete away $1/n$ of the dominant firm sales (in principle the incremental sales originating from the discounting policy), has to match the lost discounts rmPQ, by providing the retailer with a discount rate equal to k:

(3) $k = rmPQ \,/\, [(1/n)\, mPQ + sPQ] = rm \,/\, [(1/n)\, m + s]$

From **(3)** it is clear that k, the discount rate the competitor has to offer in order to make the retailer indifferent, is higher than r, the discount rate offered by the dominant firm, the lower s, the competitor's relative sales to the retailer, and the lower $(1/n)$, the incremental sales originating from the introduction of the discounting policy as a share of all sales by the dominant firm. Still assuming that the target m is just reached (or that the retailer believes that is reachable), when s is equal to zero, market share discounts by a dominant firm can be very penalizing for a new entrant:

(4) $k = r \,/\, (1/n)$

The analysis on the exclusionary effect of market share discounts should be made on a case-by-case basis, identifying, with the help of **(3)** and **(4)**, the ability of the competitor to match the dominant firm's discounts and whether matching such discounts have or will lead him to price below costs.

A. SLIDING SCALE VOLUME DISCOUNTS

Sliding scale volume discounts can be characterized as:

(5) $p_d q_d > T_1 \; R_1 = r_1 p_d q_d$

(6) $p_d q_d > T_2 \; R_2 = r_2 p_d q_d$

where T_1 and T_2 are alternative levels of turnover set up by the dominant firm. If, as before, the competitor in an asymmetric duopoly wishes to compete away the incremental sales originating from the discounting policy as a share of the dominant company turnover with a given retailer ($1/n$), then there are a number of alternative levels that can be identified that depend on the level of total purchases from the dominant firm and on the actual bracket the purchaser will reach. The first case that can be analyzed is:

(7) $T_1 < p_d q_d < T_2$ and $(1 - 1/n)\, p_d q_d > T_1$

where the retailer receives a discount of r_1 by the dominant firm and the sales lost to the competing duopolist do not make the retailer drop to a lower discount rate. In such circumstances, the competitor has to provide the retailer with a rate of discount k equal to r_1 and the discount scheme cannot be exclusionary.

If, on the other hand, the sales lost to the competitor do make the purchases from the dominant firm drop back to a lower turnover bracket such that:

(8) $p_d q_d > T_2$ and $T_1 < (1 - 1/n)\, p_d q_d < T_2$

then the competitor can match the lost discount of the retailer by applying a discount rate k on his total sales to the retailer:

(9) $k = [(r_2 - r_1)\, p_d q_d + r_1 (1/n)\, p_d q_d] \,/\, [(1/n)\, p_d q_d + p_c q_c]$

where $p_c q_c$ are his existing sales with the retailer;

which is lower the higher $1/n$ and the higher the purchases by the retailer from the competitor. If the competing duopolist is a new entrant and the dominant firm is a monopolist, then $p_c q_c$ equals zero and:

(10) $k = r_1 + (r_2 - r_1) \,/\, (1/n)$

which is the discount a competitor has to grant at the margin in order to make the retailer indifferent. In particular, the second term on the right side of equation (10) is actually the additional discount rate that the competitor has to grant so as to make the retailer indifferent between the two suppliers.

Finally, when:

(11) $T_1 < p_d q_d < T_2$ and $(1 - 1/n)\, p_d q_d < T_1$

the additional sales of the competitor result in the retailer losing all volume discounts from the dominant firm. In such a case:

(12) $$k = d_1 p_d q_d / [(1/n)\, p_d q_d + p_c q_c]$$

is the discount the competing duopolist has to offer in order to match the lost discount by the dominant firm. If the competitor is a new entrant, then $p_c q_c$ are zero, and the discount the competitor has to offer is the same as that of formula (4).

Classic Papers on Predatory Pricing

Keith N. Hylton

Perhaps no area of antitrust law provokes as much controversy as predatory pricing, the theory that a firm violates the antitrust laws by setting its price too low. Under the standard definition, predatory pricing involves a strategy of cutting price below the level at which a competitor can survive in the market and then raising price to the monopoly level in a later stage known as recoupment period). Predation is harmful to consumers if the higher prices during the recoupment period more than offset the gains from lower prices they received during the period of predatory pricing.

The controversy created by laws penalizing the practice is easy to see. At first glance, penalizing price-cutting is inconsistent with the goals of competition law, since the obvious result is higher prices, which are harmful to consumers. On the other hand, firms that see themselves as the victims of predatory pricing argue that consumers are harmed in the long run because consumers are denied the benefits of competition during the recoupment period.

At present, U.S. law and EC law have reached different positions, with EC law taking a more restrictive approach towards predation. Indeed, the U.S. Supreme Court's decision in *Brooke Group*[1] is widely thought to have put an end to successful predatory pricing cases in the United States. In contrast, the European Court of Justice's judgment in *AKZO v. Commission* reasoned that dominant firms only price below cost in order to eliminate competitors and fur-

1 Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993).

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ther a monopolistic position.[2] Demonstrating recoupment is not required, at least for dominant firms, under EC case law and as a result predation cases remain alive and well in the European Community.

Perhaps in the long run, the impact of predatory pricing law is ambiguous. Laws that restrict predatory pricing are equivalent to enacting price floors. Price floors, however, do not put an end to competition. The firms subject to a price floor can compete with respect to quality rather than price. In a perfectly competitive setting, quality competition should continue until economic profits are driven to zero. This would suggest that in the absence of entry barriers, competition will continue to reduce the number of firms with monopoly power both in the United States and in the European Community. However, in the United States, we will, under this view, see lower prices and relatively lower quality in comparison to the European Community.

This issue publishes two pieces suggesting alternative views of the social desirability of taking a strong approach towards the regulation of predatory pricing. The first is B. S. Yamey's, "Predatory Price Cutting: Notes and Comments" (1972).[3] Although Yamey's paper describes itself modestly as "notes and comments", it introduces an important strand in the theory of predatory pricing. Yamey suggests that instances of pinpointed predation, limited to the specific submarket and time period in which a rival enters, could be a form of successful predation. After describing this version of predation, primarily as an exception to the then-developing view of predation as an unprofitable and rarely used strategy, he offers several examples from the industrial organization literature: fighting ships, fighting brands, and punitive freight-rate bases. Yamey's argument has been insufficient to alter the general skepticism toward predation claims reflected in the literature, and today, that skepticism has become embodied in the law—especially U.S. antitrust law. Now that we have entered a period in which the law on predation is unreceptive to plaintiffs' claims, Yamey's analysis of pinpointed predation continues to serve as an important reminder of the existence of valid predation claims.

The second classic reprinted here is Phillip Areeda and Donald Turner's "Predatory Pricing and Related Practices Under Section 2 of the Sherman Act" (1975).[4] This is one of those rare pieces of scholarship that has had an unambiguous impact on the law. The article used the basic cost curves diagram from introductory economics to identify regions of price-quantity space in which price cuts

2 Case C-62/86, AKZO Chemie BV v. Commission, 1991 E.C.R. I-3359.

3 Reprinted from B.S. Yamey, *Predatory Price Cutting: Notes and Comments*, 15 J.L. & Econ 129–42 (1972).

4 Reprinted from P. Areeda & D. Turner, *Predatory Pricing and Related Practices Under Section 2 of the Sherman Act*, 88 Harv. L. Rev. 697–733 (1975).

presumptively should be deemed predatory or non-predatory. The article's recommendation that price must exceed some appropriate measure of cost (Areeda and Turner recommended average variable cost as a proxy for marginal cost) is now a prerequisite for any Sherman Act predatory pricing claim under the U.S. Supreme Court's *Brooke Group* decision. In addition, without explicitly using the error-cost framework introduced by Easterbrook in "The Limits of Antitrust" (1984) (reprinted in volume one, issue one of this journal),[5] Areeda and Turner used arguments that translate quite readily into a comparison of the costs of false positive and false negatives under alternative price-cost comparison tests.

Whether one agrees with the approach of U.S. law or that of EC law, both classics continue to provide valuable insights on the predation problem.

5 F. Easterbrook, *The Limits of Antitrust*, 68 TEX. L. REV. 1 (1982) (*reprinted in* 1 COMPETITION POL'Y INT'L 179–215 (2005)).

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Predatory Pricing and Related Practices under Section 2 of the Sherman Act

Phillip Areeda and Donald F. Turner

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Predatory Pricing and Related Practices under Section 2 of the Sherman Act†

Phillip Areeda and Donald F. Turner***

A firm may reduce its prices in an attempt to destroy its rivals or to deter new entry. Although the Sherman Act has long been construed to prohibit this practice, the case law on predatory pricing has been characterized by vagueness and a paucity of economic analysis. In this Article, Professors Areeda and Turner analyze the predatory pricing offense in terms of its economic underpinnings. After briefly reviewing the fundamental economic concepts of cost-measurement and profit-maximization, the authors examine the relationship between a firm's prices and its costs in order to define a rational dividing line between legitimately competitive prices and prices that are properly regarded as predatory. They then apply their analytical framework to possible techniques of predation other than general price reductions.

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 This Article is an adaptation of part of a treatise on antitrust law that is being prepared for publication by the authors.

*Professor of Law, Harvard University (on leave). A.B., Harvard, 1951; LL.B. 1954. Professor Areeda is currently Counsel to the President of the United States. This Article was drafted before he became associated with the federal government and does not reflect the views of any government agency.

**Professor of Law, Harvard University. B.A., Northwest University, 1941; Ph.D., Harvard University, 1947; LL.B., Yale University, 1950.

Although antitrust law is not usually concerned with setting a limit on price competition, under certain conditions low prices may have anticompetitive effects. A firm which drives out or excludes rivals by selling at unremunerative prices is not competing on the merits, but engaging in behavior that may properly be called predatory. There is, therefore, good reason for including a "predatory pricing" antitrust offense within the proscription of monopolization or attempts to monopolize in section 2 of the Sherman Act.[1]

Treatment of predatory pricing in the cases and the literature, however has commonly suffered from two interrelated defects: failure to delineate clearly and correctly what practices should constitute the offense,[2] and exaggerated fears that large firms will be inclined to engage in it.[3] Unhappy rivals may automatically assume predation when a competitor's price is below their costs, disregarding the possibility that the alleged predator's cost is well below theirs and more than covered by his price. Moreover, "selling at a loss" might be viewed as improper even though the seller would incur greater losses if it attempted to charge a higher price or if it ceased production altogether.[4]

These vague formulations of the offense overlook the fact that predation in any meaningful sense cannot exist unless there is a temporary sacrifice of net revenues in the expectation of greater future gains. Indeed, the classically-feared case of predation has been the deliberate sacrifice of present revenues for the purpose of driving rivals out of the market and then recouping the losses through higher profits earned in the absence of competition.[5] Thus, predatory pricing

1 15 U.S.C. § 2 (1970); *see*, *e.g.*, United States v. American Tobacco Co., 221 U.S. 106, 182 (1911); Standard Oil Co. v. United States, 221 U.S. 1, 43 (1910). The Clayton Act, as amended by the Robinson-Patman Act, also provides a safeguard against predation in its prohibition of price discrimination. 15 U.S.C. § 13 (1970); *see*, *e.g.*, Moore v. Mead's Fine Bread Co., 348 U.S. 115 (1954), Porto Rican American Tobacco Co. v. American Tobacco Co., 30 F.2d 234 (2d Cir.), *cert. denied*, 279 U.S. 858 (1929). *See also* 15 U.S.C. § 13a (1970) (unlawful to "sell . . . at unreasonably low prices for the purpose of destroying competition or eliminating a competitor"). Although most of our discussion will be based on the reach of the Sherman Act, § 2, the issues are substantially the same under the Clayton Act insofar as that statute is concerned with predatory pricing. *See* pp. 724–28 *infra*.

2 *See*, *e.g.*, Atlas Bldg. Prod. Co. v. Diamond Block & Gravel Co., 269 F.2d 950 (10th Cir. 1959), *cert. denied*, 363 U.S. 843 (1960); Maryland Baking Co. v. FTC, 243 F.2d 716 (4th Cir. 1957).

3 *See*, *e.g.*, Reynolds Metal Co. v. FTC, 309 F.2d 223, 229–30 (D.C. Cir. 1962); Foremost Dairies, Inc., 60 F.T.C. 944, 1083–84 (1962); MacIntyre & Volhard, *Predatory Pricing Legislation – Is it Necessary?*, 14 B.C. Ind. & Com. L. Rev. 1 (1972). One commentator has suggested that predatory pricing is likely to be used in combination with attempts to merge or with cartelization, but includes all pricing that is not profit-maximizing in his definition of "predatory." *See* Yamey, *Predatory Price Cutting: Notes & Comments*, 15 J. L. & Econ. 129 (1972).

4 *See* note 20 *infra*.

5 A large firm may also "sell at a loss" for the purpose of disciplining smaller rivals for undercutting its monopoly price. Although this practice may not drive rivals out of the market, it does enable the disciplining firm, if successful, to regain losses it incurred during the period of discipline. *See* pp. 706–09 *infra*; note 35 *infra*.

would make little economic sense to a potential predator unless he had (1) greater financial staying power than his rivals, and (2) a very substantial prospect that the losses he incurs in the predatory campaign will be exceeded by the profits to be earned after his rivals have been destroyed.

As for the first prerequisite, it should, of course, be recognized that predation cannot be successful, and therefore is unlikely to occur, when the predators' rivals possess resources comparable to his own. Even when an alleged predator has greater staying power, however, attention must also be given to the second prerequisite, which is less likely to occur. Although a predator may drive competitors into bankruptcy, their durable assets may remain in the market in the hands of others. Moreover, a firm can anticipate monopoly profits for only so long as its monopoly prices do not attract new entry. Losses incurred through predation could be regained in markets with very high barriers to entry. In many markets, however, and especially in those having a number of small rivals, entry barriers may be nonexistent or at least too low to preclude entry. Admittedly, a demonstrated willingness to indulge in predatory pricing might itself deter some smaller potential entrants, but it is unlikely to inhibit firms with resources comparable to those of the predator. Repeated predation in the same market, moreover, is not only costly but is likely to be easily detectable and thus the occasion for severe antitrust sanctions. The prospects of an adequate future payoff, therefore, will seldom be sufficient to motivate predation.[6] Indeed, proven cases of predatory pricing have been extremely rare.[7]

That predatory pricing seems highly unlikely does not necessarily mean that there should be no antitrust rules against it. But it does suggest that extreme care be taken in formulating such rules, lest the threat of litigation, particularly by private parties, materially deter legitimate, competitive pricing. Courts in predatory pricing cases have generally turned to such empty formulae as "below cost"

6 It has also been argued that predatory pricing to drive out rivals is unlikely because the alternatives of acquiring rivals by merger or forming a price cartel are less costly. *See* McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case*, 1 J.L. & ECON. 137, 138–43 (1958); Telser, *Cutthroat Competition and the Long Purse*, 9 J.L. & ECON. 259 (1966). In the early years of the Sherman Act predatory pricing was used to coerce rivals into merger with the predator or into joining a price cartel. *See, e.g.,* Standard Oil Co. v. United States, 221 U.S. 1 (1910); United States v. E.I. du Pont de Nemours & Co., 188 F. 127, 140 (Cir. Ct. Del. 1911). When these alternatives are also illegal and either more visible or more difficult to effect, however, the argument that they will supplant predatory pricing is unpersuasive.

7 *See* Koller, *The Myth of Predatory Pricing – An Empirical Study*, 4 ANTITRUST L. & ECON. REV. 105 (Summer 1971).

pricing,[8] ruinous competition,[9] or predatory intent[10] in adjudicating liability. These standards provide little, if any, basis for analyzing the predatory pricing offense. In this Article we will attempt to formulate meaningful and workable tests for distinguishing between predatory and competitive pricing by examining the relationship between a firm's costs and its prices. We will first review some rudimentary economic distinctions among various measures of cost and their relevance to profit-maximization. We will then discuss which measurements of cost should be used to determine when a firm is engaging in predatory pricing. Finally we will examine predatory devices other than general price reductions.[11]

I. Alternative Measures of Cost[12]

The economic costs facing a firm differ in an important respect: some are "fixed," and others are "variable." Fixed costs are costs that do not vary with changes in output. They typically include most management expenses, interest on bonded debt, depreciation (to the extant that equipment is not consumed by using it), property taxes, and other irreducible overhead. And though not an accounting cost, fixed costs should be deemed to include the return on investment that would currently be necessary to attract capital to the firm — what the economist refers to as the opportunity cost to the owners of the firm. In short, it is reasonably accurate to say that fixed costs are costs that would continue even if the firm produced no output at all.

Variable costs, as the name implies, are costs that vary with changes in output. They typically include such items as materials, fuel, labor directly used to produce the product, indirect labor such as foreman, clerks, and custodial help, utilities, repair and maintenance, and per unit royalties and license fees. The average variable cost is the sum of all variable costs divided by output.

Marginal cost is the increment to total cost that results from producing an additional increment of output. It is a function solely of variable costs, since

8 *See*, *e.g.*, National Dairy Prod. Corp. v. United States, 350 F 2d 321, 327 (8th Cir. 1965), *vacated and remanded on ether grounds*, 384 U.S. 883 (1966); Forster Mfg. Co. v. FTC, 335 F.2d 47, 53 (1st Cir. 1964), *cert. denied*, 380 U.S. 906 (1965); E. B. Muller Co. v. FTC, 142 F.2d 511, 517 (6th Cir. 1944).

9 Porto Rican American Tobacco Co. v. American Tobacco Co., 30 F.2d 234, 236 (2d Cir.), *cert. denied*, 279 U.S. 858 (1929).

10 *See*, *e.g.*, Moore v. Mead's Fine Bread Co., 348 U.S. 115, 118 (1954); Forster Mfg. Co. v. FTC, 335 F.2d 47, 52 (1st Cir. 1964), *cert. denied*, 380 U.S. 906 (1965); Maryland Baking Co. v. FTC, 243 F.2d 716, 718 (4th Cir. 1957); E.B. Muller & Co. v. FTC, 142 F.2d 511, 517 (6th Cir. 1944).

11 The bulk of our analysis focuses on what should be deemed to be a predatory practice by a monopolist, since that is the "worst case." Practices acceptable for the monopolist are a fortiori acceptable for firms with less market power. However, we shall also indicate the respects in which nonmonopoly firms should have wider latitude.

12 *See generally* R. Dorfman, Prices and Markets (2d ed. 1972).

fixed costs, by definition, are costs unaffected by changes in output. Marginal cost usually decreases over low levels of output and increases as production approaches plant capacity.[13]

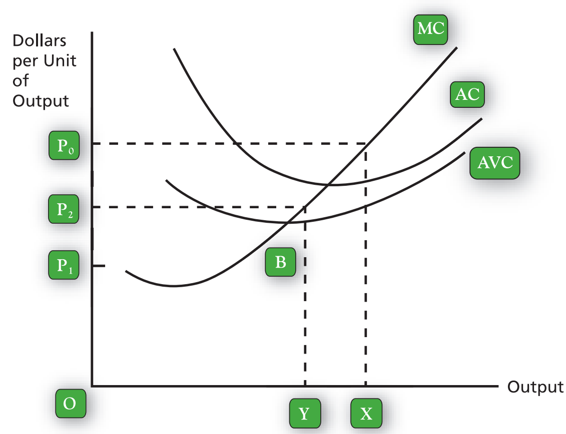
Average cost is the sum of fixed cost and total variable cost, divided by output. It is, by definition, higher than average variable cost at all outputs, but will typically be below marginal cost at very high levels of output, when the plant is strained beyond efficient operating capacity.[14]

Which costs are fixed and which are variable (and hence marginal) is a function of both (1) the magnitude of the contemplated change in output, and (2) time. Virtually all costs are variable when a firm, operating at capacity, plans to double its output by constructing new plants and purchasing new equipment. Moreover, more costs become variable as the time period increases. The variable costs described above are those incurred in what is usually termed the "short run," namely, the period in which the firm cannot replace or increase plant or equipment. Conversely, in the "long run" the firm can vary quantities of *all* inputs (plant and equipment as well as shortrun variable inputs); thus, all costs are variable over the long run.[15]

In order to determine which of these various costs is relevant to predatory, "below cost," selling, we must first ask what costs are relevant to the firm which is seeking to maximize profits or minimize losses, since a firm which seeks to do

13 If variable costs are strictly proportional to output, marginal cost will equal average variable cost at all outputs. If not, marginal cost will be lower than average variable cost at some (usually low) outputs and higher at other (usually high) outputs.

14 The different categories of cost and their relationship can be portrayed by the following classic diagram:



Marginal cost (MC) is equal to average variable cost (AVC) when AVC is at a minimum and is equal to average cost (AC) when AC is at a minimum.

15 There is, of course, no single time period that determines the short or long run. As the time period lengthens, more fixed costs become variable.

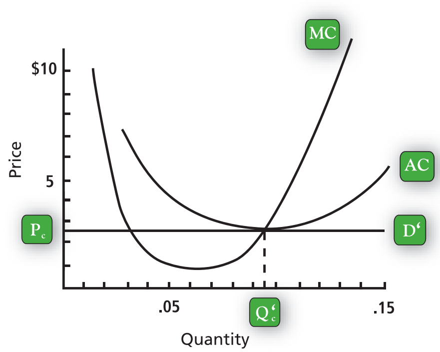
so is normally responding to acceptable economic incentives and thus is not engaging in predatory behavior. The profit-maximizing or loss-minimizing output for any firm, whether competitive or monopolistic, is that where any increase in output would add more to costs than to revenues and any decrease in output would reduce revenues more than costs. In short, in deciding whether it would increase or decrease output, the firm looks to the *incremental* effects on revenues and costs. Thus, the relevant cost is marginal cost.[16]

Under conditions of perfect competition, a firm always maximizes profits (or minimizes losses) by producing that output at which its marginal cost equals the market price.[17] This occurs because the perfectly competitive firm accepts the market price as given since it is, by definition, too small to affect market price by any variations in output. Accordingly, its incremental or marginal revenue from selling any additional unit of output is equal to the market price itself. Thus, when price is equal to marginal cost, changes in output will reduce profits. This solution in the perfectly competitive world also produces an efficient allocation of resources: market price reflects what consumers are willing to pay for the last unit of output; marginal cost reflects the full current cost of resources needed to produce it; a higher price would result in a reduction in output and thus deprive some buyers of a commodity for which they were willing to pay the cost of production.[18]

16 Since fixed costs do not vary with changes in output, they are irrelevant to a determination of the profit-maximizing or loss-minimizing output. The size of the fixed costs determines only whether, at the best output, the firm will earn excess, normal, or below-normal returns. Of course, if the firm can at best make below-normal returns, and the prospects remain the same when the time comes for plant or equipment to be replaced, the rational firm would not make the reinvestment and its output would decline or cease. But at the time that such a decision is made, the fixed costs would no longer be fixed but would have become a part of variable cost, since they would then be affected by variations in output.

17 If, however, price is below average variable cost at all levels of output, the firm can minimize losses only by ceasing operations. Since the average cost of production of each unit is greater than the revenue realized from its sale, any output greater than zero increases the firm's losses. At price P_1 on the diagram in note 14 *supra*, the loss-minimizing firm will shut down.

18 The following diagram shows the profit-maximizing price for the perfectly competitive firm:



Since the firm is unable to affect price by changes in its output, it faces a horizontal demand curve. The firm maximizes profit when price (P_c) is equal to marginal cost (MC).

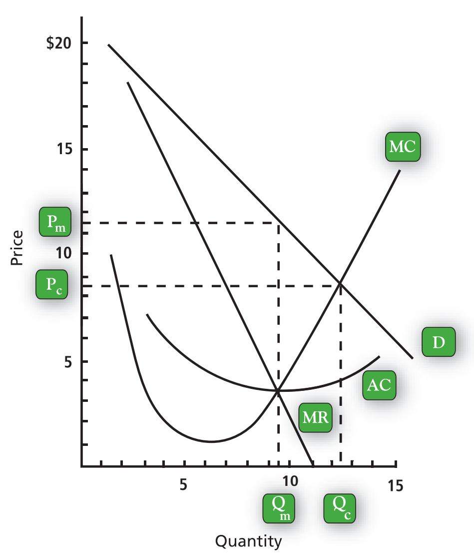
The firm with monopoly power, however, has, by definition, captured a sufficiently large part of a market to determine market price by varying its output. For the monopolist facing the usual "downward sloping" demand curve (and unable to engage in significant price discrimination), an increase in output will reduce the market price. Thus, the incremental revenue to the monopolist from selling an additional unit is the lower price received for that unit, minus the revenue lost from selling all other units at the lower price. For him, therefore, marginal revenue is always below price, with the result that the output at which marginal cost equals marginal revenue will generate a price that exceeds marginal cost.[19] The monopolist's price is thus higher, and its output lower, than the social optimum; any higher output and lower price would be an improvement in resource use up to the point where, as in a competitive market, price equals marginal cost.

II. Predatory Pricing in General

A. THE PROBLEM

We are now able to characterize more precisely the predatory pricing problem. We would normally expect a profit-maximizing firm, within the limits of data and convenience, to attempt to maximize profits or minimize losses in the short run — the competitive firm by producing where marginal cost equals price, and the monopolist by producing where marginal cost equals marginal revenue. The firm that is selling at a shortrun profit-maximizing (or loss-minimizing) price is

19 Because the monopolist can affect market price by varying its output, it faces a downward sloping demand curve (D):



The monopolist maximizes profit when marginal revenue (MR) is equal to marginal cost (MC). Thus, in the illustration, the profit-maximizing monopolist will produce quantity Q_m and sell at price P_m, which is higher than marginal cost.

clearly not a predator. A necessary, but, as we will subsequently argue, not sufficient condition of predation is the sacrifice of shortrun profits.

Shortrun profit-maximizing may adversely affect profitability in the longer run. A firm may correctly calculate that shortrun losses will be more than repaid by the higher monopoly prices that can be charged after competitors have been driven out. Accordingly, longrun profit-maximizing should not be an absolute or automatic defense to allegedly predatory, shortrun profit-sacrificing. However, not all deliberate sacrificing of shortrun profits is illegitimate. A firm may voluntarily assume shortrun losses in situations where monopoly is neither sought nor possible, and where, as in the case of a new entrant seeking to become established in a market, such action promotes rather than retards competition. Thus, a standard based upon shortrun profit-maximizing is not an adequate means of defining the legitimate price floor for firms in general. Indeed, even for a monopolist, a profit-maximization standard is inappropriate. Definition of a proper price floor requires an understanding of the relationship between a firm's prices and various measures of cost.

B. PRICES AT OR ABOVE AVERAGE COST

When price is equal to average cost, the firm is at the "break even" point — that is, total revenues just cover total costs, including normal returns on investment. The relationship between price and average cost does not, however, determine whether a firm is profit-maximizing; it shows only whether the firm is making excess, normal, or below-normal returns.

When a monopolist sells at a price at or above average cost, but could earn higher shortrun profits at a higher price, the necessary element of predation is presumably present.[20] Unless acting irrationally or out of ignorance, the firm is likely to be charging the lower price in order to preserve or enhance its market share by deterring rivals.[21] Such pricing may take two forms: **(1)** the firm may permanently charge less than a profit-maximizing price in order to deter entry or to destroy rivals; or **(2)** it may first charge a profit-maximizing price, lower the price

20 When a firm sells at a price *below* average cost it is incurring a loss. The mere fact that the firm is not recovering full costs, however, is not grounds for concluding that its price is predatory. Losses are sometimes inevitable; demand conditions may dictate that a firm earn its maximum net revenue over variable costs at a price below average cost. For example, in the diagram in note 14 *supra*, a firm may be loss-minimizing at price P_2. While not recovering full fixed costs, such a firm is not sacrificing available present returns for any anti-competitive objective. The shortrun, loss-minimizing price cannot, therefore, be considered predatory or otherwise objectionable by antitrust law.

This proposition will not resolve many real cases. It will be exceedingly difficult to know what is or is not a loss-minimizing price. Nevertheless, the proposition is an important one in principle, for it serves to remind us that the defendant's failure to earn profits or even to recover his full cost is not necessarily objectionable.

21 The firm may also be keeping price down to reasonable levels during periods of high demand in order to preserve customer goodwill.

when rivals appear, and then raise the price when the rivals are extinguished. However, in both instances, we conclude that such pricing behavior should be deemed non-predatory so long as the prices equal or exceed average total cost. Our analysis of each variation follows. In each instance we assume that the price is equal to or greater than both average cost and marginal cost.[22]

1. Limit Pricing

A monopolist protected by an insurmountable barrier to the entry of others can charge whatever price will maximize his profit. The ability of other firms to overcome entry barriers may, however, affect the monopolist's price. To oversimplify a bit, suppose that the monopolist's profit-maximizing price is $100 per unit, but a $100 price would attract entry while a $90 price would not. Average total costs (including a normal return on investment) at an efficient scale of output might be $80 to the monopolist but $91 for newcomers. In that event, the monopolist will have to choose between inducing entry at the profit-maximizing price of $100 and retaining the entire market at the $90 price. If the discounted income stream at the lower price exceeds that from sharing the market at the higher price, the monopolist will charge the lower price. Although the lower price would thus be the longrun, profit-maximizing price, it is usually called a "limit price" and contrasted with the higher, shortrun, profit-maximizing price determined without reference to possible entry.[23]

The limit price is intended by the monopolist to impair the opportunities of rivals, and, if successful, it does prevent competition from arising. In the absence of limit pricing, competition might arise and force the price down to the former limit price or even lower, if the presence of additional firms induces cost paring, reduction of "slack," and, in the long run, more efficient production. Without limit pricing other benefits of competition may also arise. More firms in the market might, for example, lead to more invention and innovation and a quicker dispersion of existing innovations throughout the economy.

We do not, however, believe that these arguments justify a prohibition against limit pricing. Superior products or service, successful innovation, or other effective competition on the merits always tends to exclude rivals. Without them, more competitors might arise and eventually achieve comparable or better results, but we do not accept such speculative possibilities in exchange for the present benefits of superior competitive performance. Exclusion by charging prices equal to average cost is also competition on the merits — only those potential entrants who cannot survive at the efficiency-related price are kept

22 The unusual case where price equals or exceeds average cost but is less than marginal cost is discussed at pages 712–13 *infra*.

23 *See generally* J. Bain, Industrial Organization 269–76 (2d ed. 1968).

out.[24] And the lower prices, higher output, and fuller use of the monopolist's productive capacity are, of course, socially beneficial.

In sum, without even considering the formidable administrative problems which supervising a monopolist's pricing policies would impose,[25] we conclude that more-or-less permanently "low" prices are competition on the merits and not an abuse of power or exclusionary behavior for the purposes of section two of the Sherman Act.[26]

2. Temporary Price Reduction to Average Cost

Where entry is easy and relatively costless, the monopolist would have to maintain the lower price to forestall renewed entry. But where a new entrant must make a large investment in facilities, personnel training, distribution development, or product promotion, he will not enter without the prospect of survival for a period sufficiently long to recover at least those initial costs. The potential entrant who cannot survive at a price covering the monopolist's costs will not, therefore, enter when he thinks it probable that the monopolist will adopt that lower price in response to entry. If the monopolist reduces his price once or twice, he will discourage future entry. In such circumstances, monopoly may be maintained without a permanent price reduction, and thus consumers will not receive the long-term benefit of the higher output at lower price by which rivalry was destroyed or prevented. This result is certainly not a happy one.

Nevertheless, despite the loss of long-term benefits to consumers, this case is analytically indistinguishable from the preceding case. Temporary price reductions are no more exclusionary than permanent low prices, and may be even less so since some entrants may have the staying power to meet the monopolist's temporary, low price. In either case, the low price at or above average cost is competition on the merits and excludes only less efficient rivals. Even if this were not fully convincing we would still conclude that temporary price reductions in response to rivalry or threatened rivalry should not be judged unlawfully exclusionary under the Sherman Act because of the formidable administrative problems in attempting to control such temporary price reductions adequately, efficiently, and without interfering unduly with desirable pricing behavior.

24 Similarly, only less efficient, existing rivals will be eliminated by the monopolist's limit price.

25 *See* pp. 707–09, 711 *infra*.

26 Our conclusion that it makes no legal sense to compel a monopolist to invite entry by exploiting consumers, or to force a firm to forego price competition on the merits with existing rivals is no less applicable when a firm permanently reduces an earlier and higher price to a price at or above average cost even though he would earn larger, shortrun profits at the higher price. The fact that a firm once restricted output or exploited buyers, generates no social interest in continued exploitation. Moreover, the fact that the lower price is relative permanent provides some assurance that the firm is making a normal return, since otherwise it would be unlikely to maintain the lower price.

We see no satisfactory method of control. One might try to forbid the high monopoly price and thereby assure that consumers always have the benefit of competitive prices. There are, however, serious theoretical and practical difficulties in determining what is a "reasonable" (nonmonopoly) price, as the history of public ratemaking makes painfully manifest. Determination of a reasonable price would require continuing supervision as cost, demand, and technological functions change. Antitrust courts have rightly resisted undertaking the heavy, continuous, and unguided burden of supervising the economic performance of business firms.[27] Moreover, a monopolist whose power was legitimately acquired by patents cannot be denied monopoly profits without subverting the purpose of the patent laws. Similarly, denying monopoly profits to those whose power was obtained by superior skill, foresight, and industry could eliminate the primary incentive to develop such competitive skill. Finally, price restrictions would have perverse effects on the efficiency and innovation aspects of a monopolist's ongoing performance by eliminating the reward.[28]

Alternatively, one might try to forbid a monopolist from lowering his price below the price charged by a rival or announced by an entrant. This would guarantee the entrant or the rival protection from any competitive price initiatives on the part of the monopolist. The administrative problems with this method, however, are also substantial. Relative qualities and consumer preferences have to be assessed in order to determine when a particular price in fact merely meets rather than effectively undercuts the rival's price.[29] Moreover, a time limit would have to be placed on the constraint, since otherwise new entrants would be motivated to maintain monopoly prices and the constraint itself would have an anticompeti-

27 The conclusions of the Supreme Court in rejecting a "reasonable price" defense to a price-fixing agreement are equally apposite here:

> The reasonable price fixed today may though economic and business changes become the unreasonable price of tomorrow. Once established, it may be maintained unchanged because of the absence of competition secured by the agreement for a price reasonable when fixed. Agreements which create such potential power may well be held to be in themselves unreasonable or unlawful restraints, without the necessity of minute inquiry whether a particular price is reasonable or unreasonable as fixed and without placing on the government in enforcing the Sherman Law the burden of ascertaining from day to day whether it has become unreasonable through the mere variation of economic conditions. Moreover, in the absence of express legislation requiring it, we should hesitate to adopt a construction making the difference between legal and illegal conduct in the field of business relations depend upon so uncertain a test as whether prices are reasonable — a determination which can be satisfactorily made only after a complete survey of our economic organization and a choice between rival philosophies.

United States v. Trenton Potteries Co., 273 U.S. 392, 397–98 (1927).

28 For a discussion of the relationship between monopoly and innovation see F. Scherer, Industrial Market Structure and Economic Performance 363–77 (1970).

29 See p. 716 & note 41 *infra*.

tive effect. The constraint might last only until new entrants recover start-up costs, thereby assuring the survival of entrants able to produce as efficiently as the firm with monopoly power. It would, however, be difficult to determine the time needed for recovery of start-up costs, and the longer the constraint lasts the more likely that it will encourage waste by the new entrants. Moreover, even a temporary imposition of a price floor could encourage entry of inefficient firms.[30]

Finally, one might forbid the reversal of a price decrease and thereby either discourage temporary price reductions from the outset or at least give consumers the permanent benefit of the lower prices by which a monopolist destroyed his rivals or prevented their entry. Although this method is perhaps the most feasible, we feel that it should be rejected for a number of reasons. First, forbidding reversal of a price decrease would greatly increase the likelihood that a monopolist would elect to forego the price reduction and maximize his monopoly profits until such time as entry or expansion of rivals eliminates them. Foregoing the reduction would encourage the entry of less efficient rivals.

Second, enforcement of such a rule would require adjustments to cope with subsequent changes in costs or demand. Most obviously, the price ceiling would have to be raised with an increase in such factor costs as wage rates or materials, or with an increase in demand that could only be met at marginal costs above the price ceiling. In such events, failure to raise the ceiling would result either in **(1)** uneconomically high output (where price is less than marginal cost) or **(2)** insufficient output to meet the demand at the ceiling price, which would in turn lead to private rationing or a "gray" market in which resales took place at higher prices.

Moreover, enforcing a price ceiling would raise the problem of reduced profits or even losses for the monopolist in the event of a decrease in demand. Theory might suggest no relief or even a price reduction, on the ground that if competition had not been excluded the same result would have been obtained. But it is at least doubtful that so ruthless as approach would be acceptable even under legislatively authorized "public utility" regulation. And such a policy would further discourage a monopolist from making any price reductions.

In sum, a rule forbidding reversal of a price reduction would impose on enforcement agencies and the courts administrative burdens that are not justified by the speculative benefits such a rule might bring. Accordingly, we conclude that a price at or above average cost, should be deemed non-predatory, and not in law exclusionary, whether permanent or not.

30 Alternatively, the pricing constraint on the monopolist might be maintained until new entrants or rivals had acquired a specified market share. Such a limit, however, could not only encourage entry of less efficient firms seeking to take advantage of a guaranteed market share, but would also provide an incentive for rivals to restrict output just short of the specified share in order to maintain high prices.

We are under no illusions that a rule permitting prices at or above average cost is easily applied. Average cost includes a "normal" return on investment, a figure usually not determinable with any precision. But the principle that average-cost pricing is legitimately competitive is an important one and may serve to dispose quickly of cases in which the alleged predator's rate of return is normal by any reasonable test.[31]

C. MARGINAL-COST PRICING

In the previous Section we considered the threat to rivals and new entrants posed by a price that is profitable to the monopolist but not to the rival. In some instances, however, the monopolist's price may both generate below-normal returns — that is, it may be below average cost — and be below the loss-minimizing price. Because such a price yields less than the normal return on capital, it can threaten the survival of equally efficient rivals with less staying power than the monopolist enjoys. We will consider these loss-producing prices in two categories: **(1)** those equal to or greater than marginal cost and **(2)** those less than marginal cost.

A RULE FORBIDDING REVERSAL OF A PRICE REDUCTION WOULD IMPOSE ON ENFORCEMENT AGENCIES AND THE COURTS ADMINISTRATIVE BURDENS THAT ARE NOT JUSTIFIED BY THE SPECULATIVE BENEFITS SUCH A RULE MIGHT BRING. WE CONCLUDE THAT A PRICE AT OR ABOVE AVERAGE COST, SHOULD BE DEEMED NON-PREDATORY, AND NOT IN LAW EXCLUSIONARY, WHETHER PERMANENT OR NOT.

1. Prices At or Above Marginal Cost

At the outset we can eliminate from our consideration situations in which the monopolist is producing beyond the output at which his plant functions most efficiently, since at such high levels of production, marginal cost will exceed average cost. In such cases, pricing at or above marginal cost will not eliminate equally efficient rivals or potential entrants, who may freely restrict their output to efficient levels, and thus make substantial profits at the monopolist's price.

We need consider, then, only instances when marginal cost is below average cost, a situation which will not occur unless the monopolist possesses "excess capacity."[32]

31 The district court in Telex Corp. v. IBM, 367 F. Supp. 258 (N.D. Okla. 1973), apparently failed to recognize this principle. Despite a lack of evidence that IBM reduced prices below cost and a reasonable profit, and despite IBM's anticipation of returns "in cases of 20%," the court found that IBM had engaged in predatory pricing. *Id.* at 306.

32 A firm has excess capacity (and marginal cost is below average cost) when the demand curve intersects the average cost curve to the left of minimum average cost, *i.e.*, prior to the point where marginal cost equals average cost.

Only then will the monopolist's marginal cost price deprive equally efficient rivals, actual or potential, of "normal" returns on their capital.[33]

Although narrowed, the problem remains: the equally efficient rival might be destroyed or dissuaded from entering not because he is less efficient but because he has less capital. Consider two illustrations. First, suppose that the monopolist occupies an entire market by himself and that his plant has excess capacity. Suppose further that the monopolist could maximize profits at a price exceeding average cost but chooses to dissuade entry by pricing at marginal cost, which is now below average cost. Although it may preserve a monopoly, this price seems socially appropriate, because the construction of additional capacity where excess capacity already exists would waste social resources. Indeed, a price higher than marginal cost would yield a smaller output and would waste present resources. Existing capacity, that could be used to produce at a cost less than the added value to consumers, would be idled.

Second, suppose that **(1)** a monopolist and his smaller rival have identical cost curves, **(2)** both have been producing at full capacity and earning significant profits, **(3)** demand falls during a temporary, two-year recession, **(4)** the monopolist would maximize profits at a price above average cost, **(5)** the monopolist chooses to price at marginal cost, which is now below average cost, **(6)** the rival has insufficient liquid resources or access to new capital to cover his losses and service his capital debt, **(7)** the rival thereby expires, **(8)** his assets and business are withdrawn from the market, and **(9)** subsequent new entry is difficult. In this set of circumstances, marginal-cost pricing by the monopolist does not merely discourage the addition of immediately redundant capacity, but has the effect of destroying an equally efficient rival.[34]

Nevertheless, we conclude that prices at or above marginal cost, even though they are not profit-maximizing, should not be considered predatory. If a monopolist produces to a point where price equals marginal cost, only less efficient firms will suffer larger losses per unit of output; more efficient firms will be losing less or even operating profitably. Admittedly, the destruction of an equally efficient rival, and the deterrence of entry of firms which are equally efficient, poses some threat to competition in the long run; if demand increases to its former level, only the monopolist will occupy the market which he formerly shared with the rival. However, we see no satisfactory method of eliminating this risk. Establishing a price floor above marginal cost would permit survival not only of equally efficient

33 We also do not consider here loss-minimizing prices below average cost. As we have noted, *see* note 20 *supra*, such prices lack the predatory element of sacrificing current revenues.

34 This illustration is not meant to suggest that facts number four and number five will actually occur with any frequency; nor is it inevitable that the rival will fail to ride out the recession, that his assets will in fact be withdrawn from the industry, or that reentry will be difficult. Nevertheless, we are posing a testing case in order to examine the principle that marginal-cost pricing should be considered lawful.

firms, but less efficient ones as well. And in the short run, at least, entry even by equally efficient firms will be undesirable since excess capacity already exists.

Furthermore, to force the firm to charge a higher price would reduce industry output and waste economic resources in the short run. Output that could be produced at a cost lower than its value to consumers would be eliminated. Thus, pricing at marginal cost is the competitive and socially optimal result.

Finally, enforcement of a prohibition against marginal-cost pricing would create serious administrative problems. If the monopolist were prohibited from dropping his price down to marginal cost, then some price floor above marginal cost would be required. Such a floor should be set no higher than a monopolist's loss-minimizing price since a higher price is not predatory and would require the monopolist to incur greater losses. Yet, a floor so defined would be more difficult to administer or comply with than a marginal-cost floor. Difficult as it may be for a firm to calculate marginal cost, it is vastly more difficult to calculate in advance what the loss-minimizing price would be. In addition to marginal costs, the firm would have to estimate what the shape and position of its demand curve will be, which would in turn require an estimate, among other things, of the price and output responses of rivals to various prices it might charge. To hold the monopolist responsible, after-the-fact, for reasonable miscalculations would be an intolerable burden, and encourage a high-price policy in order to be safe. And it is likely to be nearly as difficult to make after-the-fact determinations of what would have been the loss-minimizing price as it was to make them a priori.

Thus, we conclude that a prohibition of marginal-cost pricing cannot be justified either by economic theory or administrative convenience.[35]

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35 It is possible that a firm may temporarily reduce its price to marginal cost in order to punish competitors for shading its higher price. If the firm's marginal cost price merely meets that of its competitors, we see no justification for finding a predatory offense. Meeting a rival's price with a price above marginal cost is competition on the merits and prohibition of that practice would coerce a firm into giving up a portion of its market share whenever rivals choose to cut their prices.

Price reductions below that of a rival are more objectionable, but even here identification of the violation will be difficult in many instances. In an oligopoly situation it would be difficult if not impossible to distinguish "disciplinary" price-cutting from an outbreak of competitive pricing under the pressures of excess capacity. It would be plainly perverse to impose a constraint on competitive pricing, and thus reinforce the innate tendencies of oligopolists to maintain non-competitive prices by cooperation or collusion.

When a monopolist engages in temporary marginal-cost pricing to discipline small rivals, predation is more easily inferred. Nevertheless, because of the difficulties of drawing the lines between monopoly and oligopoly and between "meeting" and "beating" a rival's price, *see* note 41 *infra*, and because of the administrative problems inherent in setting any price floor above marginal cost, we conclude that disciplinary price cuts to levels above marginal cost should be disregarded.

2. Prices Below Marginal Cost

By definition, a firm producing at an output where marginal cost exceeds price is selling at least part of that output at an out-of-pocket loss. It could eliminate that loss by reducing its output or, where the highest obtainable price is below average variable cost at all levels of output, by ceasing operations altogether.[36]

We have concluded above that marginal-cost pricing by a monopolist should be tolerated even though losses could be minimized or profits increased at a lower output and higher price, for the reasons, among others, that marginal-cost pricing leads to a proper resource allocation and is consistent with competition on the merits. Neither reason obtains when the monopolist prices below marginal cost. The monopolist is not only incurring private losses but wasting social resources when marginal costs exceed the value of what is produced. And pricing below marginal cost greatly increases the possibility that rivalry will be extinguished or prevented for reasons unrelated to the efficiency of the monopolist. Accordingly, a monopolist pricing below marginal cost should be presumed to have engaged in a predatory or exclusionary practice.[37]

PRICING BELOW MARGINAL COST GREATLY INCREASES THE POSSIBILITY THAT RIVALRY WILL BE EXTINGUISHED OR PREVENTED FOR REASONS UNRELATED TO THE EFFICIENCY OF THE MONOPOLIST. A MONOPOLIST PRICING BELOW MARGINAL COST SHOULD BE PRESUMED TO HAVE ENGAGED IN A PREDATORY OR EXCLUSIONARY PRACTICE.

We would make one exception to this rule, namely, when the price, though below marginal cost, is at or above average cost. This is not justifiable "on principle," since production to the point where marginal cost exceeds price is wasteful whether or not price exceeds average cost. Nevertheless, practical reasons suggest that the case can be disregarded, for it seems unlikely to have any significant anticompetitive consequences. The case could occur, by definition, only when demand exceeds what the firm can produce at minimum average cost. If the excess demand is temporary, there is little need for new entry. If permanent, pricing below marginal cost, with its consequent high output, may have some deterrent effect on new entry and some adverse effect on existing rivals. The harmful effect, however, will be minimal, since the price is higher than the monopolist's average cost at most efficient levels of output, and equally efficient rivals or entrants would be making above-normal profits at that

36 *See* note 17 *supra*.

37 Because of the substantial problems involved in determining a firm's marginal cost, we suggest below that average variable cost be used as a surrogate for marginal cost in distinguishing between predatory and non-predatory prices. *See* pp. 716–18 *infra*.

price.[38] Thus, it is unlikely that the monopolist would continue that pricing policy for any substantial length of time, because the prospects of recovering profits lost through attempted predation would be dim.

Pricing above average cost is, however, the only exception we would make to a prohibition of below-marginal-cost prices. A monopolist may attempt to justify prices below marginal cost by claiming either that the price is being used for promotional purposes or that he is simply meeting an equally low price of a rival. We conclude, however, that these justifications are either so rarely applicable or of such dubious merit for a monopolist that the presumption if illegality for prices below both marginal and average cost should be conclusive.

(a) Promotional Pricing

A promotional price is a temporary, low price designed to induce patronage with the expectation that the customer will continue purchasing the product in the future at a higher price. The promotional price may be below cost and is most easily illustrated by the seller who gives his product away without charge to some or all would-be customers.

Unless continued over a long period of time, in which case it is no longer promotional, promotional pricing by new entrants or small firms without monopoly power threatens little or no harm. Promotional pricing can facilitate new entry or the expansion of small rivals in an industry dominated by one or a few large firms. Entrenched consumer loyalties to established brands constitute barriers to entry and to a small firm's growth. For new or even established firms, promotional pricing serves the purely informational function of advertising by alerting consumers to the existence of new products. The low promotional price is preferable to advertising, for it gives the consumer a better buy during the period of promotion and allows him to judge the product on its merits. Of course, the promotion may on occasion temporarily divert demand from better products or more efficient producers, but the diversion will last only long enough for consumers to judge and reject the inferior, promoted product.[39]

The monopolist can make no such case for promotional pricing. His promotion would not usually intensify competition but would only decrease it — existing rivals will be damaged or driven out, and new entry deterred. In contrast to

38 *See* pp. 709–10 *supra*.

39 After short-term promotion, a firm might eventually become so dominant as to obtain monopoly power, but it would have obtained its power because of competitive superiority, and the mere fact that the initial promotion got the firm going is no reason for condemning the promotion.

new entrants or small rivals, he has little need to resort to extreme price reductions to acquaint existing customers with the merits of this brand.[40]

The only other apparent arguments a monopolist could make are (1) that pricing below marginal cost is necessary to raise the overall market demand by attracting new customers who have not heretofore known or been interested in the product or (2) that it is necessary to enable a firm with declining costs to move to a more efficient level of output. The arguments might be help to justify selective reductions to new customers or in new geographical markets, but as a defense to a general price reduction to present as well as new customers, we find these arguments unpersuasive.

As to the first argument, it is possible but seems highly improbable that an established monopolist would find a general price reduction below marginal cost worthwhile solely because it attracts new customers to the market and thus generates a permanent increase in market demand. The monopolist has a number of alternatives for achieving this goal besides pricing below marginal cost. First, a marginal-cost price itself would ordinarily be a substantial reduction below the shortrun profit-maximizing price for any firm with significant monopoly power, and would thus have a substantial promotional effect. Second, the monopolist may be able to make selective price reductions to marginal cost to new customers or in new geographical areas and thus minimize his shortrun losses from the promotion. Finally, there are the alternatives of selective advertising or other sales efforts. The general price-cut will inevitably draw customers away from rivals as well as attract new buyers, and the effect on those rivals and on new entry will be more severe than any of the alternatives.

We find the declining costs justification for promotional pricing equally unconvincing. Pricing below marginal cost might be rational for a brief period of time for a new producer of an existing product with a very large and much more efficient plant that could supply the entire market at an average cost well below those of existing producers. Similarly, a new producer with a monopoly on an entirely new product might also find it rational to set an initial price below the high marginal costs incurred at early low outputs. But no defense is needed for these declining cost cases. They can be taken care of by a sensible interpretation of the rule that a monopolist is entitled to price at or above *reasonably anticipated* marginal costs. In other words, to establish predatory pricing, it should be necessary to show that a monopolist has priced both below immediate marginal cost and below the marginal cost at the output which he reasonably anticipated he would attain within a reasonable period of time.

40 It is conceivable that some consumers may have acquired strong loyalties to the brands of small rivals without ever having purchased the monopolist's product. In such event, promotional pricing by a monopolist might be thought defensible. But we consider the case too unlikely to warrant recognition given the risks of abuse that allowing the defense would entail.

(b) Meeting Competition as a Defense

We would not permit a monopolist to price below marginal cost in order to meet the lawful price of a rival. Although there are grounds for permitting him to price below marginal cost in order to meet a rival's unlawful price, the administrative difficulties presented by the necessity of distinguishing the two cases are so great as to lead us to reject the defense altogether.

The first proposition, although questionable, seems correct, particularly where the rival is a new entrant. The fact that the rival's low price may be legitimately promotional, and hence a proper competitive tactic, does not make legitimate the response of a monopolist whose product is already well known. The monopolist who goes below marginal cost to meet a rival's promotion is not competing on the merits; the response will destroy or greatly reduce the effects of the rival's promotional effort, a result likely to be particularly serious for the new entrant, whose usual problem is precisely that of obtaining a profitable volume quickly enough to make start-up losses bearable.

The monopolist might attempt to justify a below-marginal-cost price to meet a rival by claiming that he believed he could rapidly reduce his costs to or below those of his rival, and that it would cost him less to hold his organization and patronage intact than to recover them in the future. This contention, however, would be made in every case, and it would be difficult for the monopolist to know or the court to determine that the monopolist could achieve cost parity, that it would be less expensive to suffer such interim out-of-pocket losses than to bear the future costs of rebuilding his organization and recovering loss patronage, or indeed, that there would be any such future costs at all. Furthermore, the complex problems of defining meeting-rather-than-beating the rival's price would have to be faced.[41] Courts would have to undertake the difficult task of assessing differences in product quality and thus become involved in speculation about consumer preferences.

There is some basis for allowing a monopolist to meet a rival's unlawful price. The rival's unlawful price is not competition on the merits, and there is no strong reason for denying even a monopolist the opportunity to defend himself from the predatory attack. Retaliation may possibly increase the waste of productive resources in the short run, but it is likely to serve the useful purpose of bringing the predator's unlawful pricing to a quicker end. Nevertheless, we would reject even this limited defense for the monopolist when his price is below marginal cost. The administrative problems of defining a price that meets the rival would be further compounded by the need to determine whether the rival's price were indeed unlawful. There is, after all, consolation for the monopolist in his relative

41 For a discussion of the difficulties encountered by the courts in applying the "meeting competition" defense of the Robinson-Patman Act, 15 U.S.C. § 13(b) (1970), see F. ROWE, PRICE DESCRIMINATION UNDER THE ROBINSON-PATMAN ACT 207–64 (1962).

security from serious injury at the hands of a smaller rival unlawfully pricing below marginal cost, in the relative infrequency of that challenge to him, and in his ability to bring a private antitrust suit for injunction or damages.

D. AVERAGE VARIABLE COST AS A SURROGATE FOR MARGINAL COST

In our analysis of predatory pricing we have concluded that marginal-cost pricing is the economically sound division between acceptable, competitive behavior and "below-cost" predation. Thus, we have suggested a prohibition of prices below marginal cost. The primary administrative impediment to enforcing that prohibition is the difficulty of ascertaining a firm's marginal cost. The incremental cost of making and selling the last unit cannot readily be inferred from conventional business accounts, which typically go no further than showing observed average variable cost. Consequently, it may well be necessary to use the latter as an indicator of marginal cost.

An average variable cost rule, like a marginal cost rule, should be flexible enough to allow a defendant to demonstrate that its price was equal to or above a reasonably anticipated average variable cost. A firm may legitimately determine its price and output levels according to expected future costs rather than historical accounting costs. Of course, historical costs may be the best approximation of costs for the near future, but a defendant should be permitted to show why it anticipated lower costs in the future.

The consequences of substituting average variable cost for marginal cost depend on the relationship between the two cost measurements. Marginal cost may be equal to, below, or above average variable cost: marginal cost will be equal to average variable cost when the latter is constant, less when it is declining, and greater when it is rising. By reference to the marginal-cost standard, accordingly, reliance on average variable cost may be identical, more prohibitive, or more permissive.

There is no a priori reason to expect any particular firm to be operating at the point where marginal cost equals average variable cost,[42] but when the two costs measures are identical over the relevant range of output, employing one as a proxy for the other plainly raises no difficulties.

Whenever unit variable cost declines as output expands, the marginal or incremental variable cost of the next unit is necessarily less than the average of the

42 For the usual firm, average variable cost falls and then ultimately rises as output expands. At its low point, the average variable cost curve will be intersected by marginal cost. At that output or range of outputs, the two will be identical. A firm might experience constant variable costs over the full output range, or over the range beyond some minimum efficient scale, or only over the wide or narrow range lying between the realization of scale economics and diseconomics. There is some evidence of relatively constant variable costs over wide ranges of intermediate outputs for many industries. *See* J. Johnston, Statistical Cost Analysis 13, 73, 96, 168 (1960); Scitovsky, *Economic Theory and the Measurement of Concentration*, in Business Concentration and Price Policy, 105 (1955).

preceding units. Thus, whenever a firm can reduce unit variable cost by expanding output, a price at average variable cost must exceed marginal cost.[43] Although an average variable cost standard is more prohibitive in these circumstances, it is the correct test on principle, since a firm that sells below its average variable cost is clearly not loss-minimizing. At a price less than average variable cost the firm is earning no return and could incur fewer losses by ceasing operations.[44] The primary nonpredatory justification for prices below average variable cost is that the firm is just starting up and has not yet reached expected production levels. Firms in this situation, however, will not be in violation of a rule that prohibits prices below reasonably anticipated average variable cost.

When marginal cost exceeds average cost, adopting the latter as the standard runs the risk of allowing a firm to sell at a price below marginal cost while meeting the average variable cost standard. Thus, the surrogate is even more permissive than our exception from marginal cost pricing when the price is at or above average cost.[45] Nevertheless, a permissive exception is justified for similar reasons. Marginal cost is likely to be higher than average variable cost only when output nears the firm's optimum.[46] When capacity is thus strained, predation is especially unlikely, since the loss of profits would be most severe and new demand could not be easily absorbed by the predator. Moreover, given the relatively rare occurrence of predatory pricing, we believe that a slightly permissive rule is acceptable since the threat of litigation under any rule on predatory pricing is more likely to discourage proper pricing than predation, and the benefit of any doubts should go toward protecting the seller, instead of increasing his vulnerability.

In sum, despite the possibility that average variable cost will differ from marginal cost, it is a useful surrogate for predatory pricing analysis.

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43 This might occur (a) over the entire range of outputs in declining cost industries or (b) over that portion of a firm's output preceding the full realization of those economics of scale implicit it its plant in the short run or in industry technology over the long run. The first case is the "natural monopoly" and is relatively rare. The second situation may describe a firm opening a new plant that has not yet won its way in the market. It may also describe a firm with declining demand that has forced production to be cut back well below the efficient scale at which it previously operated. In sum, average variable cost will typically exceed marginal cost only when a plant is operating below efficient use of capacity.

44 *See* note 17 *supra*.

45 *See* pp. 712–13 *supra*.

46 Whenever unit variable cost increases as output expands, the marginal or incremental variable cost of the next unit is necessarily more than the average of the preceding units. This occurs when output nears the optimum for which the plant was designed, thus requiring the use of less efficient manpower or other resources, or exerting upward pressure on factor prices (*e.g.,* the payment of overtime wage rates).

E. PREDATORY INVESTMENT IN THE MONOPOLY MARKET

In theory, the principles applied to define shortrun predatory pricing are applicable to the longer run when funds are invested or reinvested in plant and equipment and hence become part of marginal cost. If it is appropriate to permit a monopolist to expand output in the short run to the point where marginal cost equals price, it should be equally appropriate to permit him to expand capacity to the point where longrun marginal cost equals price, even though that expansion reduces his overall rate of return and even though it limits or forecloses the opportunities of rivals or new entrants. Similarly, if it is appropriate to condemn a monopolist for pricing below marginal cost in the short run, it would seem equally appropriate to condemn him for adding new facilities when he anticipates that the revenue to be obtained from them over their useful life will not cover all costs, including a normal rate of return.

Nevertheless, while we adhere to the first proposition, we reject the second and believe that antitrust law should ignore the possibility of predatory investment in a monopolized product. Our reasons are two. First, construction and perpetuation of excess capacity would be extremely costly, particularly if it fails to deter new entry or expansion of rivals. Investment for predatory purposes is thus an extremely unlikely possibility. Second, the practical difficulties of attempting to distinguish between innocent and predatory expansion are much more severe than those of evaluating shortrun pricing.

Our suggested test for shortrun predation is pricing below reasonably anticipated average variable cost. The firm knows the price it is currently charging; and though "reasonable anticipation" is not precise, it should not pose serious difficulties in application. The firm knows its recent variable costs and should become quickly aware of any substantial changes in such cost elements as wages or materials. However, when a firm is attempting to determine its probable return on new facilities over their useful life, it faces uncertainties of a much higher order. It cannot be sure as to the long-term future course of wage, material, and other variable costs. Nor can it be certain of the prices it will be able to charge over the life of the new facility; accurate estimates of future market-wide demand for its product are difficult, if not impossible, to make with precision, and the firm has no control over, or perhaps even knowledge of, construction or expansion of capacity by others or the development of new substitutes for its product. Thus, there is little basis for inferring predation from the fact that a monopolist has invested in new facilities which later turn out to be unprofitable.

When a monopolist does have excess capacity, it is almost certain to have innocent explanations: **(1)** new capacity becoming operational sooner than expected; **(2)** failure of demand to grow as much as anticipated; **(3)** unanticipated declines in demand attributable to general economic fluctuations or to unexpectedly serious competition from producers of the same or substitute products; **(4)** increased variable costs; or **(5)** modernization that substitutes new, lower-cost capacity for old facilities that are worth maintaining for peak demands or as break-down reserve. We can see no workable rule that will satisfactorily distinguish between these legitimate cases of excess capacity and cases of predatory investment. Even a narrow prohibition, requiring clear proof of a deliberate choice to invest despite the anticipation of losses, would subject innocent firms to the threat of baseless but costly litigation. We do not believe that the slight possibility of predation justifies the potential abuse of a rule against predatory investment.

To conclude that there should be a rule against predatory pricing but not against predatory investment requires that a workable line be drawn between the short run and the long run. In theory this is a difficult since fixed costs become variable over a continuum,[47] but we think that the issue is practically resolvable. Since the offense is limited to predatory pricing, the relevant question is which costs were variable during the period of alleged predation. Normal accounting procedures will usually supply the answer: costs charged as a direct expense should be treated as variable; costs charged as an investment for depreciation and tax purposes should be treated as fixed. A firm is not likely to alter its accounting procedures in order to validate shortrun predatory pricing. And if it does, or if it has unusual accounting procedures well before the period of alleged predation, it would have a heavy burden of explanation.[48]

III. Predation in Other Contexts

Our discussion in Part II has focused on the problem of predation in a firm's general pricing policy. Devices other than a general price-cut may, however, be the subject of suits for predation. A firm may cut its prices on only selected products or in a few geographical markets. Or a firm may engage in practices that force rivals to raise costs above price in order to maintain their market shares. In this Part we will examine four possibly predatory practices: earning differential returns (including "predatory investment" in new products), price discrimination, excessive promotional spending, and excessive product variation. Despite the different forms of these practices, in most instances the analytical framework developed in Parts I and II will serve to distinguish between predatory and nonpredatory behavior.

47 *See* p. 701 & note 15 *supra*.

48 There are, of course, situations in which proper accounting procedures are in reasonable dispute; treatment of advertising, as we later note, *see* pp. 728–29 *infra,* is one example. Nevertheless, it seems highly unlikely that a firm will significantly distort its accounting practices over time in anticipation of defending against a charge of predatory pricing.

A. DIFFERENTIAL RETURNS ON DIFFERENT PRODUCTS

When a firm earns a different return on its investment in different product lines there may be some concern that the lower rate of return reflects predatory pricing in that product line. Two separate situations are relevant here: (1) different rates of return in the short run, that is, where the investment in plant and facilities has already been made, and (2) so-called "predatory investment," namely, new investment that produces or is expected to produce a rate of return lower than the firm is earning from its existing plants and facilities.

1. Different Rates of Return in the Short Run

The easiest shortrun case is that of differential returns on unrelated products. This might occur in the conglomerate firm situation, in which the subsidiaries or divisions of a single firm produce a number of unrelated products. One would not expect all divisions of a firm to be earning the same return at any particular time; temporary variations in demand and costs in different industries will most likely result in some differences in returns. Moreover, when the firm has a monopoly in one of the products, it is not unusual for it to earn substantially more on that product than on those it sells in competitive markets. Thus, the mere fact of differential returns proves nothing of any antitrust significance regarding the firm's pricing policy.

Of course, to use the common but unusually misapplied description, a firm may be "subsidizing" low returns in a competitive market with higher returns on a monopolized product. But as long as a firm is turning a profit on each additional sale, a subsidy is not necessary. Thus, just as in the case of the single-product monopolist, illicit pricing can be established only by showing that in the competitive market the firm is pricing below marginal cost or the "surrogate" average variable cost.

Even when it appears that the monopolist has priced below average variable cost in the competitive market for an unrelated product, he should be entitled to any defenses — such as "promotional" pricing — to which a nonmonopolist would be entitled. The monopolist, using revenues from the monopolized product, might be thought more likely to indulge in "excessive" promotional pricing than a single-product producer. But revenues from monopoly are no different from superior resources derived from any other source and their existence should not affect the determination of whether the below-marginal-cost price is indeed promotional.

The more difficult case of shortrun differential returns arises when the product earning a lower return is related to a product on which the firm has a monopoly. The products may be related in that they are produced with some common facilities, are sold to and used together by the same consumers, or both. In this situation marginal-cost pricing on the competitive product may adversely affect firms that are the most likely potential rivals in the monopolized-product market. By applying pressure through marginal-cost pricing on the firms in the competitive market, entry into the monopoly market may be deferred or completely discouraged.

Yet this raises no issues that we have not already covered. If the related-product market is competitive, marginal-cost pricing is the norm and should not be discouraged. If the firm has monopoly power in the related-product market, the question is the same as that raised by marginal-cost pricing by any monopolist — whether possible gains from an umbrella price are worth the shortrun economic costs of underutilization of resources and the severe administrative difficulties of applying a test other than marginal (or average variable) cost.[49]

Moreover, investment in the competitive line might contribute more to profits than is shown by the estimated revenue-cost relationship on that line only. The ability to offer a fuller line of complimentary products may increase the sales of each, either because consumers prefer to deal with a single seller or because the fuller line enhances the seller's image.

2. "Predatory Investment" in New Product Lines

To this point, we have been discussing differential returns on different products in the short run, that is, where the monopolist has already invested in plant and equipment. Suppose the monopolist invests or reinvests in facilities in the "competitive" line in expectation of earning an aftertax return of, say, ten percent as compared to the twenty percent he has been earning in the monopoly line. In doing so, he may have an exclusionary purpose, namely to impair the capacity of potential rivals to enter the monopoly field by keeping them under competitive pressure in their particular line. But what may appropriately be deemed illegally "exclusionary" is neither easy to specify nor easy to prove. The difficulties with a predatory investment rule that we discussed earlier in connection with investment in the monopoly line[50] are applicable here and are, we believe, dispositive. But there are other problems as well.

The monopolist may have nonexclusionary reasons for making the new investment. Notwithstanding the past profit rate in the monopolized product, investment in the competitive line might be an equally or more profitable choice quite apart from any exclusionary effects. Additional investment and output in the monopoly may so reduce prices and profits that the marginal return on the new investment would be ten percent or less. Moreover, investment in the competitive line might contribute more to profits than is shown by the estimated revenue-cost relationship on that line only. The ability to offer a fuller line of complimentary products may increase the sales of each, either because consumers

49 *See* pp. 709–16 *supra*.

50 *See* pp. 718–20 *supra*.

prefer to deal with a single seller or because the fuller line enhances the seller's image. Finally, even though the new investment might appear to be less profitable than additional investment in the monopoly line, it is possible that it is rational when the two anticipated rates of return are discounted for risks. The monopolist may stand to lose more from possible invasion of his monopoly line than he would from adverse developments in the competitive line, or adverse developments may be more likely in the former.

Even if the new investment would appear to be less profitable after taking risks into account, it should not be deemed predatory so long as the expected return equals or exceeds the "normal" return for the product line concerned. To be sure, "the opportunity" cost of the monopolist's capital is measured by the rate of return, say fifteen percent, that could be earned on an alternative investment in the monopoly line. And, unlike the case of the monopolist engaged in shortrun marginal-cost (or below profit-maximizing) pricing, which leads to a better use of resources, it would appear to be a misuse of *capital* resources to devote them to a less profitable pursuit. But it simply makes no sense to adopt a rule forcing a monopolist to invest further in production of the monopolized product merely because the rate of return exceeds the expected return on alternative product-line investments. Such a rule would have the effect of forcing profits on the monopolized product down toward a competitive rate of return, like the maximum price constraint we have earlier rejected;[51] or it would eliminate monopolists as potential entrants in other product lines, which would in turn protect high profits and restricted output in those lines. Moreover, prohibiting the monopolist from investing in alternative product lines would be inefficient when there are economies in product integration.

If the monopolist can earn a normal or higher return on the new investment: **(1)** the rivals are earning supranormal profits (or would be if he did not invest); **(2)** he is more efficient then they; or **(3)** his continued presence or new entry is on too small a scale to have any effect on them. If the monopolist's entry would have no effect, there is no reason to stop him. If he is more efficient, his entry is to be encouraged. If rivals in the competitive line are earning high returns and capital markets are imperfect, they might more easily enter the monopoly product line, but it is not at all clear that the possibility of competition in the monopoly line outweighs the disadvantages or protectionism in the competitive line.

The case against a monopolist's investment which is expected to generate below-normal returns is stronger. Logically it is as predatory for a monopolist to invest in a competitive line in the expectation of receiving below-normal returns as it is for him to engage in shortrun pricing below marginal cost. Prohibition of such a practice, however, would be hindered by all the difficulties we noted in our

51 *See* p. 707 *supra*.

discussion of investment in the monopoly product line.[52] In light of these difficulties, we are inclined to reject a "predatory investment" rule. The possibility that anyone, even a monopolist, would make such an investment seems far too remote to warrant the ill-founded litigation that a protective rule would promote.

B. PRICE DISCRIMINATION

Price discrimination involves charging different prices on different sales of the same product despite identical costs.[53] The monopolist may discriminate in price between different markets or between different customers in the same market. In either case price discrimination might be thought to increase the likelihood of predation by risking only a portion of the defendant's business while threatening the entire business of smaller rivals who are confined to the geographic area in which the selective price cut was made or who serve primarily those customers who will benefit from the price reduction. Thus, in cases of price discrimination the predation requirement of greater staying power may more frequently be met.

1. Price Discrimination Between Different Geographic Markets

Oversimplifying somewhat, there are two situations: **(1)** where the monopolist supplies each geographic market from a separate plant; and **(2)** where he supplies all markets from the same plant.

Where the monopolist supplies different markets from different plants, we would ordinarily expect different prices in markets with different demands, costs, and degrees of competitiveness. This case is virtually indistinguishable from that of the monopolist who earns higher returns in the monopoly-product market than in one or more competitive-product markets. Indeed, but for the accident of common ownership of plants in several markets, the term "price discrimination" would not even be used. Thus, here too, the low price in one market should be considered predatory only if below marginal cost, and in the competitive markets the monopolist should be entitled to any defenses available to any other seller.

Where a firm that monopolizes one geographic market supplies other geographic markets from that same plant, the analysis is more complex and the outcome perhaps more debatable. Suppose M has a plant in market A and a monopoly there. At his profit-maximizing price and output in that market (where marginal revenue is equal to marginal cost), he has excess capacity. Any further sales in that market would, by definition, reduce his net returns, but sales in another, more competitive market would increase his net returns up to the point where

52 *See* pp. 718–20 *supra*.

53 In economic terms, intraproduct discrimination also includes charging the same price on all sales despite variations in cost (usually distribution costs), or, more generally, any variation in price-cost relationships. The analysis is the same regardless of the form. To simplify the discussion we deal only with price differentials where costs are identical.

the price in that market equals marginal cost. *M* therefore may sell in market *B* at some price substantially below his monopoly price in market *A*.

This is clearly price discrimination; if anything, costs on sales in market *B* are likely to be higher because of transportation costs, so that the price difference understates the amount of discrimination. As with general price-cuts, however, the low price lacks the necessary element of predation where *M*'s price is lower than his shortrun, profit-maximizing price in market *B*. And even when the monopolist is not profit-maximizing, we see no good reason to depart from a marginal (or average variable) cost test. Price discrimination will not always have adverse effects in market *B*. The discrimination will have beneficial effects if, because of a shortage in capacity, the firms in *B* are earning abnormally high profits and *M*'s sales merely bring the *B* price down toward a competitive level. Even when profits are at a competitive level in market *B*, discrimination will have no adverse effects if *M*'s sales in market *B* are of insufficient volume to significantly affect the price, or if discrimination leads to the displacement of only one or two of an ample number of competitors. If *M*'s sales do affect the price in market *B* and drive out enough rivals to give *M* a monopoly in that market, there still must be barriers to entry in order for *M* to reap the benefits of any alleged predation.

We would, therefore, adhere to the general rule permitting pricing at or above reasonably anticipated average variable cost, and permitting any defenses (such as promotional) available to any seller. The deterrent effect of a more severe constraint would, we conclude, be likely to cause more economic harm than good.

2. Price Discrimination in the Same Geographic Market

If, as we have contended, a monopolist should be permitted to make a general price reduction so long as his price equals or exceeds marginal cost, we are unable to see a persuasive case for prohibiting selective price-cutting to retain or obtain particular customers. Selective price-cutting cannot possibly be more harmful to small competitors than a general price reduction to the same level.[54] And since any additional sale at a price at or above marginal cost does not decrease shortrun net returns, the necessary element of predation is missing.

The only possible argument for an antidiscrimination rule is a pragmatic one. Such a rule would confront the monopolist facing price-cuts by small competitors with two choices: **(1)** a general price-cut, which would preserve his market share but at a heavy cost in profits; **(2)** maintaining his price, which would preserve high profits on his sales but lead to a smaller market share. Faced with that choice, the monopolist, at least up to a point, would often elect to maintain his price, thus facilitating the growth of competitors and the erosion of his monop-

54 Selective price-cutting might, however, be more likely to occur than general price-cuts, since the monopolist's losses on selective reductions would be smaller.

oly. But this is simply an argument for inducing umbrella pricing by the monopolist, an approach we have rejected for reasons earlier explained.[55]

3. The Relevance of the Robinson-Patman Act

Subject to affirmative defenses of cost justification and meeting competition, the Robinson-Patman Act prohibits price discrimination in sales of the same product.[56]

> "where the effect . . . may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination, or with customers of either of them . . . ."

The only Robinson-Patman Act issue relevant to our discussion is that of primary-line injury, that is, injury to competition between the discriminating seller and his competitors. While there have been relatively few Robinson-Patman Act cases dealing with primary-line injury, they suggest a far broader prohibition of discriminatorily low prices than the marginal-cost test we have defended here. In some cases, it has been held that the requisite "injury to competition" is established merely by proof that the lower price diverted a substantial number of sales from competitors.[57] And in *Utah Pie Co. v. Continental Baking Co.*,[58] the Supreme Court found rather brief local price-cutting by three "large" national firms to be a violation despite the fact that the plaintiff, a "small" local firm, held the bulk of the market, enjoyed substantially increasing sales, and earned substantial profits throughout the period covered by the complaint. Two of the firms were found to have sold "below cost," but apparently only below average cost.[59] They were also vaguely condemned for having contributed to a "deteriorating price structure."[60]

55 *See* p. 711 *supra*. The administrative difficulties with a prohibition of selective price-cuts are not as severe as those involved in prohibiting nondiscriminatory price-cuts, since the proscription would focus on discrimination in pricing rather than absolute price levels. However, a cost defense, essential to any rational antidiscrimination rule, raises complex problems of proof, as litigation under the Robinson-Patman Act has shown. See generally F. Rowe, *supra* note 41, at 273–312.

56 15 U.S.C. § 13(a) (1970).

57 *See, e.g.*, Samuel H. Moss, Inc. v. FTC, 148 F.2d 378 (2d Cir.), *cert. denied*, 326 U.S. 734 (1945). *But see* Anheuser-Busch, Inc. v. FTC, 289 F.2d 835 (7th Cir. 1961).

58 386 U.S. 685 (1967).

59 The Court was unclear on which cost measurement it used to find "below-cost" pricing. In one instance it referred to direct cost plus allocated overhead, apparently a measure of average cost. *Id.* at 698.

60 *Id.* at 690.

We respectfully suggest that in these cases the courts have failed to focus on the important issues. The basic substantive issues raised by the Robinson-Patman Act's concern with primary-line injury to competition and by the Sherman Act's concern with predatory pricing are identical. If the Sherman Act is properly interpreted to permit a monopolist to discriminate in price so long as his lower price equals or exceeds marginal cost, such discrimination is a fortiori permissible for firms with lesser degrees of market power, and the Robinson-Patman Act should be interpreted no differently in primary-line cases unless the statutory language or compelling legislative history dictates otherwise.

IF THE SHERMAN ACT IS PROPERLY INTERPRETED TO PERMIT A MONOPOLIST TO DISCRIMINATE IN PRICE SO LONG AS HIS LOWER PRICE EQUALS OR EXCEEDS MARGINAL COST, SUCH DISCRIMINATION IS A FORTIORI PERMISSIBLE FOR FIRMS WITH LESSER DEGREES OF MARKET POWER, AND THE ROBINSON-PATMAN ACT SHOULD BE INTERPRETED NO DIFFERENTLY IN PRIMARY-LINE CASES.

Without fully elucidating the point, we see nothing that compels a more restrictive substantive interpretation of the Robinson-Patman Act. The phrase "where the effect may be substantially to lessen competition" does not; if marginal-cost pricing cannot reasonably be construed as a "lessening of competition," the "may be" issue is never reached. The original Clayton Act was indeed primarily a response to fears of predatory pricing and primary-line effects;[61] but the original language referred to effects on "competition" only, not individual competitors.[62] The concern expressed in the legislative history of the Robinson-Patman Act for the fate of individual competitors was primarily, if not exclusively, directed to secondary-line competition.[63] Nor does the intent of Congress in passing the original Clayton Act to go beyond the Sherman Act have any great significance, given that no one knew what the Sherman Act rule on predatory pricing was or would come to be and that Congress may well have been operating on pessimistic assumptions.

There is superficial merit in the argument that effective enforcement of the Robinson-Patman Act requires a more readily determinable test than "marginal cost." We have suggested the use of average variable cost as a surrogate for marginal cost to mitigate the administrative difficulties of enforcement.[64] But even though determinations of cost may remain a substantial problem, it seems clear

61 *See* FTC v. Anheuser-Busch, Inc., 363 U.S. 536, 543 & n.6 (1960); H.R. Rep. No. 627, 63d Cong., 2d Sess. 89 (1914).

62 Clayton Act, ch. 323, § 2, 38 Stat. 730 (1914).

63 F.T.C., Chain Stores, Final Report on the Chain-Store Investigation, S. Doc. No. 4, 74th Cong., 1st Sess. 85–86 (1935). *See generally* F. Rowe, *supra* note 41, at 11–23.

64 *See* pp. 716–18 *supra*.

to us that in this instance it is unavoidable. In the vast majority of situations, discriminatory price-cutting — insofar as primary-line competition is concerned — will be profitable to the firm concerned and pro-competitive. Thus any such simple test as "diversion" or "deteriorating price structure" would be wrong most of the time. We should not pay that price for administrative simplicity.

C. "EXCESSIVE" PROMOTIONAL SPENDING

1. Predatory Spending

Rather than cutting its price, a firm may undertake advertising campaigns or provide special services and conveniences to consumers with no price increase. These expenditures, of course, increase the firm's costs. The expenditures may impose a burden too great for smaller rivals to maintain and thus result in diminishing their market share or completely driving them out of the market. In theory, the principles we have proposed for defining and dealing with predatory pricing and predatory investment should also apply to "excessive" advertising and other promotional expenditures. If the additional promotional costs raise the firm's average variable cost above its price, then the promotional spending is predatory. There are, however, additional conceptual and practical difficulties in policing excessive promotional spending.

Conceptually, it is extremely difficult to determine whether any given advertising expenditure should be classified as a current expense attributable to current sales, or as a capital investment in goodwill designed to maintain or increase the level of sales over some longer period. Usually, it will or was designed to do both. The problem of allocating advertising and promotional expenditures between fixed and variable costs is not peculiar to instances of "excessive" promotional spending. Application of our average variable cost test requires that some allocation be made for all of the firm's advertising expenditures. For the usual and continuing expenditures, however, the firm's past accounting practices should provide an adequate basis for allocation. It is unlikely that over a long period of time a firm will bias its treatment of normal advertising costs in anticipation of defending itself against allegations of predation.

The relatively rare, large promotional expenditure is, however, more problematic. A firm may have no established accounting practice for such expenditures and may choose to capitalize the costs of one-time promotional campaigns, either because it views the promotion as a legitimate investment in goodwill or because it seeks to avoid a suit for predatory spending. Moreover, as a practical matter, it may be difficult to determine whether the monopolist could have "reasonably anticipated" that the increased advertising or other promotional expenditure would lower his net revenues in whatever shortrun period is thought to be appropriate. The probable consequence of pricing below anticipated marginal cost (or average variable cost) is clear — it will lower net returns. The probable consequence of a stepped-up promotional campaign will usually be much more speculative, and in all but clear cases, a judicial determination would involve speculation about speculation.

The ambiguous character of short-term promotional expenditures and the uncertainty of their effect prevents relying solely on our variable cost analysis. Accordingly, decisions in cases involving substantial shortrun increases in promotional spending would have to incorporate at least one additional consideration, namely timing. The timing of the promotion suggests the possibility of predation if the campaign begins with the appearance of an entrant (or coincides with a rival's promotion) and terminates when the entrant leaves the market (or the rival's efforts cease). In such cases, it seems reasonable to us to consider all the increased expenses as part of variable costs, and to conclude presumptively that predation has occurred if average variable costs, during the period of the promotion, exceed price.[65] Needless to say predation is negated when the promotion yields a substantial increase in net revenues, or even leaves them unaffected.

We are not wholly satisfied with this solution, but are reluctant to reach the only other plausible conclusion, which is to impose no legal check on predatory spending.

2. Nonpredatory Spending

It could be argued that "excessive" promotional expenditures should be deemed unlawfully exclusionary though they yield an increase in net revenues. We reject the argument because of severe theoretical and practical difficulties.

We assume that heavy promotional expenditures by a monopolist may impair the ability of small rivals to compete. We also assume that they may in some cases discourage entry by building up durable consumer preferences that can only be broken down by a very large initial investment in counterpromotion.[66] But if the expenditures are nonpredatory — if they increase net revenues over the appropriate timespan for making that determination — we find no basis for making them an antitrust offense.

While one might believe that "persuasive" as distinct from "informative" advertising is a waste of economic resources, such a judgment in all but exceptional cases must rest on a noneconomic value judgment. To the extent that promotional expenditures cause consumers to pay a higher price for a product or buy more of it at the same price, the product is worth that much more to them and the increase in worth is economically indistinguishable from an increase attributable to product improvement. One might judge that consumers should not be so "deluded," but no such legislative judgment has been made for products gen-

65 As in the case of alleged predatory pricing, the presumption would be rebuttable on a showing that average variable costs exceeded what was reasonably anticipated. *See* pp. 716–17 *supra*.

66 *See* J. Bain, Barriers to New Competition 114–17 (1956).

erally, apart from the prohibition of false and misleading representations[67]—a category that covers but a fraction of "persuasive" advertising. It seems wholly inappropriate to make such a disputable judgment in an antitrust case.

Moreover, there would be insurmountable problems in implementing it: "informational" and "persuasive" elements in advertising are usually inextricably mixed. Nor is there any evident satisfactory standard for determining when non-predatory promotional expenditures are "excessive." The number of variables seems far too large and nonquantifiable to enable one to find a "similar" market to use as a benchmark. And without such a benchmark, the issue becomes almost wholly subjective.

The deficiencies of advertising — that it supplies inadequate information and may contribute to monopoly problems — may call for some solution: neutral sources of accurate and complete information is a possible one. But apart from predatory spending, antitrust law should ignore the problem.

D. "EXCESSIVE" PRODUCT VARIATION

Like excessive promotional expenditures, excessive product variation may increase the difficulties of smaller rivals or newcomers and thereby reduce competition. Such variations might exceed what consumers would truly desire if they were fully aware of the consequences of their purchasing decisions. Although legislation can explicitly substitute a social judgment for that of the marketplace, antitrust law is not the appropriate vehicle for such a substitution and should accept marketplace decisions as the expression of consumer preference. Accordingly, product variations should be ignored in the search for "exclusionary" behavior. Our reasons follow.

1. Multiple Product Variations

A large firm might attempt to destroy its rivals by offering variations on a basic product. To operate at equivalent costs, smaller rivals may have to concentrate their entire output on one subtype. For example, stamping machines may be too specialized to permit production of more than one product type, and a firm with a small output may be unable to operate two or more machines at full capacity. Thus, if the smaller firm were to produce more product types its operation would be more costly than that of the large firm.

It is also true, however, that product diversity could create more opportunities for the success of smaller rivals or newcomers who could satisfy some corner of the market without provoking competitive retaliation from the dominant firm.

67 False and misleading representations are prohibited as "unfair methods of competition" under the Federal Trade Commission Act, § 5(a)(1), 15 U.S.C. § 45(a)(1) (1970). *See, e.g.*, Continental Wax Corp. v. FTC, 330 F.2d 475 (2d Cir. 1964); Giant Food, Inc. v. FTC, 322 F.2d 977 (D.C. Cir. 1963), *cert. dismissed*, 376 U.S. 967 (1964); Bakers Franchise Corp. v. FTC, 302 F.2d 258 (3d Cir. 1962).

Such rivals may succeed under the dominant firm's "price umbrella" and ultimately grow strong, branch out, and vitalize competition in widening portions of the market.

On the other hand, small rivals suffer if a full line confers important advantages. Consumers who are uncertain of which product subtype best serves their needs may prefer to consult with the broad-line supplier. While independent dealers might serve that function, they might choose to deal exclusively in one manufacturer's product, and such dealers would prefer the full-line supplier. But even if product diversity reduces the intensity of competition and perhaps discourages entry by those unable to offer similar diversity, that result may merely reveal the importance consumers attach to product variety. It is possible that buyers never "voted" between diversity and greater competition; that is, buyers might prefer diversity to uniformity when other things are equal, but not at the expense of market dominance with little price competition. Buyers may not necessarily realize that indulging a preference for diversity may discourage an outsider from entering at all. And concern about lack of genuine consumer choice may be strongest where the variations seem to be of little intrinsic importance, as in mere style variations.

Yet, we know that many consumers with a true choice between cheaper uniformity and more costly style variations do in fact choose the latter, and this may well be the usual case. Thus, although we may question whether the market reflects informed consumer choice, we cannot assume that consumers would surrender diversity in order to enjoy the benefits of a larger number of competing suppliers. Accordingly, we cannot condemn a monopolist who succeeds in varying his product in ways that buyers, whether well-advised or not, find desirable.

2. Frequent Product Changes

The vitality of rivals can also be impaired by frequent product changes, whether functional or merely style changes. The design, engineering, and retooling costs of any particular variation will obviously be less costly per unit when spread over a larger volume of production. The larger the output, moreover, the sooner certain machines or dies will wear out. If those replaced in a style or other variation are nearly worn out anyway, the incremental cost of the alteration will be less than for a smaller volume producer whose machines and dies are nowhere near retirement.

Yet the disadvantages from which small rivals may suffer do not warrant antitrust attack on the monopolist who exploits them. The small-volume producer has the option of maintaining an unchanged product while offering buyers the benefit of the costs saved by avoiding changeovers. If the cost savings are negligible as compared to costs of the large producer who does changeover, the small rival is simply the victim of economies of scale. And if buyers prefer the variation to the cost saving, consumer welfare is presumably being served by the frequent changes. Although, as in the case of multiple product variations, the market judgment may reflect inadequate knowledge of the consequences of reduced competition, and although we may doubt the wisdom of preferring "insubstantial" variations to incremental competition, we cannot determine or even assert the impropriety of the practice with sufficient clarity to hold it exclusionary for section two purposes.[68]

IV. Conclusions

We reach the following conclusions regarding a monopolist's general (nondiscriminatory) pricing in the market in which he has monopoly power:

1) On principle, we conclude that:

   a. A shortrun profit-maximizing (or loss minimizing) price is nonpredatory even though below average cost.

   b. A price at or above average cost should be deemed nonpredatory even though not profit-maximizing in the short run.

   c. A price at or above reasonably anticipated shortrun marginal and average variable costs should be deemed nonpredatory even though not loss-minimizing in the short run.

   d. Unless at or above average cost, a price below reasonably anticipated (1) shortrun marginal costs or (2) average variable costs should be deemed predatory, and the monopolist may not defend on the grounds that his price was "promotional" or merely met an equally low price of a competitor.

2) Recognizing that marginal cost data are typically unavailable, we conclude that:

   a. A price at or above reasonably anticipated average variable cost should be conclusively presumed lawful.

   b. A price below reasonably anticipated average variable cost should be conclusively presumed unlawful.

As to "predatory" devices other than general price reductions we conclude that:

3) The above conclusions apply to differential returns on different products and to price discrimination, whether between different

68 For the reasons given, we are quite unpersuaded by the arguments in Note, *Annual Style Change in the Automobile Industry as an Unfair Method of Competition*, 80 YALE L.J. 567 (1971). *See also* Selander, *Is Annual Style Change in the Automobile Industry an Unfair Method of Competition? A Rebuttal*, 82 YALE L.J. 691 (1973).

geographic markets or in the same market, except that a monopolist should have the benefit of any defenses — such as "promotional" pricing or "meeting competition" — available to other sellers in any market in which he lacks monopoly power.

4) There should be no prohibition of investment whether in a new product line or in the monopoly product line.

5) Promotional spending should be deemed predatory when timed to coincide with entry or promotion by a rival, and when average variable cost, including the promotional expenditure, exceeds price.

6) There should be no prohibition of nonpredatory spending or of product variation.

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Predatory Price Cutting: Notes and Comments

B. S. Yamey

In this article, Professor Yamey reviews the post-war contributions to the literature and analysis of predatory price cutting. While the point has been made frequently in the literature on predatory pricing that the practice makes little sense where entry into the industry in question is easy, the author gives several examples that illustrate how temporary price cutting may operate as an effective hindrance to new entry. The author suggests that the predatory nature of temporary price cutting, where it is present, is a reflection of the aggressor's intentions and whether those are to eliminate independent rivals. The author argues that, given this definition, predatory pricing should be considered not as constituting a distinct analytical category but rather as being an extreme variant of a broader class of temporary price cutting practices that allow the aggressor to achieve or restore a monopoly position.

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I.

In various post-war contributions to the analysis and empirical study of predatory price cutting, the practice has been defined as temporary selling, at prices below its costs, by a firm (or concerned group of firms) to drive out or crush a competitor. For convenience, the two firms will be called aggressor and rival, or predator and victim.

An early contribution, by John S. McGee, broke new ground by arguing that price cutting of this kind is not a sensible or profitable strategy for an aggressor to adopt since a better alternative is at hand.[1] He concluded: "Whereas it is *conceivable* that some one might embark on a predatory program, I cannot see that it would pay him to do so, since outright purchase [of the rival firm] is both cheaper and more reliable."[2] McGee did not consider specifically a close substitute for acquisition, namely the formation of a cartel between the two firms jointly to exploit the monopoly. In the earlier of two papers on predatory pricing Lester Telser noted this alternative, and concluded on lines similar to McGee's: "Either some form of collusion or a merger of the competitors would seem preferable to any possible outcome of economic predation."[3]

The key element in McGee's analysis is that predatory price cutting involves both firms, the predator and its victim, in unnecessary and avoidable loss of profits. In McGee's words: "Since the revenues to be gotten during the predatory price war will always be less than those that could be gotten immediately through purchase, and will not be higher after the war is concluded [as compared with the revenues after the merger], present worth [of the aggressor] will be higher in the purchase case."[4] Telser's more striking formulation is similar: "Price warfare between the two [firms] is equivalent to forming a coalition between each firm and the consumers, such that the consumers gain from the conflict between the firms. Since both firms can benefit by agreeing on a merger price, and both stand to lose by sales below cost, one would think that rational men would prefer merger."[5]

1 John S. McGee, Predatory Price Cutting: The Standard Oil (N.J.) Case, 1 J. Law & Econ. 137, 138–43 (1958). See also Lester G. Telser, Abusive Trade Practices: An Economic Analysis, 30 Law & Contemp. Prob. 488, 494–96 (1965).

2 John S. McGee, *supra* note 1, at 143; see also 168. The inclusion of the word "conceivable" seems to have been made to cover cases of error. The word "reliable" refers to the advantage of purchase of assets over their competitive elimination, since the latter course does not sterilise them from further use.

3 Lester G. Telser, *supra* note 1, at 495.

4 John S. McGee, *supra* note 1, at 140.

5 Lester G. Telser, Cutthroat Competition and the Long Purse, 9 J. Law & Econ. 259, 265 (1966).

McGee's strong conclusion that monopoly achieved by the acquisition of the rival is cheaper than monopoly achieved by the elimination of the rival in economic war was modified by later contributors, including Telser.[6] Considerations omitted or dismissed in McGee's study have been brought into the analysis; and their inclusion serves to mitigate the conclusion that predatory pricing necessarily is economic folly. These considerations concern, *inter alia*, the elements of strategical and tactical manoeuvre which may affect the outcomes, including the long-term implications, of the alternative courses of action open to the aggressor. Some elaboration of these considerations follows.

The price to be agreed upon in the purchase of the rival is not a matter of indifference to the aggressor, can affect its choice of a strategy for dealing with the problem created by the presence of the rival, and may itself be capable of being affected by predatory pricing. Initially it is unlikely that the aggressor and its rival will make the same assessment and valuation of the latter's prospects of profits in the given situation. Two possibilities can be distinguished. First, initially the rival's minimum asking price may exceed the aggressor's maximum offer price (and, *mutatis mutandis*, a similar deadlock may exist when the formation of a cartel is at issue). A bout of price welfare initiated by the aggressor, or a threat of such activity, might serve to cause the rival to revise its expectations, and hence to alter its terms of sale to an acceptable level.[7] Second, initially the minimum asking price of the rival may be less than the maximum price the aggressor is willing to pay, so that a mutually satisfactory transaction would be possible. Nevertheless, the use, or the threat, of predatory pricing may be a useful component in the course of bargaining in which the aggressor tries to beat down the actual price to be paid towards the minimum asking price, as well as to induce the rival to reduce the minimum price.[8]

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6 For the relevant contributors, see Lester G. Telser, *supra* note 5, at 259–70; Richard Zerbe, The American Sugar Refinery Company, 1887–1914: The Story of a Monopoly, 12 J. Law & Econ. 339, 363 n.120 (1969); Donald Dewey, The Theory of Imperfect Competition: A Radical Reconstruction, ch. 7 (1969); Kenneth G. Elzinga, Predatory Pricing: The Cost of the Gunpowder Trust, 13 J. Law & Econ. 223 (1970).

7 It is conceivable that even where both the aggressor and the rival have identical expectations about the future profits of the latter, no acquisition price may be acceptable to both parties. This could be the case, for example, where the owners of the independent firm place a high value on their independence and on the ownership and control of their own enterprise. A period of losses induced by predatory pricing may change their attitude.

8 It is not only the dominant firm or group which can initiate temporary price cutting in an attempt to achieve its anti-competitive ends. The analysis applies symmetrically to a dominant firm and to the independent rival. Provided that the rival has, or can expand its output to secure, a sufficient share of business in that sector of the market in which it wishes to concentrate its pressure—the sector could be a separate region, a particular class of customer, or selected qualities or varieties of the product—it can initiate price cutting with the intention of inducing the dominant firm to agree to a more favourable settlement (that is, a bigger share of the cartel or a higher acquisition price) than it otherwise would have been prepared to grant.

The aggressor will, moreover, be looking beyond the immediate problem of dealing with its present rival. Alternative strategies for dealing with that rival may have different effects on the flow of future rivals. A policy of preserving monopoly by buying-up rivals may possibly be inferred from the purchase of a particular rival; and the purchase may then have the unfortunate effect of encouraging potential entrants to enter and to offer themselves as willing sellers, thereby progressively diluting the original owners' share of the monopoly profits. A policy of using predatory pricing, either regularly or occasionally, is likely to have a more discouraging effect.[9] It may be noted, in passing, that the effect of predatory pricing on the calculations of potential entrants makes it yet more difficult for the empirical investigator to determine whether or not a particular attempt at predation succeeded in achieving its purpose.

The preceding considerations apply independently of any assumption that the rival has less easy access to capital than the aggressor. Where access is more restricted for the former, perhaps because it is the smaller firm in the relevant market, the relative advantages of predatory pricing may be increased. However, in assessing the impact of the relative ease of access to capital, it should be recognised that the drain on resources would be larger for the firm with the larger share of the affected market (assuming the costs of the two firms to be the same). The aggressor may ordinarily be expected to be the larger of the two firms.

The modification of McGee's strong proposition about the folly of predatory pricing makes it difficult to predict the frequency with which the practice is likely to be used and the types of circumstances in which it may be expected to be relatively more or less common. Nevertheless, the opinion has been expressed that predatory pricing will be rare. Thus Telser has written: "Although it does not seem possible a priori to predict the frequency of price welfare, these will be rare if entrepreneurs are reasonable and intelligent."[10] Zerbe's view is "that predatory price wars might occur but would be unlikely."[11] One imagines that these views are not only influenced by the appeal of McGee's analysis but also that they are coloured to some extent by the fact that systematic and searching examinations of the historical record have shown, in a number of cases, that supposed

9 Elzinga has suggested that the response of potential entrants to the driving-out of established independents by predatory pricing "is not easily predicted." The "demonstration effect" may deter some. On the other hand, others "may realize the inability of the dominant firm to continue such a costly practice and promptly enter." Kenneth G. Elzinga, supra note 6, at 240. The latter possibility cannot be denied. But a policy of buying up new entrants without a fight is bound to attract new entrants.

10 Lester G. Telser, *supra* note 5, at 268.

11 Richard Zerbe, *supra* note 6, at 363 n.120. See also Kenneth G. Elzinga, *supra* note 6, at 240.

instances of price predation were nothing of the kind, or that the available evidence is incomplete or consistent with different explanations.[12]

It is not suggested in this paper that predatory pricing in the McGee sense has been frequent or is likely to be frequent even in the absence of hostile legislation. Indeed, because reasonably documented examples of the use of the practice are rare—a dearth intensified by the results of the thorough researches of McGee and others—there is some interest in presenting, in section III, a short account of one reasonably clear-cut example of predatory pricing, to augment by one the exiguous stock of recorded cases. Before coming to that section, however, the argument in the next section will suggest that predatory pricing, as it is currently defined, should be considered not as constituting a distinct analytical category but rather as being an extreme variant of a broader class of temporary price cutting practices designed to drive out or crush an independent competitor so that the aggressor can achieve or restore a monopoly position. Although their identification is beset with difficulties, examples of this broader class may not be so hard to find as are examples of predatory pricing in the strict McGee sense.

II.

The crucial point in McGee's analysis of predatory pricing is that the practice involves predator and victim in unnecessary loss of profits. Such loss or sacrifice of profits is independent, however, of whether the deliberate price cutting by the predator takes the price below cost (say, below its long-run marginal cost or average cost): all that is necessary is that the price is taken to a level lower than that which would otherwise prevail. Any deliberate price cut to achieve some ulterior aim involves a sacrifice of profits of this kind. The only special feature of price cutting below cost is that the loss of profits includes some loss in the absolute sense, that is, that the firm is "losing money." But nothing either in McGee's original analysis or in subsequent elaborations depends upon this feature, which cannot have any distinctive analytical significance.

It is true that in their expositions both McGee and Telser seem to assume that the price ruling before predatory pricing is instigated (or the merger concluded) is at the competitive level,[13] so that any deliberate price cut must be a cut below

12 For studies of real or alleged instances of predation, see John S. McGee, *supra* note 1; Richard Zerbe, *supra* note 6; Kenneth G. Elzinga, *supra* note 6; P. T. Bauer, West African Trade 121–24 (1954); M. A. Adelman, A & P: A Study in Price-Cost Behavior and Public Policy 372–79 (1959); and Gt. Brit., Monopolies Comm'n, Electrical Wiring, Harnesses for Motor Vehicles: A Report on Whether Uneconomic Prices are Quoted (1966). See also F. M. Scherer, Industrial Market Structure and Economic Performance 273–78 (1970).

13 John S. McGee, *supra* note 1, at 140; Lester G. Telser, *supra* note 5, at 263.

cost. But this restrictive assumption is not required for their analyses. In the duopolistic market situation which is postulated the initial price could be at any level, from the competitive price at one extreme to the monopoly price at the other. The considerations included in McGee's analysis would be relevant regardless of the level of the initial price,[14] and of the extent of the reduction from the price.

Again, the considerations which have led to the withdrawal from McGee's strong proposition do not depend for their relevance on the fact that sales are being made at price below cost during the period of predatory pricing. The aggressor may be able to achieve its objective of eliminating or disciplining the rival and of discouraging potential entrants by means of price cutting falling short of predatory pricing as this is defined currently. The aggressor has an obvious interest in minimising the extent of its price cutting to achieve a particular result, and has a choice of tactics. A smaller cut may in some circumstances be as effective as a larger cut, especially where the rival has reason to suppose that the aggressor will go further if necessary. On the other hand, a sharp initial cut may sometimes convey the intended message more emphatically and achieve the intended result more quickly.[15]

In so far as the aggressor's pricing behaviour may have the desired effect, this will stem from the rival's assessment of the aggressor's determination to frustrate its expectations, for example, as to the rate of growth of its sales and its attainable profit margins. It is improbable that the fact that the aggressor has taken the price below its own cost rather than, say, to a level somewhat above it, would make any difference. It should be remembered, furthermore, that the rival at which the price cutting is being directed cannot know, save in extreme cases, whether prices are in fact being cut below the aggressor's costs, of which it cannot be fully informed. Moreover, in so far as it is the fact that sales are being made at prices below the cutter's costs that is considered to be the crucial element in predatory pricing, the message of the strategy may fail to get through to the victim who may not know which of the various possible concepts of cost—

14 This is seen to be so even where the initial price is the monopoly price. The aggressor has an incentive to remove or neutralise the rival if the prevailing situation does not maximise joint profits because costs are higher than they need be.

15 Thus one member of a shipping conference expressed the following view in the course of a rate-cutting war with outsiders in the 1890's: "We still think here . . . that it would be better to go at once to an irreducible minimum to show Hendersons [one of the outsiders] that we are really in earnest. The extra cost would not matter if it shortened the struggle". Quoted in Francis E. Hyde, Shipping Enterprise and Management 1830–1939: Harrisons of Liverpool 76 (1967).

marginal or average, short-run or long-run—it should apply when trying to interpret what course the aggressor is following.[16]

It follows from the foregoing that there can be predatory intent in price cutting whether or not the aggressor sets its prices above or below its costs (in one or other meaning of the latter term). Apart from intent, the common characteristic of predatory price cutting in the broad sense is that it is temporary and that it is in the predator's interest to confine, where possible, the temporary sacrifice of profits to those parts of the market (regions, product varieties, classes of customer) in which the victim is trading.

THE PREDATORY NATURE OF TEMPORARY PRICE CUTTING, WHERE IT IS PRESENT, IS A REFLECTION OF THE AGGRESSOR'S INTENTION, WHICH IS TO ELIMINATE ITS RIVAL AS AN INDEPENDENT COMPETITOR, NOT THROUGH THE EXERCISE OF GREATER EFFICIENCY IN THE USUAL SENSE BUT THROUGH A PRICING MANOEUVRE CONTAINING AN UNDERTONE OF THREAT.

It follows, further, that an outside observer may also have considerable difficulty in deciding whether predatory pricing has been practised, even when the category is widened by the removal of the condition that the price must be below cost for the action to qualify as predatory. This is so because a firm may reduce its prices for a variety of reasons and need not change them equally in all sub-markets or for all products. It may reduce prices because a new firm has entered the market or an established firm has increased its output, so adding to total supply. It may reduce its prices because of an actual or expected change in costs or in demand, or in an attempt to induce non-users of its products to become users. The predatory nature of temporary price cutting, where it is present, is a reflection of the aggressor's intention, which is to eliminate its rival as an independent competitor, not through the exercise of greater efficiency in the usual sense but through a pricing manoeuvre containing an undertone of threat. Such an intention is obviously difficult to establish conclusively, and can be inferred with reasonable confidence only when the observer, be he judge or academic, has been able to gain a

16 It might seem more relevant to define predatory pricing as pricing below the costs of the rival to be eliminated rather than to regard the predator's costs as the standard by which to appraise the character of the price cutting. But this alternative definition would carry no greater analytical significance. And, save in extreme cases, the predator would not know for certain whether the price he set was below the level of his rival's costs in their relevant specification.

In the recent Bolton Committee Report on Small Firms it is noted that the published accounts of small, typically specialised, companies "may give a complete picture of the company's turnover and therefore the profitability of its limited range of products." (The disclosure provisions of companies legislation do not require diversified companies to give comparable information for each of their activities.) Fears were frequently expressed to the Committee that the large diversified company "having learned the profit margins of a competitor from his accounts," "could undercut his prices for a period and thus force his closure." The Committee reported that while this practice was "certainly conceivable," "no single case of this kind has been brought to our notice." Small Firms: Report of the Committee of Inquiry on Small Firms, Cmnd. No. 4811, at 307 (1971).

detailed and thorough understanding of the surrounding circumstances in all their complexity. It would certainly be incorrect to describe an established firm as a predator simply on the basis of a record that it had reduced the price of its product and then raised it when a rival withdrew or came to terms with it. Any attempt to define predation in this or way and to brand it as illegal would make it virtually impossible for an established firm with a large share of the market to compete effectively with smaller firms or new entrants. (One may note, parenthetically, that, according to McGee's analysis it would be economic folly for such a firm to compete on prices either in a predatory or non-predatory way—unless mergers by such firms were ruled out by law.) On the other hand, any attempt to narrow the definition by inserting in it the requirement that the reduced price be lower than cost (in some sense) would be inappropriate, since it has been shown here that selling at reduced prices above cost can serve the same purpose in the context of predatory intent. Moreover, the difficulties of identifying predatory pricing in the McGee sense are certainly no smaller than those noted above.

It is perhaps not surprising that it has been hard to find clear-cut historical examples of the extreme McGee variant of predatory price cutting, even when one is not unduly fussy about the appropriate definition of cost which should be used. But if it is correct to infer from the McGee analysis and its elaboration that predatory pricing (involving sales below cost) is likely to be rare or exceptional, it would also be correct to infer that predatory price cutting activities of a less extreme kind should also be rare or exceptional.

Temporary price cutting by dominant firms or groups has, of course, been practised quite frequently. And although, as has been suggested above, there are severe difficulties in distinguishing between temporary price cutting which is predatory in intent and that which is not, it appears that the predatory variety may not have been uncommon. If this were the case, it would seem to follow that the weight to be given to the factors which weaken McGee's strong conclusion concerning the folly of economic warfare should be greater than that suggested in several of the contributions on the subject which have appeared since McGee's paper was published.

On the information available several of the bouts of price cutting rejected in the recent literature as instances of predatory pricing seem to be eligible as instances of temporary, localised price cutting designed to deal predatorily with an independent competitor. Further examples can be suggested. The use of "fighting ships" by shipping cartels (conferences) is well documented, the Mogul case discussed in the next section being one example. The essence of the practice is for ships belonging to the conference to be used to cut freight rates when and where independent rivals are active so as to deny them business and profits. The special rates are not offered at other times and places. Both the majority and the minority groups of the Royal Commission on Shipping Rings reported in 1909 in terms suggesting that such temporary price cutting was a standard weapon in the armoury of shipping conferences for dealing with interlopers. The majority reported that the practice (together with other practices) was used "until the opposition line is either driven off or admitted to the Conference," and the minority that "under-cutting their competitors" continued "until they have driven them away."[17]

Other examples of temporary price cutting which may be predatory are provided by the use of "fighting brands" by a monopolist to meet the competition of a new entrant in those parts of the market where it is trying to become established or to extend its operations. A special brand is introduced for the purpose. Its sale is confined to the affected areas; the quantities offered are controlled so as not to make unnecessary sacrifices of profit; and it is withdrawn as soon as the objective has been attained, namely the acquisition of the independent by the monopolist, or the withdrawal of the independent, or its abandonment of plans for enlarging its share of the market. Good examples of the use of fighting brands are provided by the activities of the match monopoly in Canada from its creation, by merger, in 1927 to the outbreak of the Second World War. The dominant firm used the device at various times, and this suggests that the firm was convinced of its efficacy.[18]

The use of temporary localised price cuts probably with predatory intent can also be illustrated from the workings of the basing point system in some industries. The normal operation of the system itself discouraged independent pricing because other sellers, regardless of their location, would match a reduction in a base price initiated by one of their number. The use of punitive basing points and punitive base prices went further. A small seller who was not adhering strictly to the rules of the system could be punished, and brought back into line, by the expedient of the cartel introducing a deliberately low base price in his principal production centre: all (or most of) his sales would have to be made at this low price because of his competitors' willingness to supply at that price in the affect-

17 Report of the Royal Comm'n on Shipping Rings, Cd. No. 4668, at 35, 96 (1909).

"Perhaps the most spectacular instance of this practice [the use of fighting ships] was the Syndikats-Rhederi, a 'fighting corporation' established in 1905 by six important German lines trading out of Hamburg. The corporation purchased four small and comparatively inexpensive vessels which, with others chartered from time to time, were hired out to the six owners of the syndicate to throttle competition. In time of 'peace' the syndicate's ships engaged in regular trade on time charters". Daniel Marx, Jr. International Shipping Cartels, A Study of Industrial Self-Regulation by Shipping Conferences 55 (1953). See also Alfred Marshall, Industry and Trade 434 n.2, 533 (1919: references to 1932 ed.).

18 Can., Dep't of Justice, Combines Investigation Comm'r, Matches, Investigation into an Alleged Combine in the Manufacture, Distribution & Sales of Matches, *passim* (1949). For description and discussion of the use of fighting brands in the match industry in the United Kingdom, see Gt. Brit., Monopolies & Restrictive Practices Comm'n, Report on the Supply and Export of Matches and the Supply of Match-making Machinery, 59, 62, 85 (1953). For fighting companies, successful and unsuccessful, see Gt. Brit., Monopolies & Restrictive Practices Comm'n, Report on the Supply of Cast Iron Rainwater Goods, 23 26–28 (1951); Report on the Supply of Electric Lamps, 43, 44, 90 (1951); Report on the Supply of Certain Industrial and Medical Gases, 21, 92 (1965).

ed area. This practice of localised price cutting was used, for example, with some effect in the United States cement industry in the inter-war years.[19]

It has sometimes been suggested that alleged examples of predatory pricing in a particular sub-market may be nothing other than manifestations of profit-maximising price discrimination. However, the various examples touched upon here cannot reasonably be regarded as instances of the exploitation by a monopolist of a perceived opportunity to discriminate in his prices between sub-markets in which demand intrinsically is of materially different price elasticities. The price differentiation is removed as soon as the rival comes to heel. The long arm of coincidence would have had to be in frequent operation for the successful neutralisation of the rival in such cases to have been coincident with changes in underlying demand elasticities.

However, while the explanation of the phenomena as instances of price discrimination may be rejected, it must be stressed that it is not possible, on the information available, to decide unambiguously whether all our examples of temporary price cutting should be classified as predatory or not. The distinction turns not on form but on intent; and on the latter the available information is incomplete.

III.

This section presents an account of what seems to be as clear-cut an example of predatory pricing in the McGee sense (that is, involving selling deliberately below cost) as one is likely to find, bearing in mind the difficulties of tracking down all the relevant information, including data on the predator's costs.

In December 1891 the law lords in the House of Lords pronounced upon the activities of a conference of shipowners in the China-England trade designed to exclude competitors so as to maintain a monopoly. This important decision, *Mogul Steamship Co. v. McGregor, Gow and Co. et al.*, terminated litigation which had been started in 1885 and concerned events of that year.[20]

Shipowners regularly engaged in the China trade had formed a conference in 1879 to regulate freight rates and the sailings of the ships of each member. The

19 Samuel M. Loescher, Imperfect Collusion in the Cement Industry, esp. 22–25, 125–29 (1959).

20 Mogul Steamship Co. v. McGregor, Gow & Co., *et al*., 54 L.J.Q.B. 540 (1884/5); 57 L.J.Q.B. 541 (1887/8); 23 Q.B.D. 598 (C.A.) (1889); [1892] A.C. 25. For contemporary views on the importance of the decision, see Notes, 8 Law Q. Rev. 101 (1892); and Leading Article, The (London) Times, Dec. 25, 1891, at 7. For recent comment on the decision and its influence on the development of the law in the United States, see William Letwin, Law and Economic Policy in America: the Evolution of the Sherman Antitrust Act 49–51, 148, 149, 176 (1965). The various successive judgments in the case were each the subject of a leading article in The (London) Times, Aug. 14, 1888; July 15, 1889; and Dec. 19, 1891. Some account of the background and course of the dispute is to be found in Francis E. Hyde & J. R. Harris, Blue Funnel: A History of Alfred Holt & Co. of Liverpool from 1865 to 1914, at chs 3 & 4 (1956); and Sheila Marriner & Francis E. Hyde, The Senior, John Samuel Swire 1825–98, chs 8 & 9 (1967).

object was to improve the profitability of the trade by removing competition among members, especially at the height of the tea harvest (May and June) when large quantities of tea were shipped from Hankow and elsewhere down the Yang-tse-Kiang river to Shanghai, and thence to London. At some time before 1884 the conference introduced a 5 per cent rebate payable to such shippers as gave all their business to conference companies during that particular year. This was designed to discourage shippers from giving business to interlopers who might be attracted into the trade, particularly at the height of the tea season when demand for shipping space was high and, presumably, also relatively inelastic.

> IT MUST BE STRESSED THAT IT IS NOT POSSIBLE, ON THE INFORMATION AVAILABLE, TO DECIDE UNAMBIGUOUSLY WHETHER ALL OUR EXAMPLES OF TEMPORARY PRICE CUTTING SHOULD BE CLASSIFIED AS PREDATORY OR NOT. THE DISTINCTION TURNS NOT ON FORM BUT ON INTENT.

The plaintiff company, Mogul, was formed in 1883, with ships engaged primarily in the Australia trade. It had an interest in picking up freights in China at the time of the year when homeward freight was plentiful in China but hard to come by in Australia. In the 1884 season the conference allowed two sailings to Mogul ships,[21] although the company was not admitted as a full member. In the next year Mogul asked to be admitted as a full member of the conference, and threatened to cut rates if its request was not granted.[22] The conference refused the request, and decided to treat Mogul as an outsider which had to be excluded from the trade.[23] The reason for the refusal is not clear. There is a contemporary reference to a "dispute";[24] and The Times (London) believed that the exclusion of Mogul was decided upon "probably because the shipowners . . . believed that their own vessels and resources were sufficient to supply all the demands of the trade."[25] Presumably Mogul had asked for an unacceptably large share of the trade, and the conference thought it more profitable to adopt tactics to exclude Mogul and to discourage others.

The methods of exclusion were the application of the loyalty rebate system to the disadvantage of Mogul and others, inducement of shipping agents in China

21 Sheila Marriner & Francis E. Hyde, *supra* note 20, at 148.

22 *Id*. at 148.

23 According to a trade paper, Mogul was "amongst the most inveterate ring men in London," and they instituted the action "because they were unable to participate in that which they subsequently denounced as wrong and an evil." 17 Fairplay 1372 (London, 1891). See also 13 Fairplay 110–11 (London, 1889).

24 The (London) Times, Aug. 14, 1888, at 9.

25 The (London) Times, Dec. 19, 1891, at 9.

to shun dealings with non-conference shipping lines, and the undercutting of freight rates when and where interloping vessels were active. In the first phase of the litigation only the rebate system was complained of; in the second phase, the other two methods were also at issue.

It is not necessary to give here an analysis of the reasons for the decision of the House of Lords adverse to Mogul—a decision which was unanimous, which confirmed a 2–1 decision in the Court of Appeal and which in turn had confirmed the decision in the Queen's Bench. It is sufficient to note, in broad terms, that the attempts of the conference to exclude competitors and to monopolize the trade were held not to be in unlawful restraint of trade; that the methods used by the conference were not unlawful *per se* (in that, for example, they did not involve violence, molestation or intimidation); and that the methods used did not become unlawful by virtue of the fact that they were used by a concerted group of firms rather than by a single firm. Present concern is to see whether the price cutting component in the conference strategy should qualify as an example of successful predatory pricing in the strict McGee sense.

The facts referred to in the law reports do not appear to have been in dispute. In 1885 the conference decided

> "that if any non-Conference steamer should proceed to Hankow to load independently any necessary number of Conference steamers should be sent at the same time to Hankow, in order to underbid the freight which the independent shipowners might offer, without any regard to whether the freight they should bid would be remunerative or not."[26]

Three independent ships were sent to Hankow, two of them being Mogul ships; and the agents for the conference lines responded by sending such ships as they thought necessary. Freight rates fell dramatically. It was accepted in the Court of Appeal and in the House of Lords that they fell to a level unremunerative alike to independent and to conference shipowners. According to Lord Esher, Master of the Rolls, rates were "so low that if they [defendants] continued it they themselves could not carry on trade."[27] Several of the law lords made similar statements. Thus Lord Halsbury, L.C.: "The sending up of ships to Hankow, which in itself and to the knowledge of the associated traders, would be unprofitable, but was done for

26 Mogul Steamship Co. v. McGregor, Gow & Co. *et al*., 23 Q.B.D. 598 (C.A.) (1889), at 602.

27 *Id.* at 610. Bowen, L. J., expressed the view that "All commercial men with capital are acquainted with the ordinary expedient of sowing one year a crop of apparently unfruitful prices, in order by driving competition away to reap a fuller harvest of profit in future . . ." *Id.* at 615.

the purpose of influencing other traders against coming there . . . "[28] Apparently in the event the losses of the conference were larger than those of the outsiders, since some conference ships sailed empty from Hankow, while all the outsiders' vessels were able to load up with some cargo and did not have to sail in ballast.[29]

It is reasonably clear that the intentions of the conference were those of predatory pricing, that the conference contemplated pricing below cost, and that in the event its members did cut prices below their costs (in the sense that the voyages in question were unremunerative at the prices charged).

It is more difficult to establish the eventual outcome of the predatory pricing practised in conjunction with the other restrictive arrangements of the conference. The more immediate consequences of the events of 1885 are blurred by the occurrence of other developments. In 1882 a shipping company, The China Shippers Mutual Steam Navigation Company, financed largely by shippers, had been formed primarily so that the co-operating firms could avoid the terms and restrictions imposed by the shipping conferences.[30] Quite soon, however, the Mutual was working with the China conferences.[31] But in 1887 it withdrew from the conference arrangements and entered into an alliance with Mogul in terms of which the ships were to run under the Mutual flag as one line both outwards to China and homewards.[32] (It was this step which probably emboldened Mogul to continue with its expensive litigation.[33]) By 1891 the situation had changed once more. The rate war which had begun in 1887 had "continued with unabated ferocity," and Mutual "was finally forced to agree to Conference terms and became a member of a new Homeward Conference in 1891."[34]

28 Mogul Steamship Co. v. McGregor, Gow & Co., *et al*., [1892] A.C. 25, at 37. See also *id*. at 43 (Lord Watson); at 44 (Lord Bramwell); and at 56 (Lord Field).

29 *Id.* at 56.

30 Sheila Marriner & Francis E. Hyde, *supra* note 20, at 154–56. The formation of the first shipping conferences in the Chine trade naturally aroused the suspicions and opposition of some shippers. As early as December 1879 several shippers "decided on united action against the shipowners," and formed the China and Japan Shippers Association. The main bones of contention were the alleged elimination of competition in the supply of shipping services, the deferment of the payment to shippers of the loyalty rebates, and the treatment for rebate purposes of forwarding charges. The Association chartered some ships so as to become independent of the conferences. There were difficulties in securing such charters. In 1882 shippers took a more positive step in forming the Mutual to continue the fight against the conferences on a better organised basis. *Id*. at 150–56.

31 *Id*. at 138–39, 156. But see Francis E. Hyde & J. R. Harris, *supra* note 20, at 71, where it is said that because of the hostile reactions and concerted actions of the conference companies "the China Mutual could do nothing but comply and between 1884 and 1887 the Company was forced to instruct its agents to agree to the Conference terms."

32 Francis E. Hyde & J. R. Harris, *supra* note 20, at 72–73.

33 Sheila Marriner & Francis E. Hyde, *supra* note 20, at 149.

34 Francis E. Hyde & J. R. Harris, *supra* note 20, at 73. According to Sheila Marriner & Francis E. Hyde, *supra* note 20, at 166, the first new homeward agreement after the completion of the Mogul litigation took effect in January 1893.

Mogul was not admitted to membership of this conference then or later.[35] It is not included among the members of the Far East Homeward Conference listed in the Report of the Royal Commission on Shipping Rings of 1909.[36] The exclusion of Mogul from the homeward conference after 1885 is all the more noticeable and remarkable in that, after the events of the 1880s, the company was included as a member of other shipping conferences, including the conference on the outward trade to China and the Far East in which its main adversaries were engaged. In this capacity Mogul is listed in the Report of 1909 referred to above.

THE MOGUL STORY SERVES TO ILLUSTRATE A GENERAL POINT, NAMELY, THAT PREDATORY PRICING, OR THE THREAT OF ITS USE, MAY ITSELF OPERATE AS AN EFFECTIVE HINDRANCE TO NEW ENTRY EVEN IN SITUATIONS WHERE THE CONVENTIONAL BARRIERS TO ENTRY ARE WEAK OR ABSENT.

Thus the actions, including predatory pricing, taken against Mogul in the 1880s appear to have succeeded in achieving the intended goal of excluding Mogul. The only minor qualification to be made is that Mogul, after negotiations, was given "certain rights of loading on its own berth" in a Yang-tse port.[37]

It is obviously not possible to determine whether the predatory pricing was unprofitable in the sense that the conference might have achieved its objective at lower cost to itself without involving itself in selling its services below cost. The fact that shipping companies continued to use fighting ships after the Mogul affair suggests that predatory pricing and the standing threat of such action were considered efficacious. Price cutting by fighting ships did not, of course, necessarily involve prices below cost, but only temporary low prices. But it is the burden of the argument in section II that the *size* of the temporary price reductions is not to be regarded as the determining characteristic of predatory pricing.

The point is frequently made in the literature on predatory pricing that the practice makes little sense where entry into the industry or trade in question is easy. However, the Mogul story serves to illustrate a general point, namely, that predatory pricing, or the threat of its use, *may* itself operate as an effective hindrance to new entry even in situations where the conventional barriers to entry are weak or absent. In this respect predatory pricing, like certain other pricing practices, should be given a place in the analysis of barriers to entry.

35 For the revision of the agreement in 1894, see Francis E. Hyde & J. R. Harris, *supra* note 20, at 82.

36 Report of the Royal Comm'n on Shipping Rings, *supra* note 17.

37 George Blake, Gellatly's 1862–1962: A Short History of the Firm 78 (1962).