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Competition Policy International

A COLLOQUY ON TYING

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THE CLASSICS

Frank H. Easterbrook's
"The Limits of Antitrust"

Oliver E. Williamson's
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Edited by Richard Schmalensee

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About the Journal

Dear Colleagues,

We invite you to join a dialogue about competition policy.

The conversation that we will have through these pages will be about the past, present and future of antitrust. It will use the increasingly global languages of legal and economic analysis. And we hope it will be carried on by academics with an interest in antitrust, members of government who design or carry out the competition laws, the jurists that make and apply the laws, and the lawyers and economists who work on competition policy matters.

Our editorial team spans diverse fields. Their common interest is their commitment to antitrust scholarship and their desire to help advance it. We thank them for their efforts and we hope you will too.

Competition Policy International will be published twice a year in the Spring and Autumn. We will evolve. For now we distinguish ourselves in two ways. First, we will organize the issues thematically as we have in this issue and we will solicit readers' contributions. Although we do not plan to publish unsolicited manuscripts regularly, we encourage readers with an idea for an article, or those who would like to assist us in organizing a collection of articles on a particular topic, to contact us. Second, we plan to republish one or two classic articles on antitrust in each issue. These pieces offer wisdom and insights that are still applicable today. The inclusion of these articles helps to refresh our memories of seminal discussions on important topics.

Competition Policy International is produced by eSapience, Ltd., a media and research enterprise that stimulates and disseminates thinking about critical issues at the intersection of law, economics, and policy through its journals, web-portal, and other activities. *CPI*'s editorial team operates independently of eSapience. The publisher and editorial team do not necessarily share the views expressed in the pages of the journal.

We hope you will agree that the first issue begins a lively and respectful discourse.

David S. Evans
Chairman, eSapience, Ltd.

David S. Evans is Managing Director of the Global Competition Policy Practice at LECG LLC and Vice Chairman of LECG Europe. He is also Visiting Professor at University College London.

From the Editor

Welcome to the first issue of *Competition Policy International.*

This inaugural volume begins with a colloquy about tying, an unsettled area in both economics and law. The Chicago School taught that even firms with monopoly power were not likely to find tying attractive because it could not augment their market power. Later writers, however, have identified conditions under which firms might tie to create an additional monopoly or protect their current one. But it has been hard to find robust methods for identifying anticompetitive ties. In most countries the law has taken a less forgiving approach to tying than the economics literature. To paraphrase U.S. Supreme Court Justice Frankfurter: there's nothing redeeming about tying. Such skepticism led U.S. courts for many years to make tying by firms with market power a per se violation. This doctrine has been relaxed slightly over time, but tying is still treated much more harshly than other unilateral practices. There is an ongoing debate in the competition policy community on whether tying with market power should remain essentially per se illegal, be made lawful as the Chicago School urged, or be subject to some sort of rule of reason analysis. The lead article by Jean Tirole and thoughtful comments by Dennis Carlton and Michael Waldman and by Barry Nalebuff offer recommendations for going forward from four economists who have made seminal contributions to the scholarly literature on tying and its effects.

This issue's next feature is a symposium on the legacy of former EC Competition Commissioner Mario Monti. Commissioner Monti, an eminent economics professor from Milan's renowned Bocconi University, was the EC Commissioner for competition policy from September 1999 until November 2004. He made headlines throughout his tenure. Reporters dubbed him "Super Mario," and he was said to strike "fear into the hearts of the most powerful corporations" for his efforts to take on all comers—from France, to Volvo, to Microsoft. He also came in for stiff criticism. He split with the U.S. Department of Justice by blocking the *General Electric/Honeywell* merger, and the EC's Court of First Instance reversed several Commission decisions that blocked other mergers. His tenure was also marked by important reforms, including the creation of the Chief Economist's office at the Directorate-General. Margaret Bloom, Claus-Dieter Ehlermann and John Ratliff, Nicholas Levy, David Evans and Carsten Grave, and William Kolasky, all active practi-

Richard Schmalensee is John C Head III Dean of the Massachusetts Institute of Technology's Sloan School of Management and Professor of Economics and Management at MIT.

tioners in the European Community, consider what Commissioner Monti's legacy means for several areas of EC competition policy.

The journal ends with two classic articles. Frank Easterbrook's skeptical "The Limits of Antitrust" laid the groundwork for many of the developments in antitrust thinking from the 1980s to the present. Although it was considered a radical cry from the Chicago School when it appeared, many of the ideas it contains have been adopted by wide swaths of the ideological spectrum in competition policy. Oliver Williamson's "Economies as an Antitrust Defense: The Welfare Tradeoffs" has sharpened the thinking of generations of analysts about mergers. Like many great works, its key points seem obvious in hindsight.

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

Richard Schmalensee
Editor-In-Chief

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Competition Policy International

The Analysis of Tying Cases: A Primer

Jean Tirole

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The Analysis of Tying Cases: A Primer

Jean Tirole

This primer analyzes factors that make ties more likely either to hurt or to benefit consumers. It first identifies factors that influence where the impact of tying on competition in the tied market stands, ranging from little impact on the rivals' ability to compete to total exclusion of competitors. Then, after reviewing anticompetitive and efficiency-enhancing motives for tying, it argues that tying should be submitted to a rule of reason standard. Furthermore, tying should not be a distinct offense but considered as one possible mechanism of predation. Like many other corporate strategies that make one's products attractive to consumers, tying has the potential of hurting competitors, and, therefore, is just one in a large range of strategies that can be employed to prey on them. Finally, the primer discusses the costs and benefits of adopting a predation-based standard.

The author is Professor of Economics at the Institut d'Economie Industrielle, University of Toulouse. The author is grateful to Sven Albaek, Jacques Crémer, Dennis Carlton, David Evans, Miguel de la Mano, Barry Nalebuff, Patrick Rey, Jean-Charles Rochet, Richard Schmalensee, Paul Seabright, Michael Waldman, and participants at a DG Competition seminar, Brussels (Sep. 16, 2004) and the 2nd Conference of the Association of Competition Economics, Siena (Dec. 2-3, 2004) for helpful discussions and comments. The Institut D'Economie Industrielle receives research grants from a number of corporate sponsors, including the Microsoft Corporation and Visa U.S.A. All errors are the author's own.

I. Introduction

A large number of antitrust investigations in the United States and Europe[1] relate to various kinds of tying behavior by firms with market power.[2] For example, a highly visible U.S. case, resulting in the largest settlement in antitrust history, concerned Visa and MasterCard's tie of debit and credit cards; the two associations agreed in 2003 to pay $2 billion and $1 billion, respectively, to a class of merchants and to lower their interchange fees.

While one may lament the existence of market power in the tying market, it does not necessarily follow that the tying action hurts consumers. This primer analyzes factors that make ties more likely either to hurt or to benefit consumers. It does not provide a turnkey methodology that would enable competition authorities to determine mechanically and unambiguously the impact of a tie; its more limited objective is to list a set of relevant considerations that must be carefully examined before forming a judgment.

This paper argues that tying is likely to be systematically harmful to consumers when it is a tool of predatory action, and should not be treated as a separate offense. It is important, therefore, to make the analysis of the consequences of tying consistent with what we know about predation and the circumstances under which it represents a realistic threat to healthy competition.

Figure 1 suggests a natural checklist for the antitrust analysis of tying cases, building (with some nuances) on a three-step procedure that is familiar in antitrust reasoning.[3] The three steps hardly require elaboration. Note, though, that the antitrust doctrine has long recognized that we should be more interested in protecting consumers (step 2) than in protecting competitors (step 1), or to put it differently, that competition is often a means to enhance consumer welfare, but in no way an end.[4] Indeed, the main reason for being interested in step 1 is as a way of thinking about possible causes of harm to consumers.

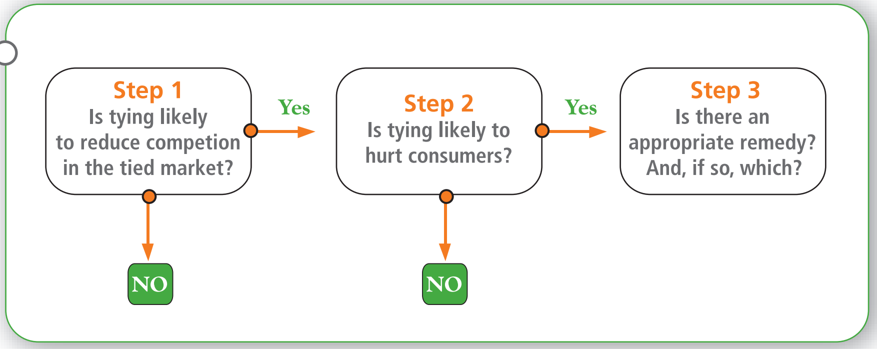
1 In the European Community, tying cases are treated under Article 82(d) of the EC Treaty, which states that an abuse by a dominant firm may consist in "making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts."

2 *See generally* Barry Nalebuff, *Bundling, Tying, and Portfolio Effects, Parts 1 and 2*, DEPT. OF TRADE AND INDUSTRY ECON. PAPER 1 (2003) (discussing some of the court cases in detail).

3 To see the link between this three-step approach and the standard treatment of tying cases under Article 82(d) of the EC treaty, note that step 1 corresponds to the identification of a restrictive impact on competition in the tied good market, and step 2 in part to the question of the existence of an "objective and proportionate justification" for the tie. The identification of a dominant position in the market for the tying product bears both on steps 1 and 2: A dominant position increases the restrictive effect on competition in the tied market and makes it more likely that the tying firm later recoups its losses if the intent is indeed anticompetitive.

4 One can argue, though, that the standard treatment of tying cases fails to satisfy this basic precept, since it usually contents itself with a demonstration that competition in the tied market is foreclosed (step 1).

Figure 1



The paper's organization follows this checklist. It first delineates circumstances under which a tie is likely or unlikely to reduce competition in the tied market (step 1). Three key characteristics of the tied market are emphasized: unit production costs, scope for differentiation, and multi-sidedness (a multi-sided market is one in which firms are successful only if they get on board multiple categories of users who want to interact with each other).

The analysis then proceeds to step 2, where the focus is on developing a series of reasons why ties may benefit or hurt consumers. In particular, ties are likely to enhance consumer welfare when they reduce distribution costs, lower the cost of ensuring compatibility, enhance accountability if a product malfunctions, are necessary to protect intellectual property, and are competitive responses; they have ambiguous effects when they are employed for price discrimination purposes; and they are anticompetitive when they aim at monopolizing the competitive segment or at protecting the monopoly segment. Consequently, the impact of tying by a dominant firm is best assessed under the rule of reason standard.[5]

I then argue that it is difficult to think of reasons that tying should be a distinct offense (distinct, that is, from a more general offense of predation or the broader concept of monopolization/abuse of dominant position). The reason for concern about tying by a dominant firm is that tying serves more to hurt and eliminate rivals from the tied market than to enhance efficiency in the ways listed above. Tying is one of the many strategies that dominant firms can employ for anticompetitive reasons. Low prices, investment, and patent accumulation are other examples of such strategies; like tying, these strategies are often motivated by efficiency reasons that also benefit consumers, but they are sometimes misused. This suggests that tying cases should be analyzed as predation cases. Step 1 indeed relates to a standard step in predation cases: Is the strategy likely to discourage rivals (i.e. inducing their exit or discouraging their entry)? Step 2 speaks

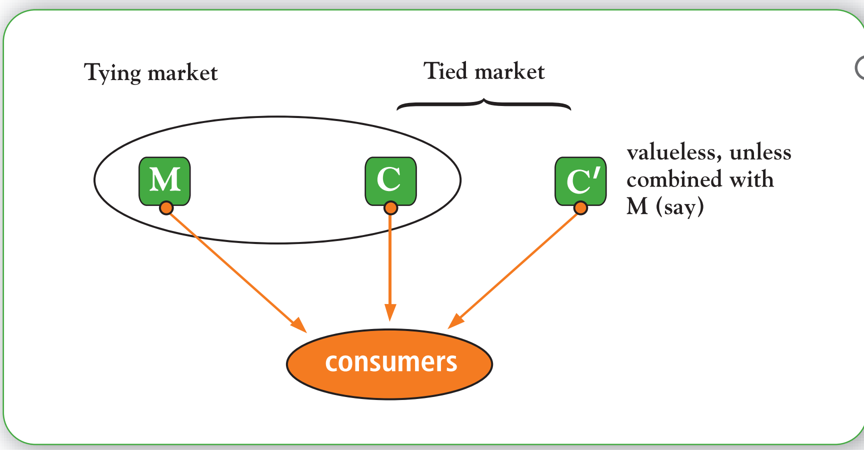
5 For calls for a rule of reason treatment and for alternative, but related checklists to deal with tying cases, *see* C. Ahlborn, D. Evans, & J. Padilla, *The Antitrust Economics of Tying: A Farewell to Per se Illegality*, 49 ANTITRUST BULLETIN, 287-341 (2004) and D. Evans & M. Salinger, *Why do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law*, 21 YALE J. REG. (2004).

to the question of whether the dominant firm employs the strategy to raise its profit or to impose losses on itself and its rivals and, therefore, trigger the rivals' exit. If the latter, the analysis may be completed by a recoupment test, investigating whether the dominant firm is likely to make up through future monopoly power the shortfall in profit associated with the predatory act.

II. A Few Definitions

To fix ideas, consider the following simplified setting of Figure 2, which we will later enrich as needed. There are two segments, the monopolized and the potentially competitive ones. An integrated firm is the sole producer of the monopoly good (M) and has its own offering (C) in the competitive or adjacent market. Independent producers are also present in the competitive market and have offering C′ that competes with C. Goods C and C′ are valueless unless combined with M; M may or may not have a stand-alone value when not combined with C or C′.

Figure 2



A. DEFINING EQUAL ACCESS

1. Complete Foreclosure

The integrated firm forecloses the competitive segment if it makes it impossible for C′ to operate. For example, a durable good producer may demand exclusivity and prohibit buyers of the durable good (M) from using independent service operators (ISOs) for after-sale services (C′); alternatively, it may refrain from communicating technical specifications to manufacturers of spare parts, preventing them from building compatible components.

2. Technological Equal Access

We define equal access in technological rather than commercial terms: C and C′ have equal access to M if integrated and independent producers in the complementary segment, producing C and C′, respectively, can produce functionally equivalent products, provided that they have similar talents and sink comparable investments. Put differently, C and C′ may differ due to their designers' expertise or R&D budgets, their design option or just chance, but not because the integrated producer has privileged access to or knowledge about specific functions or interfaces of M.

Two questions arise about equal access in this technological sense. First, is it desirable? A simple example suffices to show that the answer is not always "yes"—everything depends on costs.[6] Even in the absence of favoritism or corruption in the refereeing process, French-speaking economists have an edge for publishing in French-speaking economics journals over non-French-speaking economists, who, among other things, must translate their work at each step of the submission process. Ensuring equal access, in which each would have an equal chance of publication for a given effort, would require the journals to accept submissions in other languages and to offer a free but excellent translation of all submitted papers. This rather inconsequential example illustrates a more general point: different firms inherit or select different approaches or technological options. Ensuring equally effective internal and external interoperability requires an effort on both sides. Even leaving aside the question of whether interoperability is worth this effort, antitrust authorities face the difficult technological challenge of trying to figure out the least costly way of achieving it. Meanwhile the integrated firm and its competitors are each trying to shift the burden of achieving compatibility to the other side.

The second question about technological equal access is whether it implies that C and C′ are equally likely to succeed in the competitive market. Once again, the answer is "no"—even when the offerings are similar and the integrated firm has no anticompetitive intent. Other things being equal, C is more likely to take the upper hand in that market despite technological equal access, because of the complementarities between the two products. A lower price for C boosts the demand for M, and thus the integrated firm has more incentive to charge a low price in the competitive market than the independent one, which does not internalize the beneficial impact of a reduction in the price of C′ on consumer demand for M.[7] Note that the integrated firm would benefit from a reduction in the price of rival

6 This example is one related to "vertical exclusion" (in which one of the two complementary goods is not sold to consumers). For a discussion (although its jest carries over to "horizontal exclusion"), *see* P. Rey & J. Tirole, *A Primer on Foreclosure*, *in* HANDBOOK OF INDUSTRIAL ORGANIZATION (M. Armstrong and R.H. Porter, eds) (forthcoming).

7 *See, e.g.*, J. Farrell & M. Katz, *Innovation, Rent Extraction, and Integration in System Markets*, 48 J. INDUS. ECON. 413, 413-432 (2000) for an analysis of the classic "Cournot effect", according to which integration reduces the overall price. So, for example a software platform vendor will price internally developed applications more aggressively than rival application developers. This differential in incentives is however alleviated by the durability of the monopolized product, since a reduction in the price of applications or after-sale services does nothing to boost the (past) demand constituting the installed base.

good C′. Complementarity gives the integrated firm no reason to wish that its own price be lower than the rival's—the asymmetry results from the fact that it has the power to set its own price but no power to set the rival's.

B. ADDING ROYALTIES

While the outcome of competition in the tied market will depend on pricing strategies in that market, it is important to note that the rivals' market shares may not depend on the price charged for the monopoly good M or on whether the monopolist levies a royalty on producers of C′ for access to (or interoperability with) M (for example, M may charge an independent content provider, a videogame developer, or a music store per game or per song). It is sometimes argued that the existence of such a royalty implies that producers of C and C′ face different marginal costs—since the division producing C either does not pay such royalties or else internalizes the fact that these royalties go to an affiliated entity—and so there is no level playing field in the adjacent market despite equal technological access. However, this reasoning is incomplete. Royalty *a* levied on each unit of the rival's good sold to consumers (i.e. the equivalent of an access charge to a local loop bottleneck) need not put C′ at a competitive disadvantage relative to C (see Figure 3). While the rival's marginal cost of production increases by *a*, so does the integrated firm's opportunity cost of producing C. When wooing a consumer of the adjacent good away from producers of C′, the integrated firm foregoes royalty *a*, and thus royalty *a* becomes part of the integrated firm's marginal cost of producing C. Hence, a royalty levied on C′, while raising the price of C′ and C and therefore reducing demand in the adjacent segment, does not intrinsically affect the market shares of C and C′ in this segment: it is competitively neutral.[8,9]

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8 As usual, things are more complex than suggested by this "benchmark reasoning". First, the reasoning clearly rests on the integrated firm's wooing a customer away from its downstream rivals. That is, there is a one-for-one substitution. While this assumption is fine in a world of perfect competition with undifferentiated products or in an Hotelling model of price competition with differentiated goods, more generally a competitive action by the integrated firm also has a demand expansion effect. Then, an extra unit sold by the downstream affiliate corresponds to a reduction of volume sold in the wholesale market of less than one. For a general analysis along those lines, *see* J. Gans and S. King, *Competitive Neutrality in Access Pricing,* University of Melbourne (mimeograph, 2004). They show that, for integration not to drive any differences in competitive behavior between the downstream affiliate of the integrated firm and its non-integrated downstream rivals, the marginal access price must be equal to the marginal cost of giving access. As they point out, this is easily seen in the extreme case of Cournot (quantity) competition with perfect symmetry (except for integration) downstream.

To see this, let q and q' denote the outputs of C and C′, $P(q + q')$ be the inverse demand function, and c the marginal cost of access. Then C′ has profit $q'[P(q + q') - a]$ and C has profit $q[P(q + q') - c] + (a - c)q'$. The first-order conditions are:

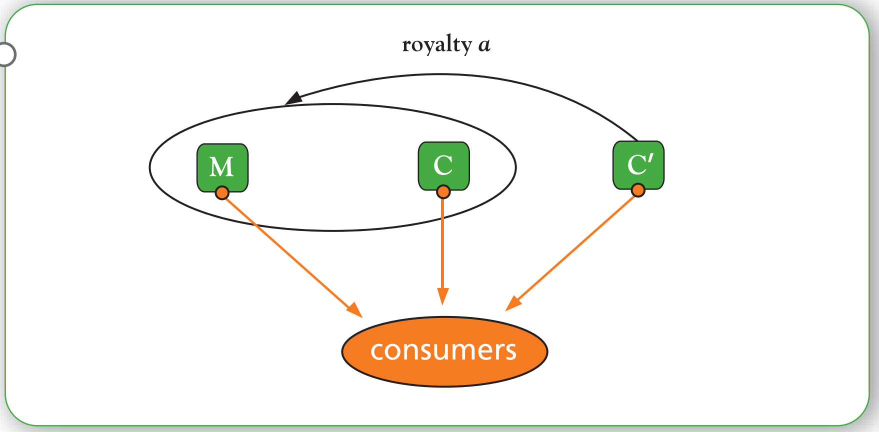
$$q'(dP/dQ) + P = a \qquad \text{for C}', \text{ and}$$

$$q(dP/dQ) + P = c \qquad \text{for C}$$

So $q = q'$ if and only if the access price is a pass-through ($a = c$).

footnote 8 cont'd on next page

Figure 3



It is, therefore, important to understand why the argument that a royalty or access charge puts competitors at a disadvantage resonates in many people's mind. This is perhaps due to the fact that a royalty, although part of the integrated firm's marginal cost of producing the downstream good C, makes it possible to prey on competitors without charging very low or negative prices for C. When marginal costs are low, in the absence of a royalty and with equal technological access, an integrated firm that seeks to prey on its rivals in the competitive market must do so through a very low price, perhaps a negative one—which creates obvious problems of opportunistic purchases by consumers. By contrast, the integrated firm may use royalties

footnote 8 cont'd

The policy of setting the access price equal to the marginal cost of access however ignores what is often the very reason for the existence of the upstream bottleneck: the existence of fixed costs to be recouped in downstream markets. Laffont and Tirole characterize socially optimal access prices in a variety of environments; these access prices usually exceed marginal costs, and deliver equal market shares for C and C′ in "symmetric cases", but not in other cases (asymmetric qualities, entrant market power, and so forth). Optimal prices can be approximated through a global price cap. *See* Jean-Jacques Laffont & Jean Tirole, *Access Pricing and Competition*, 38 Eur. Econ. Rev. 1673, 1673-1710 (1994) and Jean-Jacques Laffont & Jean Tirole, *Creating Competition Through Interconnection: Theory and Practice*, 10 J. Regulatory Econ. 227, 227-256 (1996).

9 A different issue arises when regulators or antitrust authorities try to regulate the rate of return on the monopoly segment. This regulation rests on the view that M is an essential facility, that is an infrastructure owned and controlled by a dominant firm, that is extremely costly to duplicate, and for which foreclosure is the main reason why the dominant firm denies access (*see* AT&T v. MCI, 708 F.2d 1081, 1132-33 (7th Cir. 1982), *cert. denied*, 464 U.S. 891); and that this essential facility, absent regulation, would make an excessive rate of return, that is not in relation to investment or innovation. The corollary is then the design of access policies, such as the regulation of access price and quality, and the attempt to define interoperability.

This confers no easy task on competition policy officials. While their counterparts (e.g., the commissioners) in regulatory agencies lament informational asymmetries with the firms they regulate, competition policy officials cannot even avail themselves of the large staff and permanent data collection of these agencies. Yet, they have to answer complex questions such as: In which segments should platform M's fixed costs be recouped? What is a reasonable rate of return on investments in the presence of technological and commercial uncertainty? Given that unbundling cannot be widespread, what are the key components to be unbundled? Does unbundling forgo some efficiency gains of tying?

to squeeze competitors out of the market without having to charge low or negative prices for C. But this reasoning has two important implications. First, the predatory action is the excessively low price charged for C by the integrated firm, relative to the opportunity cost of C—which, remember, embodies royalty *a*—not, per se, the royalty charged by M. Secondly, the case should be analyzed as a predatory case, with a focus on the voluntary loss of current profits by the integrated firm in the hope of recouping this lost profit through rivals' exit in the future.

C. DEFINING TYING

Next, recall the standard definitions of tying, bundling, joint distribution, and integration. Tying refers to the behavior of selling one product (the tying product), conditional on the purchase of another product (the tied product). Bundling refers to the practice of selling two products together. Pure bundling means that the products are available only as a bundle. The difference between tying and pure bundling is that the tied product is available on a stand-alone basis under tying, but not under pure bundling. This distinction however is inconsequential if, as we assumed for illustrative purposes, the tied product is valueless without the tying product. Under mixed bundling, the products are available both on a stand-alone basis and as a bundle; furthermore, the price of the bundle is smaller than the sum of the two individual prices. Pure bundling is a special case of mixed bundling, since buying the bundle is really the only feasible option if the prices of the individual products are high. Joint distribution of the two products describes a situation of bundling in which the two goods are assembled by the manufacturer rather than by the consumer. For example, cars come with an engine, a steering wheel, and tires. Joint distribution differs from bundling if consumers incur a transaction cost from either acquiring C independently of M or from replacing C by C′.[10] Finally, all situations may also involve integration (i.e. some interoperability between M and C that is unavailable to C′—and therefore a lack of technological equal access).

THE NOTION OF DISTINCT PRODUCTS CALLS UP SOME COMPLEX ISSUES. IN LEGAL CASES, TWO PRODUCTS ARE DEEMED DISTINCT IF, IN THE ABSENCE OF TYING OR BUNDLING, CONSUMERS WOULD PURCHASE THE PRODUCTS SEPARATELY. THIS OBVIOUSLY IS A VAGUE CRITERION.... FURTHERMORE, SUCH A DISTINCTION RUNS THE RISK OF CREATING ASYMMETRIC INCENTIVES FOR FIRMS.

The notion of distinct products calls up some complex issues. In legal cases, two products are deemed distinct if, in the absence of tying or bundling, consumers would purchase the products separately. This obviously is a vague criterion. The act of purchasing separately depends on pricing, delivery, guarantee, and assembly offerings. It furthermore has conceptual drawbacks. For one thing, economic theory, with its emphasis on a fine partition of goods, is of little help in drawing a line between distinct and non-distinct products. Does the fact that Ikea or Shaker Workshop offers their customers to pay less for furniture that they assemble themselves (or, in the latter case, a choice between cheap non-assembled and expensive

10 For example, C may need to be un-installed in order for C′ to be usable.

assembled furniture) imply that other furniture makers, who only deliver assembled furniture engage in a tie? Economic theory would simply treat non-assembled furniture as items of lower quality than assembled furniture (and, similarly, a disabled software program as an inferior version of the fully-enabled version).[11]

Furthermore, such a distinction runs the risk of creating asymmetric incentives for firms; take the case of a commercial software vendor who, when facing security threats, has the choice between improving the code to limit the number of weak spots and offering antivirus and firewall services. According to the definition, the latter would be considered a tie, while the former would not. However, both options may achieve the same objective.

Leaving aside the notions of joint distribution and integration, which relate to the notion of equal access discussed above and to which we will come back occasionally in this paper, we now focus on purely commercial aspects. It is tempting to consider bundling a form of exclusionary strategy and unbundling a form of competition-friendly behavior. This identification might, however, be misleading. As we will see, a bundle in some circumstances may have a limited exclusionary impact on competitors. Conversely, an integrated firm may be able to easily squeeze out rivals while fully unbundling its products: To this purpose, it may suffice to charge a very low price for C.

III. Step 1: Is Tying Likely to Reduce Competition in the Tied Market?

First look at the impact of a tie on the ability of rivals to compete in the tied market. Clearly, a tie tends to hurt rivals; the question is "how much?" It is impossible to define precisely the notion of reduction in competition. In practice, the impact may range from little impact on the ability of rivals to compete to total exclusion of competitors, with various intermediate degrees of reduction in competition. At best, we can list factors that amplify or reduce the impact of a tie.

A. HOW LARGE ARE UNIT PRODUCTION COSTS?

When two goods are tied together, the effective price for buying the second good for a customer who has already bought the first is zero. Whether this is likely to have predatory consequences in the market for the second good will depend, therefore, on the marginal cost of production in that market. Consider the hypothetical example of a monopoly car manufacturer, and suppose that cars come with an engine and tires, which for the sake of the argument, have little value in a secondhand market. Given the cost of manufacturing an engine or tires and the concomitant prices, the consumer is unlikely to replace these components with

11 On damaged goods, *see e.g.*, R. Deneckere & P. McAfee, *Damaged Goods*, 5 J. ECON. & MGMT. STRATEGY 149, 149-174 (1996).

those produced by a company not under contract with the car manufacturer, even if technological equal access obtains. The commercial tie is then akin to a technological foreclosure in that rival engine or tire manufacturers cannot get access to the tied markets, since they would have to sell at a price close to zero in order to compete with the integrated firm.

More generally, suppose a consumer purchases the bundle {M, C}. The consumer may then have no demand for C′, even if the latter is better adapted to their needs or if C′ offers superior features. When the unit marginal production cost, and therefore the price charged by competitors, is high, the extra cost incurred by the consumer when consuming C′ is not offset by sufficient benefits, unless C′ has a tremendous edge over C or is sufficiently differentiated. The tie then de facto forecloses competitors. For this reason, antitrust authorities have traditionally considered tying a form of exclusionary behavior.

In the new economy, though, some goods, including software products, have extremely low unit production costs—by contrast, they often involve large fixed costs (i.e. costs that are independent of the number of customers or their usage). Tying is then akin to selling at a price close to marginal production cost. To be certain, and as is well-known, prices in the vicinity of marginal costs do not allow market participants to recoup large fixed costs in such industries. In the presence of substantial fixed costs, static competition, that is the long-run coexistence of multiple firms (as opposed to dynamic competition, in which firms attempt to leapfrog each other and recoup innovation costs through temporary monopoly positions) requires tacit collusion, capacity constraints, or differentiated products; otherwise, profits must be reaped in an adjacent market. In the absence of these conditions, competitive pricing results in a shake out and (perhaps temporary) monopolization of the market.

B. CAN COMPETITORS DIFFERENTIATE IN THE TIED MARKET?

For products with a low unit production cost and a large fixed cost, the fixed cost needs to be recouped through prices above marginal costs. Suppose that M and C come as a bundle, and that consumers can further purchase C′, and either replace C by C′ or use C or C′ in turn, depending on the application that is being made of the complementary product. In the case of a tie, consumers, who get C for free, will pay for C′ only if C′ adds value, as when it is tailored to their specific needs or offers innovative features. Note that "adding value" does not imply that C′ is superior to C in an absolute sense. Rather, it suffices that C′ offer to some or all consumers some features that are absent or inferior in design in C; C may dominate C′ in other respects. Thus, a tie need not preclude competition if independent producers in the competitive market differentiate relative to the tied product.[12]

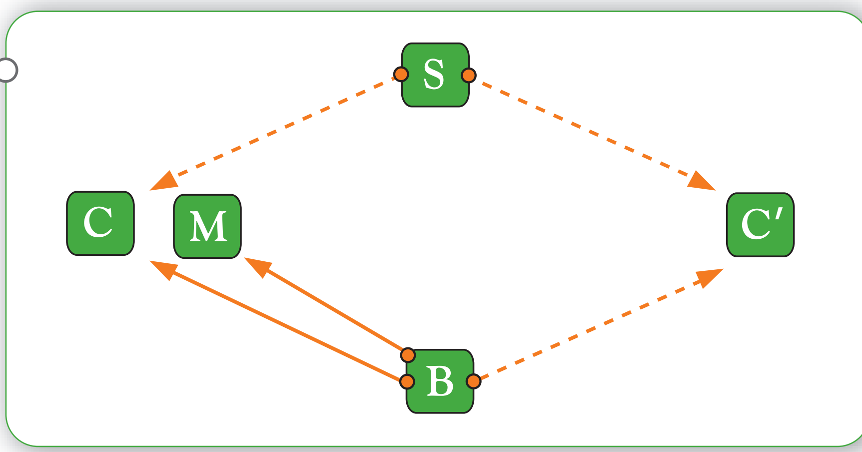
12 Comparisons in the extent of differentiation here refer to within market (i.e. within the tied market) comparisons. As Miguel de la Mano pointed out to me, different comparisons can be made when M competes with a differentiated substitute M′. If M′ is more differentiated from M than C′ is from C, then M′ may lose more than C′ from a tie of M and C.

C. IS THE COMPETITIVE MARKET MULTI-SIDED?

A particularly interesting special case of competitor differentiation arises in the context of multi-sided markets, which include a large number of new and old economy markets. Firms in such markets must get multiple sides on board in order to be successful. They must attract both users and developers (e.g. software and videogame industries), eyeballs and advertisers (e.g. newspapers, portals, and TV networks), cardholders and merchants (e.g. payment systems), and so forth.[13] Usually one side has no interest in the product unless the other side is also on board. Two-sided markets are a sub-class of a broader class of markets exhibiting network externalities (i.e. markets in which consumers are more eager to consume provided other consumers also consume). Antitrust authorities are often concerned that markets exhibiting network externalities may "tip".[14]

In a two-sided market, C may be tied to M on one side of the market, but not on the other side (see Figure 4). For example, payment systems such as Visa or American Express usually require that merchants (S for "sellers" in Figure 4) accept all cards issued by the system, but do not impose any tie on the consumer side (B for "buyer" in Figure 4). Sunday newspapers, where the paper is tied with a magazine on the consumer side, but may or may not be tied on the advertiser side, provide another example.

Figure 4



13 *See, e.g.*, Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. Eur. Econ. Ass'n, 990-1029 (2003) and Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: An Overview* (mimeo) (2004) and references therein. Other multi-sided markets include matchmakers and market-places (exchanges, yellow pages, on-line auctions, real estate agencies, dating agencies) and telecoms and internet networks. For an analysis of two-sidedness in the more specific context of the software industry, *see* D. Evans, A. Hagiu & R. Schmalensee, *A Survey of the Economic Role of Software Platforms in Computer-Based Industries*, CES IFO working paper (2004).

14 Tipping refers to the dynamics of a market with network externalities, in which it is difficult for several producers to coexist profitably and in which a firm with even a small edge over its rivals stands a good chance to take the entire market.

Multi-sidedness may make a difference for the ability of C′ producers to withstand a tie of C with M. Even if these independent producers of the competitive good are unable to differentiate their technologies in the eyes of users (B):

- They may be able to differentiate their technology on the other side (S), and thereby attract and make margins on that other side;
- They may sign exclusive deals or produce their own offerings on the S side, which differentiate them from C on the B side. Part of or all users on the B side are then induced to own both C and C′, provided that the cost of such "multi-homing" is small.[15]

Thus, unlike in a standard one-sided market, in a two-sided market in which the cost of multi-homing for users facing the tie is small, the tie on that side of the market need not preclude competitors from profitably competing, even when competitors' technology is undifferentiated from the tied technology from their point of view.

Incidentally, a common and successful business model in two-sided markets consists of giving away the product (or even paying the consumer for using the product[16]) to one side of the market, and covering costs by charging the other side. Such discrimination between the two sides, which helps attract the less eager side while allowing firms to make a profit or at least break even overall, can be observed in a variety of industries with or without market power: traditionally, firms make little money or lose money on consoles (videogames), developer kits and support (software), cardholders (payment systems), and recoup on games, licensing of software to users, and merchants, respectively. Many software programs such as Acrobat PDF are free to readers, but not to writers. Portals, TV networks, and newspapers are often free of charge or sold below cost to viewers and readers, but not to advertisers. Many dating agencies or nightclubs also build their business model around such discrimination. These examples and others demonstrate that the existence of free (or even negative) prices on one side of the market need not be conducive to tipping, and is, in fact, consistent with vibrant competition.

The recent economics literature[17] has analyzed the factors leading to such asymmetric price structure. And, quite importantly, the literature has empha-

15 Multi-homing refers to consumers connecting or belonging to multiple platforms. For example, merchants may accept Visa and American Express cards; conversely cardholders may have both cards in their wallets.

16 Cardholders sometimes receive cash-back bonuses or frequent flyer miles for using their card.

17 *See e.g.*, A. Ambrus & R. Argenziano, *Network Markets and Consumers Coordination* (mimeograph, Harvard University, Yale University) (2004); S. Anderson & S. Coate, *Market Provision of Broadcasting: A Welfare Analysis* (Vol. forthcoming, Review of Economic Studies); Mark Armstrong, *Competition in Two-Sided Markets* (mimeograph, University College, London) (2004); J. Gabszewicz & X. Wauthy, *Two-Sided Markets and Price Competition with Multi-homing* (mimeograph, Université Catholique de Louvain, 2004); and Rochet & Tirole, *supra* note 13.

sized that these business models may bring good social value for the same reason that they are profitable to firms: they enable platforms to get all sides on board, thus creating trade and economic value. In such markets, therefore, low or zero prices—and the tying phenomena that embody such implicit prices—are likely to be frequently observed, and often beneficial.

D. SUMMING UP

As in the realm of market share definitions for the purpose of identifying dominant positions, it is useful to come up with measures of the percentage of the tied market that is affected by the tying. The rationale in both cases is to provide a screening device to competition authorities in order to alleviate their load. As in the case of market shares, the resulting numbers should be taken with a grain of salt. Besides the standard difficulty of defining markets—in this context, the tied market[18]—it is important to refine what "being affected" means. For example, does one take a usage or membership/adoption viewpoint? Consider, for example, the case of a merchant who contemplates dropping payment card A because the merchant discount on card A is high, and accepting only card B. This merchant must primarily worry about whether owners of card A also hold card B; that is, if there is membership multi-homing.[19] Recent empirical work shows that there is much more membership multi-homing than usage multi-homing.[20]

A COMMON AND SUCCESSFUL BUSINESS MODEL IN TWO-SIDED MARKETS CONSISTS OF GIVING AWAY THE PRODUCT TO ONE SIDE OF THE MARKET, AND COVERING COSTS BY CHARGING THE OTHER SIDE.

A second and familiar reason why no magic number can be expected to come out of such foreclosure measurement is that the relevant share depends on the impact of foreclosure (i.e. on the analysis of competitive effects—step 2).

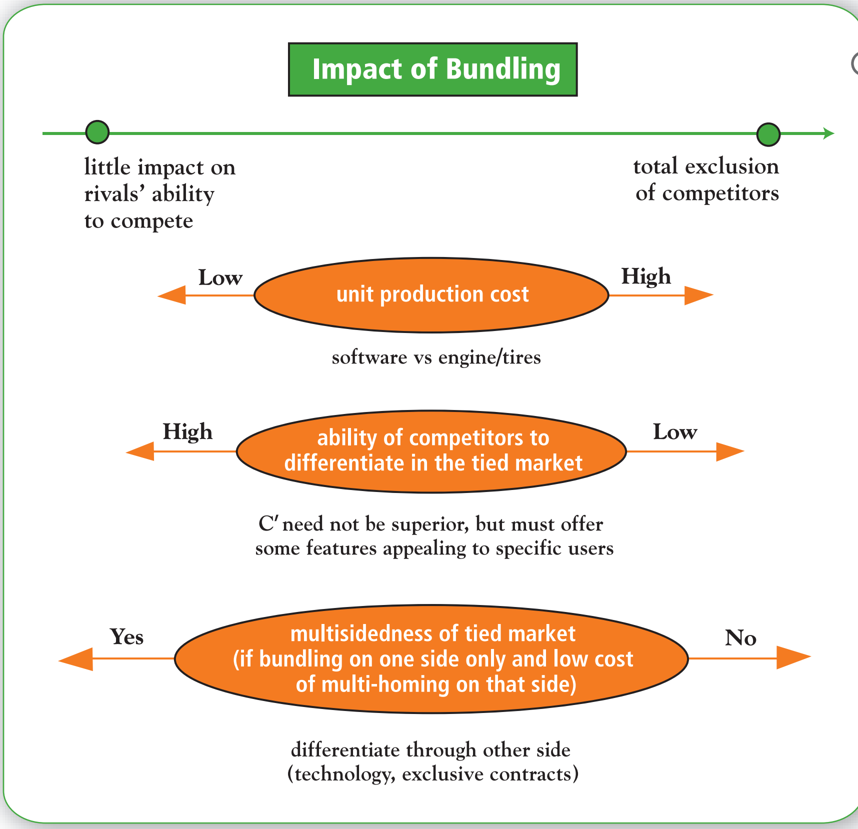
Figure 5 summarizes the discussion in this section.

18 For example, few would argue that the tie of Windows and WordPad affects/forecloses over 90 percent of the market for word-processing software.

19 Things are a bit more complex if card A gives cash-back bonuses or frequent-flyer miles and cardholders know which cards are accepted before they choose their store: *see* Jean-Charles Rochet & Jean Tirole, *Cooperation Among Competitors: Some Economics of Payment Card Associations,* 33 RAND J. ECON. 1, 1-22 (2002); Rochet & Tirole, *supra* note 13.

20 Mark Rysman, *An Empirical Analysis of Payment Card Usage* (mimeograph, Boston University, 2004).

Figure 5



IV. Step 2: Is the Tie Likely to Hurt Consumers?

Assume that the step 1 analysis led to the conclusion that the tie reduces competition in the tied segment. Regardless, it may hurt or benefit consumers; the tie may or may not have anticompetitive rationales.

A. RATIONALES OTHER THAN ANTICOMPETITIVE ONES

First list rationales that are not related to anticompetitive motives. These include rationales clearly aimed at improving efficiency and others, such as price discrimination, that a priori have an ambiguous impact on welfare.

1. Distribution Cost Savings

Peugeot and buyers of Peugeot bicycles both benefit from Peugeot's tie of the ring bell, saddle, brakes, and other equipment, even though this tie forecloses rival equipment manufacturers' access to Peugeot bicycles. Similarly, a three-star restaurant chef and her customers both benefit from the customers' inability to select among the pastries of all top pastry shops in the region. As Michael Whinston notes in a paper[21] published in 2001, it suffices to consider the effect of a rule mandating that all functions of Windows be available separately to understand why some integration of functionality is both desirable and inevitable. Tying is a ubiquitous feature of economic activities, simply because it economizes on transaction costs.

2. Compatibility Cost Savings

Similarly, it may be costly for the producer of the basic good (M) to achieve compatibility with competitors in all competitive segments. For example, Airbus and Renault must ensure seamless interoperability between the various embedded systems, engines, brakes, and other equipment. Extending this interoperability to multiple outside vendors of these products requires fixing in advance, exposing, and documenting a large number of interfaces. The transaction costs involved in ensuring compatibility range from minuscule (as for the compatibility between the saddle and the bicycle) to substantial. Their assessment is clearly case-specific and largely beyond the economist's expertise.

3. Information and Liability Considerations

Tying is one way of telling consumers that a complementary good functions adequately with the basic good. To be certain, it is not the only way, as we can see from the widespread practice of endorsing complementary products as recommended by M. More importantly, a tie may be used to protect M's reputation vis-à-vis consumers or to insulate M against assignment of liability when a product malfunctions because of an independent producer's poor design. A tie can then be viewed as solving a problem of moral hazard in teams when third parties (such as consumers or the courts) do not have the technical expertise or the information necessary to know who is at fault.

4. Protection of Intellectual Property

Achieving perfect compatibility may also require releasing proprietary information embodied in the design of the M product, such as information about general purpose functionalities that naturally lie in product M rather than in the complementary product C. Suppose, for example, that Coca-Cola and rivals would like to produce a cookie that tastes particularly good when consumed jointly with a Coke; and that, in order to produce such cookies, one needs to know the ingredients in the Coke formula so as to match them well on the cookie side. Creating a level playing field in the cookie segment would require relinquishing the trade secret that made Coca-Cola successful. This contrived example makes a more general point, one that confronts antitrust authorities with a case-by-case technical challenge. They need to assemble factual knowledge as to whether the complementarities between the two segments can be exploited without an infringement on intellectual property.

21 Michael Whinston, *Exclusivity and Tying in* U.S. vs Microsoft*: What We Know, and Don't Know,* 15 J. Econ. Persp. 63, 63-80 (2001).

5. Legitimate Price Response

Low prices (even zero or negative ones) need not reflect anticompetitive intents in certain environments. We already mentioned the idea that a low price may boost demand in a complementary segment. A case in point is the strategy of giving away the razor in order to sell razor blades. We also refer the reader to our previous discussion of two-sided markets, where we argued that it often makes good business sense—and, importantly, is socially efficient—to give away the product or service to one side of the market and to make money on the other side. Alternatively, penetration pricing may be used for a product with unknown quality in order to induce consumers to try it, or else, in order to build an installed base in a market with network externalities.

As we noted earlier, charging a low price for the competitive good is not very different from bundling the goods together, at least if the complementary good has little value unless used in combination with M. Hence, a tie may in some circumstances be viewed as a legitimate price response in a competitive environment.

6. Market Segmentation

A well-known rationale for tying is that a tie enables the metering of demand and prices to depend on consumer usage. Textbook examples of this rationale include IBM's tie of punched cards with computers and equipment manufacturers' tie of after-market services.

When the basic good (M) is consumed in a fixed amount while the complementary good's (C) consumption varies across individuals, profit maximization, usually in addition to economic efficiency, requires that high-usage consumers be charged substantially more than low-usage ones. This pricing structure may not be feasible when the complementary segment is served by a competitive industry. A foreclosing tie enables the manufacturer of the basic good to meter demand and practice a potentially socially desirable segmentation of consumers.[22]

Similarly, suppose that some consumers use M on a stand-alone basis while others use M in combination with C or C′. Under unbundling, the producer of M is forced to charge a single price for M, even though the two groups' willingness to pay may be quite distinct. For example, if consumers without demand for the complementary product have a low willingness to pay for M, the producer of M may end up charging a high price for M and prevent them from consuming. By contrast, a tie enables the producer of M to charge a low price for the basic good and a high price for the combination, which avoids excluding the first group and raises economic efficiency.

22 For a discussion of welfare effects of price discrimination in a tying context, *see* Nalebuff, *supra* note 2.

To be sure, price discrimination in general has an ambiguous impact on consumers, and putting price discrimination by a dominant firm in a legitimate rationale category is bound to be controversial, especially in view of EC law that frowns upon the practice. The economic profession as a whole, however, has a more lenient attitude toward price discrimination than policymakers. A reasonable stance is a rule of reason treatment demonstrating that the negative effects of price discrimination by a dominant firm are likely to dominate its benefits.

B. ANTICOMPETITIVE RATIONALES

The main impact of the tie and its potential exclusionary impact may be not so much to enhance efficiency, as described above, but rather to hurt rival producers in the competitive market, thereby inducing their exit or discouraging their entry.

To build a theory of anticompetitive tying, one must somehow explain why (a) tying benefits the integrated firm and (b) tying hurts consumers. Simple elimination of competition will not do for a well-known reason. Because goods C and C′ are complements to M, making the adjacent good less attractive to consumers—perhaps by eliminating competition or reducing innovation in that segment—lowers the price that the integrated firm can charge for M. In general, the integrated firm benefits from vigorous competition in the potentially competitive segment, not the reverse. This is why open platforms in videogame, hardware, and software markets, for instance, have often taken over closed ones, for which adjacent segments are supplied in-house. This argument, often called a Chicago School argument, does not imply that firms with market power in one segment always long for competition in adjacent segments. Indeed, we have already seen that efficiency considerations may call against such competition. We now observe that anticompetitive motives may also be present. The main point of the Chicago School argument is that a simple-minded analysis that would stop at step 1 of the checklist would be misguided.

There are two reasons why the producer of M may want to engage in such anticompetitive behavior.[23] It may try to monopolize the competitive market; or it may want to protect its monopoly position in the monopoly segment.

23 Consistently with the object of our analysis, we here focus on anticompetitive rationales in the context of complementary products. A large literature, including Whinston's seminal paper (Michael Whinston, *Tying, Foreclosure, and Exclusion*, 80 AMER. ECON. REV. 837, 837–859 (1990)) and Nalebuff (Barry Nalebuff, *Bundling as an Entry Deterrent Device*, 119 Q. J. ECON. 159, 188 (2004)) has looked at broader contexts, in which tying reduces entrant profits in the tied market and thereby may deter entry, regardless of the existence of complementarities between the tying and the tied products.

1. Monopolizing the Competitive Segment

Suppose now that there are two types of consumers:

- some consume the combination {M combined with either C or C′} and have no value for C or C′ on a stand-alone basis,
- others consume the competitive good {C or C′} on a stand-alone basis and are uninterested in M.

By refusing to offer M on a stand-alone basis (or, equivalently, by selling it at a high price), the integrated firm excludes rival producers in the competitive market from access to consumers who demand the combination. This strategy directly hurts the integrated firm since the lack of consumer choice between C and C′ (when combined with M) reduces the consumers' willingness to pay for M. Here, exclusion is not motivated by any efficiency consideration.

WHETHER TYING AIMS AT MONOPOLIZING THE COMPETITIVE SEGMENT OR AT PROTECTING THE MONOPOLY SEGMENT, THE INCRIMINATED BEHAVIOR IS REALLY PREDATION RATHER THAN TYING, PER SE.

The exclusionary strategy may, however indirectly, benefit the integrated firm if, following the tie, the rivals' profit in the market for the consumers who demand only C or C′ is no longer sufficient to cover their fixed costs of operation, and, thus, rivals exit the competitive market, allowing the integrated firm to monopolize that market as well.[24,25] In the parlance of predation analysis, the integrated firm sacrifices profit on consumers who consume both goods jointly and recoups this lost profit by charging more to consumers who demand solely the potentially competitive good.

2. Protecting the Monopoly Segment

Alternatively, the integrated firm may be concerned about the possibility that a product competing with M will later enter the market. To the extent that the two goods are demanded in combination rather than on a stand-alone basis, entry in the M market may be somewhat discouraged by the absence of independent complementary product C′. Hence a strategy that encourages producers of C′ to exit (or discourages them from entering) while lowering profit in

24 *See* Michael Whinston, *Exclusivity and Tying in* U.S. vs Microsoft*: What We Know, and Don't Know,* 15 J. ECON. PERSP. 63, 63-80 (2001). Whinston notes that a variant of this argument involves dynamic network externalities in the competitive market: C′ having no market today due to the tie may want to exit even if the tie will come to an end, since there will be little demand for C′ tomorrow in the absence of an installed base.

25 Under what conditions can the exclusionary strategy be profitable? Exclusion deprives the rivals from substantial profits if the rivals' offerings C′ are sufficiently differentiated from C and if the number of consumers demanding the combination is large; on the other hand, these conditions also increase the integrated firm's direct cost of tying. *See also* Whinston, *Tying, Foreclosure, and Exclusion*, *supra* note 23.

the short run, may protect the monopoly segment and increase the integrated firm's long-run profitability.[26] This is the standard applications barriers to entry theory.[27]

Whether tying aims at monopolizing the competitive segment or at protecting the monopoly segment, the incriminated behavior is really predation rather than tying, per se. The tie is just one strategy used to achieve predation and to induce exit or deter entry. This refocusing on predation has several implications. First, authorities should use the standard procedure for the analysis of predation.[28] Steps 1 and 2 would still figure prominently in the process, and the standard recoupment test can be added to the checklist: To the extent that the tying firm does not engage in tying for efficiency reasons and, therefore, makes its tying product less attractive to its consumers, does the prospect of future gains from successful predation offset the current losses?

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26 Dennis Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194, 194-220 (2002). For a somewhat different approach (based on the idea that entry is risky and that entering in two markets simultaneously is riskier than entering a single one), *see* J.P. Choi & C. Stefanadis, *Tying, Investment, and the Dynamic Leverage Theory*, 32 RAND J. ECON. 52, 52-71 (2001). This application barriers to entry theory holds for example if the producers of C′ fail to anticipate entry in the M market (an hypothesis that is more plausible if there are many complementary markets affected by a tie with M, as there is then a coordination problem in which firms' entry decision are interrelated), and that entrants in the M market be unable or unwilling to supply their own offering in the complementary segment. The argument however does not rely on a lack of coordination: see next footnote. The welfare analysis is not straightforward; by assumption, anti-competitive theories presume large fixed costs in the competitive segment. Competition in that segment involves a social trade-off between low prices and product diversity on the one hand, and the duplication of these large fixed costs on the other hand.

27 Some mathematics may help illustrate this point. Suppose for simplicity that consumers are homogenous and derive gross surpluses M, C, and C′ from goods M, C and C′ (when combined with M in the case of C and C′). The marginal costs of production are denoted *m*, *c*, and *c′*. Assume that C′ dominates C in that it offers a better quality / cost package:

$$\Delta \equiv (C' - C) + (c - c') > 0$$

Δ measures the competitive advantage of C′ over C. Suppose that there are two dates (today and tomorrow) and no discounting, and that an entrant can enter and produce C′ already today at fixed R&D cost f_C. It can further introduce a perfect substitute M′ for M tomorrow, at cost f_M. If

$$\Delta < f_C + f_M < 2\,\Delta,$$

then a tie today deters entry in both markets, as it deprives the rival from today's profit in the C segment and makes the overall entry strategy a losing proposition. (A technical aside: with the above specification of demands, there exist multiple price equilibria in the first period. I assume that the entrant appropriates the full comparative advantage Δ in that period. The analysis however does not rest on this assumption.)

28 In this respect, note the divide between the European Community and the United States with regards to the opportunity of a recoupment test. The European Court of Justice more or less argued in *Tetra Pak* that dominance implies an ability to recoup, and therefore that a recoupment test is not needed. In the United States, the Supreme Court used a recoupment test in *Brooke Group*. For a discussion of the intricacies associated with a recoupment test, *see* J. Vickers, *Abuse of Market Power*, Address to 31st EARIE Conference (Sep. 3, 2004).

V. Costs and Benefits of a Predation-Based Treatment

To be sure, my suggestion of discarding tying cases as such and reclassifying them as predatory cases has the advantage of refocusing and clarifying the economic analysis, but it has its own limitations, which are those inherent in the treatment of predation in general. First, there is the familiar but difficult question of the allocation of the burden of proof. Antitrust authorities may not know whether an apparently innocent conduct (i.e. one that a priori benefits consumers, such as charging a low price, reducing production cost, or engaging in an efficient tie) is not also meant to induce rivals' exit. Conversely, it may be difficult for the defendant to prove that his action (here, tying) is driven by efficiency rather than by predatory intent. Second, even if the competition authorities and the court had all the required information (a big "if"), their current mandate gives them insufficient guidance for treating predation cases. By analogy with price predation, one could identify non-price predation as a voluntary and temporary loss in profit that can be rationalized only through a contemplated and substantial increase in the rivals' probability of exit and the subsequent ability to recoup losses. This, up to informational requirements, defines an operational approach to treating non-price predation, although, as is discussed next, not one that is immune to criticism.[29]

A. MIXTURE OF EFFICIENCY AND ANTICOMPETITIVE RATIONALES

We need to devote more attention to the following issue: suppose that one is concerned that a lack of independent suppliers (of C′) in the adjacent markets will, by itself, perpetuate M's monopoly position. Should policymakers impose lines of business restrictions preventing M from entering specific adjacent segments, a policy that would require defining such segments and rigidifying the platform? Or, more realistically, should they take steps to prevent the integrated firm from dominating the adjacent markets? If so, what steps? The integrated firm may end up dominating an adjacent market for reasons unrelated to anticompetitive intents: efficiency, innovation, or mere discouragement of rivals, who under pressure from even an inferior offering of the integrated firm, cannot secure margins sufficiently in excess of marginal cost to cover their fixed cost. Increased efficiency by the integrated firm may indeed have the potential to eliminate rivals, all the more so in markets with large fixed costs and/or prone to tipping.

Thus, a complex situation arises when the incriminated behavior is driven both by efficiency and anticompetitive rationales. With tying, as with other corporate strategies, a behavior that excludes rivals may actually be optimal for the dominant firm, even taking rivals' actions as given. Put differently, predation

29 As Vickers argues in a broader context, anchoring case analysis in economic principle (what he calls "economics-based law") may provide more legal certainty than "form-based law" (*see* Vickers, *supra* note 28).

does not always imply a cost for the predator; yet, the efficiency gains may be more than offset by the increase in future monopoly power from a social perspective. The possibility of no-cost predation (an oxymoron according to the current legal treatment of predation, which emphasizes the existence of a profit sacrifice to drive out rivals) poses a general and complex challenge to antitrust enforcers. Weighing the two opposite effects is a tough call. On the one hand, one may be worried that too many anticompetitive moves would pass muster with a rule that finds such mixed-rationales moves innocent. On the other hand, firms should have no duty to be inefficient simply to maintain their rivals' existence; such a duty would, for example, often prevent dominant firms from improving their productivity, or would force them to charge high prices to consumers so as to provide a price umbrella to their rivals. It is easy to envision the potential perverse effects of such an approach in the absence of clear guidance on how to run it.

B. PASS ON AND BALANCING TESTS

A different issue arises as to how one should weigh profits and consumer surplus when trading off efficiency gains and reductions in competition. Economists often add these two variables in order to measure total welfare. By contrast, antitrust enforcers traditionally focus on consumer welfare. For example, the interpretation of Article 81(3) in the European Community[30] has led practitioners to envision a pass on test and a balancing test. In short, some of the efficiency gain must be passed on to consumers and the latter's benefit must outweigh the loss from competition. The interpretation, therefore, lies in the tradition of focusing on the impact of the practice on consumer surplus.

There are arguments either way. On the one hand, one may for redistribution reasons legitimately feel that consumers weigh more than shareholders, who usually belong to much higher income brackets. However, the argument is not as straightforward as it looks. First, there is the usual question about whether redistribution is not best performed through income taxation rather than through specific instruments.[31] Second, consumers are often shareholders as well, especially in countries with well-developed pension funds.

30 This article opens the door to exempting a practice "which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not:

> (a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives;
>
> (b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question."

31 See the large literature following the Atkinson & Stiglitz theorem stating conditions under which redistribution should be conducted solely through income taxation. *See* A.B. Atkinson & J. Stiglitz, *The Design of Tax Structure: Direct and Indirect Taxation*, 6 J. Pub. Econ. 55, 55-75.

The Sacrifice Test, Special Responsibility, and No-Cost Predation

A little algebra may clarify the issues. Suppose that there are two periods: today and tomorrow (discounted at discount factor δ). Let $\pi(a)$ denote the dominant firm's current profit, where a is a current action indexed by its aggressiveness. Suppose that π is concave, with a maximum at a^*: $\pi'(a^*)=0$. Let π^m and π^d denote the dominant firm's profit tomorrow if the rival exits or stays, respectively ($\pi^m > \pi^d$), and let $x(a)$, an increasing function, denote the probability of exit. Suppose, in a first step, that π^m and π^d do not depend on a (assume no hysteresis). For example, a might stand for a price cut. Per se, it has no long-term impact conditional on the rival either staying or exiting the market, but it may drive a financially weak rival out of the market. Accounting for strategic interactions, the overall profit-maximizing strategy solves:

max $\{ \pi(a) + \delta[x(a)\ \pi^m + [1\text{-}x(a)]\ \pi^d] \}$,
yielding $\pi'(a) = \delta x'(a)(\pi^m\text{-}\pi^d)$, and hence $a > a^*$.

In such circumstances, the dominant firm is naturally tempted to pick an action at least a bit more aggressive than what would be justified by short-run profit maximization. By contrast, theory suggests that, provided that competition has social benefits, the dominant firm should select $a < a^*$.[†] Thus, both the private and the social incentives call for a sacrifice of short-term profit, but in opposite directions in terms of their impact on future competition. This raises the issue of the extent of a dominant firm's special responsibility not to distort competition.

We can also use this reasoning to illustrate the implications of no-cost predation.[††] Assume that short-term profit maximization ($a=a^*$) triggers exit ($x(a^*)=0$). There is then no predation according to the standard definition, yet there is exclusion. Should the firm bend over backward and choose a suboptimal action — provided it is not too costly — in order to keep competition alive? In theory, the answer could well be "yes", but in practice, given the information available to courts, conferring on dominant firms a duty to create their own competition would be a hazardous policy.

Second, suppose that the action has long-term consequences other than the rivals' exit decision: π^m and π^d depend on a (i.e. the tie may be technological and long lasting, the dominant firm may have built goodwill or entered long-term contracts, and so forth). Suppose even that it has no short-term impact on profit. The incumbent then maximizes:

$$\pi + \delta[x(a)\ \pi^m(a) + [1\text{-}x(a)]\ \pi^d(a)].$$

It is now harder to design a sacrifice test. One natural candidate is the absence of sacrifice taking the rival's exit behavior x as given. That is, one may ask whether a maximizes the dominant firm's intertemporal profit when the latter behave non-strategically with regards to the rival's exit behavior. This definition, however, is plagued by the possibility of self-fulfilling prophecies. Assume that π^d decreases with a, but π^m may increase or not be affected by a (this is the case in some simple versions of Whinston's 1990 tying model[†††] or when a stands for overinvestment). Then, the optimal policy depends on whether the rival exits. An aggressive policy does not sacrifice profit (π^m) if it triggers exit, and a softer action maximizes the profit (π^d) under duopoly. Long-term direct impacts of the predatory action on profits raise the issue of the reference profit. To put it more formally, let a^m maximize $\pi^m(a)$ and a^d maximize $\pi^d(a)$, and suppose that $x(a^m)=1$ and $x(a^d)=0$. Then both a^m and a^d satisfy the no-sacrifice test.

[†] *See* Vickers, *supra* note 28.
[††] Bain calls this "blockaded entry". *See* Joe S. Bain, Industrial Organization (1956).
[†††] *See* Whinston, *Tying, Foreclosure, and Exclusion*, *supra* note 23.

One can also argue that, by properly choosing the horizon of analysis, counting profits is, in some circumstances, akin to accounting for consumer surplus. This point of view is actually implicit in a number of branches of law. It underlies much of intellectual property law, which explicitly allows intellectual property owners to engage ex post in a variety of foreclosure and anticompetitive moves; the reasoning being that, from an ex ante point of view, this leniency creates incentives for innovation and ultimately benefits consumers. Similarly, antitrust acceptance of prices largely in excess of marginal cost[32] reflects the generally accepted view that such margins are what it takes to encourage investments in industries with large fixed costs.

C. MEASURING LOSS

To simplify somewhat, tying can be viewed as charging a zero price for the tied product. While antitrust analysis usually compares price to some notion of marginal cost,[33] it is also well-known that this comparison is theoretically problematic. Namely, the proper benchmark may lie below or above marginal costs. In the absence of predatory intent, firms may charge below marginal cost for several reasons: penetration pricing when the quality is unknown to consumers, learning-by-doing (i.e. current sales reduce future costs), multi-sidedness (i.e. a loss on one side boosts volume and thereby demand on the other side of the market—see Section III) or more generally network externalities. Conversely, a price above marginal cost, but below the short-term profit maximizing price may suffice to induce rivals to exit (or deter them from entering).

VI. Concluding Comments

A. STEP 3: REMEDIES

Suppose, finally, that one comes to the conclusion that the tie is likely to eliminate competition (step 1) and that its rationale is anticompetitive (step 2). One is then confronted by the complex step of finding a proper remedy. The anticompetitive tying theories and, in particular, the theory stressing an applications barriers to entry, suggest that antitrust authorities ought to intervene in order to maintain active competition in components (i.e. to keep C′ alive).

As argued above, the anticompetitive harm, if any, comes from a predatory act, not from tying, per se. Like low prices, ties may be perfectly legitimate strategies,

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32 In Europe, though, excessive pricing can in principle breach competition law. *But see* Vickers, *supra* note 28 ("nearly all European cases have concerned exclusionary, rather than directly exploitative, conduct").

33 For a discussion of the relevant concept of "marginal cost," *see* P. Bolton, J. Brodley & M. Riordan, *A Predatory Pricing: Strategic Theory and Legal Policy,* 88 Geo. L. J. 2239, 2239-2330.

even for dominant firms; it is only to the extent that they are turned into predatory tools that they become a concern. Consequently, the remedy has to be considered in its broader context. Suppose that tying is the least costly instrument of predation for the dominant firm. Its prohibition may well induce the dominant firm to resort to other forms of predation that are both privately and socially more costly. For example, it may try to degrade interconnectivity with its rivals in the tied market, promote its version of the tied product in inefficient ways, or, in a two-sided market, enter into exclusive contracts with the other side that are unrelated to efficiency considerations. This remark further emphasizes the limits of treating tying cases as such.

B. SYSTEM VERSUS COMPONENT COMPETITION

Given that competition policy officials, however talented and well-intentioned, will always face substantial imperfections in information, many economists feel that encouraging system competition, when feasible, is a superior alternative to the regulation of component competition. That is, it may be better to encourage some competition in the M segment than to accept monopoly there and attempt to regulate the consequences in the C segment. This diffidence vis-à-vis the regulation of component competition also underlies much of public policy in concentrated industries. Increasing returns to scale and/or network externalities limit the number of relevant actors in a number of industries. As examples, there are currently two commercial aircraft manufacturers in the world; in many locations a single provider of local loop telecommunication infrastructure; or in many rural areas a single supermarket. Public policy has not sought to unbundle space on Wal-Mart shelves or the equipment in Airbus and Boeing aircraft. There is a continuing debate between the proponents of a fine unbundling of the local loop and those in favor of a wholesale rental of the local loop to alternative telecommunications operators.

These policies are predicated on the view that detailed and intrusive regulation is likely to do as much harm as good under poor regulatory information, and that system competition, or at least system contestability—that is, the ability of entrants to enter if the incumbent monopoly fails to innovate and/or abuses his monopoly position—is a superior alternative when available. They also reflect the fact that, contrary to what is sometimes believed, system competition does not necessarily restrict the set of options offered to consumers compared with component competition. The benefits from bundling, or equivalently the costs attached to unbundling, imply that some combinations available under system competition would be either unavailable or available at a significantly higher price under component competition, for the same reason that made-to-measure clothes typically cost much more than those available off-the-hanger.

The caveat to this view is precisely the applications barriers to entry argument, which points out that system contestability may require vibrant competition in at least some key components. The debate is therefore an industry-specific, empirical one: To what extent is the exit—or lack of entry—of rival component manufacturers conducive to a loss of expertise by the component industry outside the integrated firm?

C. SUMMING UP

A brief summary of the arguments made in this primer follows:

- The impact of tying on competition in the tied market ranges from little impact on the rivals' ability to compete to total exclusion of competitors. Where it stands in that range depends on a number of factors: the marginal cost of manufacturing the tied product; the rivals' ability to differentiate horizontally or vertically their offering from the tied product—that is, to offer some features that are not available in the tied product; and, if the market is multi-sided, the ability to differentiate, in the side where there is no tie, through technological features, in-house supply, or exclusive contracts with third-party vendors, and the ease with which users on the tying side can multi-home.

- Tying should be submitted to a rule of reason standard. Firms with market power may engage in a tie in order either to monopolize the competitive segment or to protect their monopoly power in the monopoly segment. But, like firms without substantial market power, they also use ties for a variety of reasons that enhance economic efficiency (i.e. distribution or compatibility cost savings, accountability, protection of intellectual property, or legitimate price responses), or at worst have ambiguous effects on social welfare (i.e. price discrimination).

- It is difficult to think of reasons that tying should be considered a separate offense. Like many other corporate strategies that make one's products attractive to consumers, tying has the potential of hurting competitors, and is, therefore, just one in a large range of strategies that can be employed to prey on competitors. Competition policy should therefore analyze tying cases through the more general lens of a predation test.

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How Economics Can Improve Antitrust Doctrine towards Tie-In Sales:

Comment on Jean Tirole's "The Analysis of Tying Cases: A Primer"

Dennis Carlton and Michael Waldman

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How Economics Can Improve Antitrust Doctrine towards Tie-In Sales

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Given the focus on tie-in sales in several recent antitrust cases, economists have turned their attention to the motivations and consequences of tying, significantly improving our understanding. Tirole has written an excellent primer focused on what we know about tying and what he believes is desirable antitrust policy concerning the practice. Although we agree with most of Tirole's arguments, there are two topics for which our perspective is somewhat different. First, we would add one situation to the ones identified by Tirole in which tying can harm competition and reduce welfare. Second, in his policy discussion Tirole stops short in some places of using theory to provide concrete guidance and restraint to antitrust enforcers. In other places his suggestions could lead to less rather than more clarity. We explain our reasons for preferring a more limited role for antitrust intervention than Tirole appears to recommend.

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I. Introduction

Tie-in sales have been the focus of recent major antitrust cases, especially in the United States and Europe. These cases against firms such as Microsoft and MasterCard and Visa have attracted widespread attention. As a result, academic economists have turned their attention to the motivations and consequences of tying. This has led to a significant improvement in our understanding of the practice. At least in the United States, the antitrust doctrines used to attack tie-in sales are often not based upon economic theory, but instead are based on such legal notions as "distinct products" and "forcing," concepts with ambiguous economic meaning. These considerations make a review of the economic theory underlying tie-in doctrines timely and valuable, especially if the economic insights can be used to focus antitrust doctrine on only those cases where anticompetitive harm is likely. Even if some cases remain difficult to evaluate, it would still be a major contribution to distinguish situations where economic theory indicates that an antitrust case has little or no merit from those where it might.

WE AGREE WITH TIROLE THAT, CONCERNING THE CIRCUMSTANCES WHERE TYING CAN REDUCE WELFARE, THE MAIN SET OF CIRCUMSTANCES ARE THOSE WHERE RIVALS IN EITHER THE TIED OR TYING GOOD ARE HARMED AND, AS A RESULT, EITHER EXIT THE MARKET OR INCUR HIGHER COSTS, CONSEQUENTIALLY INCREASING PRICES COMPARED TO THE NO-TYING SITUATION.

Tirole has written an excellent primer that focuses on what we know about tying behavior and what he believes is desirable antitrust policy concerning the practice.[1] His clarity of thought and insights reveal most of the features needed for antitrust harm to result from tie-in sales. Although we agree with most of what Tirole says in his article, there are two topics for which our perspective is somewhat different. First, based on our ongoing research, we would add one situation to the ones identified by Tirole in which tying can harm competition and thereby reduce welfare. Second, in his policy discussion Tirole stops short in some places of using theory to provide concrete guidance and restraint to antitrust enforcers, and in other places we believe his suggestions could lead to less rather than more clarity in antitrust cases. This comment focuses on these two topics.

We agree with Tirole that, concerning the circumstances where tying can reduce welfare, the main set of circumstances are those where rivals in either the tied or tying good are harmed and, as a result, either exit the market or incur higher costs, consequentially increasing prices compared to the no-tying situation.[2] Where we disagree with Tirole, however, is that we see a wider set of circumstances in which tying can result in this type of competitive harm. In partic-

1 Jean Tirole, *The Analysis of Tying Cases: A Primer*, 1 COMPETITION POL'Y INT'L 1-25 (Spring 2005).

2 We use welfare to mean total surplus (i.e. producer plus consumer surplus). For the reasons Tirole explains, total surplus, not consumer surplus, is the correct criterion to use.

ular, based on our recently completed working paper (Carlton and Waldman (2005)[3]), there is an important case in addition to the two cases identified by Tirole in which tying can be used to harm competition and reduce welfare.[4] This case is one where tying is used to foreclose competition in the presence of product upgrades and switching costs. Since much of the recent attention on tying concerns Microsoft's behavior, and Microsoft's products are characterized by both upgrades and switching costs, we believe this is an important category. Section II discusses the type of settings in which foreclosure that harms competition and welfare is possible and explains why markets characterized by upgrades and switching costs constitute an important new case.

The second topic we consider is that of optimal antitrust policy. In general, we agree with Tirole that a key question in determining the proper scope of antitrust doctrine is whether there exists an appropriate remedy. However, we would stress more the difficulty the courts (and economists) have in applying sophisticated economic theory and using it as a basis to measure harms and benefits. Given that the courts (and economists) are not able to reliably calculate harms and benefits, we would suggest a very cautious approach in antitrust cases involving tie-in sales, even in cases where harm is theoretically possible. We, therefore, recommend using existing economic theory to rule out many tie-in cases that lack a solid theoretical basis for generating anticompetitive harm (such as cases where there is competition for the tying product or price discrimination) and using a highly conservative approach for those cases where anticompetitive harm is possible. Section III discusses these issues.

II. Tying, Foreclosure, and Welfare Harm

Consistent with Tirole's discussion, our focus in this section will be on the circumstances in which tying is used by a monopolist or more generally a firm with market power to harm competition and reduce social welfare.[5] Tirole identifies

3 Dennis W. Carlton & Michael Waldman, *Tying, Switching Costs, and Upgrades*, University of Chicago (mimeograph, 2005).

4 Of course, given our discussion is based on our recently completed paper, we are not criticizing Tirole for not discussing it but rather only pointing out that our perspective is somewhat different based on this work.

5 Another way tying can reduce social welfare is when tying is used as a product differentiation device (*see* J. Carbajo, D. de Meza & D.J. Seidman, *A Strategic Motivation for Commodity Bundling*, 38 J. of Indus. Econ. 283, 283-298 (1990); Y. Chen, *Equilibrium Product Bundling*, 70 J. Bus. 85, 85-103 (1997)). In the main analysis of the Carbajo, de Meza, and Seidman paper, product A is produced by monopolist while B, an independent product, is produced by the monopolist of A and another firm. In the absence of tying, Bertrand competition forces the price of B down to marginal cost, while tying by the monopolist introduces the equivalent of product differentiation into B. The result is that tying allows the monopolist to capture some profits in the B market and can also cause a corresponding reduction in social welfare.

two cases: one in which the tie allows the creation of market power in the tied good, and the other in which the tie preserves market power in the tying good.

The classic paper on tie-ins was written by Michael Whinston and published in 1990 (Whinston (1990)[6]). A number of authors associated with the Chicago School had previously maintained that a monopolist of a primary good (i.e. the tying good), because it can capture all potential monopoly profits through its primary market monopoly, has no incentive to tie a complementary good (i.e. the tied good) in order to extend its primary market monopoly to the complementary good.[7] Whinston considers this reasoning and shows that it does not hold in all cases.

Whinston starts by showing that the Chicago School argument is correct when goods are used in fixed proportions and the monopolist's primary good is essential (i.e. when the monopolist's primary product is required for all uses of the complementary product). Consider a one-period model in which the monopolist's primary good is essential and in which there is an alternative producer with a superior complementary product. Let P^* denote the monopolist's optimal bundle price, c_c denote the constant marginal cost of the complementary good, and π^* denote monopoly profitability if the monopolist ties its products together. Now suppose that the monopolist does not tie, sets the price of the primary good at $P^* - c_c$, and sets the price of the complementary good at c_c. Doing so must result in monopoly profitability at least equal to π^*.[8] Hence, the monopolist has no incentive to tie since optimal pricing when the monopolist sells the products individually must yield profits that are at least equal to, if not greater than, the profits associated with tying.

But Whinston also shows that tying can be optimal when the monopolist's primary good is not essential, thus refuting the Chicago School argument. Tirole describes this argument in his discussion in Section IV.B(1), "Monopolizing the Competitive Segment."[9] In contrast to the discussion in the previous paragraph, suppose that there is a set of consumers who do not require the monopolist's pri-

6 Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837, 837-859 (1990). *See also* J. A. Ordover, A.O. Sykes & R.D. Willig, *Nonprice Anticompetitive Behavior by Dominant Firms Toward the Producers of Complementary Products*, *in* ANTITRUST AND REGULATION: ESSAYS IN MEMORY OF JOHN J. MCGOWAN (Franklin M. Fisher, ed., 1985); Barry Nalebuff, *Bundling as an Entry Barrier*, 119 Q. J. ECON. 159, 159-88 (2004).

7 *See* A. Director & E. Levi, *Law and the Future: Trade Regulation*, 51 NW. L. REV. 281, 281-296 (1956); W.S. Bowman, *Tying Arrangements and the Leverage Problem*, 67 YALE L.R. 19, 19-36 (1957); RICHARD A. POSNER, ANTITRUST LAW, AN ECONOMIC PERSPECTIVE (1976); ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF (1978).

8 Profitability can rise without the tie because, if the monopolist sells individual products and at least some consumers purchase the alternative producer's superior complementary product, the monopolist may capture some of the value that consumers have for the extra quality associated with the alternative producer's product.

9 Tirole, *supra* note 1, at § IV.B(1).

mary good to consume a unit of the complementary good. Then the argument of the previous paragraph does not apply because that argument does not incorporate the profits associated with sales to this set of consumers, in which case tying may be optimal. For example, if there is a single alternative producer who has a fixed cost associated with producing the complementary good, then tying can result in the alternative producer being unable to cover its fixed costs, leading to his exit from the complementary good market. In turn, this reduces competition—by reducing the number of firms selling to consumers who demand only the complementary product—and can make the original tying strategy profit maximizing.

A second situation in which tying might be competitively harmful is when the tie is used to protect the monopolist's primary market monopoly. This reasoning, explained in our 2002 paper (Carlton and Waldman (2002)[10]), is outlined in Tirole's discussion in Section IV.B(2), "Protecting the Monopoly Segment."[11] Consider a two-period setting in which there is a monopolist of a primary product in the first period. In the first period, both the monopolist and an alternative producer can produce a complementary product whose use requires the primary product. In the second period, both firms can again produce the complementary product, but in addition the alternative producer can also enter the primary market. In our 2002 paper we show that tying can be profitable for the monopolist in such a setting, given that any of a variety of conditions are satisfied. For example, suppose that the alternative producer faces entry costs for both the primary and complementary markets.[12] By tying, the monopolist stops the alternative producer from selling any complementary units in the first period, which reduces the alternative producer's returns to entering the complementary market. This reduction, in turn, can stop the alternative producer from entering either the primary or complementary markets in the second period, allowing the monopolist to preserve its primary market monopoly.[13]

The use of tie-in sales to preserve monopoly in the tying product seems to be a prevalent strategy by firms in industries subject to rapid technological change

10 Dennis W. Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. Econ. 194, 194-220 (2002).

11 Tirole, *supra* note 1, at § IV.B(2).

12 We also show that tying can be optimal when there are network externalities for the complementary good rather than entry costs. In the network externalities analysis we also show how our approach can capture the U.S. Justice Department's argument in the Microsoft case concerning the applications barrier to entry.

13 Related analyses appear in Whinston, *supra* note 6; J. Choi & C. Stefanadis, *Tying, Investment, and the Dynamic Leverage Theory*, 32 RAND J. Econ. 52, 52-71 (2001). In Whinston's analysis, tying and inducing exit in the tied market are used to eliminate a competitively supplied inferior product as a substitute. Choi and Stefanidis show that tying can be profitable in a setting in which there is a single potential entrant for each of multiple complementary products. In their analysis tying reduces the incentive for each entrant to innovate because successful innovation in one market is only valuable when there is successful innovation in all markets. The conclusion is that tying helps preserve monopoly by lowering the probability of successful innovation in all of the markets.

such as IBM and Microsoft. We also explained how the monopolist's control of the complementary product could allow the monopolist to become the monopolist of a new primary product. In this way, the monopolist of A can use its control of the complementary product to become the monopolist of A′, which replaces A in the future. This allows the monopolist to shift his monopoly from A into B and then back into A′.

One important point of Carlton and Waldman (2002) which Tirole emphasizes is that tying can sometimes be achieved through pricing. We call this a virtual tie. The basic idea is that, rather than tying the product physically through product design or tying through contracting, the monopolist's goal can sometimes be achieved by simply reducing the price of the complementary good towards zero and raising the price of the primary product. In our 2002 paper, we show that in some cases a virtual tie is as effective at preserving monopoly of the primary product as a physical or contractual tie, but in other cases it is not.

We have identified a setting in which a monopolist may tie and harm competition and social welfare even when the monopolist's primary product is essential for the use of the complementary product. Whinston's argument is correct in one-period settings, but once we allow for multiple periods the logic of the argument breaks down.

We now turn our attention to a third setting in which tying may be used to harm competition. This is not a setting discussed by Tirole, and it violates Whinston's rule that tying can be used to harm competition only when the monopolist's primary good is not essential. The argument is based on an analysis we develop in Carlton and Waldman (2005). Consider a two-period setting in which there is a monopolist of a primary product. Both the monopolist and an alternative producer can produce the complementary product and the monopolist's primary product is essential for the use of the complementary product. But now add to the analysis both product upgrades and switching costs for the complementary product. Product upgrades mean that each firm has the option of producing a higher quality complementary product in the second period. Switching costs mean that an individual who switches suppliers for his upgraded complementary product in the second period incurs a cost.[14]

In this setting, even though the monopolist's primary product is essential in both periods, there is sometimes a return to the monopolist for tying its products,

14 Carlton and Waldman (2005) also analyze the case of no switching costs and find somewhat similar results. There is an extensive literature that investigates models characterized by consumer switching costs. For a survey, *see* P. Klemperer, *Competition When Consumers Have Switching Costs: An Overview with Applications to Industrial Organization, Macroeconomics, and International Trade*, 62 Rev. Econ. Stud. 515, 515-539 (1995). There is also a literature concerning the upgrade process. *See, e.g.,* Michael Waldman, *Planned Obsolescence and the R&D Decision*, 27 RAND J. Econ. 583, 583-595 (1996); Drew Fudenberg & Jean Tirole, *Upgrades, Tradeins, and Buybacks*, 29 RAND J. Econ. 235, 235-258 (1988).

contrary to Whinston's one-period analysis.[15] The logic is as follows.[16] In a one-period setting, when the monopolist's primary good is essential as in Whinston (1990), the monopolist can sell individual products and price the complementary good at cost, as described above. As a result, it cannot be hurt by the sale of the alternative producer's complementary product. But in the two-period setting just described, if the alternative producer's complementary product is superior, then one can show that selling individual products sometimes results in the alternative producer selling the complementary product in the first period and then capturing the second-period profits that are due to the upgrade. If, however, these upgrade profits are high, then the monopolist maximizes its overall profits by tying. This ensures that the monopolist—rather than the more efficient alternative producer—sells complementary units in the first period, and thus leads to a decline in welfare.[17] Note that this argument is similar to Whinston's argument discussed earlier in which tying allows the firm to monopolize the tied-good market. But instead of this action capturing profits associated with consumers who do not use the monopolist's primary good, it allows the firm to monopolize the market for the complementary product and capture second-period profits due to the upgrade. One reason we feel this is an interesting case is that Microsoft's products are characterized by upgrades and switching costs.

In summary, we have described three settings in which a monopolist might tie a complementary product in order to harm competition and in turn reduce social welfare, where the first two are the cases identified in Tirole's analysis. Also, in contrast to the argument in Whinston's classic paper, we have identified a setting in which a monopolist may tie and harm competition and social welfare even when the monopolist's primary product is essential for the use of the complementary product. Whinston's argument is correct in one-period settings, but once we allow for multiple periods the logic of the argument breaks down and tying can be used to reduce competition and hurt welfare even when the primary product is essential.

15 Technically, we do not allow the monopolist's pricing to depend on the purchase decision to upgrade to a rival's complementary product (i.e. we do not allow Microsoft to charge a consumer, using Windows, anything extra if the consumer uses another firm's upgraded word processing software). If we allowed such pricing, we would restore Whinston's results.

16 We describe here what happens when both firms sell their products. But the basic result also holds when firms lease rather than sell. In particular, upgrades are important for the tying result when the monopolist sells its products, while switching costs are important in the leasing case.

17 This result depends on the assumption that prices cannot be negative. Negative prices induce consumers to consume solely to obtain the subsidy, but without a mechanism to weed out consumers who will not upgrade in the future such pricing will not be optimal. If there is such a costless mechanism and if prices can be negative, then competition in the first period always allows the monopolist to capture the switching cost profits without actually tying its products.

III. Applying the Insights from Economic Theory to Antitrust Enforcement Policy

Economic theory can inform antitrust policy in two ways. First, it can tell us which cases to ignore. Since we know that tie-in sales are often motivated by efficiency, this elimination of cases is quite important so as not to deter efficient activity. [18] Second, economic theory can focus attention on the cases where the potential for harm to competition may exist, at which point one must decide whether economists and courts can weigh the costs and benefits of intervention with sufficient accuracy to justify intervention.

A. CASES IN WHICH ANTITRUST INTERVENTION IS NOT USUALLY JUSTIFIED

If no motivation other than efficiency exists for tie-in sales, then their use should not be attacked. As we discussed earlier, consistent with the Chicago School argument, the case of fixed proportions between a monopolized and complementary good where the monopolized good is essential is one example (ruling out upgrades and switching costs). Another example is when there is competition in the primary (tying) product. The logic here is straightforward. The theory of competition tells us that, as long as the market for the primary product is competitive, the producers of the primary product will market their products in a way that maximizes consumer welfare and social welfare. Hence, in such a case, we are likely to observe tying in exactly those circumstances in which tying improves welfare. In other words, there is no role for government intervention to improve efficiency in such circumstances—any improvement the government could make would already be in the best interest of the seller to make.

A good example of what we view as a mistaken decision along this line is the U.S. Supreme Court's decision in the 1992 *Kodak* case.[19] In that case the court ruled that, even if Kodak had no market power in the markets for new copiers and micrographic equipment, Kodak could still be guilty of having illegally monopolized the maintenance markets for these products. Our view is that the finding of competition for new copiers should have resulted in the court almost immediately declaring the practice legal. Instead the court relied on quite speculative theories concerning Kodak's motivation—some of which suggested social welfare harm. But, as we argue in our 2003 paper (Carlton and Waldman (2003)[20]), if Kodak's customers faced switching costs, as most descriptions of the

18 For a general discussion of efficiency rationales for tying, *see* Dennis W. Carlton & Jeffrey Perloff, Modern Industrial Organization (2005); David S. Evans & Michael Salinger, *Why do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law*, 21 Yale J. Reg. (2004).

19 Eastman Kodak Co. v. Image Technical Services, Inc., 112 S. Ct. 2091 (1992).

20 Dennis W. Carlton & Michael Waldman, *Competition, Monopoly, and Aftermarkets* (mimeograph, University of Chicago, 2003).

industry suggest, then the practice is not just benign but in fact increases consumer and social welfare.[21]

We now ask what situations—other than efficiency—motivate the use of tie-in sales, and which of those we should not attack under the antitrust laws. The first motivation for tying that we believe does not warrant antitrust intervention is that of price discrimination.[22] When the intensity of use of the tied product measures the value the consumer places on the tying product, then it is well-known that tie-in sales act as a form of price discrimination in which those that use the tied product most intensively pay the most. This tie need have no effect whatsoever on the ability of firms producing the tied good to survive and produce for others. The case of constant returns to scale in the tied product illustrates this well. This observation is the basis of the Chicago School criticism of the "foreclosure of competition" doctrine in some of the litigated cases.[23] It is well-known that the welfare effects of price discrimination are ambiguous—in general, the greater the extent that tying allows a firm to come closer to practicing perfect price discrimination, the more likely that social welfare is enhanced. Moreover, price discrimination is everywhere. Every time a firm uses coupons, quantity discounting (i.e. non-linear prices), or different prices for identical products, price discrimination may be involved. We think it would be very difficult to measure when price discrimination harms welfare, and see no reason to single out and condemn one method (e.g. tie-in sales) of price discrimination and not others. Indeed, condemnation of one method would just encourage development and use of other—and likely more costly—methods. Most importantly, we see no reason under the antitrust laws to attack price discrimination through tie-in sales when there is little or no effect on the firms producing the tied product.

A second motivation for tying that we believe does not typically warrant antitrust intervention is when the tie is used to address a problem of variable proportions.[24] Suppose there is a monopolist of product A, while B is supplied by a competitive industry. Further, suppose that A and B are substitutes and that

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21 *See also* Hodaka Morita & Michael Waldman, *Competition, Monopoly Maintenance, and Consumer Switching Costs* (mimeograph, Cornell University, 2003). For more general discussions of aftermarket monopolization, *see* Carl Shapiro, *Aftermarkets and Consumer Welfare: Making Sense of Kodak*, 63 ANTITRUST L. J 148, 148-157 (1995); Dennis W. Carlton, *A General Analysis of Exclusionary Conduct and Refusal to Deal—Why Aspen and Kodak are Misguided*, 68 ANTITRUST L. J. 659, 659-683 (2001).

22 For a recent discussion, *see* Barry Nalebuff, *Bundling as a Way to Leverage Monopoly*, YALESOM WORKING PAPER No. ES-36 (Sep. 2004).

23 IBM Corporation v. United States, 298 U.S. 131 (1936); International Salt Company v. United States, 332 U.S. 392 (1947).

24 For a formal analysis, *see* P. Mallela & B. Nahata, *Theory of Vertical Control with Variable Proportions*, 88 J. POL. ECON. 1009, 1009-1025 (1980).

there are variable proportions so that consumers can choose how much of each product to consume. In the absence of tying, consumers will inefficiently substitute away from the monopolized product A and towards the competitive product B. By tying, the monopolist can avoid the inefficient substitution and this tends to increase welfare. On the other hand, the tying can increase the firm's market power, which tends to decrease welfare due to increased deadweight loss due to monopoly. Our feeling here is similar to that expressed above for the case of price discrimination. Theory does not allow us to unambiguously determine the net effect on welfare, and performing the empirical analysis necessary to calculate this net effect would be very difficult. Since we generally believe that efficiency gains often exceed deadweight losses, we are inclined to leave this case as one that should be immune from antitrust challenge.[25]

An interesting case along this line is that of a durable-goods seller with market power where the maintenance market is competitive. As pointed out by Richard Schmalensee in a paper[26] published in 1974, consumers in such a case face a problem similar to the variable proportions problem just described. That is, consumers respond to this situation by substituting away from purchasing new units that sell at a price above marginal cost and towards maintaining used units because maintenance is priced competitively. The durable goods producer can avoid this inefficiency and increase its profits—and frequently also social welfare—by tying new units and maintenance which avoids, or at least reduces, the distortion because then the durable-goods seller can price the two products such that the replacement decisions are made efficiently.[27]

B. CASES IN WHICH TIE-IN SALES CAN HAVE ANTICOMPETITIVE EFFECTS[28]

Tirole focuses on recent developments in economic theory that present a logical and consistent story of competitive harm to flow from tie-in sales. He observes correctly that these theories generally require the tying firm to give up profits in one market or at one point in time to acquire or preserve a monopoly in anoth-

25 In both this case and the previous discussion of price discrimination, we assume that the monopolist ties the same product that the consumer could purchase separately in the absence of the tie. If that is not so, then the social cost of the tie could rise (i.e. if an inferior product is tied), and the conclusions in the text might have to be modified.

26 Richard Schmalensee, *Market Structure, Durability, and Maintenance Effort*, 41 REV. ECON. STUD. 277, 277-287 (1974). *See also* T. Su, *Durability of Consumption Goods Reconsidered*, 65 AM. ECON. REV. 148, 148-157 (1975); J. Rust, *When Is It Optimal to Kill Off the Market for Used Durable Goods*, 54 ECONOMETRICA 65, 65-86 (1986).

27 *See* JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION (1988), at 188; DENNIS W. CARLTON & JEFFREY PERLOFF, *supra* note 18, at 503.

28 This section draws heavily from the working paper version of our 2002 article. *See* Carlton and Waldman (2002), *supra* note 10.

er market or at a later point in time. He therefore suggests that tie-ins be treated like predation cases where one investigates whether the firm is forgoing short-run profits and whether recoupment is feasible once the rival has been eliminated. We agree that tie-ins should be treated as specific examples of strategic behavior, but have misgivings about the analogy to predation. Unlike the usual predation story, tie-in sales can lead to the exit of a rival even though there is no pricing below (marginal) cost. There does have to be recoupment however, but unlike the usual predation story, the recoupment can take place in some other market. As Tirole recognizes, one test for "predation" in this case is whether the short-run profits associated with the tie are below the short-run foregone profits associated with the case of no tie. Determining the extent of these foregone profits strikes us as complex and not often amenable to court proceedings. Instead, as we describe below, we recommend focusing more on the conditions that give rise to the possibility of harm and whether these conditions are met. but we recognize that sometimes complex tradeoffs are inescapable.

In the previous section, we discussed three settings in which tying product B to product A can harm competition and result in a subsequent reduction in social welfare. In the first setting, there are scale economies in B, and some consumers consume only B while others consume both A and B. By tying B to A, the remaining market for B shrinks, causing producers of B to be inefficiently small and eventually exit the business. After their exit, the firm imposing the tie can raise the price of B to consumers who demand only B. We think this possibility of harm is clear and based on economic theory, but the theory needs some actual examples in order to establish its empirical relevance.[29]

The second setting involves the foreclosure of competition for product A as a result of consumers not being able to purchase a rival's superior product B. By tying its product B to consumer purchases of A, the firm reduces the number of competitors producing B. Through various mechanisms, this reduces future entry into A and preserves the firm's future market power in A. This strategy seems to describe what occurs in some rapidly evolving high-technology industries, but works only under special conditions that can be reasonably well characterized. By understanding these conditions, one can focus application of the theory to avoid unnecessary cases. These conditions involve rapid technological change and large economies of scale (or network externalities). But even when the facts show the theory to be applicable, one must still exercise great caution, as we describe below, because the result on social welfare can be hard to figure out.

The third setting, similar to the first, involves harm to competition in product B. In contrast to the first, however, the driving force is not consumers who demand product B only, but rather that B is characterized by upgrades and switching costs. The presence of upgrades and switching costs means that in the

29 The recent tie of debit to credit cards by Visa and MasterCard may be an example. Carlton served as an expert adverse to Visa and MasterCard.

absence of tying the firm cannot necessarily capture later profits due to upgrades and switching costs through the initial sale or lease of A. Product upgrades and switching costs do seem empirically relevant in a number of markets.

So suppose the antitrust authorities have identified a setting consistent with one of the three cases of strategic tying we have discussed. The question then is whether to proceed with an antitrust challenge. The mere fact that product A and product B could be separately defined, produced, and consumed does not answer the question. Since the production of A and B into a combination product C (i.e. a package with the characteristics of A and B) can have properties that A and B separately do not have (e.g. convenience of use or added functionality) a difficult issue is evaluating the welfare consequences of product C. Specifically, do the benefits of C justify its introduction? Or is its introduction solely to allow the firm to engage in strategic tying? Or is it some combination of the two? To us, this is in general a horrendously complex trade-off to evaluate. Fear of antitrust scrutiny could easily prevent an innovator from introducing new desirable products. The flip side, of course, is that the failure of antitrust enforcers to act can turn an industry from competition to monopoly.

> For those cases where tie-ins can harm competition and reduce welfare, the difficulty of using cost-benefit analyses to identify tie-ins that harm competition leads us to the conclusion that, other than in exceptional cases, plausible efficiency justifications for a physical tie should defeat an antitrust attack on tying.

Our views on evaluating this complex trade-off are as follows. First, great weight should be given to any plausible efficiency from the tie. Efficiencies may be hard to quantify, but forgoing an efficiency can generate substantial welfare loss. Second, evidence on motivation can assist in exceptional cases when determining the reason for the tie and could provide a justification for intervention. For example, evidence that the sole purpose of a design change was to inhibit competition by creating an effective tie could be the type of evidence that allows one to avoid analyzing the technological benefits of the design change—a task which we predict will fail to lead to consensus. This type of evidence—memos, for example—is of the kind usually examined by lawyers not economists. Third, efficiencies achieved through physical integration (i.e. when A and B are produced together in a package C) should receive greater weight than efficiencies achieved through contract (i.e. when the combined use of A and B are mandated by contract). The antitrust laws have always shown greater deference for activities within the firm than for activities outside of the firm. For example, an antitrust court is much more apt to negate an exclusive dealing contract with distributors than it is to order divestiture of an internal division engaged in marketing. The logic, and in general it sounds correct to us, is that the cost of interfering inside a firm—where many unspecified relationships and transactions are not mediated by the price system—is likely to be higher than interfering in the contractual relations between two firms. If a tie creates both significant efficiencies and anticompetitive harm, there is no escaping the need to use a rule of reason analysis to balance the benefit versus the harm, akin to what is done in exclusive dealing cases. This is typically not an easy calculation.

In recognizing that tying can be used to create or maintain a monopoly position, a particularly vexsome issue—and one wholly ignored by antitrust courts—is whether raising the rate of return is desirable in industries undergoing rapid technological change. The argument would be that strategic behavior that entrenches monopoly, or creates monopoly, in a complementary good, raises the return to being the first in the industry. By raising this return, more innovation is encouraged. If, as empirical studies appear to show,[30] the social rate of return from innovation exceeds the private rate of return, such an action would be desirable. However, despite its logic, we have never seen an antitrust court use the importance of innovation as a decision criteria for whether to allow monopolization.[31]

In summary, we would exempt several types of cases involving tie-ins from antitrust scrutiny. For those cases where tie-ins can harm competition and reduce welfare, the difficulty of using cost-benefit analyses to identify tie-ins that harm competition leads us to the conclusion that, other than in exceptional cases, plausible efficiency justifications for a physical tie should defeat an antitrust attack on tying. For contractual ties and virtual ties achieved through pricing, the standard can be lower and a rough balancing of costs versus benefits can be done much as is now done in exclusive-dealing cases—though we would use extreme caution and require convincing evidence before intervening.

IV. Conclusion

Tirole has written an excellent paper that overviews the theory of tie-in sales and puts forth his views on antitrust policy concerning this practice. Our comment has focused on three main points. First, based on our own recently completed paper, we discussed what we believe is an important new case in which tying can

30 *See, e.g.*, E. Mansfield, J. Rapoport, A. Romeo, S. Wagner & G. Beardsley, *Social and Private Rates of Return from Industrial Innovations*, 92 Q. J. ECON. 223, 223-240 (1977); J. Bernstein & M.I. Nadiri, *Interindustry R&D Spillovers, Rates of Return, and Production of High-Tech Industries*, 78 AM. ECON. REV. 429, 429-434 (1988); E. Mansfield, *Social Returns from R&D: Findings, Methods, and Limitations*, 34 RES. TECH. MGMT. 24, 24-27 (1991).

31 In dynamic models, the welfare consequences of encouraging innovation are even harder to analyze than in a simple model of a single patent race. The reason is that although at early stages of industry evolution strategic behavior could raise the rate of return and thereby encourage more innovation, the consequences of strategic behavior could be to dampen the incentives for subsequent innovations. Especially in a growing market, the value of subsequent innovations could easily exceed the value of the initial ones. *See* D. Carlton & R. Gertner, *Intellectual Property, Antitrust and Strategic Behavior*, *in* INNOVATION POLICY AND THE ECONOMY (A. Jaffe, J. Lerner & S. Stern, eds., MIT Press, 2003).

be used to harm competition and reduce welfare. Second, theory tells us that in many settings tie-ins either improve social welfare or have ambiguous effects, and we believe that in almost all such cases the antitrust authorities should refuse to intervene. Third, intervention should be limited to cases consistent with theories in which there is a clear possibility of competitive harm. Even in those cases, however, one should exercise great caution when attempting to balance potential efficiency benefits with the potential harm due to strategic tying.

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Tied and True Exclusion:

Comment on Jean Tirole's "The Analysis of Tying Cases: A Primer"

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Tied and True Exclusion

Barry Nalebuff

The takeaway point of Tirole's excellent primer is that tying, while potentially exclusionary, does not deserve special treatment. This commentary offers two reasons why tying should be accorded special treatment. First, unlike predatory pricing, tying offers a monopolist the ability to engage in no-cost predation. A critical component of the predatory pricing test is that the monopolist will be able to later recoup its sacrificed profits. If foreclosure can be accomplished without pricing below cost, then this makes tying a potentially more dangerous tool for anticompetitive conduct. Second, tying allows a firm to leverage its monopoly from one market to another. It can exclude an equally efficient competitor, where the rival has all of the same economies of scale and scope. To the extent that tying allows a monopolist to disrupt competition in a large number of adjacent or even unrelated markets, this vastly increases the potential harm caused by a monopoly.

The author is Professor of Management at the Yale School of Management. He wishes to thank Jean Tirole and Dennis Carlton for their generous and insightful comments on earlier drafts of this commentary.

I. Introduction

The takeaway point of Tirole's excellent primer is that tying, while potentially exclusionary, does not deserve special treatment.[1] As he writes in the conclusion, "It is difficult to think of reasons that tying should be considered a separate offense.... Competition policy should therefore analyze tying cases through the more general lens of a predation test."[2] The point of my commentary is to offer two reasons why tying should be accorded special treatment.

First, unlike predatory pricing, tying offers a monopolist the ability to engage in no-cost predation. A critical component of the predatory pricing test is that the monopolist will be able to later recoup its sacrificed profits. If foreclosure can be accomplished without pricing below cost, this makes tying a potentially more dangerous tool for anticompetitive conduct.

Second, tying allows a firm to leverage its monopoly from one market to another. It can exclude an equally efficient competitor, where the rival has all of the same economies of scale and scope. To the extent that tying allows a monopolist to disrupt competition in a large number of adjacent or even unrelated markets, this vastly increases the potential harm caused by a monopoly.

I expect the first point will be clear after a short explanation. The second point goes against the perceived wisdom and will require more discussion.

The idea of no-cost predation may sound like an oxymoron. For Tirole, predation is intentional and costly and these costs must be recouped though subsequent market power. Of course it is also possible to foreclose rivals via improved efficiency and other strategies, but in these cases the foreclosure is a byproduct of an otherwise profitable strategy.[3] This is Tirole's exclusion category. In *Competition in Telecommunications*, Tirole describes the difference between predation and exclusion:

> "We will define exclusion as the incumbent's denying access to rivals through nonprice methods, with the goal of transferring the incumbent's untapped market power in the bottleneck segment to the competitive segment. Exclusion is an instrument, not a goal, because it is not intended per se to hurt rivals, even though it actually does so....[t]he common features of

1 Jean Tirole, *The Analysis of Tying Cases: A Primer*, 1 COMPETITION POL'Y INT'L 1-25 (Spring 2005).

2 *Id.* at 25.

3 In some cases, consumers may be harmed when a firm drives out less efficient rivals via above-cost pricing (and becomes a monopolist); this issue is not the subject of this paper.

> [exclusion and predation] are that they are profit maximizing and that they hurt rivals. The rationales for the two behaviors are quite different....[t]he purpose of exclusion is not per se to hurt rivals....[I]n contrast, predation corresponds to a sacrifice of short-term profits in order to boost long-term gains by forcing rivals out of the market. Predation can be profitable only if it leads competitors to exit the market enduringly....[t]o sum up, exclusion increases the operator's profit while it is practiced. Predation lowers the operator's profit and therefore can be rational only if it creates sufficient losses for the rivals that they enduringly exit the market and if future monopoly gains offset current predation losses."[4]

What I am suggesting is that there is a third strategy—one where the primary purpose is to foreclose rivals, yet no profit sacrifice is required. The tool for this strategy is tying.

While no-cost predation is a limiting case of costly predation, it is also different in its nature. There is no need to establish recoupment. Thus, if one shows that equally efficient rivals are excluded, the test is passed.[5] The third case below explains how exclusion can even lead to higher profits by the monopolist, but, as discussed below, I do not consider those higher profits a legitimate justification for the foreclosure.

Before starting on this path, I want to first expand Tirole's definition of tying. According to Tirole, "Tying refers to the behavior of selling one product (the tying product) conditional on the purchase of another product (the tied product)."[6] Tirole emphasizes the case where customers can buy the monopoly good (M) only if they also buy the firm's other good (C). As he recognizes, the practical effect is the same if the price of M is grossly inflated, unless the customer also buys C. In the same vein, but more subtle, is the practice of offering a discount on the entire purchase if the customer buys both M and C from the firm.[7]

4 JEAN-JACQUES LAFFONT & JEAN TIROLE, COMPETITION IN TELECOMMUNICATIONS (2000), at 161-163.

5 By equally efficient I mean that there is no loss in social welfare by having the rival(s) produce. Tirole gives the example of a French language economics journal as not providing equal access to non-French-speaking economists. In that case, I would say that the rivals are not equally efficient in writing in French. If there are economies of scope in producing the monopoly and tied product together, then the rival would have to have the same economies of scope from some other operation or be sufficiently more efficient to have the same production costs. If there are economies of scale in the tied product, then only one firm may end up producing, but which one produces would be random—a monopolist would not be able to automatically exclude a rival with the same scale economies.

6 Tirole, *supra* note 1, at 8.

7 In some cases, the customer agrees to a minimum quantity of C; in others, the customer agrees to purchase all or nearly all of its C requirements from the firm.

Since the customer has no alternative to M, the entire discount should be properly applied to C. Even a small discount (applied to the whole volume) can have a large impact on the effective price of C. Thus the conditionality of a tied sale depends on the bundle pricing and not just whether the product is sold à la carte or not.[8] I see tying as akin to half of a mixed bundle. There is a discount for buying M and C together compared to buying M from the firm and an equivalent C′ from a rival.

As Tirole makes clear, tying is but one example of an exclusionary practice. In that sense, why should it be singled out for special treatment? The reason is that unlike most exclusionary practices—such as predatory pricing—tying has the potential to costlessly foreclose rivals.[9] In this case, it is only the law that prevents monopolists from pursuing this strategy.

II. No-Cost Foreclosure

The standard test for predation is whether the prospect of future gains from successful predation offset the current losses. Tying provides an opportunity to get the gains without suffering the losses. This can be accomplished in three different fashions.

A. UNDERPRICING THE COMPETITIVE PRODUCT

Following Tirole's notation, let M be the monopoly good and {C, C'} be the competitive goods. For the purposes of this example, I assume that M and C are bought in fixed proportions and that the competitive price of C and C′ is sufficiently low that all consumers buy C or C′ along with M.[10] The monopoly price of M is denoted by m and the cost and competitive price of C and C′ by c. Here, I am assuming that C and C′ have equal costs and are perfect substitutes. If, instead of (m, c), the monopolist prices the complement at $c - \varepsilon$ and the monopoly good M at $m + \varepsilon$, then all customers will be indifferent. The total package price is $m + c$ in both cases.

8 To aid non-French speaking economists and thereby provide equal access to this article, "à la carte" refers to the customer's selection of a dish off the menu as opposed to accepting a set menu as part of a *prix fixe* dinner.

9 When rivals are producing complementary goods and can do so more efficiently, then there may be an opportunity cost in foreclosing these firms from the market. But, as Carlton and Waldman explain in their companion paper, the monopolist may not be able to capture the gains from cheaper complements (in multi-period games) and thus may maximize profits via exclusion. *See* Dennis Carlton & Michael Waldman, *How Economics Can Improve Antitrust Doctrine towards Tie-In Sales*, 1 Competition Pol'y Int'l (Spring 2005).

10 If the two goods are consumed in variable proportions, then this pricing tactic will be costly to the monopolist. In that case, the monopolist can employ the opposite contract: it will offer to sell M at $m - \varepsilon$ provided that the customer buys all of its C demand from the firm at a price slightly above c. See case 3 discussed later in this paper.

The problem is that the rival firms cannot compete at any price below *c*. They do not have a way to recover the below-cost pricing by charging more for some other product—as they have no other product for which they can raise the price. Another way of saying this is that the monopolist can immediately recoup its losses in C by raising the price of M. Unlike traditional predation, the monopolist can raise price without having to wait until its rival has exited. Because the high price in M is just offset by the savings in C, there is no distortion in the market and, hence, no lost profits.

As a result, the firm with market power in M can set its prices to create an economic tie. The only economic way to purchase the firm's M is to also purchase its C. It will then capture 100 percent of the C market and thereby foreclose all other C′ firms in the market.

The following simple numerical example demonstrates the foreclosure. Imagine the M good represents Microsoft Windows sold at a price of 100 and C′ represents a media player sold at price 1. Consumer valuations for the media player (among customers who have purchased Windows) range from 1 to 2, so all Windows customers also purchase the media player. Microsoft can sell its media player at a price of 1 and split the market with its rival. But it alone can profitably sell the media player at a price of 0. When the price of the media player falls from 1 to 0, consumers' willingness to pay for Windows goes up by 1 and thus Microsoft can raise its price of Windows to 101 and not lose any demand.

This example illustrates the simultaneous recoupment offered via the tied sale. But it does not yet suggest an antitrust problem. While this practice harms competitors, so far there is no immediate harm to consumers. Consumers are paying the same price and do not mind the loss of product variety (as the goods are perfect substitutes). The potential loss to consumers is in the future.

If entrants into the M market need a C to make their package whole, they will now be at a disadvantage as the competitive complements market will have disappeared.[11] It might also be possible that the firm will gain power in the C market. If entry is costly, then rivals may not reappear after exiting, especially if they anticipate that the producer of M can drive them out via a costless cross-subsidy. The loss of rivals in the competitive market may change the incentives for innovation, potentially harming consumers.[12]

11 Here, I am making an implicit assumption that the monopolist might not facilitate compatibility between C′ and M.

12 The incentive to innovate could also rise; *see* J. Choi, *Tying and Innovation: A Dynamics Analysis of Tying Arrangements*, 114 ECON. J. 83, 83-101 (2004).

B. A THREAT TO OVERPRICE THE MONOPOLY GOOD

There is a second way that the firm with market power in M can engage in costless predation. It can threaten to raise the price of M unless the customer buys its C. We return to the case where the monopoly price of M is m and the competitive price of C is c. The firm can say to its customers: The price of M is $m + \varepsilon$ unless you buy my C at price c, in which case the price is m.

If the threat is credible, it will not have to be carried out. Thus, in equilibrium, the firm charges the optimal price for M. Yet rivals are excluded, as it would appear to the customer that they are charging a price of $c + \varepsilon$.[13]

It is worth noting that this threat is different from a typical threat in that it potentially imposes a first-order cost on the consumer while only a second-order cost on the firm. If the firm were actually forced to carry out the threat, this would be costly to the customer, but of little cost to the firm (in that as m is the optimal price, $m + \varepsilon$ leads to approximately the same profits). Thus, only the tiniest amount of commitment or reputation effect is required for this threat to be credible.

Once again, there is no immediate loss to consumers from this exclusion. But, as before, eliminating rivals in the C market can make subsequent entry harder in either M or C and thus prolong the incumbent's market power, as well as create the potential to use market power in C.

The difference between tying and predation is that with predation the firm actually has to charge a price below cost and thus lose money. With tying, the firm can either recoup that cost immediately (by raising the price of M) or simply achieve the exclusion at no cost at the start by threatening to raise the price of M.

In some sense, both examples of economic tying are milder forms of a naked tie: If you want to buy the firm's M, you must also buy its C. (The naked tie also results in the elimination of rivals in the C market and also at no cost.)

C. LEVERAGING MONOPOLY IN THE C MARKET

There is a third way that the firm with market power in M can engage in foreclosure. This case is different from the previous two examples in that it leads to higher profits. The higher profits are a result of the firm extracting more of its monopoly power. While this may lead to a short-run increase in efficiency, the long-run impact on competition and innovation in adjacent markets could more than offset these gains.

The idea is as follows: the monopolist offers to lower the price of the monopoly good from m to $m - \varepsilon$, provided that the customer agrees to buy all of its

13 Unlike the previous example, the result here does not require that all customers buy M and C in equal proportions. If customers vary in their demand for C, then the monopolist's threat to charge above m translates into an effective price some amount above c for rivals.

demand for the C good from the firm at a slightly inflated price of $c + \delta$. The original price of m remains available. Lowering the price of the monopoly good is only a second-order loss to the firm, as m is the profit-maximizing price. But, for consumers, this is a first-order gain. Provided that the price increase on C is relatively small, most consumers will accept this offer as they save more on M than they lose on C. The first-order gain to the firm from the price increase on C more than covers the second-order loss on M.

If a firm enjoys a monopoly in one market, then that is a problem that we accept in order to encourage competition and innovation. But if that monopoly allows the firm to beat out equally efficient rivals in another market, then that is a problem that we need to fix.

This result relies on consumers having variable consumption of the two goods. As the price of M falls, consumption increases. This is why the loss to the monopolist is so much smaller than the gain to consumers.[14]

Rivals cannot compete with this offer, as all M customers who accept this offer are bound to buy all of the C they demand from the firm. There may be a small number of customers who reject this deal, but this may not provide sufficient scale for other firms to produce C′ efficiently.

The source of the gain is that the monopolist is in effect engaging in two-part pricing. Instead of charging a lump-sum fee, the monopolist has done a markup on the C good. Even with two-part pricing, the tied sale may lead to yet higher profits when demand between the two goods is positively correlated.[15]

If a firm enjoys a monopoly in one market, then that is a problem that we accept in order to encourage competition and innovation. But if that monopoly allows the firm to beat out equally efficient rivals in another market, then that is a problem that we need to fix. The problem becomes even more serious if those are adjacent markets that might become monopolized themselves or could be used as entry points to challenge the original monopoly. I do not find consolation in the fact that the monopolist has found a way to reduce its deadweight loss via the tied sale. (The view that a perfectly price-discriminating monopolist is efficient belies the fact that price discrimination is rarely perfect or costless.[16])

While it is true that with variable demand an exclusionary bundle discount can improve social welfare, the gains arise from reducing the inefficiency of a

14 For a formal proof of this result, *see* Barry Nalebuff, *Bundling as a Way to Leverage Monopoly*, YaleSOM Working Paper No. ES-36 (Sep. 2004), *available at* http://ssrn.com/abstract=586648; P. Greenlee, D. Reitman, and D. Sibley, *An Antitrust Analysis of Bundled Loyalty Discounts,* DOJ Economic Analysis Group Discussion Paper, EAG 04-13 (Oct. 2004).

15 *See* Frank Mathewson & Ralph A. Winter, *Tying as a Response to Demand Uncertainty*, 28 RAND J. Econ. 566, 566-583 (1997).

16 Firms spend large resources (such as CRM systems) to manage their complex pricing and customers spend resources to avoid being taken; *see* Barry Nalebuff, *Bundling, Tying, and Portfolio Effects*, UK Department of Trade and Industry Economics Discussion Paper No. 1 (2003).

monopolist. The problem is that the bundle discount also allows a firm to leverage its monopoly from one market to another. A monopolist can exclude an equally efficient competitor, where the rival has all of the same economies of scale and scope in production. The rival is only missing the ability to reduce its inefficient monopoly pricing.

The fact that welfare rises is not a sufficient justification to engage in exclusionary bundling. It does not demonstrate that the welfare gains could not have been achieved in a different manner without causing foreclosure. My critique of leveraging market power it not meant to imply that a dominant firm has a duty to maintain competition. The dominant firm need not reduce its production efficiency or charge inflated prices to create a price umbrella for inefficient rivals. I only require that the firm not engage in strategies that exclude equally efficient rivals. For example, if the firm seeks to engage it a two-part tariff, it should do so directly by charging a lump-sum fee rather than requiring that the consumer purchase its complementary good at an inflated price.[17] One could argue that the ability to use an adjacent good to engage in price discrimination or to extract a lump-sum fee is an economy-of-scope efficiency that the rival does have. My response is that the monopolist must find some other way to capture those efficiencies without distorting competition in other markets. If a lump-sum fee is less opaque to consumers and thus harder to implement, that is not a sufficient excuse to foreclose equally efficient rivals.

III. An Antitrust Test

The examples of foreclosure lead to a definition of when a tie or bundle discount is exclusionary. A bundle discount leads to foreclosure if even the monopolist could not afford to sell the competitive good at a large enough discount to offset the loss of the bundle discount. More formally, I refer to this type of bundle pricing as exclusionary bundling.[18] Exclusionary bundling arises when a firm has market power in product A and faces competition in product B. It engages in exclusionary bundling when the incremental price for an A-B bundle over A alone is less than the long-run average variable costs of B. The A-B bundle discount is measured relative to the à la carte prices of A and B.[19] The discount could be

17 One could argue that the ability to use good C to engage in price discrimination or to extract a lump-sum fee is an economy-of-scope efficiency that the rival does have. My response is that the monopolist must find some other way to capture those efficiencies without distorting competition in other markets.

18 Exclusionary bundling is the subject of Barry Nalebuff, *Exclusionary Bundling* (Sep. 2004) (on file with author). Note that exclusionary bundling could also be called exclusionary tying.

19 For a different perspective, *see* Greenlee, *supra* note 14. The authors are concerned with whether the monopolist increased (or threatened to increase) the à la carte price of A (in which case there is an antitrust problem) or lowered the price of A, in which case there is not a violation.

offered for buying A and B together in a bundle or in return for an agreement to purchase all of the customer's needs for B from the monopolist.[20] Note that all three of my examples would violate the exclusionary bundling test.

In applying this test, I agree with Tirole about considering what fraction of the B market is foreclosed by the tie. If there is only a small overlap between the customers of A and those of B, then foreclosure is not of great concern. Antitrust issues loom largest when almost all customers purchase both A and B and, thus, the entire B market is subject to foreclosure. The large overlap is possible even when the two products are substitutes rather than complements. For example, in the *LePage's* case, most stores carried both Scotch-brand tape (A) and generic transparent tape (B).[21]

The exclusionary bundling test need not lead to the same conclusion for all customers when the A-B bundles need not be consumed in fixed proportion. Specifically, rivals will not be foreclosed from the market of customers who buy little or no A. The exclusionary bundling test is not intended to be the sole criteria for an antitrust violation.[22] One must consider the magnitude of foreclosure to the B market. One should also confirm that the monopolist could have reasonably understood that its tie or bundle discount would have the effect of foreclosing rivals. When the foreclosure is significant and the monopolist could have reasonably understood the effect of its pricing, then I am in favor of employing a per se rule.

There is one other important practical difference between predation and what I have called exclusionary bundling. The difference is based on information. When a firm engages in predation, one can actually see the price below cost. A rival firm knows what it needs to offer in order to win the business and can determine if this is above or below cost. With tied sales, these calculations become much more difficult.

Consider the case where a monopolist offers a customer a one percent discount on all of its purchases if the customer buys M and C together.[23] Since the customer would have had to purchase M under any circumstance, it is proper to attribute the entire 1 percent discount to the purchase of C.

20 For a detailed explanation, see Nalebuff, *Exclusionary Bundling*, *supra* note 18. In practice, the exclusivity agreements often allow the buyer to obtain some small percentage of its B goods from other firms.

21 LePage's Inc. v. 3M, 324 F.3d 141 (3d Cir. 2003).

22 *See generally*, Nalebuff, *Exclusionary Bundling*, *supra* note 18.

23 Such an offer was at the heart of the LePage's case. *See supra* note 21.

The problem is that the rival in the C market needs to make forecasts over the expected demand for both M and C. It might not know the demand for M. This makes it much more difficult for the one-good rival to compete as it does not really know what price its rival is charging. It can rely on the customer's representation, but the customer might also be confused or misinformed. The ability to obscure the foreclosure is a further reason to be suspicious of this practice.

IV. Further Comments on Tirole

In this section, I offer some short comments on specific points raised in Tirole's primer.

A. COURNOT EFFECT

Tirole is right to emphasize that the Cournot effect will give a firm selling two complementary products an extra incentive to cut price and thus an advantage in the market. This effect persists even when there is imperfect competition in the M market. In a paper published in *Incentives, Organization, and Public Economics*, I describe how a firm that can bundle thereby solves the coordination or free-rider problem and thereby gains an advantage over its one-product rivals who cannot offer a competing bundle.[24] This efficiency gain should be balanced against the potential long-run harm if the market becomes monopolized. The European Commission's (mis)application of bundling theory to the *General Electric/Honeywell* merger suggests the value of caution.[25]

B. TWO-SIDED MARKETS

Tirole is again right to emphasize that firms might want to set prices at marginal cost, even zero, especially where there are two-sided markets. Thus the seller sets the price of Adobe reader at zero to consumers and makes its profits by charging a positive price to those who want to encode in the Acrobat format.

A problem arises when the competitive price for the B product is negative. When this occurs, it is not because the marginal cost of B is negative. Instead, the firm realizes that it will make enough selling to the other side of the market that it is willing to pay customers to use its B product.

24 *See* Nalebuff, *Competing Against Bundles*, *in* INCENTIVES, ORGANIZATION, AND PUBLIC ECONOMICS (Peter Hammond & Gareth Myles, eds., Oxford University Press 2000). The flip side is that if rival firms can offer a competing bundle, then the ensuing bundle-versus-bundle competition is the most competitive outcome of all.

25 Barry Nalebuff, *Bundling and the GE-Honeywell Merger*, in THE ANTITRUST REVOLUTION (John Kwoka & Lawrence White eds., Oxford University Press 2003).

The problem is that a firm cannot offer a negative price unless it can be sure that its product will be used. Adding up all the advertisements in a typical issue of *Forbes* magazine, one can see that advertisers are willing to pay roughly $9 per reader. Thus, *Forbes* would be willing to pay a CEO to read their magazine. But if the person is getting the magazine without having asked for it or having paid for it, then there is much less assurance that the customer will actually read it.

Forced tying in software can solve that problem, but also eliminate competitors at the same time. Thus, Microsoft required Apple to employ its Explorer browser as the default option.[26] Apple's choice of Explorer was tied to Microsoft's upgrading its Office software suite for Apple. Thus, even if Netscape wanted to pay Apple to make Netscape the default, it was precluded from doing so.[27]

C. PRICE DISCRIMINATION

I am not persuaded that market segmentation is a legitimate justification to engage in tying. As Tirole explains, tying may facilitate price discrimination via metering. While this is a common practice, my question is whether the price discrimination can be achieved in another way without harm to competitors. Consider the case where a monopolist in laser printers wants to charge more to high-volume users. The tied-sale approach is to tie the toner cartridge to the laser printer and charge a premium for the cartridge. But as a side effect, the tie could change the competitive landscape in the toner cartridge market. Instead, the monopolist could price discriminate by metering directly. Rather than charge a premium for a toner cartridge, the laser printer monopolist could charge a price per page. Imagine that the printer needs to be recharged after each 1,000 pages. This direct metering is becoming practical as more and more products are connected to the Internet.

THE PROBLEM IS THAT A FIRM CANNOT OFFER A NEGATIVE PRICE UNLESS IT CAN BE SURE THAT ITS PRODUCT WILL BE USED....FORCED TYING IN SOFTWARE CAN SOLVE THAT PROBLEM, BUT ALSO ELIMINATE COMPETITORS AT THE SAME TIME.

D. THE COST TEST

The first step of Tirole's three-part test,[28] is to see if the product costs are high or low. But, even when variable product costs are low, tying can still have a large

26 The forced tie goes further than offering the Internet Explorer browser at a negative price or zero; it ensures that the product is used by making it the default.

27 Netscape would have had to pay Apple the lost value of not having Office, which might be the entire value of Apple. The potential loss to Microsoft was much smaller. If the threat had been carried out, most of Apple users would have switched to Windows where it could have sold them a Windows version of Office.

28 *See* Tirole, *supra* note 1, at Fig. 5.

impact on a rival's ability to compete. We are familiar with raising rival's costs.[29] Tying creates the opportunity to lower customers' values. As Tirole recognizes, a customer is much less willing to pay for WordPerfect once the person already has Microsoft Word. In that sense, tying one product to another can make it much harder for a rival to compete: it can only charge the *incremental* value of its product, conditional on already having the other product.

Assume, for example, that the customer values Word at 2, WordPerfect at 4, and WordPerfect at 1 conditional on already having Word.[30] If the marginal cost of producing Word and WordPerfect were each 1, then in the competition for this customer, the price of Word would fall to 1 and the customer would buy WordPerfect for 3, leading to a profit of 2. But if the customer already has Word, then the incremental value of WordPerfect is only 1, and, thus, all profits are eliminated. The tying (or bundling) of Word to other software programs can reduce the customer's valuation to a level at or below costs and thus foreclose WordPerfect from the market. Even if all marginal costs were zero, including Word as part of a software suite would reduce the market price of WordPerfect from 2 to 1 and thus cut WordPerfect's profits in half. Consequently, the firm may no longer be able to cover its fixed costs.

JUST AS WE CONDEMN PRACTICES BY MONOPOLISTS THAT RAISE (POTENTIAL) RIVALS' COSTS, WE CAN ALSO CONDEMN CERTAIN PRACTICES THAT LOWER CUSTOMERS' VALUES.

Just as we condemn practices by monopolists that raise (potential) rivals' costs, we can also condemn certain practices that lower customers' values. While more efficient firms can sometimes still compete even after its costs have been raised, a firm with a superior product must compete after its customers' values have been lowered. The end result can be that customers do not end up with their most preferred products and efficient producers are foreclosed from the market.

V. Conclusion

I agree with Tirole that tying (and bundling) fall under the larger class of exclusionary behavior. While they can be looked at under that larger lens, there is enough distinct about these practices that it is worthwhile not mixing them in with predation.

In his primer, Tirole argues for a rule of reason rather than a per se prohibition of tying by a firm with a dominant market position. I have argued the opposite case. I am suggesting that the per se rule against tying by a firm with a dominant

29 Steven C. Salop & David T. Scheffman, *Raising Rival's Costs*, 73 AM. ECON. REV., 267-71 (1983).

30 This example is slightly peculiar in that the value of Word and WordPerfect together is only 3 and this is below the stand-alone value of WordPerfect. This might be due to the fact that having to learn two systems is complicated. A similar point can be made when the isolated value of Word is 3.

position should be extended to cover cases where the tie is achieved via pricing. If exclusionary bundling can be established, then the firm with a dominant position has created an economic-tied sale. A violation should be found if a significant share of the tied market is foreclosed (and the firm could reasonably have understood that this would be the consequence of its pricing).

Section I of the Sherman Act states, "Any contract in restraint of trade shall be declared illegal."[31] On its face, that language eliminates all contracts, as a contract between seller S and buyer B restrains other sellers from contracting with this buyer (and may restrain other buyers from contracting with this seller). In practice, the language is interpreted as having an "unreasonable" included.[32] Only unreasonable restraints of trade, such as price-fixing, are illegal.

The same can be said of tying. What is and should remain a per se violation is unreasonable tying by a monopolist. I have admitted some element of a rule of reason in that there is a "reason" in unreasonable. The idea is that the courts have and will continue to declare various tying arrangements as per se unreasonable. I think the case of exclusionary bundling should fall in that per se category. When a monopolist creates a tie that equally efficient rivals cannot match and, as a result, a significant share of a competitive market is foreclosed, this creates a dangerous ability to leverage monopoly power across markets.

31 Sherman Act, 15 U.S.C. § 1 (1890).

32 *See* U.S. v. Trans-Missouri Freight Association, 166 U.S. 290 (1897).

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The Great Reformer: Mario Monti's Legacy in Article 81 and Cartel Policy

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The Great Reformer: Mario Monti's Legacy in Article 81 and Cartel Policy

Margaret Bloom

Commissioner Mario Monti's achievements in relation to Article 81 of the EC Treaty are deeply impressive. Three are major reforms: the modernization of EC competition law; the introduction of a more economics-based analysis for Article 81 cases; and the fight against cartels. An equally significant achievement is Commissioner Monti's high personal standing, not least because of his independence from lobbying. Despite the pace of his reforms, there are still plenty of challenges for his successor. Reforms of procedures, sanctions, and private enforcement will be required for full modernization. The more economic approach now set out in block exemptions and guidelines must be applied by the European Commission, national authorities, and courts. European leniency programs will need reform, and criminal sanctions for cartels should also be considered at the appropriate time. Commissioner Monti leaves a truly great legacy and an impressive foundation for further development. Following his stewardship, his successor takes over a very powerful, but highly respected, position.

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I. Introduction

Commissioner Mario Monti's achievements are deeply impressive, and he leaves a remarkable legacy. During his five-year mandate as the EC Commissioner responsible for competition policy he led a particularly intensive process of change. Some of the changes were started before he took office and some will continue under the new Commissioner. But his great success was the skillful way in which reforms were developed and secured under his leadership. This paper focuses on Article 81 of the EC Treaty (Article 81). However, reforms affected most of his areas of responsibility and were not restricted to Article 81. And not all of the proposals were universally welcomed when they were first proposed, in fact, far from it.

There are four achievements in relation to Article 81 that are particularly significant. The first three are major reforms: the modernization of EC competition law for Article 81; the introduction of a more economics-based analysis for Article 81 cases; and the fight against cartels. These three reforms were all driven by Commissioner Monti's objective to focus the European Commission on the right priorities in order to deliver more effective enforcement. An equally significant achievement is Commissioner Monti's high personal standing. His independence from political and business lobbying contributed significantly to his high personal standing. The importance of this achievement is clearly not restricted to Commission policy on anticompetitive agreements.

A. NEW REGULATIONS AND NOTICES

The dramatic rate of reform in antitrust legislation since Commissioner Monti took office in October 1999 is clear from the new regulations and notices relating to Article 81 (listed in Table 1). In addition to the new legislation listed in the table, there were legislative reforms in the competition rules for transport, telecommunications, mergers, and state aid.

II. Modernization of EC Competition Law for Article 81

A. THE WHITE PAPER ON MODERNIZATION

The main reason for the modernization of the rules concerning the enforcement of Articles 81 and 82 was to deliver more effective enforcement, particularly given the prospective enlargement of the European Union. *The White Paper on Modernization* (White Paper)[1] had been published in April 1999 by then-EC

1 Commission White Paper on Modernisation of the Rules Implementing Articles [85] and [86] of the EC Treaty, 1999 O.J. (C 132) 1.

Table 1

New regulations and notices relating to Article 81 adopted since October 1999

Date	New Regulation or Notice
December 1999	Block exemption regulation for vertical agreements (effective June 2000)
May 2000	Guidelines on vertical restraints
November 2000	New block exemption regulations for horizontal cooperation agreements
	Guidelines on applicability of Article 81 to horizontal cooperation agreements
January 2001	New Notice on agreements of minor importance
February 2002	Revised leniency policy
July 2002	New block exemption regulation for motor distribution and servicing agreements (effective October 2002)
December 2002	Modernization Regulation 1/2003 (effective May 2004)
February 2003	New block exemption regulation for insurance sector (effective April 2003)
April 2004	New block exemption regulation for technology transfer agreements and guidelines (effective May 2004)
May 2004	The Modernization Package: Regulation 1/2003; new Commission regulation on the conduct of antitrust procedures; and notices on cooperation within the network of competition authorities, on cooperation between the Commission and the national courts, on the application of Article 81(3), on the effect on trade concept, on informal guidance to business, and on the handling of complaints by the Commission.

Source: European Commission, *Competition Rules Applying to Undertakings*, *available at* http://europa.eu.int/comm/competition/antitrust/legislation/.

Competition Commissioner Karel Van Miert. The White Paper provided a basis for discussion on how to meet the twin objectives of releasing the Commission from tasks that did not contribute sufficiently to the efficient enforcement of the competition rules and decentralizing some enforcement to national authorities, thereby bringing decision-making processes closer to citizens. It also proposed that the Commission abandon its monopoly of granting individual exemptions under Article 81(3) and that the notification of agreements for individual exemptions be abolished. The criteria in Article 81(3) would then become directly applicable without prior decision of the Commission.

The Commission received over a hundred written comments from Member States, associations of undertakings, lawyers, and academics on the White Paper.

The European Parliament subsequently organized a public hearing in September 1999 and adopted a generally supportive resolution the following January (the Von Wogau Report). The Social and Economic Committee also adopted a supportive opinion in December 1999. The majority of the responses welcomed the Commission's proposals and agreed that the existing system for enforcing Articles 81 and 82 should be abandoned. But some Member States, business organizations, and lawyers raised serious concerns about both the overall proposal and specific details.[2] The German government, for example, issued a statement[3] setting out its doubts about the proposals, questioning the legality of direct applicability of Article 81(3) and the abolishment of notifications. Among others, the Confederation of British Industry (CBI) strongly criticized the proposed reform,[4] in particular the risk that inconsistency would develop through decentralization of cases to Member States and that there would be increased legal uncertainty for business with the proposed ending of notifications. Historically, business in the United Kingdom had a much stronger culture of notifying agreements to the Commission for exemption under Article 81(3) than did other Member States. The CBI considered the proposed reform unjustified, especially without first making meaningful efforts to remedy defects in the existing system. Indeed, they feared that the White Paper solutions might worsen the problems it sought to remedy, thereby putting European business at a disadvantage compared with competitors in other jurisdictions.

In February 2000, the UK House of Lords Select Committee on the European Communities published a wide-ranging report[5] on the proposed reform, which they described as "a bold and imaginative initiative." But they were concerned about whether the proposals for close cooperation between Member State and EC authorities and for decentralization were practical. According to their report, "Adoption of the White Paper proposals would be a formidable political challenge and there are many hurdles to overcome if the Commission's proposals are to succeed."

Concerns about the lawfulness of the proposals and the risks of inconsistency and uncertainty for business were raised by others, together with questions about

2 White Paper on Reform of Regulation 17—Summary of the Observations, COM(2000), *at* http://europa.eu.int/comm/competition/antitrust/others/wp_on_modernisation/summary_observations.html.

3 Statement by the Government of the Federal Republic of Germany (Nov. 1999), *at* http://www.bundesregierung.de.

4 Memorandum from the Confederation of British Industry (Sep. 29. 1999), *at* http://www.cbi.org.uk/home.html.

5 Reforming EC Competition Procedures, 4th Report of the House of Lords Select Committee on the European Union, HL Paper 33, Session 1999-2000.

whether the conditions in Article 81(3)[6] could be directly applicable and whether the national courts could handle the enhanced role proposed for them. Most commentators accepted that there should be significant changes in how the competition rules were enforced, but there was far from universal agreement on the best way forward.

Commissioner Monti and Commission officials invested much time and energy in addressing these concerns, either through concessions and refinements in the way in which the reform would be implemented or through seeking to persuade the doubters that their objections were misplaced. Commissioner Monti, for example, addressed the risk of incoherence, the issue of legal certainty and the roles of the courts and national competition authorities in a speech in Bonn at the formal introductory ceremony for Ulf Böge, the new President of the Bundeskartellamt (Germany's Federal Cartel Office) in January 2000. Commissioner Monti emphasized that modernization reform was "[b]uilding on the principle of subsidiarity, which your country supports very much."[7] In a speech to the CBI in London in June later that year, he particularly addressed the risk of inconsistent application of EC law by national authorities and courts and the issue of legal certainty. Both of these were key concerns of the CBI. He thus foreshadowed the issuing of guidelines by the Commission and a system of opinions to provide guidance to companies where there was real doubt over the application of the competition rules.

By June 2000, proposals were well advanced within the Commission, as indicated in a speech by Commissioner Monti in Washington, DC:

> "Many of the comments which we have received since the publication of the White Paper confirm the Commission's view that the current centralised system gives rise to a number of problems: it is costly to industry; it provides little legal certainty; "comfort" letters [the administrative letters by which the Commission disposes of most of the agreements notified to it] are neither binding, nor published. More importantly, the system is no longer an enforcement tool which is as effective as it ought to be: it obliges the Commission to scrutinise in detail a large number of often innocuous

6 If an agreement infringes the prohibition in Article 81(1) against anticompetitive agreements, it will, nevertheless, be valid and enforceable if it satisfies the conditions in Article 81(3). These conditions concern: efficiency gains from the agreement; fair share of the gains to be passed to consumers; indispensability of the restrictions to achieve the gains; and no elimination of competition.

7 European Competition Commissioner Mario Monti, Address at the Formal Introduction Ceremony of the New President of the Bundeskartellamt (Jan. 13, 2000), *available at* http://europa.eu.int/comm/competition/speeches/index_speeches_by_the_commissioner.html.

notifications, thereby diverting scarce resources from concentrating on other priority enforcement tasks such as the uncovering of cross-border cartels and the investigation of major cross-border mergers, as well as the liberalisation of new sectors and the policing of state aid. . . .

I am . . . confident in the ability of the Community's national competition authorities and the Commission all to apply a common set of rules, while seeking to ensure a maximum of consistency and coherence . . . . [We will create] a "network" of competition authorities. This network will provide a forum for discussion of cases and issues of common interest. The network will also ensure that cases are allocated efficiently and that multiple control is avoided. . . .

I am, at the same time, very conscious of the fact that this reform must take into account the need to ensure the maintenance of an adequate level of legal certainty for market participants."[8]

B. THE MODERNIZATION PACKAGE

By September 2000, the Commission was sufficiently confident about what was both necessary and possible to adopt a proposal for a regulation[9] to implement modernization reform. Commissioner Monti advised the Fordham International Antitrust Law and Policy Conference in October:

"I consider this to be the most important legislative initiative in Europe in the competition field since the adoption of the Merger Regulation in 1989. It will change radically the way antitrust rules are enforced. It will allow the Commission to focus on the most serious infringements and, in my view, it will greatly facilitate the strengthening of a common competition culture in the EU."[10]

8 Mario Monti, Remarks at A European Competition Policy for Today and Tomorrow Conference (Jun. 26, 2000).

9 Proposal for a Council Regulation on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty and Amending Regulations (EEC) NO. 1017/68, (EEC) NO. 2988/74, (EEC) NO. 4056/86 AND (EEC) NO. 3975/87, COM(2000) 582 final.

10 Mario Monti, *European competition for the 21st century, in* Annual Proceedings on the Twenty-Seventh Annual Fordham Corporate Law Institute on International Antitrust Law & Policy on October 19 and 20, 2000 (2001).

However, it was not until over two years later that the Modernization Regulation[11]—Regulation 1/2003—was formally adopted by the Council of the European Union on December 16, 2002, to come into force on May 1, 2004, the same day as enlargement of the European Union from 15 to 25 Member States. Much of this time was taken up with negotiating the details of the regulation with Member States and with preparing the other parts of the Modernization Package.

But has modernization been "finalised" under Commissioner Monti?

In October 2003, the Commission published six draft notices dealing with the implementation of Regulation 1/2003 and a draft Commission regulation relating to proceedings pursuant to Articles 81 and 82 and invited public comments (Member States had already commented on earlier drafts). Subsequently, the Commission published over fifty sets of comments from business, lawyers, and others on these drafts.[12]

The Commission adopted the final versions of the notices and the procedural regulation[13] on March 30, 2004, and they became enforceable on May 1, 2004. The headline on the press release was "Commission finalises modernisation of the EU antitrust enforcement rules."

But has modernization been "finalised" under Commissioner Monti?

C. FURTHER REFORMS WILL BE NECESSARY

Modernization ensures that when national authorities within the European Union apply national competition law to cases that may affect trade between Member States, they must also apply EC law, and national law may not lead to a different outcome from EC law in Article 81 cases. However, while the same substantive law will be applied in this way in all Member States, the procedures and sanctions remain national ones. Further modernization reforms covering procedures and sanctions will be required. Another area where further reforms are

11 Council Regulation 1/2003 on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty, 2003 O.J. (L 1) 1.

12 *Contributions received in response to the public consultation on the Modernization Package, at* http://europa.eu.int/comm/competition/antitrust/legislation/procedural_rules/comments/.

13 Commission Regulation 773/04/EC Relating to the Conduct of Proceedings by the Commission Pursuant to Articles 81 and 82 of the EC Treaty, 2004 O.J. (L 123) 18; Commission Notice on Cooperation Within the Network of Competition Authorities, 2004 O.J. (C 101) 43; Commission Notice on the Cooperation between the Commission and the Courts of the EU Member States in the Application of Articles 81 and 82, 2004 O.J. (C 101) 54; Commission Notice on the Handling of Complaints by the Commission under Articles 81 and 82, 2004 O.J. (C 101) 65; Commission Notice on Informal Guidance Relating to Novel Questions Concerning Articles 81 and 82 of the EC Treaty that Arise in Individual Cases (Guidance Letters), 2004 O.J. (C 101) 78; Commission Notice on Guidelines on the Effect on Trade Concept Contained in Articles 81 and 82 of the Treaty, 2004 O.J. (C 101) 81; Commission Notice on Guidelines on the Application of Article 81(3) of the Treaty, 2004 O.J. (C 101) 97.

expected is in the role of national courts. Commissioner Monti is clear that a significant increase in their role in enforcing EC competition law would bring real benefits. Hence, the Commission is currently studying private enforcement in some depth. Proposals for enhancement are likely to follow, as Commissioner Monti indicated in his recent speech at Fiesole.[14] This will be one of the important reform challenges for the new Commissioner.

Should some, at least, of these wider changes have been introduced as part of the Modernization Package? Did Commissioner Monti aim for a sufficiently ambitious first change? Could he have been even more radical? Such questions are, of course, much easier to ask with the benefit of hindsight and with the initial package successfully in place. Or was the package skilfully planned by Commissioner Monti just about as ambitious as was realistically possible? Given the challenges involved in securing support for the first reform, there would have been a real risk that either the necessary agreement could not have been achieved for a more aggressive package or it would not have been implemented in time for enlargement of the European Union. There is another reason for undertaking a major reform in stages in that this gives some opportunity for fine-tuning. Experience in the first few years with Regulation 1/2003 will help to identify what changes in national procedures—and in relation to national courts—are necessary for the most effective European competition regime jointly enforced by the Commission and the national competition authorities. Sanctions may be a more challenging area, particularly given the different views in Member States, currently, as to whether criminal or civil sanctions should be used to deter cartels.

However, there is one area where there may have been a missed opportunity. Leniency programs in Europe are currently a ragged patchwork of some national programs, plus the Commission program. In places, this ragged patchwork is decidedly threadbare. In addition, there is no formal connection between these separate programs. Arguably, this problem could have been resolved as part of the Modernization Package. This problem is discussed further in the section on cartels.

D. CONCLUSION

Commissioner Monti leaves a deeply impressive legacy in modernization, together with a challenging agenda for his successor. If the new Commissioner takes up this challenge as effectively as Commissioner Monti did, with his inheritance from his predecessor Karel Van Miert, consumers and business will benefit greatly.

14 Mario Monti, Private Litigation as a Key Complement to Public Enforcement of Competition Rules and the First Conclusions on the Implementation of the New Merger Regulation, Address at the International Bar Association's 8th Annual Competition Conference (Sep. 17, 2004).

III. A More Economics-Based Analysis for Article 81 Cases

A. A KEY OBJECTIVE

Between 1985 and 1994 Commissioner Monti was Professor of Economics and Director of the Institute of Economics at Bocconi University, Milan. As a distinguished economist, he was able to appreciate the importance of strengthening the economic basis of the Commission's work. Indeed, this was one of his main objectives when he was appointed EC Competition Commissioner, as he reflected in a speech in Washington, DC, in November 2001:

> "One of my main objectives upon taking office two years ago has been to increase the emphasis on sound economics in the application of the EC antitrust rules, in particular to those concerning different types of agreements between companies, a trend that had already been started by my predecessor, Karel Van Miert. The present Commission has devoted a lot of effort to this aim and, in the last two years, we have adopted new legal frameworks for the application of competition rules both to distribution agreements and to co-operation agreements between competitors."[15]

As shown in Table 1, new legal frameworks were adopted for vertical restraints, agreements of minor importance, horizontal cooperation agreements, technology transfer, and the insurance and automobile sectors. In addition, there was new guidance on the application of Article 81(3). All of these enhancements reflected Commissioner Monti's objective to shift from a more formalistic approach to one based on economic principles. These reforms have generally led to greater convergence with U.S. law and practice with its stronger economic foundation.

B. NEW CHIEF ECONOMIST

The increasing focus on economic analysis has been reinforced by the creation of the new position of Chief Economist. When Professor Lars-Hendrik Röller's appointment was announced in July 2003, Commissioner Monti said, "The appointment of a Chief Economist forms an integral part of my commitment to

15 Mario Monti, Antitrust in the U.S. and Europe: A History of Convergence, Address before the American Bar Association (Nov. 14, 2001).

strengthen further the economic underpinnings of our competition analysis."[16] Röller is assisted by a team of approximately ten specialized economists. His appointment was warmly welcomed, but expectations of his impact are high.

C. VERTICAL RESTRAINTS

The more economics-and-effects-based approach was first reflected in the new policy on vertical restraints. The Commission's May 24, 2000, press release, which announced the approval of the Guidelines on Vertical Restraints,[17] stated that the "Guidelines and Block Exemption Regulation together form the basis for a more economic and less regulatory competition policy towards 'vertical agreements.'" The new block exemption[18] mainly concerned industrial supply agreements, exclusive and selective distribution agreements, franchising agreements, and single branding agreements. Thus, the reform covered a key area of competition policy. In order to concentrate on those vertical agreements that pose a real threat to competition, the Commission recognized the need to analyze market structure and to assess the economic impact of agreements. Market power was central to this assessment. In relation to vertical distribution agreements, this meant that, unless parties engaged in defined hardcore restrictions such as price-fixing or market sharing, the Commission would have no concerns about distribution agreements between companies with a market share of less than 30 percent.

In order to concentrate on those vertical agreements that pose a real threat to competition, the Commission recognized the need to analyze market structure and to assess the economic impact of agreements.

D. HORIZONTAL COOPERATION AGREEMENTS

A similar economic approach was introduced for horizontal cooperation agreements in the November 2000 new block exemption regulations on research and development and specialization agreements, and the guidelines on the applicability of Article 81 to horizontal cooperation agreements.[19] This was the first of the economic regulations that came fully within Commissioner Monti's man-

16 Press Release IP/03/1027, European Commission, Commission appoints Chief Competition Economist (Jul. 16, 2003), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/03/1027.

17 Commission Notice on Guidelines on Vertical Restraints, 2000 O.J. (C 291) 1.

18 Commission Regulation 2790/99/EC on the Application of Article 81(3) of the Treaty to Categories of Vertical Agreements and Concerted Practices, 1999 O.J. (L 336) 21.

19 Commission Regulation 2658/00/EC on the Application of Article 81(3) of the Treaty to Categories of Specialisation Agreements, 2000 O.J. (L 304) 3; Commission Regulation 2659/00/EC on the Application of Article 81(3) of the Treaty to Categories of Research and Development Agreements, 2000 O.J. (L 304) 7; Commission Notice on Guidelines on the Applicability of Article 81 to Horizontal Cooperation Agreements, 2001 O.J. (C 3) 2.

date. Commissioner Monti recognized that agreements between competitors to produce a specific component or conduct joint research have an increasingly important role to play in helping companies respond to changes in the marketplace. Thus, the aim of his reform was to minimize regulatory burden and to focus Commission resources on cases where companies have market power that they can use to harm competition.

The new block exemptions replaced the previous system of specifically exempted white-list clauses with a general exemption of all conditions under which undertakings pursue research and development and specialization agreements. The move away from the former clause-based approach gives greater contractual freedom to the parties of such agreements and removes the straight-jacket imposed by the former regulations.[20] As with the other new economics-based regulations, there are market share thresholds that must be satisfied to benefit from the block exemption: 20 percent for all the parties combined for specialization agreements and 25 percent for research and development agreements. In common with other regulations, agreements need to be assessed individually beyond the thresholds. They are not automatically prohibited under Article 81(1). "Hard-core" restrictions—such as price-fixing, output limitation, or allocation of markets or customers—generally remain prohibited, irrespective of the parties' market power.

The guidelines complemented the new regulations. Additionally, these guidelines are applicable to research and development and production agreements not covered by the block exemptions, as well as to certain other types of competitor collaboration such as joint purchasing or joint commercialization. The guidelines set out a common analytical framework for assessing horizontal cooperation agreements.

E. DE MINIMIS NOTICE

The first new economic notice issued under Commissioner Monti was that on agreements of minor importance (de minimis Notice).[21] It was adopted in January 2001 and had four key features. The de minimis thresholds (above which the Notice does not apply) were raised to 10 percent market share for agreements between competitors and 15 percent for agreements between non-competitors, compared with the previous 5 percent and 10 percent respectively. The Notice introduced a new de minimis threshold of 5 percent for markets where networks of agreements can produce a cumulative anticompetitive effect. The previous Notice excluded markets where "competition is restricted by the cumulative effects of parallel networks of similar agreements established by several manufac-

20 This approach followed that in the vertical restraints block exemption which was developed during former EC Competition Commissioner Karel Van Miert's mandate.

21 Commission Notice on Agreements of Minor Importance, 2001 O.J. (C 368) 13.

turers or dealers." The new Notice contained the same list of hard-core restrictions as in the new vertical and horizontal block exemption regulations. It also stated that agreements between small and medium-sized enterprises are rarely capable of appreciably affecting trade between Member States and, hence, would generally fall outside the scope of Article 81(1).

F. TECHNOLOGY TRANSFER AGREEMENTS

The relationship between the policies on intellectual property rights and competition is, arguably, the most challenging policy area in Article 81—as it is in other developed competition regimes. (In 2003, the U.S. federal competition agencies held hearings on "Competition and Intellectual Property Law and Policy in the Knowledge-based Economy.") It was the same question of balance that underlay the Commission's economic approach to the new block exemption regulation and guidelines for technology transfer.[22] As Commissioner Monti said in a speech early last year on technology transfer agreements:

> "In many cases having an IPR will not automatically imply having market power as sufficient competing technologies may exist. Licensing, also when it contains competition restrictions on licensee or licensor, will therefore mostly be pro-competitive as it allows the integration of complementary assets, allows for more rapid entry, helps disseminating the technology and to provide a reward for what was usually a risky investment. However, licensing agreements may also sometimes be used to restrict competition, in particular in those cases where one or the other party enjoys market power. It is therefore important in such cases to protect competition."[23]

The Commission review process had started in December 2001 when it adopted a mid-term review report on the application of the Technology Transfer Block Exemption. Most of 2002 was spent consulting stakeholders on the review report. Drafts of a new block exemption and guidelines received a positive response from most Member States when the drafts were discussed with them in September 2002. Extensive comments were made during public consultations,

22 Commission Regulation 772/04/EC on the Application of Article 81(3) of the Treaty to Categories of Technology Transfer Agreements, 2004 O.J. (L 123) 11; Commission Notice on Guidelines on the Application of Article 81 to Technology Transfer Agreements, 2004 O.J. (C 101) 2.

23 Mario Monti, The New EU Policy on Technology Transfer Agreements, Address at Ecole des Mines (Jan. 16, 2004).

which commenced the following month. There was a general welcome for the more economic and flexible approach but critical comments on a number of important aspects of the proposals. Changes adopted by the Commission went a considerable way towards meeting these criticisms, but not those about the use and level of the market share thresholds. However, some would say that this was the main point of criticism.

The new regulation differs significantly from its predecessor, under which exemption depended on whether the agreement contained certain terms, and applied, for the most part, irrespective of the parties' competitive relationship, their market shares, and the agreement's actual market effect. As with the other economics-based block exemptions, there are market share thresholds above which the regulation does not apply: 20 percent of the affected relevant technology and product market for the combined shares of parties that are competitors and 30 percent each for agreements between non-competitors. The 20 percent threshold is in line with that in the U.S. guidelines for the licensing of intellectual property. The previous EC block exemption divided clauses in agreements into four categories: exempt, white, black, and grey clauses. The list of clauses was long and detailed. The new block exemption has three categories: exempt, hard-core, and excluded. The treatment of competitors is more stringent than for non-competitors. Hence, the list of hard-core and excluded restrictions is different for competitors to those for non-competitors.

While business and lawyers welcomed the greater flexibility of the new block exemption, there were real concerns about the difficulty of applying market share thresholds. This is particularly challenging where markets involve fast-moving technology. In cutting-edge technology, market shares may change rapidly, possibly requiring regular reassessments to confirm whether an agreement still satisfies the relevant threshold. In general, however, no better way of determining market power has so far been developed that does not involve an assessment of market share, together with entry conditions and other relevant factors such as buyer power.

G. THE NOTICE ON THE APPLICATION OF ARTICLE 81(3)

Within the Modernization Package, the Notice on the application of Article 81(3)[24] well reflects Commissioner Monti's objective of a more economic approach with narrower, more clearly focused circumstances in which Article 81(1) applies. It also has a correspondingly narrower approach to those instances when agreements can benefit from the Article 81(3) conditions. In terms of the basic principles for assessing agreements under Article 81(1), the central importance of market power is clear, as reflected in paragraph 25:

24 Commission Notice on Guidelines of the Application of Article 81(3) of the Treaty, *supra* note 13.

"Negative effects on competition within the relevant market are likely to occur when the parties individually or jointly have or obtain some degree of market power and the agreement contributes to the creation, maintenance or strengthening of that market power or allows the parties to exploit such market power. Market power is the ability to maintain prices above competitive levels for a significant period of time or to maintain output in terms of product quantities, product quality and variety or innovation below competitive levels for a significant period of time. In markets with high fixed costs undertakings must price significantly above their marginal costs of production in order to ensure a competitive return on their investment. The fact that undertakings price above their marginal costs is therefore not in itself a sign that competition in the market is not functioning well and that undertakings have market power that allows them to price above the competitive level. It is when competitive constraints are insufficient to maintain prices and output at competitive levels that undertakings have market power within the meaning of Article 81(1)."[25]

H. WHERE NEXT?

These important developments, together with a much more vigorous anti-cartel policy, have created "a European policy approach towards agreements between firms that is more economics-based in terms of its priorities, processes and substantive case analysis."[26] Now that Commissioner Monti's main objective of establishing a sound economic basis has been impressively achieved for Article 81, it needs to be extended to Article 82 of the EC Treaty (Article 82). But that is a matter for another paper—and for the new Commissioner. An equally important responsibility for the new Commissioner will be to ensure that the Commission and all the national authorities and courts use this new economic basis in their Article 81 analyses.

25 Commission Notice on Guidelines of the Application of Article 81(3) of the Treaty, *supra* note 13.

26 Chairman John Vickers of the Office of Fair Trading, Address to the 31st Conference of the European Association for Research in Industrial Economics (Sep. 3, 2004), *available at* http://www.oft.gov.uk/News/Speeches+and+articles/2004/spe03-04.htm.

IV. The Fight Against Cartels

A. DRAMATIC INCREASE IN CARTEL DECISIONS AND FINES

In the four years from 2000 to 2003[27] the Commission took 26 cartel decisions with fines totalling EUR 3,330 million, compared with 8 decisions (EUR 552 million) in the previous four years, 1996 to 1999, and 11 decisions (EUR 393 million) from 1992 to 1995, as shown in Table 2.[28]

Table 2

Total (rounded) cartel fines and decisions over four year periods

Four year periods	Cartel fines, €m	No. of cartel decisions
1988-91	60	4
1992-95	393	11
1996-99	552	8
2000-03	3330	26

Source: *See* Guersent, *infra* note 31; European Commission, *Antitrust Cases*, *available at* http://europa.eu.int/comm/competition/antitrust/cases/.

Is this approximately sevenfold increase in decisions and fines between the four-year periods of 1996-1999 and 2000-2003 due to the strong emphasis that Commissioner Monti has given to cartel work? Yes, to a significant degree in that he developed and strengthened the changes made by his predecessor. While (as would be expected) the annual statistics do not show quite such consistent growth, the overall scale of increase is clear, as can be seen in Table 3.

27 2004 has not been included in this comparison as in recent years cartel decisions have generally been issued late in the calendar year.

28 While the cartel decisions are normally appealed to the EC courts, they have generally been substantially upheld by the courts, in some cases with some reduction in fines.

Table 3

Total (rounded) cartel fines and decisions per year

Year	Cartel fines, €m	No. of cartel decisions
1986	76	3
1987	-	-
1988	51	2
1989	8	1
1990	1	1
1991	-	-
1992	45	4
1993	-	-
1994	336	6
1995	12	1
1996	1	1
1997	-	-
1998	445	5
1999	106	2
2000	136	2
2001	1,839	10
2002	950	9
2003	405	5
2004*	245	4

* As of October 31, 2004

Source: *See* Guersent, *infra* note 31; European Commission, *Antitrust Cases*, *available at* http://europa.eu.int/comm/competition/antitrust/cases/.

Part of the growth in fines is due to the implementation of the 1998 guidelines on fines that led to a considerable increase in the level of fines imposed by the Commission. But the growth also reflects the Commission's policy to increase deterrence, as Commissioner Monti explained in a 2002 speech in Brussels:

"[The high cartel fines in 2001] show that the Commission has a policy of stepping up its activity against cartels, and at the same time increasing the level of fines in order to achieve a genuine dissuasive effect on firms. The purpose of substantial fines of this kind is to ensure that firms have an incentive to avoid joining any kind of unlawful agreement or concerted practice."[29]

In his first speech as EC Commissioner for competition policy, Commissioner Monti was clear that the fight against cartels was a priority for him. During this speech, he said, "The formation of cartels is indeed one of the most damaging practices for the consumer...[high fines are] a clear indication of the Commission's determination in fighting vigorously these anti-competitive practices."[30]

B. WHAT CAUSED THE INCREASE?

What factors caused this very substantial growth in cartel decisions? There were three—all initiated by Commissioner Karel Van Miert, but very much built on by Commissioner Monti—modernization, the Leniency Program, and the creation of a cartel unit.[31] These three factors are important, but a competition authority cannot deliver such impressive results without the best leadership at the top. Thus, Commissioner Monti's clear leadership and strong support for the fight against cartels were critical to the success of the cartel work during his mandate.

1. Modernization

As discussed above, Commissioner Monti's role was central to the successful implementation of modernization reform. A key aim of the reform was to enable the Commission to focus on seriously damaging anticompetitive behavior, such as that of cartels, instead of spending its time processing notifications of largely benign agreements. This new approach started to influence the priorities of the Commission while modernization was being developed, and greater benefits should be seen over coming years.

2. Leniency Notice

The second key measure was the adoption, in 1996, of the Leniency Notice and the implementation of the Leniency Program since then. This has been the most significant in terms of actual impact so far. For the first time, the Commission introduced the granting of immunity and/or reduction of fines into its investiga-

29 Mario Monti, The Fight Against Cartels, Remarks to the Economic and Monetary Affairs Committee (Sep. 11, 2002).

30 Mario Monti, Strengthening the European Economy through Competition Policy, Address to the Institute for International Monetary Affairs (Oct. 29, 1999).

31 Olivier Guersent, *The fight against secret horizontal agreement in the EC Competition Policy, in* Annual Proceedings on the Thirtieth Annual Fordham Corporate Law Institute on International Antitrust Law & Policy on October 23 and 24, 2003 (2004).

tive tools. The 1996 Notice was a considerable success. As of October 31, 2004, the Commission had taken 28 formal decisions in cartel cases in which companies cooperated under the 1996 Notice, as shown in Table 4. Almost all of these decisions occurred during Commissioner Monti's mandate.

Table 4

Impact of the 1996 Leniency Notice

Year	No. of cartel decisions where one or more undertaking received leniency
1998	4
1999	1
2000	1
2001	8
2002	8
2003	4
2004*	2

*As of October 31, 2004

Source: *See* Guersent, *supra* note 31; European Commission, *Antitrust Cases*, *available at* http://europa.eu.int/comm/competition/antitrust/cases/.

However, lawyers and some competition authorities raised concerns over the lack of certainty and transparency of the 1996 policy. It also appeared to be difficult for a leniency applicant to obtain complete immunity (i.e. no fine at all)—in marked contrast to the very successful program run by the U.S. Department of Justice (DOJ). Immunity was granted in less than half of the 28 EC decisions and in none of these before 2001. Since then, immunity has been granted in an increasing proportion of leniency cases, reaching 75 percent of the cartel decisions in 2003 where leniency was granted. In the first ten months of 2004, immunity was granted in both of the two cartel decisions that involved leniency. It was Commissioner Monti who introduced a revised Leniency Notice in 2002[32] that increased the rewards for a successful applicant and strengthened the certainty and transparency of the program. The Commission drew on its experience with

32 Commission Notice on Immunity from Fines and Reduction of Fines in Cartel Cases, 2002 O.J. (C 45) 3.

its earlier program and, in particular, on that of the DOJ in order to develop its new Notice. Commissioner Monti explained the need for the revised policy in his 2002 speech on the Commission's fight against cartels:

> "Experience showed that the [1996] scheme could be improved in a number of respects. The main changes as compared with the previous arrangements are that firms that cooperate after the investigation begins can now still qualify for full immunity, and that the Commission will indicate rapidly and in writing whether or not the firm can expect to secure full immunity on the basis of its contribution to the Commission's enquiries. Under the new scheme, therefore, it is easier to secure full immunity, and the applicant enjoys greater legal security.
>
> This new tool is very promising. Since 14 February last, when the new Notice was published in the *Official Journal*, some 10 fresh requests for total immunity have been submitted to the Commission. That this should have happened in a mere five months is quite unprecedented."[33]

3. The Cartel Unit

A dedicated cartel unit, central to the overall process of enhancing the Commission's efficiency in its fight against cartels, was created in 1998. This new unit, which started with 11 case handlers, brought together in one place the existing Commission skills in investigating cartels. With Commissioner Monti's emphasis on fighting cartels, the unit grew every year from 2000 onwards, and the number of officials engaged solely in the investigation of cartel cases doubled in the three years to 2002. Towards the end of that year a second cartel unit was created, representing a substantial increase in resources. In addition, an improved management model, mandatory timetables, and effective computer support systems were introduced in 2002. Case teams were reorganized so that two case handlers were in charge of only one case at a time. As a result, the time taken for a cartel investigation was reduced to less than three years. The success of the new approach—with its skills and expertise in investigation—is now being spread more widely in the Competition Directorate through decentralizing the cartel units. But the Commission will need to ensure that decentralization does not dilute the focus on cartel investigations.

33 Monti, The Fight Against Cartels, *supra* note 29.

C. COULD EVEN MORE HAVE BEEN ACHIEVED?

The great success of cartel investigations under Commissioner Monti is clear from the statistics. But would it have been possible to achieve even more? Or would it have been impossible—even with the power of hindsight? Two issues are particularly pertinent:

- Should the modernization reforms have extended to national leniency programs?
- What about criminal sanctions for hard-core cartels?

1. Should the Modernization Reforms Have Extended to National Leniency Programs?

Some have commented—forcefully at times—that the current arrangements for handling the Commission and national leniency programs under modernization are likely to deter leniency applicants. Are these concerns valid? What changes should be made to strengthen the effectiveness of leniency under modernization by improving predictability and certainty for applicants?

> IF LENIENCY APPLICATIONS ARE DISCOURAGED BY UNCERTAINTY UNDER THE NEW MODERNIZATION REGIME, URGENT ACTION WILL BE REQUIRED BY THE NEW COMMISSIONER.

The main concerns stem from the fact that those Member States with a leniency program operate it separately from each other's and from the Commission's. Hence, the grant of immunity under one national program has no effect under other national programs or the Commission program, even though the same cartel is concerned. Only the Commission can grant leniency that applies throughout the European Union—and that leniency is not relevant if Member States, rather than the Commission, subsequently investigate the cartel case. Whether leniency can be obtained depends on which authority or authorities take the case, whether they each have a leniency program, and whether the applicant is first to apply to all of those investigating the case. It could be argued that modernization has not, in fact, changed the Commission's position in relation to national leniency programs. However, there is an expectation that the new European Competition Network (ECN), a joint effort of the Commission and Member States,[34] should deliver more collaborative arrangements in relation to leniency, as it will do for other aspects of investigations. This is particularly so in a system where cases and information can be passed (with safeguards) within the ECN.

While eight of the 25 Member States of the enlarged European Union do not currently have leniency programs,[35] more programs are being introduced. The

34 Commission Notice on Cooperation within the Network of Competition Authorities, 2004 O.J. (C 101) 43.

35 European Commission, *Authorities in EU Member States which operate a leniency program, at* http://europa.eu.int/comm/competition/antitrust/legislation/authorities_with_leniency_programme.pdf.

current leniency programs operated by national competition authorities differ to some extent. It is clearly desirable that all programs—existing and new ones—be as similar as possible. That the programs be similar is particularly important in terms of the conditions to be satisfied, and is also desirable for the degree of leniency granted. It would have been desirable if Regulation 1/2003 had also provided a legal basis for leniency programs for Member States. Although most leniency programs are based on administrative practice rather than on formal legal powers, such a power in the regulation would have provided useful backing for Member States seeking to introduce programs—particularly those facing objections to such programs. Better still would have been a provision in the regulation for a single, comprehensive EU program operated jointly by all ECN members, including the Commission. However, that would almost certainly have been too big a step to take at the same time as the other modernization changes given the number of Member States without a leniency program then, and especially when the modernization reform was first launched.

If, in fact, leniency applications are discouraged by uncertainty under the new modernization regime, urgent action will be required by the new Commissioner.

2. What about Criminal Sanctions for Hard-Core Cartels?

At this point, only a few European countries have criminal sanctions (including custodial sentences) for cartel behavior; these countries include Austria, Estonia, France, Germany, Ireland, Norway, and the United Kingdom. Even in this group of countries, cartels have generally been pursued by competition authorities using civil powers. Outside Europe, at least ten other countries have criminal sanctions. Only the United States and Canada have imprisoned individuals for cartel conduct in recent years.[36]

Experience in the United States is that a criminal regime is a powerful deterrent to cartels and an equally powerful incentive to apply for leniency. In a lecture at King's College London in February 2004, then-Deputy Assistant Attorney General James Griffin of the U.S. Department of Justice Antitrust Division illustrated this point with two anecdotes:

> "Senior Executive: 'As long as you are only talking about money, the company can take care of me—but once you begin talking about taking away my liberty, there is nothing the company can do for me'"

and,

36 Mark Jephcott & Thomas Lübbig, Law of Cartels (2003), at 333.

> "In 25 years of prosecuting individuals engaged in cartels, I have never had one lawyer for an executive I was prosecuting tell me that his client would spend a few extra days in jail for a reduction in the recommended fine."

The UK government is similarly convinced that fines alone are not a sufficient deterrent to cartel activity. Hence, the Enterprise Act 2002—which came into force in June 2003—introduced criminal sanctions for hard-core cartels. The government outlined reasons for these powers in a report in 2001:

> "For most forms of anti-competitive behaviour, large fines against companies act as an effective deterrent. But for cartels there is good evidence that the current level of fines is not enough [because they need to be set at a level which is greater than the expected gains from participating in a cartel and taking into account the probability of being caught].
>
> One option would be to increase the maximum level of fines significantly—perhaps six to ten times the existing maximum fines [of 30 per cent of UK turnover]. The Government does not believe that fines at this level would be proportionate....
>
> The Government's recent peer review of competition policy asked competition experts for their views on the increased deterrence of criminal penalties. In the UK, 83% of those questioned believed that the introduction of criminal penalties against individuals who engage in cartels would improve our regime."[37]

A similar conclusion was reached by Wouter Wils, of the European Commission Legal Service, for similar reasons. In a paper[38] in which he expressed his views—not the official views of the Commission—Wils considered whether effective enforcement of Articles 81 and 82 requires not only fines on undertakings but also individual penalties, in particular imprisonment. He wrote, "The

37 DEPARTMENT OF TRADE AND INDUSTRY, A WORLD CLASS COMPETITION REGIME, Cm 5233 (Jul. 2001).

38 Wouter Wils, *Does the effective enforcement of Articles 81 and 82 EC require not only fines on undertakings but also individual penalties, in particular imprisonment?, in* EUROPEAN COMPETITION LAW ANNUAL 2001: EFFECTIVE PRIVATE ENFORCEMENT OF EC ANTITRUST LAW 411-452 (C.-D. Ehlermann ed., Hart Publishing 2003).

introduction of prison sanctions for the individuals responsible for their undertakings' antitrust violations would appear to be the only way generally to achieve effective deterrence of price cartels and other antitrust violations of comparable profitability and ease of concealment."

Another factor that illustrates the effect of criminal powers is the extent to which international cartels are first uncovered through amnesty applications to the DOJ. In these cases, it is the threat of criminal sanctions that drives executives to go first to the DOJ—and only later to the European Commission and other relevant authorities. Without the U.S. criminal sanctions and active enforcement record, how many of these cases would be revealed by leniency applications to the European Commission? It is, of course, impossible to answer this question, but I suspect the answer might well be few.

If criminal sanctions do provide far more effective deterrence, why has Commissioner Monti apparently not considered introducing such sanctions as part of the fight against cartels? Should such powers be considered now? One obvious answer is the fact that only six out of 25 Member States have such powers in their national law and these have not yet been used on their own for any custodial sentences. Also, the European Commission does not currently have criminal powers in any area. At this time, it seems unlikely that there would be the necessary support within the European Union for such a change. But if the United Kingdom or another Member State demonstrates effective use of its powers and increases deterrence significantly as a result, the Commission should consider criminal powers seriously.

V. Independence from Political and Business Lobbying

The EC Commissioner responsible for competition policy is one of the most powerful Commissioners because of the significance of the decisions on cases and policy. While decisions on major cases are taken by the College of Commissioners, it is the EC Competition Commissioner's view that is crucial. In addition, the Commissioner has considerable individual decision-making power, even if he or she chooses to liaise regularly with his or her colleagues. Unsurprisingly, therefore, there is much potential pressure from lobbying by national governments and business. Independence from lobbying does not, of course, mean that the Commissioner should not hear views. Such meetings may be essential to learn firsthand about issues; they can also be important to the diplomatic handling of decisions within a clear competition framework.

Having operated in a strictly professional manner, Commissioner Monti is very clearly regarded as having maintained scrupulous independence from lobbying throughout his mandate. For example, he was not swayed by the lobbying of a U.S. President regarding the *General Electric/Honeywell* merger or, apparently, by the French President regarding the *Schneider/Legrand* merger. It is this independence that has commanded considerable respect from national competition authorities, lawyers, and business. This level of respect is critical to the standing of the EC Competition Commissioner, whether the cases and/or policy at issue concern Article 81, Article 82, mergers, or state aid.

Commissioner Monti also maintained a very dignified approach in the face of heavy—and, arguably, one-sided—press criticism of some decisions, none of which concerned Article 81. His measured handling of these situations has endowed the role of the EC Competition Commissioner with much dignity. His successor takes over a very powerful, but highly-respected, position. The new Commissioner will do well to pass it on in at least as good shape.

VI. Conclusion

Has Commissioner Monti achieved his objective of focusing the Commission on the right priorities in order to deliver more effective enforcement? Yes. There are, however, plenty of challenges for his successor, not least to maintain the impetus of his reforms. Commissioner Monti leaves a truly great legacy in Article 81 policy.

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Mario Monti's Legacy for Competition Policy in Article 82

Claus-Dieter Ehlermann and John Ratliff

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Mario Monti's Legacy for Competition Policy in Article 82

Claus-Dieter Ehlermann and John Ratliff

Commissioner Mario Monti's impact on Article 82 of the EC Treaty during his period as EC Competition Commissioner has not been as revolutionary as his impact on other areas of EC competition law. Nonetheless, the European Commission has done serious work on Article 82 cases, notably taking several important decisions: *Microsoft* in the area of refusal to supply and tying and *Michelin II* on rebates. The European Court of Justice (ECJ) and the Court of First Instance (CFI) have also made important contributions to the law on Article 82 with their judgments in *IMS Health* and in appeals from these rebates cases. On a legislative front, Commissioner Monti has brought the Commission's modernization program through to adoption of a new enforcement system in May 2004, with significant re-emphasis of Commission activity on cases with market power, interesting initiatives to allow dominant companies to benefit from Article 81(3) and a general review of Article 82 enforcement.

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I. Introduction

When thinking of the term of office of Commissioner Mario Monti, who succeeded Karel Van Miert as EC Competition Commissioner in November 1999, one does not immediately think of his impact on Article 82 of the EC Treaty (Article 82). It is true that the European Commission's decision against Microsoft[1] stands out as an excellent example of strong enforcement—two words that sum up Commissioner Monti's term. However, unlike the modernization of the implementation of Article 81 of the EC Treaty (Article 81), or the revised EC Merger Regulation, there has not been any revolutionary change in the application of Article 82 during Commissioner Monti's tenure. Nonetheless, there have been interesting developments, as explained later in this paper, including renewed focus on cases involving market power. A review of Article 82 has also now started, which may lead to some modernization in this area of competition policy.

Before outlining developments in Article 82 during Commissioner Monti's term, it is worth considering the Article 82 legacy that he inherited. Two features stand out. First, in perhaps the most important Article 82 case decided by the European Court of Justice (ECJ) during Commissioner Van Miert's tenure, *Oscar Bronner*,[2] the ECJ, following the opinion of Advocate General Francis Jacobs, took a narrow view of the doctrine of essential facilities, rolling back what was up to then an apparently expansive doctrine. Second, the Commission inherited an analytical framework in which certain practices were considered abusive in the hands of the dominant, because of their likely effects. Thus, certain types of progressive rebates were considered abusive, even though non-dominant companies could offer them and, to that extent, they appear to be normal competition. This comes from old ECJ and Court of First Instance (CFI) judgments such as *Hoffmann La Roche*[3] and *Michelin I*.[4] Such law is controversial, limiting as it does the ability of dominant firms to compete, other than through clearly proven,

1 Commission Decision COMP/C-3/37.792, Microsoft (Mar. 24, 2004, not yet reported) [hereinafter *Microsoft*].

2 Case C-7/97, Oscar Bronner GmbH & Co. KG v. Mediaprint, 1998 E.C.R. I-7791 (holding that a facility would only be deemed essential where denial of access thereto would be likely to eliminate all competition on the relevant market and where access was indispensable or, at the very least, it would not be economically viable for a company operating at the same scale as the dominant entity to create a second such facility).

3 Case 85/76, Hoffmann La Roche v. Commission, 1979 E.C.R. 461.

4 Case 322/81, NV Nederlandsche Banden Industries Michelin v. Commission, 1983 E.C.R. 3461. *See also*, Case T-65/89, BPB Industries plc and British Gypsum v. Commission, 1993 E.C.R. II-389 and Case T-228/97, Irish Sugar v. Commission, 1999 E.C.R. II-2969. For a recent exposition on the development of the EC law on rebates offered by dominant firms, see Luc Gyselen, *Rebates: Competition on the Merits or Exclusionary Practice?*, *available at* http://www.iue.it/RSCAS/Research/Competition/2003/200306COMP-Gyselen-sII.pdf. The author was at the time an official at the Commission's Competition Directorate-General.

performance- based efficiencies. Rules like this have been one of the reasons why there have been recent calls for modernization of Article 82.

Many of the decisions taken by the Commission over the last five years reflect this inheritance. The question now is whether, with the announcement of a review of the application of Article 82, the Commission may see practical ways to modernize Article 82, consistent with such a background.

This paper begins with two long sections: a consideration of the *Microsoft* decision as it pertains to refusal to supply and tying (Section II) and then an analysis of developments on pricing issues (Section III). We then include three shorter sections, one on the ongoing use of Article 82 in liberalizing industries that were, until recently, state-controlled (Section IV), another on significant normative developments over the last five years (Section V), and then a conclusion setting out some ideas that we believe should guide the Commission when it sets out to modernize the application of Article 82 (Section VI). It will be shown that Commissioner Monti's successor, Neelie Kroes, will start with a rich inheritance of issues on which to work.

II. Microsoft

The Commission's decision against Microsoft, a very detailed text of some 300 pages, was adopted in April 2004. The case, wherein the Commission imposed a huge fine of EUR 497.2 million, concerned two distinct abuses: a refusal to supply and tying. We deal with these issues in turn and, when considering refusal to supply, we will also discuss the ECJ's recent judgment in *IMS Health*,[5] since there is an interesting common theme—when should a dominant company be obliged to license its intellectual property? The Commission also required controversial unbundling and opening up of secondary markets by obliging Microsoft to reveal interface material considered key to competition on those markets. Microsoft has already appealed.[6]

A. REFUSAL TO SUPPLY

The most controversial part of the *Microsoft* decision relates to the Commission's finding that, by refusing to make interoperability information for certain "work group server operating systems" available, Microsoft had abused its dominant

5 Case C-418/01, IMS Health v. NDC Health (Apr. 29, 2004, not yet reported) [hereinafter *IMS Health*].

6 This procedure will take a number of years. Microsoft applied for an interim suspension of the remedies proposed in the Commission's decision. However, the President of the CFI, in an order issued on Dec. 22, 2004, refused to grant this suspension. The President found that while Microsoft had established a prima facie case as to the illegality of the Commission's decision, it had not adduced sufficient evidence to show that implementation of the remedies might cause it serious and irreparable damage.

position.[7] The decision obliges Microsoft to make this information available on a non-discriminatory basis.

The Commission reasoned that Microsoft had a dominant position on the market for PC operating systems, a fact that was not in dispute. The Commission went further, however, and stated that Microsoft was not only dominant but also "the de facto standard operating system product for client PCs."[8] Microsoft also had a growing share of the market for work group server operating systems, and the Commission considered that the company was already dominant in this market.

Following the ECJ judgment in *Tetra Pak II*,[9] the Commission highlighted the close links between the PC operating systems market and the work group server operating systems market, due to interoperability operating requirements. By refusing to provide full interoperability information, Microsoft was considered to be making it difficult for other systems to operate properly with Windows, thereby restricting competition on the work group server operating systems market. The Commission found that this was part of a "general pattern of conduct" designed to create and exploit "a range of privileged connections between [Microsoft's] dominant PC operating system and its work group operating system."[10] The Commission considered that the refusal to disclose limited technical development on the market, thereby indirectly harming consumers, and noted that Microsoft had disclosed interoperability information before it began to develop its own work group product.

The Commission's remedy does not require disclosure of source code, but Microsoft is obliged to disclose interface documentation. Microsoft is also required to conclude licenses on fair and reasonable terms to the extent its patents or other intellectual property (IP) are necessary for use of the interoperability information. It is noteworthy in this respect that the Commission, while recognizing that a refusal to license would only constitute an abuse of a dominant position in "exceptional circumstances," stated that it did not consider itself bound by any exhaustive checklist as to such circumstances in the existing case law. Microsoft and the Commission are now locked in a debate as to whether, unlike other cases,[11] the decision requires Microsoft to license competition

7 The information in question related to file, print and group and user administration services for Windows work group networks.

8 *Microsoft*, *supra* note 1, at para. 472.

9 Case C-333/94 P, Tetra Pak International SA v. Commission, 1996 E.C.R. I-5951 [hereinafter *Tetra Pak II*].

10 *Microsoft*, *supra* note 1, at para. 1064.

11 *See, e.g.,* Cases 6/73 and 7/73, Istituto Chemioterapico Italiano SpA v. Commission, 1974 E.C.R. 223 and Joined Cases C-241/91 P and C-242/91 P, RTE and ITP v. Commission, 1995 E.C.R. I-743 [hereinafter *Magill*]. In *Magill*, television listings owners were obliged to provide listings information to a competitor which wanted to offer a new, comprehensive television listings guide.

against its own IP rights, and in the same market as Microsoft, or whether the impact is only on other secondary markets.[12]

About a month after the *Microsoft* decision was taken, the ECJ gave its judgment in *IMS Health*, immediately sparking controversy both for itself and because of potential parallels to the *Microsoft* case.[13]

IMS Health is a German company that provides pharmaceutical companies with data on wholesaler sales to pharmacies. Over the years, in collaboration with the pharmaceutical industry, IMS developed a "brick" structure according to which German postal districts were broken into 1,860 areas, each with a comparable number of pharmacies. The brick structure appeared to be protected by copyright under German law.

The case came to the ECJ on a reference from a German court,[14] with questions as to whether the refusal to give access to that structure was abusive. The ECJ gave an interesting but complex answer, where it restated that a refusal to grant a license is not normally an abuse of a dominant position, but may be so in "exceptional circumstances." After considering the *Magill* and *Oscar Bronner* judgments, the former an IP case and the latter a factual "essential facility" case, the ECJ concluded that for a refusal to license by a dominant firm to constitute an abuse contrary to Article 82, it was "sufficient" that three cumulative conditions be fulfilled:

(i) The undertaking requesting grant of the license must be intending to offer new products or services, for which there is a potential consumer demand and which are not offered by the dominant firm;

(ii) the refusal to license must not be justified by objective considerations; and

(iii) the refusal must eliminate all competition on the secondary market, by reserving it to the dominant company.

As regards the first condition, the ECJ stated that the company that seeks to be licensed must "not intend to limit itself essentially to duplicating the goods or services already offered on the secondary market by the owner of the copyright,

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12 *See* Sven B. Völcker, *The implications of Microsoft and IMS Health: Interesting times for dominant intellectual property holders in Europe,* Competition Law Insight, Jun. 2004, at 14, 16-17.

13 *IMS Health*, *supra* note 5.

14 The IMS saga is a long-running one. In response to a complaint, the Commission had originally adopted an interim decision obliging IMS to license its "brick" system. Commission Decision 2002/165/EC, NDC Health/IMS Health: Interim measures, 2002 O.J. (L 59) 18. This interim decision was subsequently suspended by both the President of the CFI and on appeal of the ECJ (Case T-184/01, IMS Health v. Commission, 2001 E.C.R. II-3193 and Case C-481/01 P(R), NDC Health v. IMS Health and Commission, 2002 E.C.R. I-3401 respectively) before being withdrawn by the Commission. Commission Decision 2003/741/EC, NDC Health/IMS Health, 2003 O.J. (L 268) 69.

but intend to produce new goods or services not offered by the owner of the right and for which there is potential consumer demand."[15] This is an interesting position, which offers a fair amount of respect for IP rights. However, there is likely to be dispute as to what constitutes a new product, the meaning of "essentially duplicating,"[16] and proof of the "intention" to offer a new product.[17]

The third condition, which was briefly discussed above in relation to *Microsoft*, relates to the obligation to license to a competitor. IMS argued that it was necessary to identify two separate markets, one in which the dominant undertaking was active and another in which the potential licensee was seeking entry. In response, the Commission argued that it was only necessary to identify two "different stages of production" that are interconnected. In practice, the ECJ chose to combine the two approaches, in the sense that it required two markets, but stated that the upstream market could easily be found. Notably, such a market could be "hypothetical" or "potential," provided that it involved an upstream input that was indispensable for the downstream product. Therefore, the input need not have been sold separately.

The key point for present purposes is that this is a complex and controversial area of law, which Commissioner Monti's successor will certainly have to contend with because of the *Microsoft* appeal. It will be interesting to see if the EC court agrees with the Commission that Microsoft's position is covered by "exceptional circumstances" justifying an obligation to license.

B. TYING

The second abuse found by the Commission in *Microsoft* was the unlawful bundling by Microsoft of its Media Player with Windows. The Commission concluded that PC operating systems and media players are separate products and, given that Windows is so widespread on computers, Microsoft's decision to bundle Media Player guaranteed that this product also became ubiquitous to an extent that could not be matched. The Commission feared that this would make Media Player the industry standard, as content providers and software developers would support Media Player and drop support for competing products, resulting in usage being driven towards Media Player with competitors' products being marginalized. The tying was therefore tipping the market towards Microsoft's product. The Commission also believed that Microsoft would acquire control over related markets such as content encoding software, media delivery software, and digital

15 *IMS Health*, *supra* note 5, at para. 49 and *see* Ivo Van Bael and Jean-François Bellis, *ECJ clarifies the conditions required for the grant of a compulsory licence of copyright under Art. 82*, European Competition Law Newsletter, Jun. 2004, at 1.

16 Pat Treacy, *Long-awaited judgment forces companies to licence IP rights*, The European Lawyer, Jun. 2004, at 12.

17 Völcker, *supra* note 12, at 18.

rights management technology. It seems that the Commission was influenced in this respect by Microsoft's past encounters with antitrust authorities and the possibility of it having a wider tactic to dominate software markets viewed as strategically important. The Commission also considered that Microsoft's dominance could lead to technical development being stunted to the detriment of consumers. Finally, the Commission did not think that the tying of Media Player and Windows could be justified by any efficiency benefits. In reaching its conclusion, the Commission carried out a detailed, careful review of the foreclosing effects of Microsoft's practice on the market.

In reaching its conclusion, the Commission carried out a detailed, careful review of the foreclosing effects of Microsoft's practice on the market.

The Commission decided that while Microsoft could continue bundling Media Player with Windows, it was obliged to make an unbundled version available at the same time. PC manufacturers could therefore choose which media player they wished to install on their PCs. The decision also prohibits Microsoft from any conduct that would make the unbundled version less attractive and have the same effect as tying (i.e. offering Windows at a discounted rate when purchased with Media Player). Interestingly, the Commission states that if its remedy proves to be ineffective, it "reserves the right to review the present decision and impose an alternative remedy."[18]

As mentioned above, the *Microsoft* decision is on appeal and, given the high profile of the company involved, the amount of the fine imposed, and the future implications for Microsoft's ability to bundle its new products with updated versions of Windows,[19] the decision is bound to be controversial—all the more so since bundling is a frequent practice in the quickly evolving high-tech industries. To an extent, however, it must be said that this was an unusual case. The Commission noted that "Microsoft's dominance presents extraordinary features" and was concerned about the effect of tying on markets characterized by network effects.[20] Dolmans and Graf, in a recent article, summarize this concern well:

> "Markets characterized by network effects may be particularly vulnerable to tying. In such markets, the number of customers who acquire the product

18 *Microsoft*, *supra* note 1, at para. 1012.

19 *See* Völcker, *supra* note 12, at 15 (emphasizing the fact-specific nature of the Commission's decision which is not "necessarily dispositive for the outcome of any future investigation").

20 *See, e.g.*, *Microsoft*, *supra* note 1, at para. 975. ("The media player market is, in fact, a strategic gateway to a range of related markets, on some of which high revenues can be earned.") On the economies of networks *see* William Bishop, *A Note on the Economics of the Microsoft Decision*, Competition Law Insight, May 2004, at 14.

> influences future demand for that product. The wider the product's distribution, the more demand will there be for that product. In such cases, a tie will have an impact beyond the tied customer share because the increased distribution share resulting from the tie will also impact on future demand for the tied product."[21]

It is also arguable that a U.S. court would have followed the same approach in deciding the case. The Commission used a "rule of reason" style analysis, which included consideration of any possible efficiencies. Winckler, Dolmans, and Graf claim that the approach is consistent with the "analytical framework" set out by the U.S. Court of Appeals which remanded the case for further consideration under a rule of reason to the district court.[22] Völcker also considers that the Commission's approach is not significantly different from the approach of the U.S. agencies and courts to Microsoft.

The CFI will now have to decide on the validity of the Commission's decision and the legacy for Commissioner Monti's successor will be to defend it. It should be an important case for tying also but, as noted, it is not clear how broad a precedent will emerge, since the context is rather special and specific.

III. Pricing

A. REBATES: CLASSIC ISSUES[23]

Commissioner Monti's successor will also have to deal with pricing and, in particular, rebates. As explained above, the European Commission rules here are controversial since the cases state that it is generally unlawful for a dominant firm to use loyalty and target rebates, even though other competitors may compete using such practices.[24] The key cases in recent years are *British Airways v.*

21 M. Dolmans & T. Graf, *Analysis of Tying Under Article 82 EC: The European Commission's Microsoft Decision in Perspective*, World Competition 225, 234 (Jun. 2004).

22 A. Winckler, M. Dolmans, & T. Graf, *The European Commission's Microsoft Decision*, Global Competition Review 30, 31(May 2004).

23 *See generally* John Ratliff, *Abuse of a Dominant Position and Pricing Practices: A Practitioner's Viewpoint*, *available at* http://www.iue.it/RSCAS/Research/Competition/2003/200306COMP-Ratliff-sII.pdf.

24 A loyalty or fidelity rebate is a discount that is paid when a customer commits to purchase all or most of its requirements from a particular supplier; a target rebate is a discount that is paid if the customer meets a defined target, especially where it is set by reference to a previous performance or taking account of likely future requirements.

Commission (*BA/Virgin*)[25] and *Michelin v. Commission* (*Michelin II*)[26]—both decisions have already been upheld on appeal by the CFI.

In *BA/Virgin*,[27] the Commission and the CFI found that British Airways (BA) was infringing Article 82 by offering individualized growth incentives to UK-based travel agents, the rebates concerned being based on the agents' past sales for BA during previous reference periods.[28] The Commission imposed a fine of EUR 6.8 million and the decision was upheld in its entirety by the CFI.

The rebates were calculated on the travel agents' total sales, not just on their incremental sales above the target. The Commission observed that this meant that "selling relatively few extra BA tickets can have a large effect on [the travel agents'] commission income."[29] The Commission condemned the rebate scheme as having an exclusionary effect: travel agents, keen to obtain as large a rebate as possible, would be conscious of the need to increase the number of BA tickets they sold, compared to the previous reference period, and would therefore be less likely to sell other airlines' tickets. The scheme thus worked like a fidelity rebate in that it tended to exclude other airlines from which travel agents would be less likely to purchase tickets. The system was therefore "fidelity-building" which, for a dominant company, is considered likely to have serious exclusionary effects on the already weak residual competition in the market. The CFI agreed with the Commission and stressed the progressive nature of the rebates which had a "very noticeable effect at the margin, the increased commission rates were capable of rising exponentially from one reference period to another."[30] The CFI also noted that BA's main competitors in the United Kingdom could not have afforded to offer as attractive a discount scheme.

The Commission had also based its decision on the discrimination between travel agents resulting from the scheme. The rebate was calculated in accordance with a comparison with an agent's previous performance in selling BA tickets. The scheme was therefore considered discriminatory because agents who sold different numbers of BA tickets could receive the same rebate and agents who

25 Case T-219/99, British Airways plc v. Commission (Dec. 17, 2003, not yet reported) [hereinafter *BA/Virgin*], appeal to the ECJ is pending.

26 Case T-203/01, Manufacture française des pneumatiques Michelin v. Commission (Sep. 30, 2003, not yet reported) [hereinafter *Michelin II*].

27 Note that the *BA/Virgin* decision was adopted on Jul. 14, 1999 under then-EC Competition Commissioner Van Miert.

28 Commission Decision 2000/74/EC, Virgin/British Airways, 2000 O.J. (L 30) 1.

29 *BA/Virgin*, *supra* note 25, at para. 29.

30 *Id.* at para. 272.

sold the same number of tickets could receive different payments. This placed certain agents at a competitive disadvantage and infringed Article 82(c). The CFI agreed with this analysis.

In *Michelin II*, the Commission had investigated the practices of this leading European tire manufacturer, which sold new and retreaded tires for heavy vehicles in France.[31] Among other issues, the case concerned rebates based on achieving certain sales and individualized target rebates, based on achieving the same amount of Michelin sales as in previous years.

The Commission objected to several aspects of Michelin's rebate scheme: the relatively long reference period (one year) over which the rebate was calculated; the payment of the rebate on total sales rather than on incremental sales; the late payment of the rebate (it was not paid until the next purchasing cycle); and the scheme's lack of certainty.

The Commission also took into account factors that were specific to the case and the particular industry, namely, that the dealers were only making low margins and indeed were initially forced to sell at a loss; the effect of which was that dealers only established a profit margin once the rebates were paid. As in *BA/Virgin*, the Commission considered that what might look like an objective quantity rebate was in fact loyalty-inducing and had the "inherent effect, at the end of [the reference] period, of increasing pressure on the buyer to reach the purchase figure needed."[32] As a result, Michelin's system was considered likely to have serious market foreclosing effects. The CFI agreed with the Commission's analysis and upheld the fine of EUR 19.76 million.

In both *BA/Virgin* and *Michelin II*, the CFI stated that there is no legal requirement to show that the rebates in question actually produced anticompetitive effects. As noted above, the rebates were condemned as having the likely effect of being loyalty-inducing. The CFI summed up the relevant law in *BA/Virgin* in the following terms:

> "[F]or the purposes of establishing an infringement of Article 82, it is not necessary to demonstrate that the abuse in question had a concrete effect on the markets concerned. It is sufficient in that respect to demonstrate that the abusive conduct of the undertaking in a dominant position *tends* to restrict

31 Commission Decision 2002/405/EC, Michelin, 2002 O.J. (L 143) 1.

32 *Michelin II*, *supra* note 26, at para. 228.

> competition, or in other words, that the conduct is *capable* of having, *or likely* to have such an effect"[33] (emphasis added).

The idea is that such likelihood is inferred for dominant companies because of their market strength.

This approach has been criticized. Some argue that the Commission and the EC courts should adopt a more effects-based economic test for when rebates granted by a dominant firm are in breach of Article 82.[34] These critics argue that a very different approach applies in the United States, where proof of anticompetitive harm resulting from allegedly exclusionary behavior is required. One may also argue that such a "presumptive effect" approach contrasts with other cases in which the Commission and CFI have been at great pains to assess alleged foreclosure effects on the relevant market. For example, in the *Van den Bergh Foods* case,[35] which concerned infringements of Articles 81 and 82 by a dominant ice cream manufacturer in Ireland, the Commission carried out a very detailed investigation before concluding that the practice in question (the supply of a free freezer cabinet to retailers on condition that they used the cabinet exclusively for selling ice cream made by the dominant company) led to the foreclosure of some 40 percent of the relevant market.[36] Arguably, this is also true in comparison to *Microsoft*, where the Commission appears to have undertaken an extensive analysis of the foreclosure effects of tying Media Player to Windows.[37]

Against this, one should bear in mind that the CFI appears to hold determined views in this area. Two different sets of judges in two different chambers of the court were involved in these rulings, and they repeatedly emphasized that they were applying what the English would call "settled" law. In other words, the CFI considers that this is established law, to be accepted and simply followed.

In *Michelin II*, the CFI suggested that a dominant firm could advance an objective efficiency justification for its rebates by showing economies of scale due to increased sales to the particular customer. However, Michelin had not adduced sufficiently detailed information in this respect. In *BA/Virgin*, the position was

33 *BA/Virgin*, *supra* note 25, at para. 293.

34 John Kallaugher and Brian Sher, *Rebates Revisited: Anti-Competitive Effects and Exclusionary Abuse Under Article 82*, E.C.L.R. 2004, 25(5), 263-285.

35 Commission Decision 98/531/EC, Van den Bergh Foods, 1998 O.J. (L 246) 1.

36 Note that this analysis was largely carried out in the examination of Van den Bergh's conduct under Article 81.

37 Völcker, *supra* note 12, at 15.

similar. The CFI noted that if an increase in quantity results in a lower cost for the supplier, the supplier is "entitled to give the customer the benefit of that reduction by means of a more favorable tariff… Quantity rebates are thus deemed to reflect gains in efficiency and economies of scale achieved by the dominant undertaking."[38] However, again the CFI considered that BA had not discharged the burden of proving efficiency considerations linked to its rebates. In particular, as noted above, the CFI objected to the rebate being calculated on total rather than incremental sales (i.e. "the additional remuneration of the agents thus appears to bear no objective relation to the consideration arising for BA from the sales of the additional air tickets").[39] Such comments recognizing the place of efficiencies are welcome. One way forward now, both for dominant companies and the Commission, if it adopts guidelines on the application of Article 82, would be to try and make this clearer. One would hope, for example, that dominant companies would not be held to an impossible standard of minute proof of costs and efficiencies. Dominant companies, like their non-dominant competitors, need practical rules.

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The most recent development on rebates is the Commission's negotiations with Coca-Cola. The text of the proposed commitments by Coca-Cola has been published on the Internet and interested parties can submit comments before they become legally binding on Coca-Cola.[40] Coca-Cola has offered the commitments under Article 9 of Regulation 1/2003,[41] a new procedure that enables the Commission to accept binding commitments to bring a possible antitrust violation to an end. At first sight, the Commission's position does not appear dramatically new, although one may note that it appears that the Commission may be finding tying within a product family, which would be a development of its practice. The Commission also appears to be allowing Coca-Cola some exclusivity in some contexts, such as sponsorship, which is a useful clarification for dominant companies.

38 *BA/Virgin*, *supra* note 25, at para. 246. *See also Michelin II, supra* note 26, at para. 58.

39 *BA/Virgin*, *supra* note 25, at para. 282.

40 Undertaking: Case COMP/39.116/B2, Coca-Cola, *at* http://europa.eu.int/comm/competition/antitrust/cases/decisions/39116/tccc_final_undertaking_041019.pdf. *See also*, Press Release IP/04/1247, European Commission, Commission close to settle antitrust probe into Coca-Cola practices in Europe (Oct. 10, 2004); Commission Notice Published Pursuant to Article 27(4) of Council Regulation 1/2003/EC in Case COMP/A.39.116/B2, 2004 O.J. (C 289) 10.

41 Council Regulation 1/2003/EC on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty, 2003 O.J. (L 1) 1.

Hence, the law on rebates remains essentially unchanged under Commissioner Monti. It is an area in which dominant companies claim that they are being prevented from competing, as they see it, "normally" with their smaller rivals, with the same type of rebate schemes as these smaller companies use. Some critics argue that the CFI's argument that BA's competitors could not have matched the level of rebates being offered by BA also risks the CFI being accused of protecting competitors rather than competition.[42] However, if this means that rebates are unlawful if they have the object or effect of denying competitors the critical mass required to compete, the two may be the same. Clearly, there is already much debate as to whether these rules should change in any Commission guidelines on Article 82—an interesting legacy for Commissioner Monti's successor.

B. APPLICATION OF MARGIN SQUEEZE PRINCIPLE

Another topical area in Article 82 is margin squeezing (i.e. where an upstream supplier leaves his downstream competitor too little margin to make a profit). This has long been considered an abuse of a dominant position.[43]

In May 2003, the Commission adopted a decision fining Deutsche Telekom (DT) EUR 12.6 million for what it considered an abusive margin squeeze for wholesale access to the final (or local) telecommunications loop between the last switch and household.[44] The Commission found that DT was dominant in the markets for wholesale and retail access to the local loop. The Commission considered that DT had been "margin-squeezing" and claimed that there was an insufficient spread between DT's (wholesale) local loop access prices and DT's downstream tariffs for retail subscriptions. As a result, third-party competitors could not compete for end customers.

In calculating the margin squeeze the Commission compared the single wholesale service (local loop access) to several retail services (access to analogue, ISDN, and ADSL connections). In itself, this is a complex task, leaving scope for differing interpretations. The Commission then applied a "weighted approach" to prices and costs, aggregating retail access for analogue, ISDN, and ADSL connections on the basis of the number of each variant that DT had marketed to its own end-users.

The Commission then compared the wholesale and retail prices: where the average retail prices were below the level of the wholesale charges, there was a

42 *See, e.g.* Eleanor M. Fox, *We Protect Competition, You Protect Competitors,* WORLD COMPETITION 149 (Jun. 2003) and William J. Kolasky, *What Is Competition? A Comparison of U.S. and European Perspectives,* THE ANTITRUST BULLETIN 29 (Spring-Summer 2004).

43 *See* Commission Decision 88/519/EEC, Napier Brown/British Sugar, 1988 O.J. (L 284) 41.

44 Commission Decision 2003/707/EC, Deutsche Telekom AG, 2003 O.J. (L 263) 9. This is the first decision where the Commission applied a margin squeeze test to a multi-product firm. Earlier cases such as Napier Brown-British Sugar dealt with single-product firms (*See id.*).

margin squeeze; where DT's average retail costs were above its wholesale charges, the Commission looked at DT's product-specific costs for providing its own retail services, and considered that there was a margin squeeze if those costs exceeded the "positive spread" between the retail and wholesale prices. DT argued, among other things, that this was too narrow an approach and that revenues for call services (which are included in overall pricing decisions as incremental revenues) should also have been taken into account.

DT also objected that it had little scope for autonomous conduct where its wholesale prices were regulated (apparently at what the German regulatory authority considered to be cost level). DT's retail prices were also regulated, albeit in a different way. However, the Commission argued that DT could still have increased its retail charges to increase the spread between wholesale and retail prices. DT has since appealed to the CFI.

These are complex issues, illustrating how difficult it is generally to implement Article 82. The decision is also controversial because the Commission appears to have overruled the national regulator.

C. PREDATORY PRICING

In July 2003, the Commission also fined Wanadoo Interactive, a subsidiary of France Telecom, some EUR 10.35 million for predatory pricing in ADSL-based Internet access services to the general public.[45] The Commission considered that between 1999 and 2002, Wanadoo had marketed its ADSL services at prices below their average costs (before August 2001 below variable costs; afterwards equivalent to variable costs, but below total costs) while France Telecom was expecting significant profits for its wholesale ADSL provision to Internet service providers (including Wanadoo). In effect, the Commission argued that this was a deliberate policy to preempt competition on the market for high-speed Internet access, when it was first introduced. The abuse was found to have ended in October 2002 when France Telecom reduced its wholesale ADSL prices by some 30 percent. Wanadoo has since appealed to the CFI.

It is understood that the decision contains a discussion of the possibility of recouping initial losses. EC law has not required the Commission to prove that an entity that engages in predation must be able to recoup its losses.[46] In Wanadoo's case, it is understood that the Commission maintains this position but nonetheless demonstrates that, given the market structure (significant barriers to entry), recoupment should have been possible. If so, this will be an interesting development.

45 At the time of writing the decision has not been published. *See* Press Release IP/03/1025, European Commission, High-speed Internet: the Commission imposes a fine on Wanadoo for abuse of a dominant position (Jul. 16, 2003).

46 *Tetra Pak II*, *supra* note 9, at para. 44.

IV. Liberalization

Article 82 has often been a key weapon in the Commission's armory when it has attempted to liberalize markets that were formerly state-controlled, in tandem with Article 86 of the EC Treaty.[47] Commissioner Van Miert's term as EC Competition Commissioner was particularly noted for this. Commissioner Monti has continued the approach of using Article 82 to liberalize markets.

A. CASES INVOLVING DEUTSCHE POST

In one of two decisions taken against Deutsche Post, the former German postal monopoly, the Commission found that the company, by offering unlawful fidelity rebates and by setting predatory prices in the part of the market for parcel delivery that was open to competition, was abusing its dominant position.[48] These practices prevented new entrants from reaching the critical mass required to operate in the relevant market. Deutsche Post was found to be cross-subsidizing its activity in the competitive market from revenue received in the reserved postal market that was not open to competition. The Commission calculated costs in the parcel delivery market by asking what costs would be avoidable if the parcel delivery service were discontinued. The Commission obliged Deutsche Post to introduce accounting separation and a transparent transfer pricing mechanism for services provided on the competitive market. Deutsche Post also agreed to a structural separation of its commercial parcel services from its reserved services in order to eliminate the risk of future cross-subsidization. As a result, Deutsche Post no longer offers any commercial parcel services. The Commission fined Deutsche Post EUR 24 million in respect of the fidelity rebates but did not impose a fine for the predatory pricing, in consideration of the fact that the relevant measure of cost that a "multi-service" postal operator benefiting from a reserved area has to meet in competitive activities had not previously been clarified.

In the second case, the Commission found that Deutsche Post had abused its dominant position in the German letter market when it intercepted, surcharged, and delayed incoming international mail that it had erroneously classified as circumvented domestic mail (so-called "A-B-A remail").[49] The Commission found that Deutsche Post had priced differently for the same service, thus treating international mail in a discriminatory manner, engaged in a "constructive refusal to supply," priced excessively, and limited development of the markets. In view

47 Article 86 of the EC Treaty relates to public companies and companies to which Member States grant special or exclusive rights. The exercise of these rights is generally subject to the rules on competition in the Treaty.

48 Commission Decision 2001/354/EC, Deutsche Post AG, 2001 O.J. (L 125) 27.

49 Commission Decision 2001/892/EC, Deutsche Post AG, 2001 O.J. (L 331) 40.

of legal uncertainty at the time of the infringement, only a symbolic fine of EUR 1,000 was imposed.

The Commission has also found abuses of dominant positions in the postal markets in Belgium,[50] France,[51] and Italy.[52]

B. SETTLEMENTS IN THE ENERGY SECTOR

There have also been a number of important settlements in cases relating to network industries. For example, the Commission obliged the main Spanish electricity generator to modify an agreement whereby it would purchase gas from a Spanish gas company; this action removed a barrier to entry in the market.[53] The Commission also negotiated settlement agreements that helped open up electricity markets, for example, interconnection between the United Kingdom and France.[54] Similarly, the Commission used settlement agreements with five gas companies that had refused access to their pipelines to Marathon, a Norwegian gas producer, to open up the gas market to more competition.[55]

V. Normative Developments: The Application of Article 81(3) to Dominant Companies

A. MODERNIZATION OF THE ENFORCEMENT OF ARTICLES 81 AND 82

No discussion of Commissioner Monti's term would be complete without mention of his work on the modernization of the application of Articles 81 and 82. With the entry into force of Regulation 1/2003 on May 1, 2004, national courts and competition authorities can apply not only Article 82 (this was always the case) but also Article 81 in its entirety, including paragraph three which sets out

50 Commission Decision 2002/180/EC, De Post-La Poste, 2002 O.J. (L 61) 32.

51 Commission Decision 2002/344/EC, La Poste, 2002 O.J. (L 120) 19.

52 Commission Decision 2001/176/EC, Certain new postal services in Italy, 2001 O.J. (L 63) 59.

53 European Commission, XXXth Report on Competition Policy (2000), at 154; Press Release IP/00/297, European Commission, Commission closes investigation on Spanish company Gas Natural (Mar. 27, 2000).

54 European Commission, XXXIst Report on Competition Policy (2001), at 208; Press Release IP/03/1025, *supra* note 45.

55 European Commission, XXXIst Report on Competition Policy (2001), at 207; Press Release IP/01/1641, European Commission, Commission settles Marathon case with Thyssengas (Nov. 23, 2001); Press Release IP/03/1129, European Commission, Commission Settles Marathon Case with German Gas Company BEB (Jul. 29, 2003); and, Press Release IP/04/573, European Commission, Commission settles Marathon case with Gaz de France and Ruhrgas (Apr. 30, 2004).

clearance criteria.[56] In parallel to this decentralization, the Commission has also been reviewing and modernizing how it thinks Article 81 should be applied, in an effort to focus its activity on cases involving market power.

Three particular points may be noted here as regards Article 82. First, Member States retain the right to apply stricter national rules on unilateral conduct.[57] This was a concession to some Member States such as Germany which feel strongly that strict rules should continue to apply in this area.

Second, Regulation 1/2003 provides that the Commission may impose structural remedies for breach of the competition rules.[58] However, structural remedies may only be imposed where they are proportionate and there is no equally effective behavioral remedy, or any behavioral remedy would be more burdensome on the entity than the proposed structural remedy. There has been much debate about whether this could be used to break up a company in an Article 82 case, which certainly appears to be one possible application of the power. However, one may think that would be a rare issue. The more frequent and often equally controversial issue is the compulsory interference with property rights—whether it is IP as discussed above or other property such as ice cream cabinets. In the EC courts' case law, subject to the complexities outlined above, this is, in principle, clearly already possible.

Third, the modernization process has included the introduction of market share ceilings to the general EC block exemptions giving "safe harbors" to certain restrictive practices. Notably, this has been the case for vertical agreements and licensing agreements.[59] The practical point to note, therefore, is that dominant companies cannot normally rely on such safe harbors, but have to assess their practices individually in these circumstances. To this extent, the regulatory position of dominant companies has become more demanding but one may well say understandably so, given their market power.

We have already seen some examples of the Commission's approach in such a situation. For instance, the Commission recently reached an agreement with Interbrew, the Belgian brewer, regarding its "tied house" purchasing system.[60]

56 Council Regulation 1/2003/EC, *supra* note 41.

57 *Id.* at art. 3(2).

58 *Id.* at art. 7.

59 Commission Regulation 2790/99/EC on the Application of Article 81(3) of the Treaty to Categories of Vertical Agreements and Concerted Practices, 1999 O.J. (L 336) 21; Commission Regulation 772/2004/EC on the Application of Article 81(3) of the Treaty to Categories of Technology Transfer Agreements, 2004 O.J. (L 123) 11.

60 Press Release IP/03/545, European Commission, European Commission opens up Interbrew's Belgian horeca outlets to competing beer brands (Apr. 15, 2004).

Broadly, among other things, the Commission has agreed that Interbrew may impose a "50% of total beer turnover requirement" when concluding "loan agreements" with bars, along with other restrictions in other agreements. The market shares of Interbrew were 56 percent of the market for pubs, restaurants, and hotels, suggesting dominance, so this is an interesting decision. The decision also appears to indicate that the Commission is willing to accept some requirements provisions for the dominant company, at least where there is a clear justification for such provision.

B. APPLICATION OF ARTICLE 81(3) TO DOMINANT COMPANIES

We have also seen interesting new developments concerning Article 81(3) and dominant companies. Article 81(3) provides a defense to companies whose agreements are caught by Article 81(1), which prohibits agreements that have as their object or effect the restriction of competition. One of the conditions for the application of Article 81(3) is that the agreement does not substantially eliminate competition on the market.

Interestingly, in its new guidelines on the application of Article 81(3) of the Treaty[61] and its new guidelines on the application of Article 81 to technology transfer agreements,[62] the Commission suggests that Article 81(3) may be available to dominant companies, provided that there is no abuse of a dominant position.[63] In other words, the limit of Article 81(3) is not dominance—as was previously thought by many—but the abuse thereof. This is said to be coherent with the application of Article 82 insofar as the ECJ has already recognized that exclusive licenses may not be per se abusive for dominant companies.[64]

ONE MAY THINK THEREFORE THAT, EVEN BEFORE ANY ARTICLE 82 GUIDELINES, THE COMMISSION'S POSITION IS ALREADY EVOLVING AND, USEFULLY, THE COMMISSION IS SENDING OUT SIGNALS OF A MORE MODERN PRACTICE.

These statements appear to widen the commercial options available to dominant companies and are to be welcomed. They are particularly striking when compared with statements in the relatively recent Commission guidelines on vertical restraints[65] and horizontal[66] agreements, especially as these guidelines

61 Commission Notice on Guidelines on the Application of Article 81(3) of the Treaty, 2004 O.J. (C 101) 97.

62 Commission Notice on Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements, 2004 O.J. (C 101) 2, at para. 151.

63 *Id.* at para. 106.

64 *See* Case T-51/89, Tetra Pak Rausing SA v. Commission, 1990 E.C.R. II-309.

65 Commission Notice on Guidelines on Vertical Restraints, 2000 O.J. (C 291) 1.

66 Commission Notice on Guidelines on the Applicability of Article 81 of the EC Treaty to Horizontal Cooperation Agreements, 2001 O.J. (C 3) 2.

were considered to be reflective of a more economic approach to the application of Article 81. For example, the Guidelines on Vertical Restraints appear to exclude the application of Article 81(3) to dominant companies[67] and the Guidelines on Horizontal Agreements state that "Where an undertaking is dominant or becoming dominant as a consequence of a horizontal agreement, an agreement which produces anticompetitive effects in the meaning of Article 81 can in principle not be exempted [under Article 81(3)]."[68] One may think therefore that, even before any Article 82 guidelines, the Commission's position is already evolving and, usefully, the Commission is sending out signals of a more modern practice.

VI. Winds of Reform

As noted above, the Commission has indicated that it is conducting a review of the application of Article 82. In a recent speech, Philip Lowe, the Commission's Director-General of Competition, indicated that the Commission might be in a position to publish draft guidelines early next year, although this may be affected by the change of Commissioner.[69]

It is generally recognized that the notion of "abuse" is in need of review. For example, in a recent article, Sher laments the lack of "internal consistency" within Article 82 and its lack of coherence with other competition provisions of the Treaty of Rome.[70]

In our opinion, any reform must fulfill two objectives.[71] First, the guidelines must spell out the policy objective (or objectives) pursued by Article 82. This is essential for a successful decentralized application of Article 82. In the past, Article 82 has been used as a tool for market integration and liberalization. Unlike in the United States, there are many national champions in Europe that have not earned their dominant positions through greater efficiencies but through state intervention. This makes Article 82 somewhat different to equivalent provisions governing the behavior of dominant entities in other jurisdic-

67 Guidelines on Vertical Restraints, *see supra* note 65, at paras. 153, 211, 222. *See also* Luc Peeperkorn, *E.C. Vertical Restraints Guidelines: Effects-Based or Per Se Policy?—A Reply*, E.C.L.R. 2002, 23(1), 38-41.

68 Guidelines on the Applicability of Article 81 of the EC Treaty to Horizontal Cooperation Agreements, *supra* note 66, at para. 36.

69 Philip Lowe, The Commission's Current Thinking on Article 82, IBC Global Conference on Abuse of Dominance—Where Next?, Brussels (Sep. 23, 2004).

70 Brian Sher, *The Last of the Steam-Powered Trains: Modernising Article 82*, E.C.L.R. 2004, 25(5), 243-246.

71 *See generally*, Wilmer Cutler Pickering Hale and Dorr Seminar on The Article 82 Abuse Concept: What Scope Is There for Modernization?, Brussels (Sep. 30, 2004).

tions. However, the primary objective of Article 82 must remain the protection of competition and, in this respect, it is very important that the Commission set out what constitutes harm to competition.

Second, the guidelines must indicate the ways and means (i.e. the rules through which the objective of Article 82 is to be attained). These rules must certainly reflect greater economic thinking. However, it is also clear that the business community, practitioners, regulators, and courts want these rules to be practical.

This is a difficult task for the Commission and one of the first major challenges for its new EC Competition Commissioner. Ultimately, however, as during Commissioner Monti's tenure, the CFI and the ECJ will have the last word on the concept of abuse in EC law. The greater economic approach to Article 81 has been favored by the jurisprudence of the EC courts. Given the CFI judgments in *BA/Virgin* and *Michelin II*, it is not evident that the same is true with respect to at least some Article 82 rules. Nonetheless, provided the Commission leads the way and produces clear, sensible, and workable guidelines, we believe that the EC judges may also be receptive to a modernization of Article 82.

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Mario Monti's Legacy in EC Merger Control

Nicholas Levy

Mario Monti's tenure as EC Commissioner for competition policy between September 1999 and November 2004 coincided with one of the most eventful periods in EC merger control since the Merger Regulation came into force in 1990. This article places his tenure in historical perspective, describes the principal European Commission decisions and judgments of the EC courts rendered over the period, and identifies Commissioner Monti's principal achievements in the field of merger control. These achievements include the adoption of a recast and modernized Merger Regulation and Horizontal Merger Guidelines intended to ensure that the Commission's application of the Merger Regulation is firmly grounded in sound economics. The durability of Commissioner Monti's legacy will be determined by his successors' commitment to implementing the letter and spirit of the reforms instituted at his initiative and systematically taking decisions based on an objective appraisal of quantitative, economic evidence.

The author is a Partner at Cleary Gottlieb Steen & Hamilton LLP based in Brussels and London. This article draws on extracts from his two-volume loose-leaf book on the Merger Regulation, *European Merger Control Law: A Guide to the Merger Regulation* (2d ed. 2004). He bears sole responsibility for judgments, opinions, and any errors.

I. Introduction

Mario Monti's tenure as EC Commissioner for competition policy between September 1999 and November 2004 coincided with one of the most eventful periods in EC merger control since the Merger Regulation came into force in 1990.[1] His legacy includes a rich and extensive jurisprudence, comprising approximately 1,400 decisions,[2] among them some of the most controversial rendered by the European Commission in the field of merger control;[3] a new era of judicial activism;[4] a recast and modernized Merger Regulation; an array of administrative initiatives intended to effect significant and lasting change in the practice of EC merger control; and a series of measures designed to ensure that the Commission's application of the Merger Regulation would in the future be firmly grounded in sound economics.

Commissioner Monti's tenure had three distinct periods: (1) the early years between 1999 and 2001, when the Commission took a series of bold, often controversial, decisions, including eight prohibition decisions; (2) the turning point of 2002, when the Commission suffered a series of defeats at the hands of the EC courts; and (3) the years 2003-2004, when Commissioner Monti comprehensive-

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1 Council Regulation 4064/89/EEC on the Control of Concentrations between Undertakings, 1990 O.J. (L 257) 13 [hereinafter *Merger Regulation*], with amendments introduced by Council Regulation 1310/97/EC, 1997 O.J. (L 180) 1, corrigendum 1998 O.J. (L 40) 17. Further changes to the Merger Regulation were adopted in Jan. 2004. *See* Press Release IP/04/70, European Commission, EU Gives Itself New Merger Control Rules for 21st Century (Jan. 20, 2004), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/04/70&format=HTML&aged=0&language=en&guiLanguage=en; Council Regulation 139/2004/EEC on the Control of Concentrations between Undertakings, 2004 O.J. (L 24) 1.

2 Because of the delay in publishing Commission decisions, this article does not take account of decisions rendered in the course of 2004 that were not available at the end of Commissioner Monti's tenure in Nov. 2004.

3 Eight transactions were prohibited during Commissioner Monti's tenure. *See* Commission Decision 2000/276/EC, Airtours/First Choice, 2000 O.J. (L 93) 1 [hereinafter *Airtours/First Choice*]; Commission Decision 2001/403/EC, Volvo/Scania, 2001 O.J. (L 143) 74 [hereinafter *Volvo/Scania*]; Commission Decision 2003/790/EC, MCI WorldCom/Sprint, 2003 O.J. (L 300) 1; Commission Decision 2002/156/EC, SCA/Metsä Tissue, 2002 O.J. (L 57) 1; Commission Decision 2004/134/EC, General Electric/Honeywell, 2004 O.J. (L 48) 1 [hereinafter *General Electric/Honeywell*]; Commission Decision 2004/275/EC, Schneider/Legrand, 2004 O.J. (L 101) 1; Commission Decision 2004/237/EC, CVC/Lenzing, 2004 O.J. (L 82) 20 [hereinafter *CVC/Lenzing*]; Commission Decision 2004/124/EC, Tetra Laval/Sidel, 2004 O.J. (L 3) 1 [hereinafter *Tetra Laval/Sidel*]. Shortly after Neelie Kroes replaced Mario Monti as EC Commissioner for competition policy in Dec. 2004, the Commission prohibited the acquisition of Gás de Portugal by Energias de Portugal and ENI (Commission Decision COMP/M. 3440, GDP/EDP/ENI (Dec. 12, 2004, not yet reported)).

4 Between 2002 and 2004, the CFI overturned four of the eight prohibition decisions rendered during Commissioner Monti's tenure. *See* Case T-342/99, Airtours plc v. Commission, 2002 E.C.R. II-2585 [hereinafter *Airtours*]; Case T-310/01, Schneider Electric v. Commission, 2002 E.C.R. II-4071 [hereinafter *Schneider*]; Case T-5/02, Tetra Laval v. Commission, 2002 E.C.R. II-4382 [hereinafter *Tetra Laval*]; Case T-310/00, MCI v. Commission (Sep. 28, 2004, not yet reported) [hereinafter *MCI*].

ly reformed the Merger Regulation and implemented a range of initiatives designed to improve the clarity, analytical rigor, and robustness of Commission decisions, and the transparency, objectivity, and consistency of the Commission's decision-making.

With hindsight, the Court of First Instance's (CFI) judgments in *Airtours*, *Schneider*, and *Tetra Laval* provided Commissioner Monti with both his sternest challenge and his greatest opportunity. His response to the trilogy of judgments defined his tenure as Commissioner, served as a catalyst for change, and formed the basis of his legacy. Having conceded that "our record in the merger area is less glorious after these Court rulings,"[5] Commissioner Monti implemented a series of reforms—the breadth, speed, and ingenuity of which surprised even his harshest critics. The effectiveness and durability of these reforms will be judged against two interrelated benchmarks: whether they create a discipline and objectivity that avoids the errors exposed by the court in *Airtours*, *Schneider*, and *Tetra Laval*; and whether they result in decisions that are well grounded in fact, law, and sound economics.

This article places Commissioner Monti's tenure in historical perspective, assesses the significance of his legacy, and identifies his principal achievements in the field of merger control. These achievements may be summarized as follows: (1) the provocation of a wide-ranging debate on the objectives of merger control that established a consensus for recasting the Merger Regulation's substantive test in a way that emphasizes the principal objectives of merger control; (2) the adoption of Horizontal Merger Guidelines that endeavor to provide a clear and consistent analytical framework for the application of the Merger Regulation;[6] (3) the appointment of a Chief Economist and the increased emphasis given to economics; (4) the acknowledgement of the positive role played by merger-related efficiencies; (5) the implementation of measures intended to provide checks and balances on decision-making by the Commission's Directorate-General for Competition (DG COMP); and (6) the application of a more sophisticated and elaborate remedies policy.

Taken together, these developments have made the practice of EC merger control more systematic, complex, and challenging. Commission officials and legal practitioners have had to adapt to the new environment and take account of the higher evidentiary standard imposed by the EC courts and the increased emphasis placed by the Commission on quantitative assessment, scientific method, and economic rigor.

5 Mario Monti, *quoted in* Saeed Shah, *European Court Deals Crushing Blow to Monti's Merger Policy*, INDEPENDENT, Oct. 25, 2002.

6 Commission Notice on Guidelines on the Assessment of Horizontal Mergers Under the Council Regulation on the Control of Concentrations between Undertakings, 2004 O.J. (C 31) 5 [hereinafter *Horizontal Mergers Guidelines*].

II. A Historic Perspective

A. 1990-1993: THE BRITTAN YEARS

The entry into force of the Merger Regulation in September 1990 raised a wide array of legal and practical issues, and the years immediately following its implementation were in large part devoted to exploring, addressing, and resolving those issues. During the tenure of Sir Leon Brittan Q.C., now Lord Brittan, the Commission's application of the Merger Regulation exceeded expectations in several important respects: (1) the Commission met the Merger Regulation's tight deadlines in virtually every case; (2) the Commission was flexible and open in its application of the Merger Regulation's procedural rules; (3) the Commission progressively expanded the circumstances in which a joint venture might be reportable under the Merger Regulation;[7] (4) the Commission began to use economic evidence and systematic market testing; (5) the Commission proved itself able to prohibit transactions, even in the face of political pressure;[8] (6) the Commission worked closely with Member State authorities, using the Merger Regulation to develop a common appreciation of competition law and policy across the European Community; (7) the Commission started the process of fostering international cooperation with other antitrust authorities, including, in particular, the U.S. federal agencies.

During this initial period, the Commission staff—tentatively at first, but with increasing confidence as the years went by—developed a structured analytical framework for appraising reportable transactions that served as a foundation for the increasingly detailed analyses of the late 1990s. The starting point of the Commission's analyses, then as now, was the definition of a relevant market.[9] Also during this period, the Commission signaled a determination to apply the Merger Regulation's dominance standard flexibly, including to transactions that threatened to create or strengthen situations of collective dominance. Because the original form of the Merger Regulation adopted in 1989 is silent on the question of whether the dominance standard applies to situations of collective dominance, there was uncertainty for some time as to whether the reference in the Merger Regulation to a (unitary) dominant position (in contrast to Article 82 of

7 Commission Notice Regarding the Concentrative and Cooperative Operations under Council Regulation 4064/89/EEC on the Control of Concentrations between Undertakings, 1990 O.J. (C 203) 10; Commission Notice on the Distinction between Concentrative and Cooperative Joint Ventures under Council Regulation 4064/89/EEC on the Control of Concentrations between Undertakings, 1994 O.J. (C 385) 1.

8 Commission Decision 91/619/EEC, Aerospatiale-Alenia/de Havilland, 1991 O.J. (L 334) 42 [hereinafter *Aerospatiale-Alenia/de Havilland*].

9 *See, e.g.*, Commission Decision 93/9/EEC, DuPont/ICI, 1993 O.J. (L 7) 13 [hereinafter *DuPont/ICI*]; Commission Decision 92/553/EEC, Nestlé/Perrier, 1992 O.J. (L 356) 1 [hereinafter *Nestlé/Perrier*]; Commission Decision 94/893/EC, Procter & Gamble/VP Schickedanz II, 1994 O.J. (L 354) 32.

the EC Treaty, which explicitly prohibits the abuse of a dominant position "by one or more undertakings") excluded the Merger Regulation's application to situations where a small number of suppliers operate in parallel as an oligopoly. In *Nestlé/Perrier*, the Commission first developed the concept of collective dominance under the Merger Regulation and required substantial divestitures to prevent the creation of joint dominance in the supply of bottled mineral water in France.

B. 1993-1999: THE VAN MIERT YEARS

Sir Leon Brittan's successor, Karel Van Miert, served as EC Competition Commissioner between 1993 and 1999. His tenure saw an increasing maturity, confidence, and sophistication in the Commission's substantive review of reportable transactions. During this period, the Commission decisions that followed phase II investigations became increasingly detailed and lengthy. Between 1994 and 1998, the Commission prohibited nine transactions,[10] including *Boeing/McDonnell Douglas*,[11] the first significant instance where the Commission and the U.S. federal agencies disagreed about the competitive effects of a merger. Also during this period, the Commission began to consider conglomerate—or portfolio—effects in three cases involving beverages, *Coca-Cola Enterprises/Amalgamated Beverages GB*,[12] *The Coca-Cola Company/Carlsberg A/S*,[13] and *Guinness/Grand Metropolitan*.[14] In *Gencor/Lonrho*, the Commission developed and refined its approach towards oligopolistic dominance. In 1998, the European Court of Justice (ECJ) confirmed in *Kali und Salz* that transactions giving rise to oligopolistic dominance could be prohibited under the Merger Regulation.[15] The court also confirmed in that case the availability of a "failing firm defense" under the Merger Regulation.

10 Commission Decision 94/922/EC, MSG/Media Service, 1994 O.J. (L 364) 1 [hereinafter *MSG/Media Service*]; Commission Decision 96/177/EC, Nordic Satellite Distribution, 1996 O.J. (L 53) 20 [hereinafter *Nordic Satellite Distribution*]; Commission Decision 96/346/EC, RTL/Veronica/Endemol, 1996 O.J. (L 134) 32; Commission Decision 97/26/EC, Gencor/Lonrho, 1997 O.J. (L 11) 30 [hereinafter *Gencor/Lonrho*]; Commission Decision 97/277/EC, Kesko/Tuko, 1997 O.J. (L 110) 53; Commission Decision 97/610/EC, Saint-Gobain/Wacker-Chemie/NOM, 1997 O.J. (L 247) 1; Commission Decision 98/663/EC, Blokker/Toys "R" Us, 1998 O.J. (L 316) 1; Commission Decision 1999/153/EC, Bertelsmann/Kirch/Premiere, 1999 O.J. (L 53) 1; Commission Decision 1999/154/EC, Deutsche Telekom/BetaResearch, 1999 O.J. (L 53) 31.

11 Commission Decision 97/816/EC, Boeing/McDonnell Douglas, 1997 O.J. (L 336) 16.

12 Commission Decision 97/540/EC, Coca-Cola Enterprises/Amalgamated Beverages GB, 1997 O.J. (L 218) 15.

13 Commission Decision 98/327/EC, Coca-Cola Company/Carlsberg A/S, 1998 O.J. (L 145) 41.

14 Commission Decision 98/602/EC, Guinness/Grand Metropolitan, 1998 O.J. (L 288) 24.

15 Joined Cases C-68/94 and C-30/95, French Republic and Société commerciale des potasses et de l'azote (SCPA) and Entreprise minière et chimique (EMC) v. Commission, 1998 E.C.R. I-1375.

During Commissioner Van Miert's tenure, the Commission addressed certain shortcomings in the original Merger Regulation adopted in 1989. First, the distinction between "concentrative" and "cooperative" joint ventures was abandoned,[16] and the Commission started to carry out under the Merger Regulation's procedure and timetable a substantive assessment under Article 81 of the EC Treaty of any spillover effects arising from the formation of fully-functional joint ventures. Second, the Commission introduced a short form procedure for unproblematic transactions. Third, the Commission introduced a second and lower set of thresholds intended to confer Commission competence over cases that affect three or more Member States, but fell below the Merger Regulation's original thresholds. Fourth, the Commission adopted the Market Definition Notice.[17] Finally, the Commission corrected the lack of explicit authority to accept undertakings during the initial review period.

C. 1999-2004: THE MONTI YEARS

1. 1999-2001: The Years of Controversy

The 10th anniversary of the Merger Regulation's entry into force in 2000 witnessed an increasingly forceful, confident, and creative approach to its application. This manifested itself in several ways. First, the Commission prohibited a significant number of transactions,[18] with several others being abandoned to avoid prohibition decisions.[19] Second, the Commission employed an increasingly wide array of antitrust theories, including: (1) neighboring market and poten-

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16 Among other things, the 1997 revision of the Merger Regulation expanded the Regulation's scope as of Mar. 1, 1998, to include the formation of all full-function joint ventures, including those giving rise to spill-over effects between the parent companies.

17 Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law, 1997 O.J. (C 37) 5.

18 Of the 18 transactions prohibited since the Merger Regulation came into force, one was prohibited during Commissioner Brittan's tenure, nine during Commissioner Van Miert's tenure, and eight during Mario Monti's tenure. Taken together, less than 1 percent of all transactions notified under the Merger Regulation have been prohibited. Of the transactions notified during Commissioner Brittan's tenure, less than 0.5 percent were prohibited; of the transactions notified during Commissioner Van Miert's tenure, 0.9 percent were prohibited; and of the transactions notified during Commissioner Monti's tenure, 0.5 percent were prohibited.

19 *See, e.g.*, Press Release IP/00/258, European Commission, Alcan Abandons its Plans to Acquire Pechiney to Avoid the Prospect of a Decision by the European Commission to Block the Merger (Mar. 14, 2000), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/00/258&format=HTML&aged=0&language=EN&guiLanguage=en; Press Release IP/00/1122, European Commission, EMI and Time Warner Withdraw Their Notification to the Commission (Oct. 5, 2000), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/00/1122&format=HTML&aged=0&language=EN&guiLanguage=en.

tial entrant theories;[20] (2) conglomerate and portfolio effects;[21] (3) vertical effects;[22] and (4) spillover effects.[23] Third, the Commission for the first time identified single-firm dominance concerns where the post-transaction market shares would have been below 40 percent.[24] Fourth, the Commission endeavored to expand and develop the original notion of collective dominance.[25] Fifth, the Commission applied the Merger Regulation's procedural rules more rigorously, including, in particular, those barring consideration of remedies offered out-of-time.[26] Sixth, the Commission became more demanding in regard to the scope, implementation, and detail of remedies, including vetting potential purchasers of divested businesses more carefully[27] and proposing greater use of independent trustees to monitor compliance with remedies.[28]

These developments attracted comment and criticism. First, it was said that the significantly increased numbers of notifications[29] and the enhanced scope

20 *See, e.g.*, Commission Decision 2001/98/EC, Telia/Telenor, 2001 O.J. (L 40) 1 [hereinafter *Telia/Telenor*]; Commission Decision 2004/269/EC, Air Liquide/BOC, 2004 O.J. (L 92) 1.

21 *See, e.g., General Electric/Honeywell*, *supra* note 3; *Tetra Laval/Sidel*, *supra* note 3. The Commission's decision in *Tetra Laval/Sidel* was overturned on appeal and subsequently approved. *See* Press Release IP/03/36, European Commission, Commission Clears Acquisition of Sidel by Tetra Laval Group (Jan. 13, 2003), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/03/36&format=HTML&aged=0&language=EN&guiLanguage=en. In Dec. 2002, the Commission appealed to the ECJ the CFI's judgment. Cases C-12/03 and C-13/03, Commission v. Tetra Laval, ECJ judgment pending.

22 *See, e.g.,* Commission Decision 2001/718/EC, AOL/Time Warner, 2001 O.J. (L 268) 28 [hereinafter *AOL/Time Warner*].

23 *See, e.g.,* Commission Decision COMP/M.1980, Volvo/Renault, O.J. (C 301) 23 [hereinafter *Volvo/Renault*].

24 *See, e.g.,* Commission Decision COMP/M.1684, Carrefour/Promodes, O.J. (C 164) 5.

25 *See Airtours/First Choice*, *supra* note 3, overturned by the CFI on appeal (*see Airtours*, *supra* note 4).

26 *See, e.g., Volvo/Scania*, *supra* note 3.

27 *See, e.g.,* Commission Decision 2001/402/EC, TotalFina/Elf, 2001 O.J. (L 143) 1. Case T-342/00, Petrolessence SA v. Commission, 2003 E.C.R. II-1161, confirmed on appeal. *See also*, Commission Decision COMP/M.2690, Solvay/Montedison-Ausimont, O.J. (C 153) 11; Commission Decision COMP/M.2803, Telia/Sonera, O.J. (C 201) 19.

28 *See, e.g.,* Standard Model Texts for Divestiture Commitments and Trustee Mandates, *at* http://europa.eu.int/comm/competition/mergers/legislation/divestiture_commitments/. *See also*, Press Release IP/03/614, European Commission, Commission Publishes Best Practice Guidelines for Divestiture Commitments in Merger Cases (May 2, 2003), *available at* http://europa.eu.int/rapid/press ReleasesAction.do?reference=IP/03/614&format=HTML&aged=0&language=EN&guiLanguage=en.

29 In 1991, the first full year in which the Merger Regulation was in force, 63 transactions were notified. In 2000 and 2001, the comparable figures were 345 and 335. Of the 2,550 transactions notified under the Merger Regulation between 1990 and Oct. 2004, 1,640 (64 percent) were notified in the years 1999-2004.

and detail of phase II investigations had strained the Commission's resources,[30] and that the informality and flexibility that had characterized the early years had given way to a more bureaucratic approach.[31] Second, it was suggested that the possibility open to the Commission since March 1, 1998, to condition phase I approval decisions on undertakings had at times led the Commission to seek remedies that were not fully merited. Third, the Commission's limited resources were believed to have encouraged undue reliance on (and insufficient skepticism of) third-party testimony, especially that submitted by competitors. Fourth, concern was expressed as to the Commission's preparedness to rely on speculation about future anticompetitive conduct as a ground for challenging transactions, in particular in the context of conglomerate mergers. (The Commission's prohibition of *General Electric/Honeywell* attracted particularly strong criticism from senior U.S. antitrust officials[32] and an assertive response from the Commission.[33]) Fifth, it was suggested that DG COMP had become less susceptible to external review and scrutiny than before.[34]

MOST FUNDAMENTALLY, THE COMMISSION'S ROLE AS INVESTIGATOR, PROSECUTOR, AND ADJUDICATOR WAS CALLED INTO QUESTION.

Most fundamentally, however, the Commission's role as investigator, prosecutor, and adjudicator was called into question.[35] The principal criticism made was that the same officials assess the evidence, develop and state the case against a notified concentration, determine whether that case has been proved, and propose whether a transaction should be approved or prohibited. Related to this

30 *See, e.g.,* PETER SUTHERLAND, GLOBAL CONSOLIDATION: VIEWS ON FUTURE MARKET DYNAMICS, EC MERGER CONTROL: TEN YEARS ON 70 (2000) ("It is clear that the MTF needs more resources immediately to deal with existing transaction volumes"). *See also*, COLIN OVERBURY, POSTSCRIPTUM, EC MERGER CONTROL: TEN YEARS ON 450 (2000) ("There is no doubt that the resources of the MTF are now stretched to the limit").

31 *See, e.g.*, Commission Decision 2004/285/EC, BP/Erdölchemie, 2004 O.J. (L 91) 40.

32 *See, e.g.,* Charles A. James, International Antitrust in the 21st Century: Cooperation and Convergence, OECD Global Forum on Competition, Oct. 17, 2001, *available at* http://www.usdoj.gov/atr/public/speeches/9330.pdf ("[The Commission's decision] is neither soundly grounded in economic theory nor supported by empirical evidence, but rather, is antithetical to the goals of sound antitrust enforcement").

33 *See, e.g.,* Press Release IP/01/855, European Commission, Commissioner Monti Dismisses Criticism of GE/Honeywell Merger Review and Rejects Politicisation of the Case (Jun. 18, 2001), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/01/855&format=HTML&aged=1&language=EN&guiLanguage=en.

34 *See, e.g.*, Joseph Gilchrist, *Rights of Defence and the Role of the Hearing Officer in EU Merger Cases*, GLOBAL COMPETITION REV. 19-20 (Dec. 2000/Jan. 2001).

35 *See, e.g.*, Jack Welch, then-Chairman of General Electric, who, following the Commission's prohibition of the *General Electric/Honeywell* transaction, complained that "it's very difficult to be in a process where the prosecutor is also the judge." *The Prosecutor Is Also the Judge*, TIME, Jul. 16, 2001, at 42.

criticism was the impression that internal checks and balances on the Commission's decision-making had become less effective over time,[36] in part because the reforms of the role of the Hearing Officer introduced in 2001 had confined that official's role to dealing with procedural matters—not substantive issues, legal arguments, or conclusions drawn from the evidence. A comparison was made with the United States,[37] where the prospect of independent judicial review is thought to exert discipline on decision-making, irrespective of whether the federal agencies decide to challenge or approve a given transaction.[38] Certain commentators, including the President of the CFI, went as far as to suggest that authority to block mergers should be given to the EC courts.[39]

2. 2002: The Turning Point

The turning point in Commissioner Monti's tenure came in 2002, when the relatively modest package of reform envisaged in *The Green Paper on the Review of Council Regulation 4064/89* (Green Paper),[40] published at the end of 2001, was comprehensively undermined by a series of judgments of the CFI rendered over

36 *See, e.g.*, The Review of the EC Merger Regulation, 32nd Report of the House of Lords Select Committee on the European Union, HL Paper 165, Session 2001-02, at para. 4 ("The top priority for reform should be to ensure objectivity and fairness in the ECMR process. The many concerns about due process are best addressed by improving the procedural safeguards in the current system. Efforts must focus on improving the internal checks and balances in the ECMR regime").

37 The U.S. antitrust agencies do not authorize concentrations. Rather, they review them and, for those concentrations considered likely to lessen competition, either negotiate conditions upon which they will not litigate in court or challenge the merger before a judge, who decides whether to enjoin a merger. For concentrations found unlikely to lessen competition, the U.S. agencies simply refrain from challenging the transactions.

38 *See, e.g.,* William J. Kolasky, Conglomerate Mergers and Range Effects: It's a Long Way from Chicago to Brussels, George Mason University Symposium, Washington, D.C., Nov. 9, 2001, *available at* http://www.usdoj.gov/atr/public/speehces/9536.pdf ("If we decide in the U.S. to challenge a merger, we know we may have to go to court to convince a federal judge, by the preponderance of the evidence after an evidentiary hearing, that the merger may substantially lessen competition").

39 *See* David Lawsky, *Interview with Judge Bo Vesterdorf, President of the Court of First Instance*, REUTERS NEWS SERVICE, Sep. 19, 2002 ("In the cautious phrasing of a jurist, Vesterdorf said, 'The Commission might consider whether the sole responsibility to prohibit mergers should remain with the Commission, or whether one should change the system into something like the U.S. system.' In the United States, he noted, 'if (a merger) is to be prohibited, (the government) must to go court.'").

40 Green Paper on the Review of Council Regulation 4064/89, COM(2001) 745/6 final, *at* http://europa.eu.int/comm/competition/mergers/review/. The Green Paper focused on four main areas: (1) the Merger Regulation's thresholds, where the Commission proposed extending its exclusive competence to transactions that were reportable in three or more Member States (at para. 59); (2) the referral of concentrations to Member State authorities, where the Green Paper proposed simplifying the requirements for referral requests (at paras. 69-83); (3) the substantive test of the Merger Regulation, where the Green Paper invited a "thorough debate" on the respective merits of the dominance test and the substantial lessening of competition (SLC) test (at paras. 159-179); and (4) improving the procedural provisions of the Merger Regulation, including a "stop-the-clock" provision to introduce greater flexibility into the time limits for proffering commitments (at para. 213).

a five-month period that annulled three prohibition decisions adopted by the Commission between 1999 and 2001 (*Airtours*, *Schneider*, and *Tetra Laval*). These judgments were scathing in their criticism of the Commission's appreciation of the facts and treatment of evidence. (By way of example, the court in *Airtours* undertook a detailed factual analysis that identified "errors, omissions and inconsistencies of utmost gravity."[41]) The court's judgments received wide, often critical, coverage in the media and caused the Commission to conduct a swift review of the underlying weaknesses in its application of the Merger Regulation.[42]

3. 2003-2004: The Years of Reform

Following the court's judgments in *Airtours*, *Schneider*, and *Tetra Laval*, the Commission acknowledged that "the system put in place in 1990 [was] showing some signs of strain."[43] The Commission also recognized that a "radical"[44] package of measures was needed to allay criticism, ensure that future decisions would be based on firm evidence and solid investigative techniques that could be tested against "the cold metal of economic theory,"[45] and maintain the existing institutional framework in which the Commission approves or prohibits mergers. The Commission expressed determination that "these setbacks [should not be allowed] to distort our view of the Community's merger control policy," and resolved to "transform them into an opportunity for even deeper reform than originally envisaged."[46]

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41 *Airtours*, *supra* note 4, at para. 404.

42 *See, e.g.*, Francesco Guerrera & Guy de Jonquières, *Something Is Rotten Within Our System*, FIN. TIMES, Oct. 28, 2002 ("The European Union's top economic policemen have been put on trial—and found guilty. Three times in five months, European Commission vetoes of high-profile corporate mergers have been overturned by the EU's second highest court. The unprecedented defeats, coupled with scathing reprimands by the court, are more than just a crushing blow for Mario Monti, Europe's competition commissioner, and his elite team of enforcers. By cutting the Commission down to size, the Court of First Instance—the lower chamber of the Luxembourg-based European Court of Justice—has sparked the beginning of a revolution in the way the EU regulates mergers").

43 Mario Monti, *Europe's Merger Monitor*, THE ECONOMIST, Nov. 9, 2002.

44 Philip Lowe, Future Directions for EU Competition Policy, Address at the International Bar Association, Fiesole (Sep. 20, 2002), *available at* http://europa.eu.int/comm/competition/speeches/text/sp2002_034_en.pdf.

45 JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY (1942).

46 Mario Monti, Merger Control in the European Union: A Radical Reform, European Commission/IBA Conference on EU Merger Control, Brussels (Nov. 7, 2002), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/02/545&format=HTML&aged=1&language=EN&guiLanguage=en. *See also*, Mario Monti, Competition Enforcement Reforms in the EU: Some Comments by the Reformer, Georgetown University, Washington D.C. (Apr. 4, 2003), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/03/200&format=HTML&aged=0&language=EN&guiLanguage=en ("[t]here is no doubt that we deepened some of

In December 2002, the Commission approved a "comprehensive merger control reform package, which is intended to deliver a world class regulatory system for firms seeking approval for their mergers and acquisitions in the [EU]."[47] The package included a proposal for a wide-ranging revision of the Merger Regulation (the Draft Merger Regulation),[48] a Draft Horizontal Mergers Notice,[49] and Draft Best Practices Guidelines.[50] Announcing the proposals, Commissioner Monti predicted that "[t]he reforms will significantly improve our merger control system making it, I believe, a model to be emulated worldwide."[51] Following extensive discussion with Member State competition agencies, the Commission's proposals were adopted by the Council, with only relatively minor changes, in late 2003.[52] The recast Merger Regulation, which came into force on May 1, 2004, together with the other measures implemented by Commissioner Monti in response to the EC courts' judgments, are described below in the assessment of Commissioner Monti's legacy.

The EC courts' judgments in 2002 encouraged a more cautious approach and the Commission's challenge rate fell: between 2002 and October 2004, no transaction was prohibited (the last year in which this had occurred was 1993). Of the 212 transactions notified in 2003, a large number were reported under the simplified procedure, which requires submission of only a short form notification;[53] 11 (5 percent) were approved with remedies at the end of phase I, including

[the] reforms after the three annulments of merger decisions by the [CFI] last year. While dealing with different problems, the three decisions have a point in common: they have set a high standard of proof for the Commission to match when blocking a deal").

47 Press Release IP/02/1856, European Commission, Commission Adopts Comprehensive Reform of EU Merger Control (Dec. 11, 2002), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/02/1856&format=HTML&aged=0&language=EN&guiLanguage=en.

48 Proposal for a Council Regulation on the Control of Concentrations between Undertakings, COM(2002) 711.

49 Draft Commission Notice on the Appraisal of Horizontal Mergers Under the Council Regulation on the Control of Concentrations between Undertakings, 2002 O.J. (C 331) 3 [hereinafter *Draft Horizontal Mergers Guidelines*].

50 DG Competition Best Practices Guidelines on the Conduct of EC Merger Control Proceedings, *at* http://europa.eu.int/comm/competition/mergers/others/best_practices_public_cons.pdf [hereinafter *Best Practices Guidelines*].

51 Press Release IP/02/1856, *supra* note 47.

52 Press Release IP/03/1621, European Commission, Commission Welcomes Agreement on New Merger Regulation (Nov. 27, 2003), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/03/1621&format=HTML&aged=1&language=EN&guiLanguage=en.

53 About 70 (33 percent) transactions were notified under the simplified procedure, including several significant transactions. *See, e.g.*, Commission Decision COMP/M.3303, General Electric/Vivendi Universal Entertainment, 2004 O.J. (C 6) 22.

Alcan/Pechiney (II),[54] which, in 2000, had been abandoned to avoid being prohibited, but in 2003 was approved, subject to wide-ranging divestiture and other commitments; and nine (4 percent) were cleared at the end of phase II, two unconditionally and the remainder subject to undertakings, including a number that required extensive relief.[55] No transaction was withdrawn.

Over the course of 2003-2004, the Commission continued to evolve the economic sophistication of its decisions and began to subject draft decisions to greater internal scrutiny.[56] Several transactions that many expected to be challenged, including *Carnival/P&O*,[57] *Sony/BMG*,[58] and *Oracle/PeopleSoft*,[59] were approved. Also, building on the broader interpretation that had been given to the "failing firm defence" in the Commission's 2001 decision in *BASF/Eurodiol/Pantochim*,[60] Commissioner Monti adopted a pragmatic approach in cases where no less anticompetitive alternative could reasonably be identified (*Deloitte & Touche/Andersen (United Kingdom)*,[61] *Ernst & Young/Andersen France*,[62] and *Newscorp/Telepiù*).[63] As for judicial review, after the setbacks of 2002, the EC courts largely confirmed the Commission's decisions; only one prohibition decision was overturned, mainly on technical grounds,[64] and a clearance decision was partially annulled.[65]

54 Commission Decision COMP/M.3225, Alcan/Pechiney (II), 2003 O.J. (C 299) 19.

55 *See, e.g.*, Commission Decision 2004/322/EC, General Electric/Instrumentarium, 2004 O.J. (L 109) 1 [hereinafter *General Electric/Instrumentarium*]; Commission Decision 2004/422/EC, Lagardère/Natexis/VUP, 2004 O.J. (L 125) 54; Commission Decision 2004/311/EC, Newscorp/Telepiù, 2004 O.J. (L 110) 73.

56 *See, e.g.*, Commission Decision 2003/777/EC, Siemens/Drägerwerk/JV, 2003 O.J. (L 291); and *General Electric/Instrumentarium*, *supra* note 55.

57 Commission Decision COMP/M.3071, Carnival/P&O Princess, 2003 O.J. (C 42) 7.

58 Commission Decision COMP/M.3333, Sony/BMG (Jul. 19, 2004, not yet reported).

59 Commission Decision COMP/M.3216, Oracle/PeopleSoft (Oct. 26, 2004, not yet reported).

60 Commission Decision 2002/365/EC, BASF/Eurodiol/Pantochim, 2002 O.J. (L 132) 45, at paras. 136-138.

61 Commission Decision COMP/M.2810, Deloitte & Touche/Andersen UK, 2002 O.J. (C 200) 8.

62 Commission Decision COMP/M.2816, Ernst & Young/Andersen France, 2002 O.J. (C 232) 6.

63 *See also*, Christina Caffarra & Andrea Coscelli, *Merger to Monopoly: Newscorp/Telepiù*, 24(11) EUR. COMPETITION L. REV. 625 (2003).

64 *MCI*, *supra* note 4 (Court found that the Commission had erred in prohibiting a transaction one day after being informed that the proposed merger had been abandoned).

65 Case T-114-02, BaByliss SA v. Commission, 2003 E.C.R. II-1279, partially overturning SEB/Moulinex (*see* Commission Decision COMP/M.2621, SEB/Moulinex, 2002 O.J. (C 49) 18).

III. Commissioner Monti's Legacy

This section assesses Commissioner Monti's legacy with respect to a series of procedural and substantive matters relevant to the Commission's appraisal of reportable transactions.

A. JURISDICTIONAL MATTERS

In common with his immediate predecessor, Karel Van Miert, Commissioner Monti considered changing the jurisdictional thresholds of the Merger Regulation, but ultimately decided to leave in place the bright-line thresholds prescribed in the 1989 Merger Regulation, as amended in 1997. In late 2001, the Green Paper adopted by the Commission concluded that the second set of thresholds introduced in March 1998 had failed to confer on the Commission competence over transactions that require notification in multiple Member States.[66] Accordingly, the Commission proposed amending the Merger Regulation to ensure "effective application of Community competition rules to cases with a cross-border interest, while, in a balanced way, reducing the administrative burden for the involved companies."[67] The Green Paper suggested revising the Merger Regulation to establish automatic EC competence over cases subject to notification in three or more Member States.

Although there was widespread support for reducing the number of multiple filings at the Member State level, the practical difficulties identified in the Green Paper's proposal led to its abandonment. Having decided against further reducing the Merger Regulation's jurisdictional thresholds on the grounds that they "continue to function effectively as proxies for those cases that are most appropriately dealt with at the Community level,"[68] Commissioner Monti introduced reforms intended to simplify the allocation of cases between the Commission and Member States and to reduce the incidence of multiple filings through a streamlined system of referrals.[69] The principal change gave companies the possibility to request one-stop review by the Commission, thereby avoiding the need to notify the same transaction to a number of different national agencies. Although the practical implications of the new rules will emerge only with time, experience to date suggests that, notwithstanding their complexity, compa-

66 Green Paper, *supra* note 40, at para. 24.

67 *Id.* at para. 29.

68 Proposal for a Council Regulation on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty and Amending Regulations 1017/68/EEC, 2988/74/EEC, 4056/86/EEC and 3975/87/EEC, COM(2000) 582 final, at para. 11.

69 Press Release IP/02/1856, *supra* note 47.

nies have not been deterred from making the requisite applications in a significant number of cases.[70]

B. EVIDENTIARY MATTERS

One of the principal implications of the EC courts' judgments in *Airtours*, *Schneider*, and *Tetra Laval* concerned the evidentiary standard that must be met by the Commission. In *Airtours*, the CFI said that "it is incumbent upon [the Commission] to produce convincing evidence thereof"[71] and to "prove conclusively" that the transaction will have anticompetitive effects.[72] In *Schneider*, the CFI criticized the "abstract" nature of certain of the Commission's determinations, found its evidence "lacking," and held that certain of its findings were "insufficiently demonstrated in law."[73] In *Tetra Laval*, the CFI confirmed that the Commission's assessment should be based on "cogent evidence"[74] and held that the evidence relied upon had, at least in part, "not [been] plausible" or "sufficient in law."[75]

The Commission has appealed the CFI's judgment in *Tetra Laval*,[76] inter alia, because it believes that the court "imposed a disproportionate standard of proof for Merger Regulation decisions," and, "as a result, has upset the balance between the interests of the merging parties and the protection of consumers, which is provided for in the Merger Regulation."[77] The Commission's appeal contends that "the requirement in *Tetra Laval* that the evidence be 'convincing' is materially different, both in degree and in kind, from the obligation that evidence be 'cogent and consistent.'"[78] The Commission has nevertheless recognized that

70 As of mid Oct. 2004, 14 applications had been made to have transactions referred from the national level to the Commission, of which only two had been vetoed by Member States, while one application had been filed for the transfer of a transaction from the Commission to the Member States and was accepted. Together, these transactions represented about 10 percent of all those notified under the Merger Regulation between May 1 and Oct. 15, 2004.

71 *Airtours*, *supra* note 4, at paras. 47 and 63.

72 *Id.* at para. 210.

73 *Schneider*, *supra* note 4, at paras. 209, 343, 349, and 398.

74 *Tetra Laval*, *supra* note 4, at para. 137.

75 *Id.* at paras. 246, 298.

76 Commission v. Tetra Laval, *supra* note 21.

77 Press Release IP/02/1952, European Commission, Commission Appeals CFI Ruling on Tetra Laval/Sidel to the European Court of Justice (Dec. 20, 2002), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/02/1952&format=HTML&aged=1&language=EN&guiLanguage=en.

78 Report for the Hearing, Case C-12/03, Commission v. Tetra Laval, CFI judgment pending, at para. 26.

"the level of proof required by the [CFI] is high, which implies that the Commission's enquiries should be more extensive and detailed than at present."[79] As described below, many of the initiatives pursued by Commissioner Monti following *Airtours*, *Schneider*, and *Tetra Laval* were intended to ensure that the Commission would in future avoid the errors committed in those cases and meet the high evidentiary standard established by the EC courts.

C. HORIZONTAL MERGER GUIDELINES

The Horizontal Mergers Guidelines represent among the most significant of Commissioner Monti's contributions to EC merger control. As explained above, the judicial defeats of 2002 provided the catalyst for a series of reforms intended, among other things, to ensure that the Commission's review should be more structured, firmly grounded in sound economics, and consistently based on an objective assessment of quantitative evidence. In an effort to synthesize 15 years of practice, "provide guidance as to how the Commission assesses concentrations,"[80] prescribe "a sound economic framework for the assessment of concentrations,"[81] and give the Commission's decision-making "new transparency and clarity,"[82] the Commission adopted the Horizontal Mergers Guidelines in January 2004.

The Horizontal Mergers Guidelines explain how mergers should be analyzed and identify the factors that may mitigate an initial finding of competitive harm. In addition to identifying the ways in which horizontal mergers may impair effective competition, as well as countervailing factors that may defeat a finding of competitive harm, they also formalize the Commission's practice of using the Herfindahl-Hirschman Index (HHI) to measure concentration levels.[83] Their adoption was intended to create a more predictable climate for the assessment of reportable transactions and to achieve benefits in the European Community similar to those achieved by the implementation in 1982 of the first version of the U.S. Horizontal Merger Guidelines.[84] The significance lies primarily in their

79 Mario Monti, EU Competition Policy, Fordham Annual Conference on International Antitrust & Policy, New York (Oct. 31, 2002), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/02/533&format=HTML&aged=1&language=EN&guiLanguage=en.

80 *Horizontal Mergers Guidelines*, *supra* note 6, at para. 5.

81 *Merger Regulation*, *supra* note 1, at recital 28.

82 Philip Lowe, Developments in EC Competition Policy, Richards Butler Annual Competition Forum, London (Nov. 29, 2002), *available at* http://europa.eu.int/comm/competition/speeches/text/sp2002_044_en.pdf.

83 *Horizontal Mergers Guidelines*, *supra* note 6, at 19-21.

84 *See* U.S. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, issued 1992, revised 1997, *at* http://www.usdoj.gov/atr/public/guidelines/horiz_book/hmg1.html.

manifestation of the Commission's appreciation of the value in providing clear, structured, and economics-based guidance concerning the analysis of horizontal transactions.

D. SUBSTANTIVE APPRAISAL

1. The Commission's Decisional Practice

Recognizing that the Merger Regulation's substantive test is not "some immovable and absolute measurement against which the future effects of a merger can be assessed," but is rather "a highly sophisticated tool that requires us to understand the dynamics of competition and to identify the key competitive factors in the markets concerned,"[85] the Commission's decisional practice evolved during Commissioner Monti's tenure: less reliance was placed on market share data and greater emphasis was given to evaluating the competitive characteristics of the market, the dynamics of competition between the merging parties, and the competitive effects of reportable transactions. During Commissioner Monti's tenure, the Commission increasingly focused on the direct substitutability of the merging parties' products,[86] and more frequently cast its assessment in terms of assessing the unilateral effects of a merger.[87]

Two decisions involving Volvo's truck business illustrate how unilateral effects considerations can tip the scale toward or away from a finding of dominance when moderately high market shares are involved. In both *Volvo/Scania*, where the notified transaction was prohibited, and *Volvo/Renault*, where the transaction was approved, the Commission focused on the degree of substitutability between the parties' heavy trucks and considered direct evidence of substitutability (by surveying customers' perceptions of the trucks' characteristics), as well as economic evidence (including studies of market share fluctuations and econometric pricing models). In *Volvo/Scania*, the evidence showed that the parties' trucks were each other's closest substitute, which became a significant factor in the Commission's prohibition decision. On the other hand, in *Volvo/Renault* the Commission concluded that the transaction raised no concern on the French heavy truck market, despite a combined share of 49 percent—a share that would have been sufficient to trigger opposition in *Volvo/Scania*, primarily on the basis

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85 Mario Monti, The Main Challenges for a New Decade of EC Merger Control, EC Merger Control 10th Anniversary Conference, Brussels (Sep. 15, 2000), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/00/311&format=HTML&aged=1&language=EN&guiLanguage=en.

86 The Commission's preparedness to focus on projecting a merger's likely effect on prices through unilateral effects has precedent in some of the early decisions rendered under the Merger Regulation. *See, e.g.*, *DuPont/ICI*, *supra* note 9; Commission Decision 96/435/EC, Kimberly-Clark/Scott, 1996 O.J. (L 183) 1.

87 *See*, *e.g.*, Commission Decision 2003/667/EC, Carnival/P&O Princess, 2003 O.J. (L 248) 1, at paras. 136-138.

of evidence showing that the parties' trucks were not particularly close substitutes.[88]

Finally, in a number of cases, Commissioner Monti sought to use merger control as a tool to foster structural reform in the European Community, in particular by accelerating liberalization or opening national markets to foreign competition.[89] By way of example, in *EnBW/EDP/Cajastur/HIDROCANTÁBRICO*, the Commission's approval of a transaction involving a Spanish electricity supplier and a French electricity distributor was conditional on the latter's undertaking to increase interconnection capacity between France and Spain.[90] Likewise, in *Telia/Telenor*, the Commission determined that each of the merging parties was the most significant potential competitor in the other's home market (Sweden and Norway, respectively) and required remedies designed to increase the scope for competition.

2. The Merger Regulation's Substantive Test

In the wake of *General Electric/Honeywell*, there was considerable debate as to whether the Commission and the U.S. agencies had reached opposite conclusions as a result of the different tests in the European Community and the United States. Commissioner Monti's contribution to this debate included a wide-ranging review, launched in December 2001 with the Commission's Green Paper, of the implications, if any, of replacing the pre-existing dominance test with an SLC test.

A number of reasons were advanced in favor of an SLC test. First, it was suggested that an SLC test might be a more appropriate, economics-based tool with which to assess the competitive effect of concentrations, since it arguably allows greater emphasis to be placed on inter-firm competitive dynamics, empirical evidence, and economic analysis, permits greater identification of the competition problems and associated remedies, and entails somewhat greater scope for the use of efficiency analysis.[91] Second, it was said that an SLC test would require the

88 *Volvo/Renault*, *supra* note 23, at para. 33.

89 *See, e.g.*, Mario Monti, A Reformed Competition Policy: Achievements and Challenges for the Future, Center for European Reform, Brussels (Oct. 28 2004), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/04/477&format=HTML&aged=0&language=EN&guiLanguage=en.

90 Commission Decision COMP/M.2684, EnBW/EDP/Cajastur/HIDROCANTÁBRICO, 2002 O.J. (C 114) 23.

91 *See, e.g.*, John Vickers, Director General of Fair Trading, U.K. Office of Fair Trading, International Mergers: The View from a National Authority, 28th Annual Conference on International Antitrust Law and Policy, Fordham University School of Law, New York (Oct. 25, 2001) ("Dominance is not an ideal test for considering the impact of a merger on competition. Narrowly interpreted it would be far too permissive. The Commission has therefore been creative in applying the dominance test, particularly when looking at oligopolistic markets. But the concept of joint or collective dominance is not without difficulties").

Commission to focus less on whether (potentially less efficient) competitors could be marginalized by a merger and more on whether the effects on competition are good or bad from a consumer perspective in the form of lower prices. Third, there was said to be a "gap" in the dominance standard that rendered it incapable of challenging a small category of anticompetitive transactions.[92]

Following an extensive debate among regulators, lawyers, and economists concerning the differences between the dominance and SLC tests,[93] the Commission concluded that "[t]he dominance test, if properly interpreted, is capable of dealing with the full range of anti-competitive scenarios which mergers may engender."[94] Nevertheless, having identified a possible "gap" between single-firm dominance and collective dominance, the Commission explored various means of addressing the situation. Rather than replace the dominance standard with an SLC test,[95] in part because of a desire to "maintain the sizeable body of case law and case practice which has been built up over the years,"[96] the Commission proposed bridging any "enforcement gap" between the dominance and SLC tests by making specific reference in the Merger Regulation to "unilateral effects."[97]

In December 2002, in an attempt to address any "enforcement gap" between the dominance and SLC tests, the Commission proposed "clarifying"[98] the definition of dominance—for the purposes of the Merger Regulation—to undertakings that "hold the economic power to influence appreciably and sustainably the parameters of competition, in particular, prices, production, quality of output,

92 Consider, for example, a proposed merger between the #2 and #3 firms in a three-firm market where the shares are 60 percent / 20 percent / 20 percent. Since the combined entity would remain smaller than the market leader, it would be difficult to argue that it would become individually dominant. Moreover, if market conditions were not conducive to oligopoly behavior (*e.g.*, there was "lumpy" demand or a lack of price transparency), it might prove difficult to apply a convincing collective dominance analysis. Nevertheless, based on the high level of market concentration, competition concerns could arise.

93 *See, e.g.,* Sven B. Völcker, *Mind the Gap: Unilateral Effects Analysis Arrives in EC Merger Control*, 25(7) Eur. Competition L. Rev. 395 (2004); Vijay SV Selvam, *The EC Merger Control Impasse: Is There a Solution to This Predicament?*, 25(1) Eur. Competition L. Rev. 52 (2004).

94 Monti, Merger Control in the European Union: A Radical Reform, *supra* note 46.

95 Monti, EU Competition Policy, *supra* note 79 ("I believe that the issue of choice among the two tests, dominance and substantial lessening of competition, has been excessively dramatized. I attach definitively more importance to the adoption of guidelines on the assessment of horizontal mergers, which will give clarity and predictability to the Commission policy").

96 Proposal for a Council Regulation on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty, *supra* note 68, at para. 56.

97 Monti, Merger Control in the European Union: A Radical Reform, *supra* note 46.

98 Proposal for a Council Regulation on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty, *supra* note 68, at para. 55.

distribution or innovation, or appreciably to foreclose competition."[99] Instead of identifying two categories of anticompetitive effect—unilateral effects and coordinated effects—the Commission proposed a three-part framework that identified two categories of unilateral effect, those giving rise to a "paramount market position" and those that would otherwise create or strengthen a non-collusive oligopoly.[100] The Commission's proposal proved controversial,[101] in particular among Member State competition agencies, and an extensive debate took place over the course of 2003 on the merits of the Commission's approach as against that of switching to the SLC standard, as well as the general implications for merger policy of a reworking of the substantive standard.[102] In early 2004, the Council adopted a compromise proposal recasting the substantive test adopted in 1989.

THE COMMISSION MAY BE EXPECTED TO PLACE LESS EMPHASIS ON MARKET DEFINITION AND ATTACH GREATER IMPORTANCE TO ASSESSING THE COMPETITIVE EFFECT OF PARTICULAR TRANSACTIONS.

As of May 1, 2004, the substantive test under the Merger Regulation has been whether a transaction "significantly impedes effective competition in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position."[103] Although the practical implications of the recast substantive test will emerge only over time, the following tentative predictions may be made. First, consistent with recent practice, the Commission may be expected to place less emphasis on market definition and attach greater importance to assessing the competitive effect of particular transactions. Second, more emphasis will likely be placed on assessing the nature and extent of competition between the merging parties, examining the competitive significance of that rivalry, and projecting the effects on the market in light of that assessment. Third, while the scope for intervention may have been widened,[104] emboldening the Commission to challenge transactions that might previously have been approved, the burden will remain on the Commission to make a showing to the requisite legal standard

99 *Id.* at art. 2(2).

100 *Draft Horizontal Mergers Guidelines*, *supra* note 49, at para. 11.

101 *See, e.g.*, William Kolasky & Richard Elliott, *The European Commission Notice on the Appraisal of Horizontal Mergers*, 17 ANTITRUST 64 (2003).

102 *See, e.g.*, John Fingleton, Mind the Gap: Reforming the EU Merger Regulation, The Role of Economics in European Competition Policy Conference, London (Jun. 4, 2003).

103 *Merger Regulation*, *supra* note 1, at art. 2(3).

104 *See, e.g.*, John Vickers, *Merger Policy in Europe: Retrospect and Prospect*, 25(7) EUR. COMPETITION L. REV. 455 (2004) ("[The significant impediment to effective competition test] extends, in a disciplined way, beyond dominance, and it makes clear that the new test covers non-coordinated effects, thus disposing of the problem of the gap").

that a concentration will have material anticompetitive effects. In sum, the recast substantive test is unlikely to effect a significant change in policy or support a materially greater number of prohibition decisions.[105]

3. Efficiencies

Although there is widespread agreement among economists and lawyers that the promotion of efficiencies is a central aim of competition law,[106] the Commission's view of efficiencies has been controversial. At the time the Merger Regulation was adopted, the Commission resisted suggestions that it should exempt or permit concentrations that created or strengthened a dominant position by reason of projected efficiencies.[107] The prevailing view of Commission officials at the time was that this provision did not permit positive account to be taken of efficiencies and that "any kind of derogation [is] totally excluded."[108] Among other things, the Commission cited the Council's omission from the 1989 Merger Regulation of language considered in earlier drafts that would have permitted the Commission to authorize mergers contributing "to the attainment of the basic objectives of the Treaty in such a way that, on balance, their economic benefits prevail over the damage they cause to competition."[109]

Attempts to rely on an efficiency defense failed in a series of cases, including *Aerospatiale-Alenia/de Havilland*,[110] *Accor/Wagons-Lits*,[111] *MSG/Media Service*,

105 *See, e.g.,* Mario Monti, Private Litigation as a Key Complement to Public Enforcement of Competition Rules and the First Conclusions on the Implementation of the New Merger Regulation, IBA 8th Annual Competition Conference, Fiesole (Sep. 17, 2004) ("The introduction of the new test has reinforced the effectiveness of our basic merger law, and represents an improvement from the perspective of international convergence...[but] we are [not] about to witness radical changes in the criteria relevant for the purpose of the assessment of a merger in the European Union.... So, don't expect a shift in enforcement policy or a revolution"). *See also*, James Venit & Frederic Depoortere, *The New EC Horizontal Merger Guidelines*, Global Competition Rev. 2004, at 29.

106 *See*, *e.g.*, Richard A. Posner, Antitrust Law 2 (2d ed. 2001).

107 *See, e.g.*, Sir Leon Brittan, Q.C., now Lord Brittan, Principles and Practice of the Merger Regulation, Centre for European Policy Studies, Brussels, Sep. 24, 1990, Commission Press Release IP/90/751.

108 Colin Overbury, *EEC Merger Regulation Panel Discussion*, 1992 Fordham Corp. L. Inst. 605 (1993). *See also*, Christopher Jones & Francisco Enrique González Díaz, The EEC Merger Regulation 153-156 (1992).

109 Commission Notice on Amended Proposal for a Council Regulation on the Control of Concentrations between Undertakings, 1989 O.J. (C 22) 14, at recital 16.

110 *Aerospatiale-Alenia/de Havilland*, *supra* note 8, at paras. 65-69. *See also*, Frédéric Jenny, *EEC Merger Control: Economies As An Antitrust Defense Or An Antitrust Attack?*, 1992 Fordham Corp. L. Inst. 599 (1993).

111 Commission Decision 92/385/EEC, Accor/Wagons-Lits, 1992 O.J. (L 204) 1, at para. 26(2)(f).

Danish Crown/Vestjyske Slagterier,[112] and *Mercedes-Benz/Kässbohrer*,[113] and in *British Telecom/MCI (II)*, the Commission cited the notifying parties' post-transaction ability to "benefit from the more efficient use of transmission capacity" as a factor strengthening their competitive position.[114] Exceptionally, in *Mannesmann/Valourec/Ilva*, the Commission appeared to view favorably the prospect that a concentration giving rise to high market shares would reduce production over-capacity, achieve plant specialization, and permit more effective competition from non-European manufacturers.[115] Efficiencies were, however, usually viewed as a means by which the merging entities would strengthen their positions.[116] In 1999, the Commission stated in *Danish Crown/Vestjyske Slagterier* that "[t]he creation of a dominant position in the relevant markets...means that the efficiencies argument put forward by the parties cannot be taken into account in the assessment of the present merger."

Following the appointment of Commissioner Monti, the Commission became more willing to take positive account of post-concentration efficiencies, and, in 2004, the recast Merger Regulation and the Horizontal Mergers Guidelines formalized this more positive approach. The Merger Regulation adopted in early 2004 explicitly states that positive account should be taken of efficiencies in assessing reportable concentrations.[117] Accordingly, the Commission is now required to consider "any substantiated efficiency claim in the overall assessment of the merger," and may decide, "as a consequence of the efficiencies that the merger brings about, there are no grounds for declaring the merger incompatible." As the Horizontal Mergers Guidelines explain:

> "[t]his will be the case when the Commission is in a position to conclude on the basis of sufficient evidence that the efficiencies generated by the merger are likely to enhance the ability and incentive of the merged entity to act

112 Commission Decision 2000/42/EC, Danish Crown/Vestjyske Slagterier, 2000 O.J. (L 20) 1, at para. 198.

113 Commission Decision 95/354/EC, Mercedes-Benz/Kässbohrer, 1995 O.J. (L 211) 1, at para. 66.

114 Commission Decision 97/815/EC, British Telecom/MCI (II), 1997 O.J. (L 336) 1, at para. 58. *See also*, Commission Decision COMP/JV.54, Smith & Nephew/Beiersdorf/JV, 2001 O.J. (C 89) 3.

115 Commission Decision 94/208/EC, Mannesmann/Valourec/Ilva, 1994 O.J. (L 102) 15, at paras. 39-41, 51, and 62-67. *See also*, Commission Decision 97/25/EC, ABB/Daimler-Benz, 1997 O.J. (L 11) 1, at para. 112.

116 *See, e.g.*, Commission Decision, AT&T/NCR, 91 O.J. (C 16), at para. 30; and *Nordic Satellite Distribution*, *supra* note 10, at paras. 145-152.

117 *Merger Regulation*, *supra* note 1, at recital 29.

> pro-competitively for the benefit of consumers, thereby counteracting the adverse effects on competition which the merger might otherwise have."[118]

In deciding to approve transactions that might otherwise raise competition issues because of claimed efficiencies, the Commission has effectively aligned EC policy with that applied in the United States.[119] As in the United States, the Commission has identified relatively narrow circumstances in which positive account may be taken of efficiency claims: the efficiencies must benefit consumers, be merger-specific, and be verifiable.[120] The Horizontal Mergers Guidelines recognize that it is "highly unlikely that a merger leading to a market position approaching that of a monopoly, or leading to a similar level of market power, can be declared compatible with the common market on the ground that efficiency gains would be sufficient to counteract its potential anti-competitive effects."[121] The extent to which the Commission integrates a consideration of efficiencies into its overall competitive assessment will emerge only with time.[122]

E. COORDINATED EFFECTS

Perhaps the greatest change effected during Commissioner Monti's tenure in regard to the substantive appraisal of transactions concerned the analytical approach adopted towards "coordinated effects" (i.e. transactions that facilitate tacit collusion on prices or output among the merging firms and their major competitors). Five days after Commissioner Monti took office, the Commission prohibited the *Airtours/First Choice* transaction. This decision represented only the second occasion since the Merger Regulation was adopted when a transaction was prohibited on grounds of collective dominance, the first being *Gencor/Lonrho*. In June 2001, the CFI annulled the Commission's decision in *Airtours/First Choice* in a judgment that contains extensive guidance on the conditions that must be satisfied to support a finding of collective dominance. The

118 *Horizontal Mergers Guidelines*, *supra* note 6, at para. 77.

119 *See, e.g.*, Mario Monti, Convergence in EU-US Antitrust Policy Regarding Mergers and Acquisitions: An EU Perspective, UCLA Law First Annual Institute on US and EU Antitrust Aspects of Mergers and Acquisitions, Los Angeles (Feb. 28, 2004) ("[T]here is little to distinguish the approach we set out to that of our U.S. counterpart agencies. Let me stress, in particular, that for the first time the Commission has...explicitly indicated that, under certain restrictive conditions, efficiencies will be taken into account to counteract the anti-competitive effect of notified operations").

120 *Horizontal Mergers Guidelines*, *supra* note 6, at para. 78.

121 *Id*, at para. 84.

122 *See, e.g.*, Christoph Luescher, *Efficiency Considerations in European Merger Control—Just Another Battle Ground for the European Commission, Economists and Competition Lawyers?*, 25(2) EUR. COMPETITION L. REV. 72 (2004).

court confirmed that the following three conditions are necessary for a finding of collective dominance:[123]

1. Firms must have the ability to monitor and align their behavior. Thus, there must be a sufficient degree of transparency for all members of the dominant oligopoly to be aware, "sufficiently precisely and quickly," of the way in which the other members' market conduct is evolving (i.e. prices must be sufficiently transparent for each member of the oligopoly to be able to know how the other members are behaving and to detect deviation from the common policy).

2. Firms must have incentives to maintain the coordinated behavior with the ability to detect and punish deviation. Tacit coordination must, therefore, be "sustainable" over time (i.e. "there must be an incentive not to depart from the common policy on the market"). The Court held that there must be a robust and effective coordinating mechanism so that "each member of the dominant oligopoly [is] aware that highly competitive action on its part designed to increase its market share would provoke identical action by the others, so that it would derive no benefit from its initiative."

3. The coordinated behavior must be sustainable in the face of competitive constraints in the market place. Collective dominance may only arise where such constraints are ineffective to counterbalance tacit collusion on the part of the oligopolists. In this respect, the Court held that "to prove the existence of a collective dominant position to the requisite legal standard, the Commission must also establish that the foreseeable reaction of current and future competitors, as well as of consumers, would not jeopardize the results expected from the common policy."

The three-prong test laid down by the CFI and adopted in the Horizontal Mergers Guidelines[124] required the Commission to apply a more focused and systematic analytical framework. In the past, the Commission had applied a non-binding list of factors, relying on different elements as indicators of collective dominance in various cases. This practice had led to a degree of uncertainty regarding the Commission's assessment of collective dominance and the situations in which it may arise, making it difficult to predict the Commission's analysis and likely outcome. While the *Airtours* judgment does not preclude the Commission from taking into consideration a wide array of factors when assessing collective dominance, market transparency and the existence of a credible punishment mechanism have rightly assumed greater prominence. Two significant transactions that were abandoned in the early years of Commissioner Monti's tenure because collective dominance concerns could not be resolved

123 *Airtours*, *supra* note 4, at para. 62.

124 *Horizontal Mergers Guidelines*, *supra* note 6, at para. 41.

(*Time Warner/EMI* and *Alcan/Pechiney*) were, following *Airtours*, either reconstituted and approved (*Alcan/Pechiney (II)*) or provoked a parallel merger in the same market that was approved (*Sony/BMG*).

F. CONGLOMERATE EFFECTS

Among the more controversial aspects of Commissioner Monti's legacy concerns the decisions rendered during his tenure involving conglomerate mergers, in particular the Commission's prohibition of *General Electric/Honeywell*. Although the Commission had identified an interest in conglomerate mergers as early as 1989,[125] and had subjected a series of transactions to in-depth review by reason of their conglomerate effects, including *Tetra Pak/Alfa-Laval*,[126] *Coca-Cola Enterprises/Amalgamated Beverages GB*, *The Coca-Cola Company/Carlsberg A/S*, and *Guinness/Grand Metropolitan*, it was not until 2001 that the Commission prohibited a conglomerate merger by reason of its alleged anticompetitive portfolio effects.

Portfolio effects were at the heart of the Commission's prohibition decisions in *General Electric/Honeywell*, *Schneider/Legrand*, and *Tetra Laval/Sidel*. While *General Electric/Honeywell* is under appeal, the CFI annulled the Commission decisions in *Schneider/Legrand* and *Tetra Laval/Sidel*. Although the court confirmed the potential applicability of the Merger Regulation to conglomerate mergers, it said that the competitive effects of such mergers are generally "neutral" or even "beneficial." More importantly, the court prescribed a new and higher evidentiary burden on the Commission to substantiate objections based on leveraging theories: the Commission's conglomerate analyses must establish, beyond the mere possibility of leveraging, that the transaction would "in all likelihood" create or strengthen a dominant position "in the relatively near future," and such cases require "a particularly close examination of the circumstances."[127]

Following the court's judgment, Commissioner Monti acknowledged that the court had required a high level of proof and stated that Commission investigations would in future need to be more extensive and detailed. He emphasized, however, that the court had taken issue with the Commission's decisions primarily on grounds of procedure and insufficient evidence, but had not found that the Commission's theories were per se problematic.[128] In December 2002, the Commission appealed the CFI's judgment to the ECJ[129] and announced that, fol-

125 European Commission, XIXth Report on Competition Policy (1989), at 228.

126 Commission Decision 91/535/EEC, Tetra Pak/Alfa-Laval, 1991 O.J. (L 290) 35.

127 *Tetra Laval*, *supra* note 4, at paras. 148, 155.

128 Monti, EU Competition Policy, *supra* note 79.

129 In Jan. 2003, following re-notification, the transaction was approved by the Commission. *See* Commission Decision COMP/M.2416, Tetra Laval/Sidel, 2003 O.J. (C 137) 14.

lowing its adoption of the Horizontal Mergers Guidelines, it intended publishing notices explaining its approach to vertical and conglomerate mergers.[130] These statements suggest a continued resolve on the Commission's part to apply conglomerate effects theories. Nevertheless, given the high evidentiary standard established by the court where conglomerate theories of harm are involved, the Commission may, at least in the short to medium term, be expected to pursue conglomerate effects theories only in exceptional circumstances.

Irrespective of the outcome of the appeal in *General Electric/Honeywell*, it seems unlikely that Commissioner Monti's application of the Merger Regulation to conglomerate mergers will be followed by his successors other than in exceptional circumstances. Indeed, a phase I clearance decision rendered during the last year of Commissioner Monti's tenure may come to be regarded as his most enduring legacy with respect to the appraisal of conglomerate mergers. In *General Electric/Amersham*, which involved the merger of two producers of complementary ranges of diagnostic imaging equipment, the Commission developed a systematical framework to assess the post-merger scope for contractual tying, economic tying, and technical tying.[131] With respect to commercial bundling or economic tying, which had been the most controversial aspect of *General Electric/Honeywell*, the Commission established a four-point test: (1) the merged entity should be able to leverage its pre-merger dominance in one product to another complementary product; (2) there must be a reasonable expectation that rivals could not propose a competitive response; (3) the resulting marginalization of those rivals should be expected to force them from the market; and (4) the merged firm should then be in a position to implement price increases.[132]

G. ECONOMICS AND ECONOMISTS

In its brief life, the Merger Regulation has transformed the use of economics in the European Community. Although other initiatives, such as the shift of emphasis from legal form to economic effect in the area of vertical restraints, have also promoted the use of economics, merger control has been at the vanguard of this development.[133] In common with the U.S. federal antitrust agencies,[134] the Commission recognized at an early stage the need to develop a sound

130 Press Release IP/02/1856, *supra* note 47.

131 Commission Decision 2004/103/EC, General Electric/Amersham, 2004 O.J. (C 74) 5, at paras. 33-61.

132 *Id.* at para. 37.

133 *See* Derek Ridyard, *The Role of Economics in European Merger Control*, *in* EUROPEAN MERGER CONTROL LAW: A GUIDE TO THE MERGER REGULATION (2d ed. 2004).

134 *See*, *e.g.*, William J. Kolasky, Sound Economics and Hard Evidence: The Touchstones of Sound Merger Review, Address before the American Bar Association, Washington D.C. (Jun. 14, 2002), *available at* http://www.usdoj.gov/atr/public/speeches/11304.pdf.

analytical framework that was firmly grounded in economics. Unlike the U.S. agencies, however, DG COMP did not historically have a distinct economics unit, and instead relied on economists drawn from within its ranks, as well as outside economists engaged on an ad hoc basis. During Commissioner Monti's tenure, the Commission employed external economists to assist in several cases, including *Volvo/Scania*, *General Electric/Honeywell*, *UPM-Kymmene/Haindl*,[135] and *Norske Skog/Parenco/Walsum*,[136] although the conclusions reached by those economists were not made known at the time, or subsequently.

In the U.S., the creation of an effective and independent group of economists is widely-viewed as having strengthened its antitrust enforcement. In the same way, the Commission has appointed a Chief Economist to advance the use of economics in its decision-making.

In 2002, following the EC courts' judgments in *Airtours*, *Schneider*, and *Tetra Laval*, the Commission announced plans to create a new position of Chief Economist in order to provide an independent economic opinion.[137] In July 2003, the Commission appointed its first Chief Economist, Lars-Hendrik Röller,[138] to provide methodological guidance on economic policy, general guidance in individual cases, and detailed guidance in complex cases, in particular those requiring sophisticated quantitative analysis.[139] Röller reports directly to the Director-General and is currently supported by about ten economists. In the U.S., the creation of an effective and independent group of economists is widely-viewed as having strengthened its antitrust enforcement. In the same way, the Commission has appointed a Chief Economist to advance the use of economics in its decision-making.[140] The Chief Economist's team is smaller than the comparable teams at the U.S. agencies and it remains to be seen whether Commissioner Monti's successors will attach the same importance to developing and nurturing DG COMP's economic capabilities.

135 Commission Decision 2002/737/EC, UPM-Kymmene/Haindl, 2002 O.J. (L 233) 38.

136 Commission Decision 2002/737/EC, Norske Skog/Parenco/Walsum, 2002 O.J. (L 233) 38.

137 Monti, EU Competition Policy, *supra* note 79.

138 Press Release IP/03/1027, European Commission, Commission Appoints Chief Competition Economist (Jul. 16, 2003), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/03/1027&format=HTML&aged=1&language=EN&guiLanguage=en.

139 Monti, EU Competition Policy, *supra* note 79.

140 *See* Deborah Platt Majoras, G.E. Honeywell: The U.S. Decision, Remarks before the Antitrust Law Section, State Bar of Georgia (Nov. 29, 2001), *available at* http://www.usdoj.gov/atr/public/speeches/9893.pdf.

Experience to date has been encouraging. In *Sony/BMG*, for example, economics played a central role in the Commission's appraisal of whether the merger of two of the world's five major record companies could be expected to create or strengthen a position of collective dominance. Although the merging parties provided DG COMP with a substantial body of economic evidence showing a complexity in pricing behavior that was inconsistent with tacit collusion, the Chief Economist's team carried out their own assessment of extensive data provided by each of the five major music companies in an effort to determine whether their average transaction prices had evolved in parallel in the principal EU countries. The Chief Economist's team met with the parties' economists on several occasions and attended the oral hearing. Ultimately, the Commission determined that there was insufficient evidence to establish that the transaction would create or strengthen a position of collective dominance, and it was approved without condition.

H. ADMINISTRATION AND PROCEDURE

Commissioner Monti wisely left virtually untouched the principal procedural rules and practices that had evolved since the Merger Regulation came into force. The reform package approved in 2003 did, however, contain two important measures intended to introduce greater flexibility into the investigative timetable. First, the Merger Regulation was amended to permit merging parties to notify transactions before signing definitive agreements or announcing a public bid, provided they can "satisfy the Commission of their intention to enter into an agreement for a proposed concentration and demonstrate to the Commission that their plan for that proposed concentration is sufficiently concrete."[141] Second, in an effort to give the Commission more time to carry out its market investigation without squeezing the time available to notifying parties to respond to statements of objections, the Merger Regulation was amended to permit the investigative timetable in phase II cases to be extended by up to 35 working days at the request of the notifying parties.[142] In practice, extensions to the Commission's deadlines may be expected in many cases, thereby leading to a general lengthening of the merger clearance timetable in phase II cases.

Also during Commissioner Monti's tenure, the Commission adopted the Best Practices Guidelines dealing with "the day-to-day handling of merger cases and the Commission's relationship with the merging parties and interested third par-

141 *Merger Regulation*, *supra* note 1, at recital 34; *see also*, art. 4(1). This provision is consistent with the International Competition Network's Recommended Practices for Merger Notification Procedures, point III.A, *at* http://www.internationalcompetitionnetwork.org/2003_practices.pdf.

142 *Merger Regulation*, *supra* note 1, at art. 10(3).

ties, in particular concerning the timing of meetings, transparency, and due process in merger proceedings."[143] Two significant new measures were introduced. First, the Best Practices Guidelines envisage that notifying firms may receive "key documents" (i.e. complaints and substantiated third-party submissions) at an earlier point in the investigative timetable than had previously been the Commission's practice.[144] Second, the Commission formalized its practice of organizing "state-of-play" meetings at various points in the investigative process,[145] as well as "triangular" meetings involving third parties.[146] It remains to be seen whether these changes will be sufficient to address the DG COMP's tendency in recent years to share third-party submissions with the notifying parties too late in the process to permit a timely response before the issuance of a statement of objections during phase II.

I. REMEDIES

During Commissioner Monti's tenure, the Commission became more systematic and exacting with respect to the scope, implementation, and detail of remedies. Among other things, it started to vet potential purchasers of divested businesses more carefully, required "upfront buyer" solutions in a number of cases,[147] and made greater use of independent trustees to monitor compliance with remedies. The Commission also endeavored to provide greater clarity with respect to remedies. In December 2000, the Commission adopted the Remedies Notice to pro-

143 Press Release IP/03/1744, European Commission, Commission Adopts Merger Control Guidelines (Dec. 16, 2003), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference= IP/03/1744&format=HTML&aged=1&language=EN&guiLanguage=en.

144 *Best Practices Guidelines*, *supra* note 50, at paras. 45-46.

145 *Id.* at paras. 26-31. "State-of-play" meetings are envisaged at four points in the investigative process: (1) where it becomes clear during phase I that the Commission is likely to have "serious doubts" and that it may be possible to offer remedies capable of addressing those concerns during phase I; (2) within two weeks of phase II having been opened; (3) before the Commission issues a statement of objections; (4) following the parties' response to the statement of objections and the oral hearing; and (5) before the Advisory Committee, which comprises representatives of Member State agencies.

146 *Id.*, *supra* note 50, at paras. 38-39.

147 The Remedies Notice provides that, "where the viability of the divestiture package depends ... to a large extent on the identity of the purchaser," the parties may be required to suspend the implementation of the notified transaction until reaching a binding agreement to sell the business to a purchaser approved by the Commission. *See* Commission Notice on Remedies Acceptable under Council Regulation 4064/89/EEC and under Commission Regulation 447/98/EEC, 2001 O.J. (C 68) 3, at para. 20. *See also*, *id.* at para. 16. An "up-front buyer" had been required in a number of cases. This remedy was first used in Commission Decision 99/287/EC, WorldCom/MCI, 1999 O.J. (L 116) 1; Commission Decision No. IV/M.1137, Exxon/Shell, 1998 O.J. (C 252) 9, at paras. 31, 36.

vide "necessary guidance and predictability about the Commission's merger control policy."[148] Shortly afterwards, the Commission formed an enforcement unit within DG COMP to ensure consistency and monitor implementation of remedies. In 2003, the Commission published model texts for divestiture commitments and the engagement of trustees (the Model Texts), together with Best Practices Guidelines on the Model Texts.

J. INTERNATIONAL COOPERATION

Like his predecessors, Commissioner Monti recognized that international cooperation in merger control is a natural consequence of increased enforcement by national and supranational regulatory authorities, the internationalization of the world's economy, and the desirability of avoiding significant divergence in the application of different competition rules by different antitrust agencies. During his tenure, various initiatives were pursued to facilitate convergence and minimize conflict, including the adoption of International Cooperation Best Practices Guidelines by the Commission and the U.S. federal agencies in July 2002,[149] an agreement between the European Community and Japan signed in 2003,[150] and a commitment to multilateral cooperation through the International Competition Network (ICN), a global network of competition authorities launched in October 2001 and focused exclusively on competition.[151]

Notwithstanding the progress made by EC and U.S. agencies towards institutionalizing cooperation, a significant disagreement occurred in 2001 in connection with the *General Electric/Honeywell* transaction. This transaction involved few horizontal overlaps, and the U.S. Department of Justice (DOJ) concluded that, subject to certain divestitures in those areas where the merging parties did compete, the transaction would not harm competition. The Commission, however, prohibited the transaction, prompting criticism from U.S. politicians and regulators. A former senior U.S. regulator characterized the divergent results as

148 Press Release IP/00/1525, European Commission, Notice on Merger Remedies: How and When to Cure Dominance Problems (Dec. 21, 2000), *available at* http://europa.eu.int/rapid/pressReleases Action.do?reference=IP/00/1525&format=HTML&aged=1&language=EN&guiLanguage=en.

149 International Cooperation Best Practices on Cooperation in Merger Investigations (Oct. 30, 2002), *at* http://europa.eu.int/comm/competition/mergers/others/eu_us.pdf.

150 Council Decision of 16 Jun. 2003 concluding the Agreement Between the European Community and the Government of Japan Concerning Cooperation on Anti-Competitive Activities, 2003 O.J. (L 183) 11.

151 The ICN has two principal goals: (1) to formulate and develop positions through focused dialogue on specific proposals for procedural and substantive convergence in antitrust enforcement; and (2) to provide support for new competition agencies, both in enforcing laws and building a strong competition culture in their countries. *See* Memorandum on the Establishment and Operation of the International Competition Network, *at* http://www.internationalcompetitionnetwork.org/mou.pdf.

reflecting an "absolutely fundamental disagreement" between the U.S. and EC authorities,[152] while another described the Commission's decision as "not strongly grounded in economic theory or empirical evidence."[153] This disagreement represented the most significant divergence between EC and U.S. regulators since *Boeing/McDonnell Douglas*.

Several factors made the disagreement in *General Electric/Honeywell* striking. First, the Commission and DOJ had cooperated extensively during their respective investigations, even interviewing some witnesses jointly.[154] Second, the case followed a long period in which the EC and U.S. regulators had cooperated well and established considerable mutual respect. Third, the tone of many of the comments was unusually forthright and uncompromising, with U.S. regulators, in particular, making little effort to disguise their disagreement with the Commission. *General Electric/Honeywell* confirmed that convergence might not always be possible, especially in complex cases where agencies employ different analytical frameworks. Nevertheless, with the exception of *General Electric/Honeywell*, Commissioner Monti's tenure was characterized by growing convergence in the field of merger control. Significant transactions where the EC and U.S. agencies cooperated include *Time Warner/EMI*, *AOL/Time Warner*, *CVC/Lenzing*, *Hewlett-Packard/Compaq*, *Carnival/P&O*, *Sony/BMG*, and *Oracle/PeopleSoft*.

K. CHECKS AND BALANCES

The CFI's judgments in *Airtours*, *Schneider*, and *Tetra Laval* provoked a wide-ranging debate on whether the European Community should adopt a judicially-based system of merger control similar to that in the United States. Under such a system, the Commission would act as a prosecuting agency (in the same way as the DOJ and Federal Trade Commission in the United States): if the Commission found that a merger raised serious competition concerns, it would have to take the case to a court, where the decision and power to enjoin a merger would lie with the court. In addition to perhaps requiring amendment of the EC Treaty, such a system would "fundamentally alter the current working of the Commission and the Merger Regulation."[155] An important objective of

152 Charles A. James, International Antitrust in the Bush Administration, Canadian Bar Association, Annual Fall Conference on Competition Law, Ottawa, Canada (Sep. 21, 2001), *available at* http://www.usdoj.gov/atr/public/speeches/9100.pdf.

153 William J. Kolasky, U.S. and EU Competition Policy: Cartels, Mergers, and Beyond, Council for the United States and Italy, New York (Jan. 25, 2002), *available at* http://www.usdoj.gov/atr/public/speeches/9848.pdf.

154 *See, e.g.*, Kolasky, Conglomerate Mergers and Range Effects, *supra* note 38. *See also*, James, *supra* note 152.

155 The Review of the EC Merger Regulation, 32nd Report of the House of Lords Select Committee on the European Union, HL Paper 165, Session 2001-02, at para. 239.

Commissioner Monti's response to the court's judgments was his desire to avoid the Commission's ceding power to the EC courts. Three elements of this strategy may be identified.

First, recognizing that "a proper functioning judicial review is essential to ensure that we maintain a high level of quality in our decisions,"[156] Commissioner Monti underlined its willingness to work with the EC courts "to speed up the delivery of judgments, particularly when the merging parties are keen to keep a deal alive pending the outcome of the appellate process."[157] To that end, the Commission expressed the hope that appeals in merger cases might be further accelerated,[158] and started to explore the notion of a specialized chamber for competition matters within the EC courts, as well as other measures intended to ensure a speedier review of Commission decisions.[159]

Second, Commissioner Monti implemented a range of measures intended to increase checks on the Commission's decision-making. In addition to deepening the nature and extent of Member State involvement[160] and giving additional resources to and expanding the mandate of the Commission's Hearing Officers[161] the independent officials charged with ensuring that companies' rights of defense are respected,[162] Commissioner Monti established and started to use on a systematic basis peer-review panels that operate independently of DG COMP case

156 Monti, The Main Challenges for a New Decade of EC Merger Control, *supra* note 85.

157 Monti, *Europe's Merger Monitor*, *supra* note 43. *See also*, Press Release IP/02/1856, *supra* note 47 ("The Commission will continue to push for speedy review by the Courts of Appeals in merger cases. The use by the Court of First Instance of a fast-track procedure in recent cases already represents considerable progress, but the goal should be to ensure that judicial review takes place in a period of time that makes sense for all commercial transactions").

158 In Feb. 2001, an expedited, or "fast-track," procedure, introduced by the CFI in Dec. 2000 for use in urgent cases where interim measures are inappropriate or inadequate, came into force. *See* Rules of Procedure of the Court of First Instance of the European Communities of May 2, 1991, 1991 O.J. (L 136) 1, corrigendum 1991 O.J. (L 317) 34, as Amended with a View to Expedited Procedures on Dec. 6, 2000, 2000 O.J. (L 322) 4, at art. 76(a).

159 Press Release IP/02/1856, *supra* note 47 ("The Commission, in parallel with the discussions in the Council of Mi[ni]sters on the revision of the Merger Regulation, will explore with Member States several options aimed at ensuring speedier judicial review in merger cases. The Commission will also pursue contacts with the [Community courts] on this matter").

160 *See*, *e.g.*, Philip Lowe, The Interaction between the Commission and Small Member States in Merger Review, The Competition Authority Merger Review Day, Dublin (Oct. 10, 2003), *available at* http://europa.eu.int/comm/competition/speeches/ text/sp2003_037_en.pdf.

161 Commission Decision 2001/462/EC (ECSC), The Terms of Reference of Hearing Officers in Certain Competition Proceedings, 2001 O.J. (L 162) 21.

162 *See*, *e.g.*, Philip Lowe, Review of the EC Merger Regulation—Forging a Way Ahead, European Merger Control Conference, Brussels (Nov. 8, 2002), *available at* http://europa.eu.int/comm/competition/ speeches/text/sp2002_043_en.pdf.

teams. Panels of experienced officials are now routinely appointed in phase II investigations to scrutinize the case team's conclusions with a fresh pair of eyes at key points of the inquiry. Commissioner Monti's intention is that such panels should become "a real and effective internal check on the soundness of the investigators' preliminary conclusions."[163] Although these panels operate behind closed doors, and therefore lack transparency, experience to date has suggested they have introduced a degree of internal oversight thought to have diminished in recent years.

Third, following the court's judgments in *Airtours*, *Schneider*, and *Tetra Laval*, the Commission launched a review of its internal organization and, in particular, the future role of the Merger Task Force, the dedicated team of specialist officials established in 1990 to focus exclusively on applying and enforcing the Merger Regulation. The objectives of this review were two-fold: to increase flexibility in the allocation of staff and to strengthen in-house sector-specific expertise.[164] In April 2003, the Commission announced that the Merger Task Force would effectively be disbanded and that a mergers unit would be created within each of the five sector-specific Directorates of DG COMP currently in charge of antitrust enforcement.[165] Officials of the Merger Task Force have progressively been allocated among the four sector-specific Directorates of DG COMP. Although this administrative reform was implemented only recently, initial indications suggest it has had only modest practical implications for DG COMP's application of the Merger Regulation.

The success of these measures in diffusing calls for the European Community to adopt a judicially-based system of merger control will emerge only with time. If future Commission decisions are well-reasoned and firmly based in fact, law, and sound economics, Commissioner Monti's tenure will likely be viewed as having preserved the Commission's power to approve and prohibit mergers. Should, however, complaints continue about the perceived absence of checks and balances on the Commission's decision-making and the lack of effective judicial review, the EC institutions may find it difficult to resist pressure to give greater powers to the EC courts.

163 Monti, *Europe's Merger Monitor*, *supra* note 43.

164 *See, e.g.*, Donna Patterson & Carl Shapiro, *Trans-Atlantic Divergence in GE/Honeywell: Causes and Lessons*, 16 ANTITRUST 18 (2001).

165 Press Release IP/03/603, European Commission, Commission Reorganises its Competition Department in Advance of Enlargement (Apr. 30, 2003), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/03/603&format=HTML&aged=1&language=EN&gui Language=en.

L. POLITICAL IMPARTIALITY

In the years following implementation of the Merger Regulation, it was relatively common for companies involved in transactions subject to phase II investigations to lobby Commissioners other than the EC Competition Commissioner in an effort to reverse what might otherwise be a prohibition decision. However, instances in which lobbying of this kind changed the outcome of a case were rare. During Commissioner Monti's tenure, the growing authority of DG COMP, the increasing complexity of many cases, and the Commission's broader interest in insulating itself from political pressures reduced the incidence of lobbying activities of this kind, even in high-profile cases.

Commissioner Monti successfully resisted political pressure in several important cases, including *General Electric/Honeywell*,[166] *Volvo/Scania*,[167] and *Schneider/Legrand*.[168] In so doing, he emphasized that the Merger Regulation is "based solely on a competition-based test, unlike some other systems that apply various 'public interest tests,'" with "no possibility for a political authority to intervene in first or second phase."[169] He was also perceived to have been even-handed in his approach to European and non-European companies, with much of the criticism leveled at the Commission during his tenure coming from European companies (*Volvo/Scania*, *Schneider/Legrand*, and *Alcan/Pechiney*). Even when they disagreed with Commissioner Monti's decisions, U.S. commentators did not allege any anti-U.S. bias on the Commission's part.[170]

VI. Conclusion

Commissioner Monti's tenure will be remembered as a period of controversy and change. History's verdict will turn, at least in part, on the court's judgment, expected in 2005, in the appeal lodged against the *General Electric/Honeywell*

166 *See* Press Release IP/01/855, *supra* note 33 ("I deplore attempts to misinform the public and to trigger political intervention. This is entirely out of place in an antitrust case and has no impact on the Commission whatsoever. This is a matter of law and economics, not politics. The nationality of the companies and political considerations have played and will play no role in the examination of mergers, in this case as in all others").

167 A reported attempt made by the Swedish prime minister to intervene in favor of the merging parties reinforced the Commission's resolve to prohibit the transaction.

168 A reported intervention by the French prime minister on behalf of the parties failed to change the Commission's decision to prohibit the transaction.

169 Ky Ewing Jr., *Interview with Mario Monti, European Commissioner for Competition Policy*, 15 ANTITRUST 9 (2001).

170 *See* Timothy J. Muris, Merger Enforcement in a World of Multiple Arbiters, Brookings Institution Roundtable on Trade and Investment Policy, Washington D.C. (Dec. 21, 2001), *available at* http://www.ftc.gov/speeches/muris/brookings.pdf.

prohibition decision. The durability of Commissioner Monti's legacy will be determined by his successors' commitment to implementing the letter and spirit of the reforms instituted at his initiative in response to the court's judgments in *Airtours*, *Schneider*, and *Tetra Laval*. If future Commission decisions are based on the systematic, rigorous, and scientific assessment of economic evidence, Commissioner Monti's tenure will be judged to have had a profound and lasting effect on the practice of EC merger control.

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The Changing Role of Economics in Competition Policy Decisions by the European Commission during the Monti Years

David S. Evans and Carsten Grave

This paper examines the evolution of the use of economics in EC competition policy matters and the reforms in the use of economics that occurred in the latter part of EC Competition Commissioner Mario Monti's term (1999-2004). Under his predecessors, the use of economics had been steadily increasing for many years. The revolutionary reforms under Commissioner Monti were triggered when the Court of First Instance (CFI) voided, in quick succession, three merger prohibitions adopted by the European Commission. The CFI criticized the Commission for relying on unverified economic theories. The reforms rapidly had an impact on merger analysis at the Commission. It is unclear, however, whether the Commission will embrace the use of sound economic analysis for abuse of dominance inquiries in the absence of a clear mandate from the EC courts to do so.

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I. Introduction

EC Competition Commissioner Mario Monti appointed the first Chief Economist for the European Commission's Directorate-General for Competition (DG COMP) in 2003. This was a significant event—perhaps even a turning point—in a longer-term trend towards the use of economics in EC competition policy matters. It reflected an institutional commitment to economic analysis—the Chief Economist reports directly to the Director-General and can voice his views directly to the Competition Commissioner. It also recognized that the EC courts demand greater economic rigor from the Commission. The appointment was widely seen as a response to criticisms made of the Commission in this regard by the Court of First Instance (CFI). Two years earlier, the CFI reversed three Commission decisions to block mergers.[1] The new office of the Chief Economist was one of several responses, and not the only one involving economics, that resulted from the CFI's rebukes.

As this summary suggests, Commissioner Monti's legacy for the use of economics, the subject of this article, is not a simple story. The CFI decisions were partly a response to the increased use of economics by the Commission. They were more a complaint that the Commission had misused economic reasoning rather than a contention that the Commission had not used economic reasoning at all or had offered only formalistic approaches for its merger analyses.

The nature of those decisions further complicates matters. They all concerned mergers. Later decisions by the CFI have raised doubts about the court's commitment to economic analysis for abuse of dominance, not least in the minds of the Commission.[2] It is well-known in the European competition policy community that, at the end of Commissioner Monti's tenure and the beginning of Commissioner Kroes's, DG COMP is by no means dedicated to using economics—in particular, the careful analysis of competitive effects—for abuse of dominance matters.

The CFI decisions raise a related issue that needs to be addressed in discussing the past and future direction of economics in competition policy analysis. What

1 Case T-342/00, Airtours v. Commission, 2002 E.C.R. II-2585 [hereinafter *Airtours*], declaring void Commission Decision 2000/276/EC, Airtours/First Choice, 2000 O.J. (L 93) 1 [hereinafter *Airtours/First Choice*]; Case T-5/02, Tetra Laval v. Commission, 2002 E.C.R. II-4382 [hereinafter *Tetra Laval*], declaring void Commission Decision 2004/103/EC, Tetra Laval/Sidel, 2004 O.J. (L 38) 1 [hereinafter *Tetra Laval/Sidel*], appeals to the ECJ are pending as Cases C-12/03 and C-13/03, Commission v. Tetra Laval; Case T-310/01, Schneider v. Commission, 2002 E.C.R. II-4071, declaring void Commission Decision 2004/275/EC, Schneider/Legrand, 2004 O.J. (L 101) 34 [hereinafter *Schneider/Legrand*].

2 Case T-203/01, Manufacture française des pneumatiques Michelin v. Commission (Sep. 30, 2003, not yet reported), upholding Commission Decision 2002/405/EC, Michelin, 2002 O.J. (L 143) 1; Case T-219/99, British Airways plc v. Commission (Dec. 17, 2003, not yet reported), upholding Commission Decision 2000/74/EC, Virgin/British Airways, 2000 O.J. (L 30) 1, appeal to the ECJ is pending as Case C-95/04, British Airways v. Commission.

sort of economic analysis will help the competition authorities reach reliable decisions? The trend towards using more economics, and more economists, which sometimes seems to be discussed as a worthwhile end in itself, is desirable only insofar as it leads to more efficient and reliable decisions by the Commission and the EC courts. Indeed, there was an abundance of economists with excellent credentials working for the Commission and the parties on the proposed merger between General Electric and Honeywell, the blocking of which was part of the controversy that led to the reforms.[3] Notably, the CFI decisions complain of sloppiness in the use of economics, in particular in the use of empirical data to verify or falsify a theory, that the economic profession as well as the Commission needs to take heed of.

The Commission and the courts have increased their use of economics slowly but steadily over time. Section II describes this evolving role as a backdrop for considering Commissioner Monti's contribution. The turning point for economics happened not with his ascendancy but with the CFI voiding three decisions undertaken earlier in his term. These decisions occurred in the wake of considerable controversy over the intellectual integrity of the Commission's decision to block the *GE/Honeywell* merger. Section III discusses *Airtours* and *Tetra Laval*, the two CFI cases that speak most directly to the role of economics. Section IV considers these decisions and the interesting questions they raise about the role of economic theory and empirical methods in competition policy. Reforms quickly followed the decisions. As discussed in Section V, it is these reforms that formed the basis for Commissioner Monti's legacy regarding the use of economics. Two cases presently undecided in the courts will also shape his legacy. One is *GE/Honeywell*; the other is *Microsoft*,[4] in which Commissioner Monti rejected a settlement in order to seek court precedents. Section VI focuses on the *Microsoft* case and in particular the use of economic evidence and the legal rules that could emerge, for better or for worse.

II. History of Economics in Merger Control

The Commission has relied increasingly on economic analysis and empirical methods for its assessment of mergers. Arguably, this development started with references to market studies prepared primarily for other purposes, such as mar-

3 Commission Decision 2004/134/EC, General Electric/Honeywell, 2004 O.J. (L 48) 1 [hereinafter *GE/Honeywell*], appeals to the CFI are pending as Case T-209/01, Honeywell v. Commission and Case T-210/01, General Electric v. Commission.

4 Commission Decision COMP/C-3/37.792, Microsoft (Mar. 24, 2004, not yet reported), appeal to the CFI is pending as Case T-201/04, Microsoft v. Commission. *See also*, Case T-201/04 R, Microsoft v. Commission, *Order of the President of the Court of First Instance* (Jul. 26, 2004); Case T-201/04 R, Microsoft v. Commission, *Order of the President of the Court of First Instance* (Dec. 22, 2004). The first author has consulted with Microsoft on this matter and appeared on behalf of Microsoft before the Commission and the CFI.

keting or strategic consulting purposes, but dedicated empirical work has been employed with rising frequency. Certainly since the mid 1990s, it seems that no major case happens without economic studies commissioned by the parties,[5] third-party interveners,[6] or the Commission itself.[7] And, of course, when one party launches an economic study, the others tend to respond in kind.

Competition policy concerns the effect of business or national practices on markets. It is not surprising then that the competition authorities and courts have turned to economics, the academic discipline that studies markets, for its insight and learning. They have relied especially on industrial organization, the area of economics that studies the interaction among firms and the structure of industries.[8]

Of course, competition policy cannot be based on economics alone. The rule of law is a pillar of the constitutional system: it makes the enforcement of competition policy predictable and allows economic actors to adapt their behavior. Economics, nevertheless, can help significantly. First, economic concepts and theories can help give meaning to established legal principles. Second, economic thinking can influence the design of new competition laws and rules implementing those laws.[9] Third, these economic theories can be used to identify the conditions under which particular legal principles apply and the evidence that is relevant for deciding whether those conditions are met in the case at hand.

The development of some of the key legal principles in the assessment of mergers highlights each of these roles.

5 *See, e.g.*, Commission Decision 92/553/EEC, Nestlé/Perrier, 1992 O.J. (L 356) 1 [hereinafter *Nestlé/Perrier*], at paras. 77 et seq.; Commission Decision 94/893/EC, Procter & Gamble/VP Schickedanz II, 1994 O.J. (L 354) 32 [hereinafter *Procter & Gamble/Schickedanz*], at paras. 54 et seq.; Commission Decision IV/M.582, Orkla/Volvo, 1996 O.J. (L 66) 17, at para. 75; Commission Decision 97/26/EC, Gencor/Lonrho, 1997 O.J. (L 11) 30 [hereinafter *Gencor/Lonrho*], at para. 59; Commission Decision 96/435/EC, Kimberly-Clark/Scott Paper, 1996 O.J. (L 183) 1, at paras. 172 et seq.; *Airtours/First Choice*, *supra* note 1, at paras. 155 et seq.; Commission Decision 2001/403/EC, Volvo/Scania, 2001 O.J. (L 143) 74 [hereinafter *Volvo/Scania*], at paras. 35 et seq.; Commission Decision 2002/156/EC, SCA/Metsä Tissue, 2002 O.J. (L 57) 1, at para. 37; *Schneider/Legrand*, *supra* note 1, at paras. 169 et seq., 493 et seq., 518 et seq.; Commission Decision 2003/667/EC, Carnival/P&O Princess, 2003 O.J. (L 248) 1 [hereinafter *Carnival/P&O Princess*], at paras. 35 et seq., 60 et seq., 79; Commission Decision 2004/271/EC, Verbund/EnergieAllianz, 2004 O.J. (L 92) 91, at paras. 74 et seq.

6 *Procter & Gamble/Schickedanz*, *supra* note 5, at paras. 54 et seq.; Commission Decision 97/816/EC, Boeing/McDonnell Douglas, 1997 O.J. (L 336) 16 [hereinafter *Boeing/McDonnell Douglas*], at para. 58.

7 *Volvo/Scania*, *supra* note 5, at paras. 72 et seq.

8 For leading textbooks in this field, see Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization (4th ed. 2004); Jean Tirole, The Theory of Industrial Organization (1988).

9 David S. Evans, *How Can Economists Help Courts Design Competition Rules? An EU and U.S. Perspective*, World Competition (forthcoming Mar. 2005).

A. DEVELOPMENT OF MARKET DEFINITION

In some cases the use of economic theories to give meaning to legal principles has been accompanied by more rigorous and relevant empirical testing of whether the principle applies to the case. This is apparent in the area of market definition.[10]

1. The Concept

The notion of "market" had always been perceived as a crucial concept in EC competition law. The early Commission and court decisions, in particular the leading cases on Article 82 of the EC Treaty (Article 82), showed considerable effort to define the relevant market.[11] Until relatively recently, though, the methodology tended to focus on the interchangeability of products based on their price, characteristics, and intended use.

Shortly after the entry into force of the 1989 Merger Regulation[12] the Commission still relied on the "price, product characteristics, and intended use" test,[13] but rather quickly, significant changes in the Commission's practice occurred. The Commission adopted a more sophisticated view of demand-side substitution that began focusing more on the extent to which consumers would switch away from the product in question if price rose as a result of the exercise

10 Market definition, though, provides a good example of the occasionally tense relationship between economics and competition policy. Although economics provides useful tools for defining markets for the purpose of competition analysis, economics as a discipline has never found it necessary or useful to draw sharp boundaries around products and call them markets. It views product substitution as a continuum.

11 *See* Joined Cases 6/73 and 7/73, Commercial Solvents v. Commission, 1974 E.C.R. 223 [hereinafter *Commercial Solvents*], at para. 15, upholding Commission Decision 72/457/EEC, Zoja/CSC-ICI, 1972 O.J. (L 299) 51, at para. B (refusal to supply); Case 27/76, United Brands v. Commission, 1978 E.C.R. 207 [hereinafter *United Brands*], at paras. 22 et seq., declaring void, but upholding on market definition, Commission Decision 76/353/EEC, Chiquita, 1976 O.J. (L 95) 1, at para. II.A.2 (excessive pricing and price discrimination); Case 85/76, Hoffman-LaRoche v. Commission, 1979 E.C.R. 461, at para. 28, upholding Commission Decision 76/642/EEC, Vitamins, 1976 O.J. (L 223) 27, at para. 20 (loyalty rebates); Case C-62/86, AKZO v. Commission, 1991 E.C.R. I-3359, at para. 52, upholding Commission Decision 85/609/EEC, ECS/AKZO, 1985 O.J. (L 374) 1, at para. 64 (predatory pricing).

12 Council Regulation 4064/89/EEC on the Control of Concentrations between Undertakings, 1989 O.J. (L 395) 1 [hereinafter *Merger Regulation*], later amended by Council Regulation 1310/97/EC, 1997 O.J. (L 180) 1, Corrigendum in 1998 O.J. (L 40) 17.

13 *See* Commission's *Form CO*, Annex to Commission Regulation 2367/90/EEC on the Notifications, Time Limits and Hearings Provided for in Council Regulation 4064/89/EEC on the Control of Concentrations between Undertakings, 1990 O.J. (L 219) 5, at § 5. For individual decisions, *see*, e. g., Commission Decision IV/M.9, Fiat Geotech/Ford New Holland, at para. 11; Commission Decision IV/M.113, Courtaulds/SNIA, at paras. 13 et seq.

of market power.[14] Indeed, in *Nestlé/Perrier*,[15] the Commission adopted a test that is similar to the hypothetical monopoly test.

In its 1997 Notice on the Definition of the Relevant Market,[16] the Commission embraced the "small but significant non-transitory increase in prices" (SSNIP) test as the analytical weapon of choice for market definition. The SSNIP test operates in practice to include products that provide competitive constraints. In many ways, although not in all, the Notice on the Relevant Market was based on the same economic principles that were used in the U.S. Horizontal Merger Guidelines.[17]

The Commission's move was courageous at the time, given that the European Court of Justice (ECJ) had frequently and explicitly relied on the "price, product characteristics, and intended use" approach. But the economic approach has seeped into the jurisprudence. In *Airtours*, the CFI implicitly accepted the methodology by referring to the "significance of the margin" for market-definition purposes as "the number of customers prepared to react to a price increase in short-haul package holidays by purchasing a long-haul package holiday, as compared to the total number of customers who habitually purchase a short-haul package holiday."[18] Indeed, the notion that what matters is the behavior of customers "at the margin"—rather than on average—is a critical economic insight and one that is not intuitive to many people.

2. Use of Evidence

Precision in the economic definition of the relevant market gives the parties and the Commission a way to identify exactly what empirical evidence is relevant for deciding tricky cases. Over time, the Commission began to resort to empirical methods more frequently, for example to determine demand elasticities, which

14 Commission Decision 91/535/EEC, Tetra Pak/Alfa-Laval, 1991 O.J. (L 290) 35, at para. 2.1(iv).

15 *Nestlé/Perrier*, *supra* note 5, at paras. 1, 13, 16.

16 Commission Notice on the Definition of Relevant Market for the Purposes of Community Competition Law, 1997 O.J. (C 372) 5, at para. 15.

17 *See* U.S. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, issued 1992, revised 1997, *at* http://www.usdoj.gov/atr/public/guidelines/horiz_book/hmg1.html, at §§ 1.1-1.3. The Horizontal Merger Guidelines also use the SSNIP test. The Guidelines refer to supply-side substitution and demand-side substitution but treat enterprises that could potentially enter the market (under certain conditions) as market participants. *See*, on the other hand, *id.* at para. 24, according to which potential competition is not taken into account when defining the market.

18 *Airtours*, *supra* note 1, at para. 32.

are directly informative about consumers' willingness to switch in response to changes in price.[19]

B. THE SUBSTANTIVE TEST FOR MERGERS

Economics has played an even broader role in the substantive test for mergers. Economic thinking has for a long time influenced the way that the Commission and the Courts have interpreted the substantive legal test for mergers. More recently, economic theory has also played a key role in the reformulation of what the legal test should be. Finally, these economic theories have successfully provided a framework for identifying and interpreting evidence relevant to making an assessment of whether the test has been met.

1. The Test

Until recently, the substantive test for a merger was based on whether or not it created or strengthened a dominant position. According to the 1989 Merger Regulation, "A concentration which does not create or strengthen a dominant position as a result of which effective competition would be significantly impeded in the common market or in a substantial part of it shall be declared compatible with the common market."[20] To make this operational, the Commission initially transferred the ECJ's definition of dominance from the cases under Article 82 into the 1989 Merger Regulation.[21] In particular, in *United Brands*, the ECJ had defined dominance as "a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately the consumers."[22] Economists have always found this definition, at best, incomplete. Strictly speaking, not even a monopolist behaves independently of its customers but faces a demand curve that limits what it can profitably charge. That is, of course, why monopolists do not charge more than they do.

In hindsight, *United Brands* seems like a step backwards for merger control. The 1951 Treaty establishing the European Coal and Steel Community contained an article on merger control where the test read: "The High Authority shall grant the

19 Empirical techniques were heavily relied upon in *Nestlé/Perrier*, *supra* note 5; Commission Decision 98/602/EC, Guinness/GrandMetropolitan, 1998 O.J. (L 288) 24; *Volvo/Scania*, *supra* note 5; *Carnival/P&O Princess*, *supra* note 5; Commission Decision COMP/M.3191 Philip Morris/Papastratos [hereinafter *Philip Morris/Papastratos*]; Commission Decision 2004/322/EC, General Electric/Instrumentarium, 2004 O.J. (L 109) 1 [hereinafter *General Electric/Instrumentarium*].

20 *Merger Regulation*, *supra* note 12, at art. 2(2).

21 *See*, e. g., Commission Decision 91/619/EEC, Aerospatiale-Alenia/de Havilland, 1991 O.J. (L 334) 42, at paras. 51 et seq.

22 *United Brands*, *supra* note 11, at para. 65.

authorisation…if it finds that the proposed transaction will not give to the persons or undertakings concerned the power…to control prices, to control or restrict distribution or to hinder effective competition….”[23] That earlier test, particularly its reference to a merger giving control over prices, seems closer to the economic theory that a merger may reduce the competitive constraints on the parties, increase their market power, and thereby allow them to raise prices.

After the interlude with *United Brands*, the Commission finally reverted to the notion that mergers that created dominant positions were those that created a company with power over price. This reliance on economic concepts to underpin the substantive legal test was reinforced when a new test was adopted in January 2004, that is, whether a merger significantly impedes effective competition. This new test, and its relationship to economics, is discussed in more detail in Section V.B.

2. Use of Evidence

The Commission's use of evidence has been consistent with its growing reliance on the economic theory that mergers can lead to higher prices if they lead to a sufficient reduction in the competitive constraints on the parties. Rather early, it resorted to techniques directly identifying the competitive restraints on the merged entity. In *Boeing/McDonnell-Douglas* and *Price Waterhouse/Coopers & Lybrand*, bidding studies were used to identify the parties' closest competitors.[24] In *Volvo/Renault*,[25] the effects of a price increase for one product served as an indication that another product was not a close substitute. A customer survey served a similar purpose in *Carnival Corporation/P&O Princess*.[26]

In some cases, the Commission has considered evidence that tests the underlying economic theory even more directly. The Commission discussed a merger simulation model in *Volvo/Scania*, which estimated the likely effect of the proposed merger on prices. In that case, the Commission ultimately did not rely on the model because the technique was novel and the study controversial.[27] However, in *Philip Morris/Papastratos*,[28] the Commission explicitly relied on a merger simulation model predicting there would be no price increase when it cleared the transaction at the first phase.

23 Treaty Establishing the European Coal and Steel Community, at art. 66.

24 *Boeing/McDonnell Douglas*, *supra* note 6, at para. 58; Commission Decision 1999/152/EC, Price Waterhouse/Coopers & Lybrand, 1999 O.J. (L 50) 27, at paras. 87 et seq.

25 Commission Decision COMP/M.1980, Volvo/Renault V.I., at para. 34.

26 *Carnival/P&O Princess*, *supra* note 5, at paras. 136 et seq.

27 *Volvo/Scania*, *supra* note 5, at paras. 72 et seq.

28 *Philip Morris/Papastratos*, *supra* note 19, at para 32.

C. COLLECTIVE DOMINANCE

The development of the case law on joint dominance[29] is an instructive example of how economic theory crept into an existing legal concept and how the courts gradually modified their case law in order to bring existing rules into line with economic theory. In this case, however, the economic theory was not reflected in a sufficiently clear framework for empirical analysis, as the CFI's reversal in *Airtours* made clear.

1. The Concept

The concept has its roots in Article 82. Given its clear wording, it was uncontested that Article 82 would apply to situations of collective dominance. Apart from situations where enterprises are collectively dominant through affiliation,[30] joint dominance could also exist where independent enterprises aligned their behavior by an explicit agreement.[31] Arguably, Article 82 could also have applied to tacit collusion, because all the ECJ required was that the enterprises were "linked in such a way that they adopt the same conduct on the market."[32] The issue, however, was never resolved.

In very early decisions under the 1989 Merger Regulation, the Commission only briefly addressed joint dominance.[33] The first noteworthy case was *Nestlé/Perrier*, where the Commission insisted on remedies because it would otherwise have found joint dominance.[34] Further cases followed, including *Kali+Salz/MdK/Treuhand*[35] and *Gencor/Lonrho*, which was the first prohibition decision based on collective dominance.

29 EC case law regarding collective dominance, including *Airtours* and the developments thereafter, has recently been reviewed by Simon Bishop & Andrea Lofaro, *A Legal and Economic Consensus? The Theory and Practice of Coordinated Effects in EC Merger Control*, 49 ANTITRUST BULL. 195 (2004).

30 *See Commercial Solvents*, *supra* note 11, at paras. 36 et seq.

31 Joined Cases T-24/93 et al., Compagnie Maritime Belge Transports SA et al. v. Commission, 1996 E.C.R. II-1201, at paras. 59 et seq., upholding Commission Decision IV/32.450, French-West African Ship-Owners' Committee, 1992 O.J. (L 134) 1, at paras. 55 et seq.

32 Case C-393/92, Almelo et al. v. Energiebedrijf Ijsselmij, 1994 E.C.R. I-1477, at para. 42.

33 *See, e. g.,* Commission Decision IV/M.12, Varta/Bosch, at para. 32; Commission Decision IV/M.165, Alcatel/AEG Kabel, at paras. 20 et seq.; Commission Decision IV/M.202, Thorn EMI/Virgin Music, at para. 21.

34 *Nestlé/Perrier*, *supra* note 5, at para. 131.

35 Commission Decision IV/M.308, Kali+Salz/MdK/Treuhand, 1994 O.J. (L 186) 38 [hereinafter *Kali+Salz/MdK/Treuhand*], at para. 62; Commission Decision IV/M.358, Pilkington-Techint/SIV, at paras. 61 et seq.; Commission Decision IV/M.315, Mannesmann/Vallourec/Ilva, at paras. 127 et seq.

Since 1998, the development of joint-dominance case law was to a major extent driven by the courts, because in that year the ECJ rendered its decision on *Kali+Salz/MdK/Treuhand* and ruled on joint dominance in merger control for the first time.[36] The ECJ confirmed that the 1989 Merger Regulation was applicable to joint dominance. It defined joint dominance as a situation where several enterprises, "in particular because of correlative factors which exist between them, are able to adopt a common policy on the market and act to a considerable extent independently of their competitors, their customers, and also of consumers"[37]—a definition that could hardly deny its roots in *United Brands*.

In *Gencor*,[38] the CFI gave the definition of joint dominance from *Kali+Salz*, a slightly different twist, which with the benefit of hindsight, may be seen as a first move towards an assessment of dominance based on the possible effect of a merger on prices. The CFI held that the relationship between enterprises giving rise to joint dominance could also be:

> "[a] relationship of interdependence existing between the [enterprises] to a tight oligopoly within which…those [enterprises] are in a position to anticipate one another's behaviour and are therefore strongly encouraged to align their conduct in the market, in particular in such a way as to maximise their joint profits by restricting production with a view to increasing prices."[39]

This definition comes close to the economic concept of tacit collusion. It relies on the observation that members of an oligopoly can benefit from pursuing a common policy that maximizes joint profits. It ignores, however, a basic result of modern economic theory—individual participants to a tacitly collusive agreement have strong incentives to cheat. Their adherence to the common policy can only be ensured in situations where it is possible and rational for others to punish them if they do.

It was not until the CFI's decision in *Airtours* that the legal concept of collective dominance was finally given a full economic interpretation:

36 Joined Cases C-68/94 and C-30/95, France et al. v. Commission, 1998 E.C.R. I-1375 [hereinafter *Kali+Salz*], at paras. 165 et seq., 221, 226 et seq., declaring void *Kali+Salz/MdK/Treuhand*.

37 *Id.* at para. 221.

38 Case T-102/96, Gencor v. Commission, 1999 E.C.R. II-753, at para. 163, declaring void *Gencor/Lonrho*.

39 *Id.* at para. 276.

> "As the applicant has argued and the Commission has accepted in its pleadings, three conditions are necessary for a finding of collective dominance as defined: first, each member of the dominant oligopoly must have the ability to know how the other members are behaving in order to monitor whether or not they are adopting the common policy…; second, the situation of tacit coordination must be sustainable over time, that is to say, there must be an incentive not to depart from the common policy on the market…; third, to prove the existence of a collective dominant position to the requisite legal standard, the Commission must also establish that the foreseeable reaction of current and future competitors, as well as of consumers, would not jeopardize the results expected from the common policy."[40]

2. Use of Evidence

The CFI decision that established the economic interpretation of collective dominance also reaffirmed the vital importance of using evidence to test whether a particular theory, the likelihood of collective dominance in this case, was a concern in the case at hand. In *Airtours*, the CFI pointed to a number of flaws in the Commission's empirical analysis, as we discuss in the next section.[41]

III. Transformation of the Application of Economic Theory in Merger Cases by the CFI

Although the reliance on economic concepts had been steadily increasing, *Airtours* and *Tetra Laval* brought to light fundamental weaknesses in the way that economics was used in EC competition policy. In both cases, the CFI found that the Commission had failed to use appropriate evidence to test its economic theories.

A. *AIRTOURS*

On June 6, 2002, the CFI voided the Commission's *Airtours/First Choice* prohibition, a decision that had been completed mainly under Commissioner Van Miert and issued less than one week after Commissioner Monti took office.

Airtours/First Choice concerned the proposed merger of two major UK holiday tour operators. The Commission found that the relevant market was for short-haul package holidays. The merging parties had the third and fourth largest

40 *Airtours*, *supra* note 1, at para 62.

41 *Id.* at paras. 79 et seq.

shares of that market. They would have commanded a 32 percent market share after the merger and, together with two other operators, would have had a combined market share of more than 80 percent. The Commission prohibited the merger on the grounds that it would lead to the joint dominance of those three operators.

1. CFI Decision

Airtours and the Commission agreed that there were three such necessary conditions for the appearance of joint dominance: (i) transparency of the market enabling the oligopolists to monitor deviations from the common strategy; (ii) deterrents ensuring that no oligopolist had an incentive to depart; and, (iii) actual and potential competitors as well as customers must be unable to jeopardize the common strategy.[42] These conditions are consistent with modern economic theory of oligopoly behavior.[43]

The CFI focused on whether the evidence established that these necessary conditions were met. It found that the degree of market transparency the Commission had seen did not exist, mainly because the oligopolists' decisions about next year's capacity were not simple adjustments of the current year's capacity, but rather the aggregate effect of a complex—and difficult to monitor—set of decisions on individual tour offers.[44] The CFI decided that the alleged deterrents would not be effective because oligopolists, after having detected deviations from the common strategy, could not increase their capacity quickly enough and maintain a quality that effectively matched their peers' products.[45] Finally, the CFI noted that other tour operators, albeit perhaps unable to compete with the oligopolists on an equal footing, were nevertheless able to increase their combined capacity to an extent that made the oligopolists' common strategy unprofitable, because price-sensitive consumers took advantage of such opportunities.[46] In the end, the CFI concluded that not one of the three necessary conditions was satisfied.

42 *Id.* at para. 62. Strictly speaking, these are the conditions for the *sustainability* of tacit collusion. The oligopolists must also be able to reach an understanding as to what a common strategy could be. *See* Commission Notice on Guidelines on the Assessment of Horizontal Mergers Under the Council Regulation on the Control of Concentrations between Undertakings, 2004 O.J. (C 31) 5, at para. 44; Commission Decision COMP/M.3333, Sony/BMG (Jul. 19, 2004, not yet reported) [hereinafter *Sony/BMG*], at para. 68.

43 *See, e.g.,* Massimo Motta, Competition Policy: Theory and Practice 139-49, 271-73 (2004).

44 *Airtours*, *supra* note 1, at paras. 148 et seq., in particular, paras. 165 et seq.

45 *Id.* at paras. 183 et seq.

46 *Id.* at paras. 208 et seq.

2. Application of Economic Theory in *Airtours*

If there was a common understanding of what was required to prove collective dominance, then what went wrong in the Commission's analysis? The CFI noted that the Commission's decision was inconsistent in that (a) two conclusions were based on different and contradictory factual assertions;[47] and, (b) two mutually exclusive conclusions were based on the same fact.[48] Similarly, the CFI concluded that it was inappropriate for the Commission to base a conclusion on a fact when the conclusion does not necessarily follow from the fact and the fact also allows an alternative conclusion.[49] The fundamental problem was a failure in logic and evidence.

> if the Commission advances a certain theory of the behavior of the enterprises concerned, it must at the same time present the full set of conditions for the application of that theory—and then provide evidence for all of them.

While investigating whether competitors could challenge the oligopolists' common strategy, the Commission had investigated barriers to entry or expansion and come to the conclusion that an individual existing competitor would not be able to "compete effectively" with the oligopolists.[50] The CFI noted that the Commission should have investigated whether all existing competitors combined would have been able to increase their capacity to an extent as to offset the capacity reduction by the oligopolists, regardless of their individual ability to compete on an equal footing.[51] Similarly, the CFI did not accept the Commission's argument that the common shareholders of the oligopolists would have had a disciplinary effect on the latter's behavior. The CFI argued that the Commission would have had to show that those institutional investors jointly controlled the oligopolists or that they were at least involved in the management of the oligopolists.[52] Thus, if the Commission advances a certain theory of the behavior of the

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47 *Id.* at para. 132, referring to *Airtours/First Choice*, *supra* note 1, at paras. 92, 93, where the Commission first states that "[d]emand growth for the next two years is expected to be close to zero" and then recognizes that "the market [...] is likely to continue to grow."

48 *See id.* at paras. 105 et seq., referring to *Airtours/First Choice*, *supra* note 1, at paras. 132 and 138. The CFI notes that vertical integration cannot at the same time be an indication of collective dominance and a condition for effective competition.

49 *See id.* at paras. 85 et seq., according to which a "cautious approach to capacity" cannot be used as an indication for a "tendency towards collective dominance", if it can also be an indication of a competitive market. *See also*, Roger D. Blair & Jill Boylston Herndon, *The Implications of Daubert for Economic Evidence in Antitrust Cases*, 57 Wash. & Lee L. Rev. 801 (2000), at 821 et seq., according to which collusion may not be inferred from parallel behavior, if the latter could also be the result of independent action.

50 *Airtours/First Choice*, *supra* note 1, at paras. 115 et seq.

51 *Airtours*, *supra* note 1, at paras. 213, 214.

52 *Id.* at para. 91, referring to *Airtours/First Choice*, *supra* note 1, at para. 137.

enterprises concerned, it must at the same time present the full set of conditions for the application of that theory—and then provide evidence for all of them.

The Commission believed that stable demand would facilitate collective dominance.[53] The CFI did not address this as a theory, but criticized the Commission over another point. When assessing whether the demand for package holidays had grown recently, the Commission had not taken into account the market volume and the rate of demand growth in the two years preceding the notification, even though such figures had been made available.[54] Thus, when testing a theory for its applicability (i.e. when testing whether a condition for the application of a certain economic theory is given), the Commission should not base its decision on a selection of data only—thereby discarding other data that, on their face, seem as relevant—at least not without providing a reason for the selection (which may be the unreliability of certain data).

B. *TETRA LAVAL*

On October 25, 2002, not long after *Airtours*, the CFI declared the decision in *Tetra Laval/Sidel* void. Tetra Laval had already been the subject of several Commission and court decisions due to its dominant position on the aseptic carton packaging equipment markets.[55] The Commission prohibited the acquisition of Sidel, a leading manufacturer of polyethylene terephthalate (PET) packaging equipment, by Tetra Laval, mainly because the merged entity could have leveraged its dominant position in certain carton packaging markets into the adjacent markets for PET packaging equipment that include low- and high-capacity stretch blow molding machines, barrier technologies, aseptic and non-aseptic PET filling machines, PET preforms, plastic bottle closure systems, and auxiliary services.[56]

1. CFI Decision

The CFI found that the merged entity could, in theory, leverage its dominant position in the aseptic carton markets into adjacent markets.[57] It continued, however, that the merged entity would only have an incentive to engage in

53 *Airtours/First Choice*, *supra* note 1, at para. 87.

54 *Airtours*, *supra* note 1, at para. 131.

55 Case T-51/89, Tetra Pak Rausing SA v. Commission, 1990 E.C.R. II-309, upholding Commission Decision IV/31.043, Tetra Pak I (BTG Licence), 1988 O.J. (L 272) 27; Case C-333/94, Tetra Pak International SA v. Commission, 1996 E.C.R. I-5951, upholding Case T-83/91, Tetra Pak International SA v. Commission, 1994 E.C.R. II-755, in turn upholding Commission Decision IV/31.043, Tetra Pak II, 1992 O.J. (L 72) 1.

56 *Tetra Laval/Sidel*, *supra* note 1, at paras. 262, 331. The Commission had also identified certain horizontal and vertical issues, but we will not deal with these as they were not in the foreground of the Commission's decision and the subsequent CFI judgment.

57 *Tetra Laval*, *supra* note 1, at paras. 192 et seq.

leveraging its position in the carton packaging market into the PET markets if the latter grew substantially. This would give rise to a significant overlap in customers in the carton and customers in the PET packaging markets, an overlap that at the time of the Commission's decision did not exist. For the market in question, the CFI found that the Commission had not proved the level of growth of the PET packaging market on which it based its decision. The court acknowledged that some growth would occur and considered it necessary to investigate how the merged entity could eventually leverage market power.[58]

The CFI held that conduct that would "at least probably" infringe Article 82 should not be taken into account, unless the Commission had investigated whether Article 82 would not prevent the merged entity from engaging in such behavior (which in turn requires an analysis of, among other factors, the likelihood of detection). As the Commission had not made such an investigation, any conduct violating Article 82 could not be taken into account as a possible means of leveraging market power. As a consequence, the CFI assumed that the merged entity could not resort to tying, bundling, loyalty rebates, or predatory pricing. Thus, the merged entity's possibilities for leveraging its dominant position were "quite limited."[59]

The CFI then turned to an analysis of the individual markets adjacent to carton packaging. In all cases, it found that leveraging of the merged entity's dominant position in the carton markets would not lead to a dominant position in the adjacent markets because the merged entity's market share would have clearly been too low; or there was effective competition on the adjacent market; or several competitors were currently researching to develop the "winning technology"; or other competitors to the merged entity had their specific competitive advantages, too, including a leading position in other adjacent markets or could match a bundled offer; or, finally, other competitors could not be foreclosed because they served market segments in which the merged entity was not active.[60]

2. Application of Economic Theory in *Tetra Laval*

The CFI did not reject outright the theory that market power could be leveraged into another market. That is consistent with modern economics, which recognizes that under some circumstances firms may have the ability and incentive to leverage market power.[61] The CFI restricts itself to saying that the Commission

58 *Id.* at paras. 201 et seq.

59 *Id.* at paras. 159 et seq., 217 et seq.

60 *Id.* at paras. 229 et seq., 241 et seq., 273, 281, 289, 293.

61 Patrick Rey & Jean Tirole, *A Primer on Foreclosure*, *in* HANDBOOK OF INDUSTRIAL ORGANIZATION III (Mark Armstrong & Rob Porter, eds., forthcoming); David S. Evans & A. Jorge Padilla, *Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach*, 72 U. CHI. L. REV. (forthcoming Winter 2005), at § II.B.

had failed to set out an exhaustive list of conditions for anticompetitive leveraging and to prove that these conditions were satisfied.[62] For example, the CFI opined that leveraging would not occur if competitors were able to offer the same product range and could match any offer the merged entity may make. Furthermore, foreclosure could not occur if the overlap of carton customers and PET packaging customers (i.e. the range of customers that could potentially be affected by leveraging) was not large enough to allow competitors to remain in the market. Thus, the applicable economic theory contains two conditions for successful leveraging: the absence of competitors with equal product range and a sufficiently large overlap. Without proof that these conditions hold, it is not possible to conclude that a dominant firm has the ability and incentive to engage in profitable anticompetitive leveraging.

IV. Lessons for the Use of Economics

By the time the trilogy of CFI decisions came down, and in the wake of the Commission's controversial prohibition of the *GE/Honeywell* transaction, the problem faced by the Commission was hardly a lack of economics or economists in its orbit. The Commission's Merger Task Force seemed to be feasting on economic theories of the ills that could flow from various market structures. Rather, as the CFI made clear, the Commission got into difficulty either because it did not validate the theories it relied on or because it sought to defend its theories with the inconsistent and sometimes illogical treatment of facts. This was not a problem created by Commissioner Monti.

Indeed, the economics profession shares some responsibility for the tendency to draw sweeping conclusions based on economic theory alone. Like many sciences, there is a division of labor in economics between those who postulate theories and those who test them against data. The process of empirical validation is more complex in economics, because economists are seldom able to do controlled experiments and must frequently settle for making inferences from complex, real-world data for which it is difficult to disentangle cause and effect. There is, not surprisingly, a long lag between the time that theories are presented and the time, if ever, that their consistency with available data is tested.

Industrial organization, the branch of economics that deals with competition policy issues, is particularly beset with these problems.[63] Two successive strands of industrial organization research in the last fifty years illustrate the difficulty. From the early 1950s through the early 1980s, the field was dominated by the "structure-conduct-performance" model that led to a vast amount of empirical

62 Christian Ahlborn, David S. Evans & A. Jorge Padilla, *The Antitrust Economics of Tying: A Farewell to Per Se Illegality*, 49 ANTITRUST BULL. 287 (2004), at 300.

63 By contrast, financial economics has made great progress both theoretically and empirically.

research concerning the relationships among market shares ("structure"), prices ("conduct"), and profits ("performance"). Years of inconclusive empirical results were eventually seen as largely irrelevant because they could not distinguish between cause and effect and, more generally, were not based on well-specified theories. This was followed by the development of formal mathematical models of firm and industry behavior, often based on modern game theory. While these models tended to reflect the richness of market experiences, they were also difficult to validate empirically. Slow progress is now being made on that front.[64]

LIKE MANY SCIENCES, THERE IS A DIVISION OF LABOR IN ECONOMICS BETWEEN THOSE WHO POSTULATE THEORIES AND THOSE WHO TEST THEM AGAINST DATA. THE PROCESS OF EMPIRICAL VALIDATION IS MORE COMPLEX IN ECONOMICS, BECAUSE ECONOMISTS ARE SELDOM ABLE TO DO CONTROLLED EXPERIMENTS AND MUST FREQUENTLY SETTLE FOR MAKING INFERENCES FROM COMPLEX, REAL-WORLD DATA FOR WHICH IT IS DIFFICULT TO DISENTANGLE CAUSE AND EFFECT.

Another practical aspect of these theories is also noteworthy. The theories begin with particular assumptions and then demonstrate that certain competitive results can occur under certain conditions. Whether the theory is relevant in a particular matter requires faith that the assumptions are roughly accurate so that the theory can provide an approximate representation of reality. Unfortunately, assumptions are often hidden or obscured in the presentation of the theory, posing a challenge for consumers of these theories who lack either the time or skills to delve into the workings of the models. Moreover, whether the theory predicts an anticompetitive outcome, given the other assumptions of the model, often depends on parameters of the mathematical model or on various other conditions.

Prior to *Airtours* and *Tetra Laval*, the Commission seemed to be developing a tendency to treat economic theories that indicated that something *could* happen as if they indicated that something *would* happen. The CFI wisely warned the Commission, in effect, that it needed to go back to the basics of scientific methodology and empirically validate, in a logical way, the theories that it sought to rely on.

Commissioner Monti and DG COMP responded to that challenge, at least in the case of mergers.

64 James C. Cooper, Luke M. Froeb, Dan O'Brien & Michael G. Vita, *Vertical Antitrust as a Problem of Inference* (Nov. 8, 2004) (on file with authors).

V. Accelerated Modernization under Commissioner Monti

Many developments during Commissioner Monti's tenure, both in the application of EC competition rules as well as in policy design, had roots with his predecessor, Karel Van Miert. In contrast, Commissioner Monti's legacy for the use of economics comes from his responses to the mid-term crisis caused by the *GE/Honeywell* controversy, followed by the trilogy of defeats at the CFI.

Certainly, the application of economic theory in EC competition policy could not go on after *Airtours* and *Tetra Laval* as before. This must have been the perception of Commissioner Monti within DG COMP as well. From early actions after *Airtours*, Commissioner Monti and DG COMP, headed by Philip Lowe, distinguished between two types of available measures: the substantive analysis of mergers and the decision-making process.[65] Other articles in this volume address these reforms in detail, so we focus on the two that are most relevant for economics: the appointment of a Chief Economist and a new test for merger assessment.

A. THE COMMISSION'S CHIEF ECONOMIST

In the summer of 2001, Commissioner Monti was still of the opinion that the existing internal procedural framework, including the "inter-service consultation" with other Directorate-Generals, would ensure "enough economics."[66] After *Airtours* and *Tetra Laval*, however, it had become obvious that this practice was not sufficient. In fall 2002, the Commission announced it would create the position of a Chief Economist,[67] and in July 2003, Lars-Hendrik Röller, Professor of Economics at Humboldt University in Berlin, was appointed the Commission's first Chief Economist.[68] Notably, in response to the CFI's criticisms, Röller's main area of expertise is empirical work—testing theories rather than conceiving them.

The Commission has introduced certain institutional safeguards to ensure the independence of the Chief Economist's Office. The Chief Economist reports

65 Mario Monti, EU Competition Policy, Fordham Annual Conference on International Antitrust Law and Policy, New York (Oct. 31, 2002); Mario Monti, Merger Control in the European Union: A Radical Reform, European Commission/IBA Conference on EU Merger Control, Brussels (Nov. 7, 2002); Philip Lowe, Future Directions for EU Competition Policy, Center for European Policy Studies, Brussels (Oct. 11, 2002).

66 *See* Mario Monti, The Future for Competition Policy in the European Union, Merchant Taylor's Hall, London (Jul. 9, 2001): "[...] the opinion of other services of the Commission, including the Legal Service and the Economic and Financial Directorate, which respectively ensure the consistency of the decisions with legal precedents and rules and with economic principles."

67 *See* Monti, EU Competition Policy, *supra* note 65; Monti, A Radical Reform, *supra* note 65.

68 *See* Press Release IP/03/1027, European Commission, Commission Appoints Chief Competition Economist (Jul. 16, 2003).

directly to the Director-General for Competition. The Chief Economist's Office is involved in investigations throughout DG COMP, and the Chief Economist and his staff have already assisted case teams on numerous matters.[69] The Chief Economist provides an independent voice on investigations and other matters, such as the drafting of guidelines, for the Director-General and the Commissioner. Job security is not an issue likely to get in the way of independence since the position has a three-year nonrenewable term.

Although the establishment of the Chief Economist's Office is an important development, its ultimate effect remains to be seen. Part of this depends on what Professor Röller and his successors accomplish during their tenure and the extent to which they help guide the Commission, and those who submit evidence before it, to focus on empirical verification of hypotheses rather than competing theoretical musings. Cases such as *General Electric/Amersham*[70], *General Electric/Instrumentarium*, and *Sony/BMG* provide some case for optimism on the merger front. The other part, however, depends on resource commitments. The Commission has approximately 500 antitrust enforcement staff; the Chief Economist's Office has 10 economists, several of whom came from existing DG COMP staff and few of whom have training in empirical methods.[71] By contrast, the U.S. Department of Justice's Antitrust Division and the U.S. Federal Trade Commission have a combined antitrust enforcement staff of roughly 1,000 people, including well over 100 economists.[72] Given that the EC and U.S. economies are of similar size and most significant mergers are noticed in both jurisdictions, the Chief Economist's Office at DG COMP would appear to be rather understaffed.

B. A NEW TEST FOR THE ASSESSMENT OF MERGERS

In January 2004, after years of debate that started with the Commission's 2001 Green Paper[73] on merger control, the EC finally introduced a new test for merg-

69 *See* A Discussion with Professor Lars-Hendrik Röller, International Antitrust Law Committee of the American Bar Association Section of International Law & Practice (Mar. 17, 2004), *available at* http://www.abanet.org/intlaw/divisions/regulation/intl_antitrust/abarollerreport.pdf.

70 Commission Decision 2004/103/EC, General Electric/Amersham, 2004 O.J. (C 74) 5.

71 Press Release IP/03/1027, *supra* note 68; Organisation for Economic Co-operation and Development, *The Optimal Design of a Competition Agency: United States* (2003), at 8, 9, *available at* http://www.oecd.org/dataoecd/57/60/2486425.pdf.

72 Organisation for Economic Co-operation and Development, *The Optimal Design of a Competition Agency*, *supra* note 71; Organisation for Economic Co-operation and Development, *United States: Competition Law and Policy in 1999-2000* (2000), at 7, 8, *available at* http://www.oecd.org/dataoecd/53/15/2406946.pdf.

73 Green Paper on the Review of Council Regulation 4064/89, COM(2001) 745/6 final, *at* http://europa.eu.int/comm/competition/mergers/review/, at paras. 159 et seq.

ers—mergers that "significantly impede effective competition" (SIEC) will be prohibited.[74] While the debate about the differences between dominance, substantial lessening of competition (SLC), and SIEC was still waging, the Commission itself seemed to have a clear interpretation of the SIEC test. The Commission shall prohibit "all anti-competitive mergers resulting in higher prices, less choice or innovation."[75] This effects-based approach is the one advocated by economists. It moves the analysis away from the mechanical measure of market shares towards the use of economic analysis—both theory and empirics—to assess the likely consequences of mergers.

It remains to be seen whether Commissioner Monti's reforms will have an impact on the application of Articles 81 and 82 by the Commission.

VI. Microsoft

The institutional reforms pushed through by Commissioner Monti are likely to form an enduring part of his legacy. But looking back, two other cases during his term (and presently on appeal) will shape his legacy as well. Of course, many cases decided during his term could be affirmed or voided, but the decision to prohibit the *GE/Honeywell* merger, despite its approval by the U.S. authorities, and the decision to reject a settlement of the *Microsoft* case in favor of seeking a court precedent, are the ones that will almost surely be linked to Commissioner Monti.[76] The *Microsoft* case is particularly uncertain and important because the reforms, to date, have been driven by concerns from the CFI that the Commission was not meeting its obligations to test its theories with data in merger cases. It remains to be seen whether the courts will insist on a similar obligation in Article 82 cases such as *Microsoft*.

LOOKING BACK, TWO OTHER CASES DURING HIS TERM WILL SHAPE HIS LEGACY AS WELL. THE DECISION TO PROHIBIT THE *GE/HONEYWELL* MERGER, DESPITE ITS APPROVAL BY THE U.S. AUTHORITIES, AND THE DECISION TO REJECT A SETTLEMENT OF THE *MICROSOFT* CASE IN FAVOR OF SEEKING A COURT PRECEDENT.

The *Microsoft* matter is really two cases—one involves an alleged refusal to supply certain information and technologies in the networks of client and server computers; the other concerns the alleged tying of media player technologies to an operating system. CFI President Vesterdorf's decision on interim measures

74 Council Regulation 139/2004/EC on the Control of Concentrations between Undertakings, 2004 O.J. (L 24) 1, at art. 2(2) and art. (3).

75 Press Release MEMO/04/9, European Commission, New Merger Regulation—Frequently Asked Questions (Jan. 20, 2004) (emphasis in original).

76 *See, e. g.*, *Transatlantic Spat Over Microsoft*, FIN. TIMES, Mar. 29, 2004; Mark Landler, *A Slayer of Monopolies, One Corporation at a Time*, N.Y. TIMES, Mar. 25, 2004; Press Release MEMO/04/70, European Commission, Microsoft—Questions and Answers on Commission Decision (Mar. 23, 2004).

highlights the key economic and legal issues at stake. On refusal to supply, the Commission argues that the "exceptional circumstances" discussed in the *IMS Health*, *Magill*, and *Volvo/Veng* decisions were illustrative but not exhaustive of possible exceptional circumstances that could lead to compulsory licensing of intellectual property.[77] President Vesterdorf notes that the issue is whether the ECJ's conditions in *IMS Health* are "necessary or merely sufficient."[78]

On tying, the Commission agreed that Microsoft's inclusion of a media player in its operating system was not a case of classical tying but one in which the practice, through indirect network effects, could result in the market for media players tipping to Microsoft at some date in the future. President Vesterdorf concludes:

> "The present case none the less raises the complex question whether, and if so on what conditions, the Commission may rely on the probability that the market will 'tip' as a ground for imposing a sanction in respect of tying practised by a dominant undertaking where that conduct is not by nature likely to restrict competition, should that be the case."[79]

In both cases, an ultimate decision in favor of the Commission will expand the circumstances under which the Commission can find abuses. Likewise, a rejection of these and other positions could result in the courts voiding some or all of the Commission's decision. Commissioner Monti's decision to reject a settlement and instead seek legal precedence could seem either foolish or wise in the years to come, depending on how the courts ultimately rule.

The CFI's treatment of the Commission's tipping theory deserves particular attention in light of the current tension between the use of economics in the analysis of mergers and its use in the analysis of abuse of dominance. As with the theories relied on in *Airtours* and *Tetra Laval*, the tipping theory is based on mod-

77 Case C-418/01, IMS Health v. NDC Health (Apr. 29, 2004, not yet reported) [hereinafter *IMS Health*], at paras. 35 et seq.; Joined Cases C-241/91 P and C-242/91 P, Radio Telefis Eireann and Independent Television Publications Ltd. v. Commission, 1995 E.C.R. I-743, at paras. 50 et seq.; Case 238/87, Volvo v. Veng, 1988 E.C.R. 6211, at paras. 9 et seq. *See also* Case C-7/97, Oscar Bronner GmbH & Co. KG v. Mediaprint, 1998 E.C.R. I-7791, paras. 37 et seq., on refusal to grant access to resources other than intellectual property rights.

78 Case T-201/04 R, Microsoft v. Commission, *Order of the President of the Court of First Instance* (Dec. 22, 2004), at para. 206.

79 *Id.* at para. 400.

ern economics.[80] However, it is a theory based on a number of assumptions that would be case-specific and would need to be verified.[81]

VII. Conclusion

We end with three conclusions:

(1) Commissioner Monti did little to accelerate or decelerate the trend towards using more economics during the greater part of his first years in office;

(2) Commissioner Monti was responsible for several profound reforms that have already transformed the use of economics in merger investigations. These were prompted, however, by three negative decisions by the CFI that pointed specifically to the Commission's poor use of economic analysis and evidence; and,

(3) Commissioner Monti's impact on the use of economics in competition policy matters remains to be seen. Part of this depends on how the Chief Economist's Office evolves over time. The other part depends on how the EC courts consider some of his more controversial decisions—*GE/Honeywell* in the case of mergers and *Microsoft* in the case of abuse of dominance.

80 W. Brian Arthur, *Competing Technologies and Lock-In by Historical Events*, 99 Econ. J. 116 (1989); David S. Evans & Richard Schmalensee, *A Guide to the Antitrust Economics of Networks*, 10 Antitrust Mag. 36 (Spring 1996).

81 For further discussion, see Maurits Dolmans & Thomas Graf, *Analysis of Tying Under Article 82 EC: The European Commission's Microsoft Decision in Perspective*, 27 World Comp. 225 (2004) for a view that is favorable towards the Commission's case and David S. Evans & A. Jorge Padilla, *Tying Under Article 82 EC and the Microsoft Decision: A Comment on Dolmans and Graf*, World Comp. (forthcoming 2005), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=596663 for a view that is favorable towards Microsoft's case.

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Mario Monti's Legacy: A U.S. Perspective

William J. Kolasky

The departure of Commissioner Mario Monti from his post as the EC Commissioner for competition policy provides a good opportunity to reflect upon the achievements and perceived failures of the European Commission in the field of antitrust law over the past five years. This paper attempts to do so on the basis of six core principles of sound competition policy. Under the first principle, it is undisputable that the Commission under Commissioner Monti's leadership has been at the forefront of the international efforts undertaken in the fight against cartels. Second, despite some weaknesses in areas such as conglomerate mergers or in its approach to the *Microsoft* case, the Commission's focus now appears to be in the protection of competition, not competitors. Third, after a string of annulments of Commission merger decisions by the EC judiciary, the Commission has made substantial progress toward assuring that its decisions are based on sound economics and hard evidence (including consideration of efficiencies). Fourth, recent Commission policy confirms that the Commission is ready to limit intervention to those cases that really cause harm to the competition process. Fifth, despite some concerns arising from the reform of the merger review process, the Commission is working hard to ensure that competition laws do not become bureaucratic roadblocks to efficient transactions. Sixth, Commissioner Monti has been instrumental in promoting international initiatives designed to promote a better understanding of competition policy.

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I. Introduction

In November 2004, after five years as EC Competition Commissioner, Mario Monti left his post. It is, therefore, a good time to reflect on the achievements of Commissioner Monti and analyze the extent to which he, and by extension, the European Commission, has contributed to the shaping of EC competition law in an increasingly global economy.

This paper argues that, over the past five years, the Commission has come a long way in reforming both its procedures and its substantive standards to bring them more in line with modern economic thinking as to sound competition policy. While Commissioner Monti deserves credit for many of these reforms, some were initiated under his predecessor Karel Van Miert—principally, the reform process that led to the decentralization in the application of Articles 81 and 82 of the EC Treaty (Article 81 and Article 82). In other areas the reforms were, to some extent, forced on the Commission by the European Court of First Instance (CFI) as a result of three decisions reversing merger prohibitions.[1] Whatever the genesis of these ideas, however, Commissioner Monti has been responsible for their implementation, which in most cases has been exemplary. More importantly, Commissioner Monti has overseen the Commission's first efforts at putting the theories and rhetoric of the reforms into practice. While it is too early to make any definitive pronouncements on the Commission's new practices, the approach taken by the Commission in recent merger decisions such as *Sony/BMG*[2] and *Oracle/PeopleSoft*[3] provides reason for the competition community to be optimistic. Commissioner Monti also deserves enormous credit for guiding his Directorate-General (DG COMP) through a difficult period and engineering a positive response to the Commission's losses at the CFI. The string of reversals and annulments could have thrown his institution into crisis but for his strong leadership. Commissioner Monti was, on the contrary, able to use the ongoing reform process to reflect on the perceived failures of DG COMP and propose measures to tackle such weaknesses.

Central to Commissioner Monti's success in the implementation of the reforms—from the U.S. perspective at least—has been that he has fully embraced a consumer welfare standard for competition enforcement. In an October 2002 speech in the Netherlands, I defined competition as "the process by which market forces operate freely to assure that society's scarce resources are employed as

1 *See* Case T-342/99, Airtours v. Commission, 2002 E.C.R. II-2585 [hereinafter *Airtours*]; Case T-310/01, Schneider Electric v. Commission, 2002 E.C.R. II-4071 [hereinafter *Schneider*]; and Case T-5/02, Tetra Laval v. Commission, 2002 E.C.R. II-4382 [hereinafter *Tetra Laval*], appeal to the ECJ is pending.

2 Commission Decision COMP/M.3333, Sony/BMG (Jul. 19, 2004, not yet reported) [hereinafter *Sony/BMG*].

3 Commission Decision COMP/M.3216, Oracle/PeopleSoft (Oct. 26, 2004, not yet reported) [hereinafter *Oracle/Peoplesoft*].

efficiently as possible to maximize total economic welfare."[4] The fact that Commissioner Monti's reforms were based on this key objective has provided a fundamental vision for EC competition law that is not far from U.S. views on the aims of antitrust policy, and this, hopefully, will guide the Commission's future decision-making at both the macro-policy level and the micro-case level.

In earlier papers and speeches, I have also articulated a number of core principles of sound competition policy that should assist antitrust authorities in getting their priorities right. At the time of Commissioner Monti's departure, it may be useful to analyze EC competition policy over the last five years in light of these principles. I have proposed the following core principles:

(i) Impose strong deterrent measures against hard-core cartels;

(ii) Protect competition, not competitors;

(iii) Base decisions on sound economics and hard evidence—this should, among other things, lead to recognizing the central role of efficiencies in antitrust analysis;

(iv) Realize that our predictive capabilities are limited—this requires antitrust authorities to be as flexible and dynamic as the industries with which they deal; and

(v) Impose no unnecessary bureaucratic roadblocks.

Finally, as an additional guiding principle, I believe it is the role of every experienced antitrust enforcer to

(vi) Promote a better understanding of sound competition policy, principally by means of an active involvement in international initiatives.

II. First, Impose Strong Deterrent Measures Against Hard-Core Cartels

Detection and prosecution of hard-core cartels (those involving price-fixing, output limitation, bid rigging, or market sharing) should be every competition authority's top enforcement priority. As recently pointed out by the U.S. Supreme Court, collusion is "the supreme evil of antitrust."[5] Cartels raise prices and restrict supply, enriching producers at the expense of consumers and affecting the welfare of the entire economy.

4 William J. Kolasky, What is Competition?, Seminar on Convergence sponsored by the Netherlands Ministry of Economic Affairs, The Hague (Oct. 28, 2002), *available at* http://www.usdoj.gov/atr/public/speeches/200440.htm, *reprinted as* Kolasky, *What is Competition? A Comparison of U.S. and European Perspectives,* The Antitrust Bulletin 29 (Spring-Summer 2004).

5 Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 408 (2004).

From this perspective, Commissioner Monti's contribution to the effective enforcement of a sound competition policy can only be praised. Early during his five-year tenure, Commissioner Monti made it clear that action against cartels would be one of his top priorities.[6] In fact, he has described cartels as "cancers on the open market economy, which forms the very basis of our Community."[7] During his mandate, Commissioner Monti has successfully ensured effective enforcement against hard-core cartels, substantially increasing the resources allocated within the Commission to cartel detection and prosecution. Moreover, Commissioner Monti has recognized that—as we know well in the United States—public enforcement would benefit from complementary action brought by private parties that have suffered the consequences of cartel behavior; he has, therefore, been a strong advocate for increased private action within EU Member States.[8] There is little doubt that over the past five years, the United States has found in the European Community a strong ally in a fight that has become increasingly global as barriers to trade continue to be dismantled.

A. UNPRECEDENTED NUMBER OF CASES PROSECUTED

The most straightforward tool for measuring the success (or failure) of a competition authority in prosecuting cartels is an assessment of the number of cases successfully prosecuted. During the five years of Commissioner Monti's tenure, we have witnessed an unprecedented number of hard-core cartel cases being successfully brought to an end in Europe. During the 2001-2003 period, the Commission issued on average eight cartel decisions per year (with ten negative decisions affecting more than 65 companies in 2001 alone). This is an enormous increase in cartel enforcement by the Commission when compared to the average for the previous 30 years of EC cartel practice: 1.5 decisions per year.[9]

Conscious of the increased globalization of cartels, Commissioner Monti also set as one of his top priorities the development of cooperation mechanisms to ensure successful prosecution of cartels on a worldwide scale. Cooperation between antitrust agencies in the European Community and the United States

6 "Fighting cartels is one of the most important areas of activity of any competition authority and a clear priority of the Commission..." (Mario Monti, Fighting Cartels—Why and How? Why Should We Be Concerned with Cartels and Collusive Behaviour, 3rd Nordic Competition Policy Conference, Stockholm (Sep. 11-12, 2000), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/00/295&format=HTML.)

7 *Id.*

8 Mario Monti, Private Litigation as a Key Complement to Public Enforcement of Competition Rules and the First Conclusions on the Implementation of the Merger Regulation, IBA 8th Annual Competition Conference, Fiesole (Sep. 17, 2004), *available at* http://www.europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/04/403&format=HTML.

9 European Commission, XXXIIIth Report on Competition Policy (2003), *available at* http://www.europa.eu.int/comm/competition/annual_reports/2003/final_en.pdf.

has now become regular practice. The very prominent *Vitamins* case is a good example of the extensive cooperation between both antitrust authorities, such cooperation leading to the successful prosecution of one of the most damaging cartels ever uncovered.

B. UNPRECEDENTED HIGH LEVEL OF FINES

The increased number of cartels that have been successfully investigated and brought to an end has been coupled with an unprecedented level in the amount of fines imposed on the infringers. Under Commissioner Monti's tenure, the Commission has made wide use of the broad discretion that the EC legislation affords to it when determining the level of fines to be imposed on cartel perpetrators. In particular, and in what may be seen as a compensation for the lack of criminal sanctions at EC level, the Commission is not bound by a strict set of requirements such as those imposed by the U.S. Sentencing Guidelines when determining the amount of fines in cartel cases.[10] Such unprecedented high fines fulfill the objective of continued deterrence by increasing the level of fines that companies may face for infringement of the competition rules.

Since Commissioner Monti took office in October 1999, the total amount of fines imposed by the Competition Directorate in cartel cases is above EUR 4.5 billion (an unprecedented amount compared to earlier EC standards; in fact, as U.S. Assistant Attorney General for Antitrust R. Hewitt Pate recently pointed out, EC fines exceeded those levied against cartelists in the United States during the same period[11]).

As the clearest example of this increased emphasis on deterrence, the *Vitamins* cartel led in 2001 to overall fines exceeding EUR 850 million. In the *Vitamins* case, Hoffmann-la-Roche, the world's largest maker of vitamins, was fined EUR 462 million—until the recent *Microsoft* Article 82 decision,[12] the highest fine ever imposed by the Commission on an individual company—and BASF, the world's second-largest maker of vitamins, almost EUR 300 million. Other cases prosecuted during Commissioner Monti's mandate have led to overall fines of

10 Note that the Commission has issued Guidelines on the Method of Setting Fines Imposed Pursuant to Article 15(2) of Regulation No. 17 and Article 65(5) of the ECSC Treaty, 1998 O.J. (C 9) 3. However, the Guidelines expressly indicate, as part of their policy statement, that they do not detract from the discretion that the Commission is granted when setting fines, within the overall limit of 10 percent of overall turnover. For an overview of the Commission's application of its Guidelines, *see* François Arbault, *La politique de la Commission en matière d'amendes antitrust: récents développements, perspectives d'avenir*, COMPETITION POLICY NEWSLETTER No. 2 (2003).

11 R. Hewitt Pate, Antitrust in a Transatlantic Context—from the Cicada's Perspective, Antitrust in a Transatlantic Context Conference, Brussels (Jun. 7, 2004), *available at* http://www.usdoj.gov/atr/public/speeches/203973.htm.

12 Commission Decision COMP/C-3/37.792, Microsoft (Mar. 24, 2004, not yet reported) [hereinafter *Microsoft*].

EUR 478 million (Plasterboard cartel, 2002), EUR 313 million (Carbonless Paper cartel, 2001), EUR 222 million (Copper Plumbing Tubes cartel, 2004), and EUR 218 million (Graphite Electrodes cartel, 2001).[13]

C. LEGISLATIVE REFORMS FACILITATING THE PROSECUTION OF CARTELS

During his tenure, Commissioner Monti has brought to successful completion the far-reaching reform of the rules implementing Articles 81 and 82 that was launched by his predecessor Karel Van Miert. One of the key objectives of the Modernization Regulation[14] has been "to allow the Commission to become more active in the pursuit of serious competition infringements" and to "strengthen competition policy with regard to cartels."[15] To that effect, the Commission has been granted new inspection powers, such as (i) the power to seal any business premises and books or records for the period of and to the extent necessary for the inspection; (ii) the power to ask for oral explanations of facts or documents pertaining to the subject matter and purpose of the inspection; and (iii) (more contentiously) the power to enter non-business premises when a reasonable suspicion exists that books or other records relevant to the inspection are being kept in those non-business premises.[16] These new powers of investigation are coupled with increased fines for breach of the obligation to cooperate during the Commission's inspections.

In addition, and most importantly, the Modernization Regulation is premised upon the creation of a network of competition authorities, called the European Competition Network (ECN), which should provide a basis for increased horizontal cooperation by the Commission and national competition authorities in cartel prosecution—namely, by an increased flow of information between the agencies.

Last, it is worth noting that, throughout the consultation process that led to the Commission's reform of its enforcement powers, the European Commission did not shy away from a discussion as to whether cartels should be criminalized in the European Community. In the United States, we have long considered hard-core cartels to be crimes, and have prosecuted the perpetrators as crimi-

13 Note that in a recent judgment, the CFI reduced the total amount of the fines imposed on seven of the eight cartel participants, from approximately EUR 207 million to approximately EUR 153 million. *See, e.g.,* Case T-236/01, Tokai Carbon v. Commission (Apr. 29, 2004, not yet reported).

14 Council Regulation 1/2003/EC 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 *Modernization Regulation*].

15 Commission White Paper on Modernization of the Rules Implementing Articles [85] and [86] of the EC Treaty, 1999 O.J. (C 132) 1.

16 *See Modernization Regulation*, *supra* note 14, at art. 20.

nals. In the end, the Commission decided not to follow the approach of other national competition law authorities (e.g. the United Kingdom and Ireland) that have recently opted for the criminalization of hard-core cartels.[17] Notwithstanding, it is safe to say that the new investigative powers granted to the Commission, coupled with the strong commitment by the European Community to promote cartel detection and prosecution, will ensure that cartel perpetrators continue to have a tough time if engaging in illegal activity in the European Community.

D. REVISION OF THE COMMISSION'S LENIENCY PROGRAM

The revision of the Commission's Leniency Notice[18] has been another of the major drivers in the Commission's unprecedented effort against cartels. The new Leniency Notice also provides a good example of the synergies brought about by the cooperation and mutual understanding between authorities in the United States and the European Community; the experience gathered by the United States through its own amnesty program positively influenced the EC revision. In addition, the Commission has taken into account the challenges an EC amnesty applicant will face in parallel U.S. civil litigation in devising creative alternatives to written corporate statements, in particular, the acceptance of oral amnesty applications.

Among the revised features of the new program, the Leniency Notice softens the conditions that must be met by an applicant seeking to qualify for amnesty as it removes the requirement that the applicant provide "decisive" evidence and extends amnesty to applicants that acted as "instigators"—provided that the company did not take steps to coerce other entities into participating in the infringement—or played a determining role in a cartel.[19]

The Leniency Notice also provides increased certainty that amnesty will be afforded to the first firm that, by providing important insider information to the Commission at the critical stages of a cartel investigation, allows the Commission to either: (i) launch an inspection at the premises of the suspected companies; or (ii) establish an infringement, when the Commission is already in possession of sufficient information to launch an inspection, but not to establish such infringement. In order to increase legal certainty, the

17 Article 23(5) of the Modernization Regulation stresses that the fines imposed thereunder "shall not be of a criminal law nature." (*Modernization Regulation, supra* note 14, at art. 23(5).)

18 Commission Notice on Immunity from Fines and Reduction of Fines in Cartel Cases, 2002 O.J. (C 45) 3.

19 During the six years of operation of the 1996 Leniency Notice, the difficulty—and legal uncertainty—regarding the applicability of the criteria for immunity led to only three companies being granted full immunity from prosecution: Rhône-Poulenc (Aventis) with regard to two of the three infringements in which it was involved in the *Vitamins* investigation; Brasserie de Luxembourg in the *Luxembourg Breweries* case; and Sappi in the *Carbonless Paper* case.

Commission will now provide an amnesty applicant a letter confirming its position, provided that the applicant complies with the obligations of cooperation set out in the Leniency Notice. The Commission is also prepared to inform leniency applicants at an early stage of the procedure about the expected level of reduction which they can expect in their fine.

The revamped Leniency Notice has already contributed—and, undoubtedly, will continue to contribute—to the increased detection of hard-core cartels by the Commission. Already in the first year of operation of the new Leniency Notice, more than 20 applications for immunity were received by the Commission—a stark contrast to the total of 16 applications for immunity that were received during the six years of operation of the 1996 Leniency Notice.[20]

III. Second, Protect Competition, Not Competitors

The guiding principle of antitrust law should be the protection of competition and not the protection of competitors. The competitive process works in part because it rewards successful firms and eliminates inefficient rivals. Therefore, an antitrust authority should never seek to protect competitors from stronger rivals. It should encourage vigorous competition, even by dominant firms and even at the risk of driving weaker competitors from the market. In general, a firm's conduct should only be challenged as exclusionary where it is likely to exclude rivals from the market, serves no legitimate business purpose, and tends to destroy competition itself.

A. POSITIVE STATEMENTS AND THEORIES

Commissioner Monti, in one of the last speeches of his mandate, stated that the main goal of EC competition policy is consumer welfare and that "only a very poorly informed observer can still resort to the catchphrase that the main goal of competition policy in Europe is a different one, such as protecting competitors."[21] Such statements show an undoubted desire to move EC competition policy further away from the protection of competitors and are to be welcomed. There has also been salutary recognition by senior Commission officials of the need to clarify the Commission's policy on the application of Article 82, and of the importance of stimulating a debate within the antitrust community about this area of

20 Bertus Van Barlingen, *The European Commission's 2002 Leniency Notice after one year of operation*, Competition Policy Newsletter 2 (2003).

21 Mario Monti, A Reformed Competition Policy: Achievements and Challenges for the Future, Center for European Reform, Brussels (Oct. 28, 2004), *available at* http://europa.eu.int/rapid/pressReleases Action.do?reference=SPEECH/04/477&format=HTML.

law.[22] An internal review is underway in the Commission, and draft guidelines may be forthcoming in 2005-2006.

B. INCONSISTENT APPLICATION

It is, however, difficult to ignore some of the more problematic cases and theories of the last five years. The following are prominent examples of where the Commission still seems to have some progress to make, but it must be emphasized that the overall signs confirm that the Commission is making significant strides in this regard.

1. Conglomerate Mergers

First, the Commission's approach to conglomerate mergers remains of concern. *General Electric/Honeywell* would have been the largest industrial merger in the world.[23] After a careful five-month investigation, the U.S. Department of Justice (DOJ) decided not to challenge the merger, save where it led to horizontal overlaps.[24] In contrast, in a well-publicized, and sometimes criticized,[25] decision, the Commission decided that the merger would strengthen GE's already dominant position in the market for large jet engines and would enable the merged entity to acquire dominance in the small engines, avionics, and non-avionics markets.

In coming to this decision, the Commission chose to forego immediate price reductions to consumers in the fear that the merged entity would ultimately be able to drive out competitors. It based its reasoning on a theory of portfolio effects, fearing the "opportunities and incentives [for bundling], given the unprecedented range of products and services that will be put at the disposal of the merged entity,"[26] and it appeared to be concerned that the merged entity would be able to enjoy economies of scale and scope which would foreclose competitors.

22 Philip Lowe, Speech delivered at the Fordham Antitrust Conference, Fordham Annual Conference on International Antitrust & Policy, New York (Oct. 23, 2003), *available at* http://www.europa.eu.int/comm/competition/speeches/text/sp2003_040_en.pdf.

23 Commission Decision 2004/134/EC, General Electric/Honeywell, 2004 O.J. (L 48) 1 [hereinafter *GE/Honeywell*]. For a more detailed critique of the Commission's decision, *see* William J. Kolasky, Conglomerate Mergers and Range Effects: It's a Long Way from Chicago to Brussels, George Mason University Symposium Washington D.C. (Nov. 9, 2001).

24 *See* U.S. Dep't of Justice, Note for Discussion at OECD Roundtable on Portfolio Effects in Conglomerate Mergers (Oct. 15, 2001), at paras. 53 to 60.

25 For criticism from the business community and leading economists, *see* Hal R. Varian, *Economic Scene: In Europe, GE and Honeywell ran afoul of 19th century thinking*, N.Y. Times, Jun. 28, 2001; from legal scholars, *see* George L. Priest, *The GE/Honeywell Precedent and Franco Romani*, Wall St. J., Jun. 20, 2001, at A1; and for more colorful criticism from editorial writers, *see* Editorial, *Europe to GE: Go Home*, Wall St. J., Jun. 15, 2001, at A14 and Editorial, *Obstructionist Europe*, Wash. Post, Jun. 22, 2001, at A24.

26 *GE/Honeywell*, *supra* note 23, at para. 361.

In another example of its theory on conglomerate mergers, the Commission prohibited the proposed merger between Tetra Laval and Sidel on the ground that Tetra Laval would leverage its market power in the carton packaging market into the market for polyethylene terephthalate (PET) packaging in which Sidel was active.[27] This decision was annulled by the CFI. The CFI did confirm that the Commission could, in the presence of "convincing evidence," prohibit a merger because of its conglomerate effects; however, such convincing evidence had not been adduced in the case under consideration.[28] The Commission has appealed this judgment to the European Court of Justice (ECJ), and the *GE/Honeywell* decision has been appealed to the CFI, so the EC courts will have further opportunities to rule on conglomerate mergers.

U.S. law has long considered that antitrust agencies should very rarely interfere with conglomerate mergers. On the contrary, it is recognized that such mergers have the potential to generate significant efficiencies: the injection of capital; the improvement of management efficiency; the transfer of know-how and best practices across traditional industry boundaries; and the increased ability to get by during economic downturns through diversification. In addition, conglomerate mergers provide a market for owner-managers to sell the businesses that they create, thereby encouraging enterprise and risk-taking. The European Community's concern with theories that have been long abandoned in the United States is probably misplaced. Greater faith should be placed in the competitive process rather than worrying about competitors who may be less efficient than the merged entity.

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2. Microsoft

In 2004, the Commission fined Microsoft EUR 497.2 million for refusing to make interoperability information for work group servers available on a non-discriminatory basis and for bundling its media player with Windows.[29] The behavioral remedies imposed on Microsoft have been defined by some as "interventionist" and as "chilling competition and innovation."[30] In relation to the requirement to make available an unbundled version of Media Player, it is worth

27 Commission Decision 2004/124/EC, Tetra Laval/Sidel, 2004 O.J. (L 43) 13 [hereinafter *Tetra Laval/Sidel*].

28 *Tetra Laval*, *supra* note 1.

29 *Microsoft*, *supra* note 12.

30 *See* Assistant Attorney General for Antitrust R. Hewitt Pate's Statement on the EC's Microsoft Decision (Mar. 24, 2004), *available at* http://www.usdoj.gov/atr/public/press_releases/2004/202976.htm.

noting that the U.S. courts rejected a similar remedy. Similarly, when considering the refusal to supply full interoperability information, the Commission may have been too influenced by competitors, who were already competing effectively on the server market. The remedy of obligatory licensing, while not unknown to U.S. law, is one that must be treated carefully, as a dominant company must be encouraged to invest in research and create intellectual property. Allowing competitors to access valuable intellectual property rights may not, in the long term, be protective of dynamic competition.

3. Rebates Offered by Dominant Firms

Finally, the Commission and the EC courts have long regarded rebates offered by a dominant firm with some skepticism.[31] Just prior to the beginning of Commissioner Monti's term of office, the Commission condemned a ticketing scheme offered by British Airways (BA) to travel agents.[32] Then in a case decided during Commissioner Monti's mandate, *Michelin II*, the Commission found that the tire manufacturer's rebate scheme violated Article 82 as it was loyalty inducing.[33] Both these decisions were upheld by the CFI on the ground, amongst others, that the schemes led to foreclosure.[34] In *British Airways/Virgin (BA/Virgin)*, the CFI drew attention to the inability of BA's competitors to match the level of discounts being offered by BA.[35] It also dismissed BA's argument based on the rebate's lack of effect on the market (see below) and the fact that its competitors' market shares were increasing.[36]

This concern with foreclosure of competitors is alien to U.S. law, which considers that single-product price-cutting is lawful provided price remains above the firm's avoidable costs. EC law on rebates, as we discuss in greater detail below, has long been criticized, and it will undoubtedly attract a lot of interest when the Commission publishes guidelines on the application of Article 82.

The future guidelines and positive statements about EC competition policy not seeking to protect competitors cannot obscure that real reform is, in the end, dependent on the way in which antitrust cases are investigated and decided. Over-reliance on the statements of competitors in the course of an investigation

31 *See* Case 85/76, Hoffmann La Roche v. Commission, 1979 E.C.R. 461.

32 Commission Decision 2000/74/EC, Virgin/British Airways, 2000 O.J. (L 30) 1.

33 Commission Decision 2002/405/EC, Michelin, 2002 O.J. (L 143) 1.

34 Case T-219/99, British Airways plc v. Commission (Dec. 17, 2003, not yet reported) [hereinafter *BA/Virgin*]; Case T-203/01, Manufacture française des pneumatiques Michelin v. Commission (Sep. 30, 2003, not yet reported) [hereinafter *Michelin II*].

35 *BA/Virgin*, *supra* note 34, at paras. 276-278.

36 *Id.* at para. 298.

will naturally result in greater emphasis being placed on these competitors' concerns. This must be avoided and, as we will move on to discuss, there is no substitute for a detailed examination of facts and sound economic theory in an antitrust case.

IV. Third, Base Decisions on Sound Economics and Hard Evidence

Competition agencies have long been confronted by companies, aided by lobbyists and public relations companies, seeking help in using antitrust as a weapon against their competitors. When faced with such competitor complaints, the best way to avoid the agency's decisions becoming politicized is, in Joseph Schumpeter's words, to test the complaint against "the cold metal of economic theory."[37] Commissioner Monti has recently stated that he had devoted his efforts to making "independent and neutral assessments" and that EC competition policy has become "clearly grounded in sound micro-economics."[38] I have no doubt that EC policy is moving in the correct direction of requiring sound economic theory and cogent evidence to be adduced before intervention.

A. NEED TO DISCHARGE GREATER BURDEN OF PROOF

In *Airtours*,[39] *Tetra Laval*,[40] and *Schneider*,[41] the CFI overturned Commission decisions prohibiting those three mergers.[42] In the three instances, the Commission was found not to have discharged its burden of proof for reaching a prohibition decision. For example, in *Airtours*, the CFI condemned the Commission's decision in the following terms:

> "[T]he Court concludes that the Decision, far from basing its prospective analysis on cogent evidence, is vitiated by a series of errors of assessment as to factors fundamental to any assessment of whether a collective dominant position might be created. It follows that the Commission prohibited the transaction without having proved to the requisite legal standard that the

37 Joseph A. Schumpeter, Capitalism, Socialism and Democracy (1942).

38 Monti, A Reformed Competition Policy, *supra* note 21.

39 *Airtours*, *supra* note 1.

40 *Tetra Laval*, *supra* note 1.

41 *Schneider*, *supra* note 1.

42 In an interesting postscript to these cases, both *Airtours* and *Schneider* have filed actions for damages against the Commission.

> concentration would give rise to a collective dominant position of the three major tour operators, of such a kind as significantly to impede effective competition in the relevant market."[43]

B. RESPONSES TO THIS CRITICISM

As acknowledged by Commissioner Monti in a recent speech, this "rigorous scrutiny" is "a welcome development, but also a challenging one."[44] Commissioner Monti has acted quite positively to this high profile criticism. The Commission has appointed a Chief Economist, Lars-Hendrik Röller, and has hired a team of industrial economists with the task of providing an independent and objective opinion on a case's economic merits. This appointment should lead to greater economic analysis when deciding which cases to bring and which mergers to prohibit; the Commission should not be concerned about bringing winnable cases under current law but should seek only to bring cases that have a sound economic basis.[45]

In addition, at an organizational level, Commissioner Monti has disbanded the Merger Task Force, which used to have exclusive competence in the review of mergers, and has replaced it with teams aligned according to different industry sectors. The Commission has also initiated a devil's advocate/peer review system under which cases which are examined under phase II of the Merger Regulation[46] are subjected to scrutiny by an independent team of Commission officials. These reforms should further help strengthen the Commission's decision-making process.

It is often noted that in merger cases the Commission acts as investigator, judge, and prosecutor. Unlike in the United States where the DOJ must obtain an injunction to prevent a merger, Commission decisions are not, in the normal course of events, subject to judicial review. The knowledge that facts will have to stand up to judicial scrutiny and that witnesses will have to survive the cauldron of cross-examination acts as a disciplining tool on DOJ officials. The Commission's decision-making, on the other hand, requires essentially only self-discipline. Given the length of proceedings—even in *Tetra Laval* where a new expedited procedure was used, the CFI's judgment was handed down a year after the Commission's prohibi-

43 *Airtours*, *supra* note 1, at para. 294.

44 Monti, A Reformed Competition Policy, *supra* note 21.

45 For an interesting reflection on the role and impact of a U.S. Special Economic Assistant, *see* Oliver E. Williamson, *From Theory to Practice: Working with Economic Experts*, 17-SPG Antitrust 61.

46 Council Regulation 139/2004/EC on the Control of Concentrations between Undertakings, 2004 O.J. (L 24) 1, replacing Council Regulation 4064/89/EEC.

tion decision—and that subsequent actions for damages are no real compensation for a wronged company, this lack of an independent check on the Commission is a major difficulty. The internal nature of the peer review system may well not prove adequate in this respect. It certainly does not, for example, go as far as the United Kingdom's House of Lords Select Committee would have wished when it suggested having a new case team for phase II of all mergers.[47]

There have, however, been signs that these reforms may be producing positive results. In 2004, the Commission cleared the creation of the joint venture merging the recorded music businesses of Sony and Bertelsmann after consideration of detailed pricing evidence.[48] After in depth analysis of bidding data during its phase II investigation, the Commission has very recently also cleared the way for Oracle to acquire Peoplesoft.[49] Both cases are good examples of the Commission's renewed commitment to base its merger decisions on solid economic thinking, and it is hoped that this trend will be continued in the future.

C. NEED FOR MORE EFFECTS-BASED DOCTRINES

Fact-intensive investigation is the key to good antitrust enforcement. Economic theory cannot be used if it is unburdened by careful factual analysis. For example, product bundling is usually pro-consumer but can under certain circumstances be anticompetitive, and, without due attention to the facts, it is often impossible to tell which is the case.

In some instances, the EC authorities have not had to carry out this detailed factual analysis. For example, in both *BA/Virgin* and *Michelin II*, the CFI stated that there was no need to show that the rebate schemes under consideration had anticompetitive effects on the market. It was sufficient to prove that they "tended to have" or "were capable of having" this effect.[50] This failure of the CFI to demand proof of anticompetitive effects, or at the very least, require that the conduct be likely to have such effects is disappointing from a court that in the area of mergers has been so willing to grapple with economics and complex facts.[51] In contrast, the *Microsoft* decision is more satisfactory, as the Commission

47 The Review of the EC Merger Regulation, 32nd Report of the House of Lords Select Committee on the European Union, HL Paper 165, Session 2001-02, at para. 255, *available at* http://www.publications.parliament.uk/pa/ld200102/ldselect/ldeucom/165/16501.htm.

48 *Sony/BMG*, *supra* note 2.

49 *Oracle/PeopleSoft*, *supra* note 3.

50 *BA/Virgin*, *supra* note 34, at para. 293.

51 As noted by a Senior Commission official, "We [...] were slightly surprised at the Court of First Instance's analysis in *Michelin II*, that it placed so great an emphasis on per se rules and on certain types of conduct and did not go into any further economic analysis of the case." (Lowe, *supra* note 22.)

took due account of possible efficiencies and of the concrete effects of certain practices on the market.

Allegedly exclusionary conduct is a subject of complexity and controversy and the CFI, in the rebates cases, appears to have simply set the Commission's bar too low by not requiring more than a demonstration that conduct tends to have a certain effect. It can only be hoped that the Commission itself addresses this point in its forthcoming guidelines on the application of Article 82.

D. RECOGNITION OF THE ROLE OF EFFICIENCIES

On a more positive note, the Commission's recent guidelines on horizontal mergers at last give due recognition to the role of efficiencies in antitrust analysis.[52] The guidelines state that efficiencies may counteract potential harm to customers brought about by a merger, and that the Commission will make an "overall competitive appraisal of the merger."[53] It will take "any substantiated efficiency claim" into consideration, provided that it is of benefit to consumers, merger-specific, and verifiable.[54]

This is a very promising development and contrasts vividly with the inadequate treatment of efficiencies in *GE/Honeywell*. There, the Commission objected to the increased access to capital that Honeywell would enjoy due for instance to GE's AAA bond rating. Cheaper access to capital is a source of efficiency like all other efficiencies so it should, like any other efficiency, be a reason to approve a merger, not prohibit it. Further, the Commission's conclusion was reached despite the fact that Honeywell's main competitors (United Technologies, BF Goodrich, and Thales) were large financially healthy companies and that GE's competitors (Rolls Royce and Pratt & Whitney) were both investing heavily in the development of their next generation engines.

The United States has long regarded analysis of efficiencies as integral to antitrust enforcement. The rule of reason requires a balancing of the pro- and anticompetitive effects of conduct. In addition, in the United States, account is taken of both allocative efficiencies (i.e. those realized through cutting price, increasing output, and moving towards a more competitive outcome) and productive efficiencies (i.e. actual reductions in unit costs due to cost savings/economies of scale). It is not clear that the Commission takes allocative efficiencies into account in the same manner. In *GE/Honeywell* the Commission maintained that the parties had not claimed any merger-specific cost savings; rather the price cuts that would have flowed from mixed bundling were not true

52 Commission Notice on Guidelines on the Assessment of Horizontal Mergers Under the Council Regulation on the Control of Concentrations between Undertakings, 2004 O.J. (C 31) 5.

53 *Id.* at para. 76.

54 *Id.* at paras. 77-78.

efficiencies but strategic pricing that would not result in sustainable price reductions.[55] There is no sound economic basis for this differing treatment of allocative and productive efficiencies, but it is hoped that the Commission will now truly take account of "*any* substantiated efficiency claim" (emphasis added).

E. OTHER REFORMS

Outside the area of mergers, the Commission has inspired legislation and guidance that is infused with greater economic thinking: its block exemption for vertical restraints;[56] its guidelines on vertical[57] and horizontal[58] agreements; its revised block exemption[59] and accompanying guidelines[60] on the transfer of technology; and the notices prepared for the coming into force of decentralized application of Article 81.

Article 82, recently described as the "last of the steam powered trains,"[61] has however, been slightly neglected to date, as it alone has not been reformed during Commissioner Monti's tenure. Some of the Commission's practices, for example on rebates, are not always inspired by modern economic thinking but rather by notions of protecting the process of competition. As stated, it is expected that the Commission will produce guidelines in this area in the near future, and it is hoped that these will usher in much-needed, more economically-inspired, reform.

SOME OF THE COMMISSION'S PRACTICES ARE NOT ALWAYS INSPIRED BY MODERN ECONOMIC THINKING BUT RATHER BY NOTIONS OF PROTECTING THE PROCESS OF COMPETITION. IT IS EXPECTED THAT THE COMMISSION WILL PRODUCE GUIDELINES IN THIS AREA IN THE NEAR FUTURE, AND IT IS HOPED THAT THESE WILL USHER IN MUCH-NEEDED, MORE ECONOMICALLY-INSPIRED, REFORM.

55 Götz Drauz, Unbundling GE/Honeywell: the Assessment of Conglomerate Mergers Under EC Competition Law, Fordham Corporate Law Institute, New York (Oct. 2001), at 25-28.

56 Commission Regulation 2790/99/EC on the Application of Article 81(3) of the Treaty to Categories of Vertical Agreements and Concerted Practices, 1999 O.J. (L 336) 21.

57 Commission Notice on Guidelines on Vertical Restraints, 2000 O.J. (C 291) 1.

58 Commission Notice on Guidelines on the Applicability of Article 81 of the EC Treaty to Horizontal Cooperation Agreements, 2001 O.J. (C 3) 2.

59 Commission Regulation 772/2004/EC on the Application of Article 81(3) to Categories of Technology Transfer Agreements, 2004 O.J. (L 123) 11.

60 Commission Notice on Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements, 2004 O.J. (C 101) 2.

61 Brian Sher, *The Last of the Steam-Powered Trains: Modernising Article 82*, E.C.L.R. 2004, 25(5), 244.

V. Fourth, Realize That Our Predictive Capabilities Are Limited

A. THE HIPPOCRATIC OATH

Antitrust officials should, like doctors, take a sort of Hippocratic oath: before intervening, they should be confident that their actions will not cause harm. Antitrust authorities should not seek to be industrial policymakers, but they should limit themselves to being diligent law enforcers. This is because the predictive powers of antitrust lawyers are limited. Markets evolve in ways that even sophisticated industry participants could not have anticipated.

Sadly, although practice is improving, not all examples of enforcement under Commissioner Monti have shown such restraint. First, *Tetra Laval*[62] is a disappointment, both in the overly speculative approach taken by the Commission in its administrative ruling and, as demonstrated by the appeal to the ECJ, the degree to which the Commission has resisted the CFI's efforts to hold it to a reasonable standard of proof. Government should embrace such judicially imposed burdens and not seek to exercise its enormous powers without first demonstrating some degree of likelihood that those powers are required to address specific anticompetitive effects. Second, in *GE/Honeywell* the Commission reached conclusions on the forced exit of competitors without adequate account being taken of the possible counterstrategies available to these competitors (teaming arrangements and mergers amongst themselves). It thus failed to give due regard to Nash's test of equilibrium which assumes that every other market player will play his best strategy. Further, any determination, based on a possible ultimate outcome, should be reached only where the authority is very confident that rivals will be forced from the market. Mere reliance on their word is not sufficient.

B. NEED FOR FLEXIBILITY AND FORWARD THINKING

Linked to this recognition of limited ability to predict, antitrust authorities should be flexible and forward-looking. Often antitrust authorities are called upon to intervene in new economy industries and it must be ensured that they adapt to changes in these industries. In this context, it is important to recognize the role of non-price competition in dynamic industries. For example, new-economy industries frequently require risky upfront investments that will not be made without the promise of substantial return. The costs of regulatory mistakes are therefore very high as government interference may frustrate innovation and discourage efficient practices, and this to the detriment of the competition touchstone itself, consumer welfare. In new-economy industries, it may thus be better to err on the side of reducing Type I (falsely finding abuse) errors over reducing

62 *Tetra Laval/Sidel, supra* note 27.

Type II errors (falsely not finding abuse). Yet, of course, a balance must be struck; some regulation is necessary—and prices cannot be allowed to rise to unacceptably high levels. Additionally, the emergence of potentially superior new entrants should be encouraged.

The Commission has been somewhat responsive to the need for competition policy to be cognizant of effects on ex ante incentives for investment and innovation. For example, the recently adopted guidelines on technology transfer agreements contain several statements about competition being dynamic and the importance of incentives for innovation.[63] The new block exemption contains fewer per se prohibitions on certain types of clauses and gives parties greater flexibility in drafting agreements. Also, the guidelines confirm that above the block exemption's safe harbor market share thresholds, there is no presumption that intellectual property and license agreements, as such, give rise to antitrust concerns. Finally, the Commission states at the outset of the guidelines that it will be reasonable and flexible in applying the block exemption and it rules out a mechanical application thereof.[64]

VI. Fifth, Impose No Unnecessary Bureaucratic Roadblocks

Regulatory authorities must work hard to ensure that antitrust laws do not themselves become bureaucratic roadblocks to efficient transactions. The vast majority of agreements and transactions that are entered into on a daily basis are procompetitive or, at worst, competitively neutral. This is equally true in relation to mergers. The views of ECJ Advocate General Antonio Tizzano in his recent *Tetra Laval* opinion are particularly illustrative of this; he notes that "[in cases of uncertainty] it has been thought preferable to run the risk of authorizing a transaction incompatible with the common market, rather than the risk of prohibiting one that is compatible, so unjustifiably restraining the parties' freedom of economic activity."[65]

The need for efficient review applies not only to administrative authorities, but also to the judiciary. Unfortunately, as discussed above, the EC regime—at least in relation to merger review—is still far away from the U.S. prosecutorial-style model, where it is up to the judge and not the enforcer to decide whether a merger should be prohibited or not. I strongly believe that a clear separation of the functions of prosecutor and jury is critical for efficient antitrust enforcement,

63 *See, e.g.*, Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements, *supra* note 60, at para. 70.

64 *Id.* at para. 3.

65 Case C-12/03, Commission v. Tetra Laval, ECJ judgment pending, at para. 79.

and that in the long-term such separation of powers can only bring benefits to the enforcer who must convincingly argue the merits of its case in front of an independent third party. While it is now clear that there will be no changes in the short term to the way mergers are reviewed in Europe, it is fair to note that Commissioner Monti was open to discuss the issue throughout the merger reform process.[66] Throughout his tenure, Commissioner Monti has also provided unconditional support for the work of the judiciary, even if the Commission's challenge to the standard of review set by the CFI in *Tetra Laval* poses some doubt as to how the Commission sees its role in the merger review process.

On the plus side, the successful implementation of the administrative reforms undertaken in the antitrust field is one of Commissioner Monti's key successes. As I noted in one of my speeches while I was at the DOJ,[67] a regulatory authority should strive to further four main goals: (i) to eliminate unnecessary and costly existing regulation; (ii) to inhibit the growth of unnecessary new regulation; (iii) to minimize the competitive distortions caused where regulation is necessary by advocating the least anticompetitive form of regulation consistent with the valid regulatory objectives; and (iv) to ensure that regulation is properly designed to accomplish legitimate regulatory objectives. There is no doubt that the Modernization Regulation is driven by such objectives. The Modernization Regulation is based on the principles of efficient supervision—with the allocation of resources to those areas of antitrust law where intervention is most important—and simplified administration. It is a radical shift from earlier EC decision-making, and introduces a principle of self-assessment where it will be up to the companies—and their legal and economic advisers—to undertake an overall assessment of the potential pro- and anticompetitive effects of their agreements. The Modernization Regulation thus puts an end to the 40-year-old system of notification to the Commission of agreements that may prima facie be restrictive of competition but may also qualify for exemption. While the notification system provided for some degree of legal certainty (that said, the comfort letters which the Commission used in the majority of cases, were not binding in national proceedings), it placed severe burdens on the Commission's enforcement activities and only very rarely led to prohibition decisions by the Commission.[68]

66 *See, e.g.,* Mario Monti, Review of the EC Merger Regulation—Roadmap for the Reform Project, British Chamber of Commerce Conference on Reform of European Merger Control, Brussels (Jun. 4, 2002), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/02/252&format=HTML.

67 William J. Kolasky, A Culture of Competition for North America, Economic Competition Day: Shared Experiences at the Federal Competition Commission of Mexico, Mexico City (Jun. 24, 2002), *available at* http://www.usdoj.gov/atr/public/speeches/11351.htm.

68 According to the Commission's White Paper on Modernization of the Rules Implementing Articles [85] and [86] of the EC Treaty, *supra* note 15, at 29, under the earlier regime there were only nine decisions in which a notified agreement was prohibited without a complaint having been lodged against it.

The Commission's efforts in clarifying its understanding of Articles 81 and 82 by means of notices should hopefully bring further reassurance to the business community about the type of conduct which is likely to be tolerated by the Commission and the Member States' antitrust authorities.

> THE COMMISSION'S EFFORTS IN CLARIFYING ITS UNDERSTANDING OF ARTICLES 81 AND 82 BY MEANS OF NOTICES SHOULD HOPEFULLY BRING FURTHER REASSURANCE TO THE BUSINESS COMMUNITY ABOUT THE TYPE OF CONDUCT WHICH IS LIKELY TO BE TOLERATED.

However, it is possible that the principles inspiring the review of the antitrust procedural rules have not been extended to the merger field. The EC merger review process has been described as "front-loaded," because the parties' initial Form CO notification must set forth in great detail the transaction, the conditions in the affected markets, and the impact the transaction has on those markets. In exchange for this intensive provision of data, the merging parties are afforded the (relatively) short deadlines for clearance by the Commission in cases that raise few anticompetitive concerns. Past Commission practice shows that, during the period 1990-2004, more than 90 percent of the merger cases notified to the Commission have been cleared during a phase I (non-extended) procedure. Against this background, which confirms that the vast majority of mergers are either pro-competitive or competitively neutral, the new Form CO requires provision of even more extensive data, in particular by introducing additional disclosure requirements for closely related neighboring markets to those in which the parties to the concentration are active.[69] The same requirements apply in relation to the referral possibilities that the new EC merger legislation affords to merging parties, by means of a "reasoned submission," as provided for in Form RS.[70] However, Form RS requires, among other items, detailed explanations on market definition; specific information on the parties' and their competitors' market shares; in addition to detailed customer and supplier data in all potentially affected Member States. The amount of information required by Form RS may act as a barrier for making extended use of the opportunities that the referral system affords to merging parties.

69 Product markets are closely related neighboring markets when the products are complementary to each other or when they belong to a range of products that is generally purchased by the same set of customers for the same end use, *see* Form CO relating to the Notification of a Concentration Pursuant to Regulation 139/2004/EC, *supra* note 46.

70 Form RS relating to Reasoned Submissions Pursuant to Articles 4(4) and 4(5) of Regulation 139/2004/EC, 2004 O.J. (L 133) 31.

VII. Sixth, Promote a Better Understanding of Sound Competition Policy, Including International Initiatives

The principles set out above provide strong examples of the impact that antitrust enforcers may have in advancing consumer welfare through engaging in forceful competition advocacy. The influence of a competition authority can also be measured by the extent to which the agency has made a real contribution to furthering antitrust policies in the international context, be it through bilateral exchanges or by building strong partnerships in the international fora.

A. BILATERAL COOPERATION

Despite the diverging positions of the EC and U.S. authorities in such prominent cases as *GE/Honeywell* and *Microsoft*, there is no doubt that Commissioner Monti has made a very substantial contribution to a better understanding of EC antitrust policy in the international arena. In fact, in the wake of the Commission's prohibition of the *GE/Honeywell* merger, Commissioner Monti embarked on a personal crusade—with the full support of antitrust officials on the other side of the Atlantic—to bridge any gaps that the *GE/Honeywell* decision may have brought to light. The decision is a good reminder that without extensive bilateral cooperation, the sharing of fundamentally similar goals may still prove insufficient to bring about convergent results. The openness of the Commission to discuss its decision should be praised, as it triggered an important debate on the economic issues surrounding the topic of portfolio effects and related theories of harm.[71] It also led to encouraging statements from Commissioner Monti about the positive approach of the Commission to efficiency-enhancing mergers and to later recognition of the importance of efficiencies in the new horizontal merger guidelines.

As noted earlier, EC-U.S. cooperation has not been restricted to the merger field, and during Commissioner Monti's tenure both antitrust authorities have regularly exchanged views and have successfully assisted each other in the prosecution of some of the most prominent international cartels (e.g. *Vitamins* and *Fine Arts Auction* cartels). The Commission has also concluded bilateral agreements with other key antitrust authorities, such as those in Canada and in particular Japan, with whom the European Communities successfully entered a cooperation agreement during Commissioner Monti's tenure (July 2003).[72]

71 *See, e.g.,* OECD Roundtable on Portfolio Effects in Conglomerate Mergers, *supra* note 24.

72 *See* European Commission, Agreement Concerning Cooperation on Anticompetitive Activities (Jul. 10, 2003). Note that the EC also entered a Memorandum of Understanding with the Republic of Korea on the terms for a bilateral competition dialogue on Oct. 28, 2004.

B. REGIONAL (EU) COOPERATION

The Commission's increased efforts towards multilateral cooperation find their strongest expression at regional (EU) level. The Modernization Regulation relies on a network of competition authorities, the ECN, which should provide a basis for increased cooperation by the Commission and national competition authorities in the application of Articles 81 and 82. In the context of the reform process that led to the Modernization Regulation, the Commission surrendered its monopoly on the application of the Article 81(3) exception to the prohibition of agreements, which prima facie restrict competition for the benefit of Member State competition authorities and courts. The ECN largely mirrors the cooperation that the new EC Merger Regulation envisages for the Commission and national competition authorities, most notably through an increased use of the referral mechanisms provided for under EC law, which ensure that merger cases are allocated to the authorities that are best placed to deal with them.[73]

C. MULTILATERAL COOPERATION

At multilateral level, Commissioner Monti has been one of the strongest proponents of the work undertaken by the International Competition Network (ICN). The ICN is a network of national competition authorities that now comprises more than 80 members and has been instrumental in facilitating a better understanding of competition law enforcement. It has recently extended its work from the areas of competition advocacy and merger activity (where the ICN has had a very visible role) to examination of the fundamental issues surrounding anti-cartel enforcement. As an example of the positive cross-contamination effects that multilateral fora like the ICN may have on national authorities, the Commission played close attention to the set of (non-binding) Guiding Principles and Recommended Practices that the ICN adopted for the control of multi-jurisdictional mergers. In the context of the review of the EC Merger Regulation, some of ICN's recommendations, in particular those pertaining to a more flexible approach to the triggering factors and the timing for notifying a concentration, were incorporated—as advocated by the Commission—into the new rules.[74]

In addition to the role played within the ICN and in other multinational agencies such as the Organization for Economic Cooperation and Development or the UN Conference on Trade and Development, few will question Commissioner Monti's efforts to develop a better understanding of the competition rules through capacity building programs, which are indispensable to further the independence and credibility of the younger competition authorities. In this

73 *See, e.g.,* Council Regulation 139/2004/EC, *supra* note 46, at art. 9, 22.

74 *See id.* at art. 4(1).

international context, it is also worth recalling that Commissioner Monti was one of the strongest proponents of incorporating a set of multilateral rules on competition within the framework of the World Trade Organization trade agreements.[75] Even if it is now clear that—at least for the time being—the ongoing trade round will not deal with this issue,[76] the debate initiated by the Commission is yet another example of the importance that Commissioner Monti has afforded to international initiatives throughout his tenure.

75 "In the absence of a specialized world-wide competition organization and in view of the complementary relationship between trade and competition policy, the World Trade Organization is the institution best suited to house an International Competition Agreement. The WTO possesses the advantages of a very broad membership and a tradition of enforcing binding rules. That is why the Commission has been at the forefront of efforts to persuade member countries on the merits of a WTO multilateral agreement in the area of competition." (Mario Monti, A Global Competition Policy, European Competition Day, Copenhagen (Sep. 17, 2002), *available at* http://europa.eu.int/rapid/pressReleasesAction.do?reference=SPEECH/02/399&format=HTML.)

76 *See* WTO General Council Decision adopted on Aug. 1, 2004, WT/L/579 (Aug. 2, 2004).

The Limits of Antitrust

Frank H. Easterbrook

In this article, Frank Easterbrook sets out the basic components of what has become known as the error-cost framework in antitrust, an approach that has gained influence in recent years. This framework recognizes the possibility that courts will make mistakes in deciding antitrust cases, and that those mistakes will result in "false positives" (false convictions) and "false negatives" (false acquittals). Moreover, the error-cost approach focuses attention on the relative costs of false positives and false negatives. Well before Easterbrook's article, the per se rule against price-fixing had been justified on the ground that, given the substantial likelihood of error, it would be better to risk condemning a few cases of beneficial price-fixing rather than allow more numerous cases of harmful price-fixing to go unpunished. Easterbrook argues that because of the corrective forces of the market (e.g. entry of rivals in response to monopolistic pricing) the error-cost minimizing approach to the rule of reason test should be biased toward false negatives. Since Easterbrook's point is straightforward, his article makes it biggest contributions by offering numerous illustrations to demonstrate it. The article has made it easier to point out the obvious, but it has altered the terms of the debate. Today, thoughtful antitrust analysis, in part because of Easterbrook's contribution, typically confronts the error-cost issue directly.

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This essay was delivered as the inaugural Susman, Godfrey & McGowan Centennial Litigation Lecture at the University of Texas on April 4, 1984. I appreciate the opportunity and the challenge afforded by the sponsors of the lecture and the faculty of the Law School.

The goal of antitrust is to perfect the operation of competitive markets. What does this mean? A "competitive market" is not necessarily the one with the most rivalry moment-to-moment. The auction in which atomistically small buyers and sellers continuously shout out bid and asked prices, the picture of "perfect competition" found in economic texts, is a hypothetical construct. Every market entails substantial cooperation over some domain in order to facilitate competition elsewhere. Every firm has webs of internal cooperation. Exxon entails far more coordination than the average cartel. Every joint venture, every partnership, indeed every contract creates cooperation among people who might otherwise be rivals. Markets themselves are organized. The Chicago Board of Trade, perhaps the closest of modern markets to the textbook ideal, has a sheaf of rules and cooperative arrangements that reduce the cost of competition.

The dichotomy between cooperation inside a "firm" and competition in a "market" is just a convenient shorthand for a far more complicated continuum. Antitrust law permits, even encourages, cooperation within a "firm," for such cooperation is the basis of economic productivity. But everything done within a firm could be done by market transactions as well. The degree of integration is variable, and some firms are integrated through many more stages of production than others. The firm itself is just a legal name for a complicated set of contractual arrangements among workers, managers, and contributors of capital. The firm expands to include more and more such contractual arrangements until, at the margin, the costs of controlling additional production internally equal the costs of coordinating production through market or "spot" transactions with "outsiders."[1] The internal costs may include the difficulty of coordination, the difficulty of giving correct incentives to agents, and the loss of information that markets offer in the form of prices. The ways in which these costs compare with the costs of organizing and maintaining markets are not fixed. Thus, there is no "right" balance between inside and outside transactions. There is only an ever-shifting equilibrium, differing from firm to firm, product to product, and time to time, as the relative costs of internal and market operations change.

If all economic arrangements entail extensive cooperation, how is an antitrust court to proceed? Unless the court knows the "right" balance between competi-

1 *See* Coase, *The Nature of the Firm*, 4 Economica (n.s.) 386 (1937). On the relation among firm, contract, and market, see Cheung, *The Contractual Nature of the Firm*, 26 J.L. & Econ. 1 (1983); Jensen & Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Organizational Structure*, 3 J. Fin. Econ. 305 (1976).

Sometimes the most efficient coordination spans several "firms." For a number of reasons, it may be most cost-effective to organize an industry into many firms (which might provide good incentives to managers and avoid diseconomies of scale), yet for the firms to coordinate. *See* L. Telser, Competition, Collusion, and Game Theory 175-217 (1972); Carlton & Klamer, *The Need for Coordination Among Firms, with Special Reference to Network Industries*, 50 U. Chi. L. Rev. 446 (1983). In referring to the optimal size of a firm, I do not mean to exclude the possibility that coordination among "firms" also is a source of economic benefit.

tion and cooperation in each market, it does not know in which direction to move. Are 10-year exclusive dealing contracts between oil companies and service stations too long? Too short? Just right? Does it matter whether there are two oil companies or twenty? 200 stations or 20,000? Is a Herfindahl-Hirschmann Index of concentration in titanium dioxide of 3000 too high? Too low? Just right? If the court tries to move the economy in the direction of the textbook model of atomistic auctions, it is sure to be wrong a great deal of the time. If the court tries to do anything else, it is at sea.

A fundamental difficulty facing the court is the incommensurability of the stakes. If the court errs by condemning a beneficial practice, the benefits may be lost for good. Any other firm that uses the condemned practice 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 prices eventually attract entry. True, this long run may be a long time coming, with loss to society in the interim. The central purpose of antitrust is to speed up the arrival of the long run. But this should not obscure the point: judicial errors that tolerate baleful practices are self-correcting, while erroneous condemnations are not.

In most cases even a perfectly informed court will have trouble deciding what the optimal long-run structure of the industry is, because there is no "right" balance between cooperation and competition. The judge has no benchmark. Small wonder that the history of antitrust is filled with decisions that now seem blunders.

Enforcement of the rule against naked horizontal restraints appears to be beneficial.[2] But suits against mergers more often than not have attacked combinations that increased efficiency, and the dissolution of mergers has led to higher prices in the product market.[3] There are good theoretical reasons to believe that

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2 D. Lean, J. Ogur & R. Rogers, Competition and Collusion in Electrical Equipment Markets: An Economic Assessment 47 (FTC Staff Report 1982) (enforcement of the anticartel rules reduced prices 4-10%); Block, Nold & Sidak, *The Deterrent Effect of Antitrust Enforcement*, 89 J. Pol. Econ. 429 (1981) (Justice Department enforcement had the effect of reducing the price of bread); Stigler, *The Economic Effects of the Antitrust Laws*, 9 J.L. & Econ. 225, 236 (1966) (finding some small benefits).

3 This is the inference from the stock market effects of mergers. If a merger is monopolistic, the stock price of the merged firms' rivals should rise in anticipation of obtaining higher prices for the industry's goods. If the merger achieves efficiencies in production, rivals' stock prices should fall (and rise again when the merger is dissolved). This second pattern appears to be much the more common. *See* Eckbo, *Horizontal Mergers, Collusion, and Stockholder Wealth*, 1 J. Fin. Econ. 241 (1983); Stillman, *Examining Antitrust Policy Toward Horizontal Mergers*, 11 J. Fin. Econ. 225 (1983); Wier, *The Costs of Antimerger Lawsuits: Evidence from the Stock Market*, 11 J. Fin. Econ. 207 (1983); *see also* D. Audretsch, The Effectiveness of Antitrust Policy Towards Horizontal Mergers (1983) (finding that costs of enforcement exceed benefits unless the redistributional effects of enforcement are counted as benefits). The more traditional studies, going case-by-case to try to find whether enforcement improves competition, come to the same conclusion. *See, e.g.*, Elzinga, *The Antimerger Law: Pyrrhic Victories?*, 12 J.L. & Econ. 43 (1969); Gellhorn, *Regulatory Reform and the Federal Trade Commission's Antitrust Jurisdiction*, 49 Tenn. L. Rev. 471, 479-99 (1982).

the costs of other enforcement efforts have exceeded the benefits.[4] Indeed, from time to time the Supreme Court explicitly states that it is sacrificing economic efficiency to other goals.[5] I do not think such sacrifices are appropriate in antitrust, but that is another debate.[6] Whether courts *try* to trade efficiency against other goals is less important than whether they do.

Antitrust is costly. The judges act with imperfect information about the effects of the practices at stake. The costs of action and information are the limits of antitrust. I ask in this essay how we should respond to these limits.

I. Ignorance and Inhospitality in Antitrust

Donald Turner once described the "inhospitality tradition of antitrust." The tradition is that judges view each business practice with suspicion, always wondering how firms are using it to harm consumers. If the defendant cannot convince the judge that its practices are an essential feature of competition, the judge forbids their use.

Inhospitality is an old tradition. Adam Smith stated that businessmen could hardly begin to talk before their thoughts turned to restraint of trade.[7] Jeremy Bentham and Oliver Wendell Holmes gave us a "bad man" vision of the law. George Stigler gave us a view of politics in which interest groups "purchase" leg-

4 For just a few of the treatments, see R. Bork, The Antitrust Paradox (1978) (logical critique, based on economic principles, of almost all antitrust doctrine); W. Bowman, Patent and Antitrust Law (1973) (logical critique of tying, exclusivity, and related doctrines with regard to patents); R. Posner, Antitrust Law: An Economic Perspective (1976) (economic critique of almost all antitrust doctrine); Gellhorn, *supra* note 3, at 479-99 (collecting sources). Other scholars, although less sweeping in condemnation, believe that many areas of antitrust law have done more harm than good. *See, e.g.*, P. Areeda & D. Turner, Antitrust Law (1978, 1980 & 1982 Supp.). For a thoughtful discussion of why antitrust has followed the path it has, see Baxter, *The Political Economy of Antitrust*, in The Political Economy of Antitrust: Principal Paper 3-4 (R. Tollison ed. 1980).

5 *E.g.*, FTC v. Procter & Gamble Co; 386 U.S. 568, 580 (1967); Brown Shoe Co. v. United States, 370 U.S. 294, 344 (1962). This line of cases may have come to an end in *Procter & Gamble*; today's Court takes a different view. *See* Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36, 53 n.21, 57-59 (1977). Nonetheless, the anti-efficiency strain runs deep in some cases and in the history of the Robinson-Patman Act and tying doctrine. It could be revived.

6 *Compare* P. Areeda & D. Turner, *supra* note 4, ¶ 103-13; R. Bork, *supra* note 4, at 81-89; Easterbrook, *Is There a Ratchet in Antitrust Law?*, 60 Texas L. Rev. 705, 714-17 (1982), *with* Fox, *The Modernization of Antitrust: A New Equilibrium*, 66 Cornell L. Rev. 1140 (1981); Pitofsky, *The Political Content of Antitrust*, 127 U. Pa. L. Rev. 1051 (1979); Sullivan, *Antitrust, Microeconomics, and Politics: Reflections on Some Recent Relationships*, 68 Calif. L. Rev. 1 (1980).

7 "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices." A. Smith, The Wealth of Nations 128 (Modern Library ed. 1937) (originally published in 1776).

islation to suppress competition.[8] Economists as well as judges are suspicious: "If an economist finds something . . . that he does not understand, he looks for a monopoly explanation. And as in this field we are very ignorant, the number of ununderstandable practices tends to be rather large, and the reliance on a monopoly explanation frequent."[9]

Yet all business arrangements entail some cooperation, if only the cooperation in delivering the product pursuant to a contract of sale. Cooperation is the source of monopoly, yet it is also the engine of efficiency. Firms organize some span of activities the better to compete with others. No surprise that antitrust enforcers and courts, charged with finding the anticompetitive cooperation in a maze of beneficial cooperation, should turn a suspicious eye on practices that seem to entail cooperation without competitive benefit.

The inhospitality tradition of antitrust has proven very costly. The costs were inevitable. Wisdom lags far behind the market. It is useful for many purposes to think of market behavior as random. Firms try dozens of practices. Most of them are flops, and the firms must try something else or disappear.[10] Other practices offer something extra to consumers—they reduce costs or improve quality—and so they survive. In a competitive struggle the firms that use the best practices survive. Mistakes are buried.

Why do particular practices work? The firms that selected the practices may or may not know what is special about them. They can describe *what* they do, but the *why* is more difficult. Only someone with a very detailed knowledge of the market process, as well as the time and data needed for evaluation, would be able to answer that question. Sometimes no one can answer it.

Ignorance would be tolerable but for the fact that every successful competitive practice has victims. The more successful a new method of making and distributing a product, the more victims, the deeper the victims' injury. Joseph Schumpeter called competition a "gale of creative destruction."[11] It is a nev-

8 G. STIGLER, THE CITIZEN AND THE STATE 114-88 (1975). Stigler's view, which has been developed by many others, *e.g.*, Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 211 (1976), must be distinguished from that of "capture theorists," who maintain that regulated groups come to dominate the agencies originally established to regulate them. Stigler proposes that the agencies need not be captured because they were created to serve the purportedly-regulated groups.

9 Coase, *Industrial Organization: A Proposal for Research*, in 3 POLICY ISSUES AND RESEARCH OPPORTUNITIES IN INDUSTRIAL ORGANIZATION 59, 67 (V. Fuchs ed. 1972).

10 Gary Becker and Armen Alchian have developed models showing how markets will evolve toward efficiency even if most of the participants behave irrationally or randomly. G. BECKER, THE ECONOMIC APPROACH TO HUMAN BEHAVIOR 153-68 (1976); Alchian, *Uncertainty, Evolution, and Economic Theory*, 58 J. POL. ECON. 211 (1950).

11 J. SCHUMPETER, CAN CAPITALISM SURVIVE? 24 (1978).

erending process of weeding out the sluggish and the inefficient. Yet those who lose in the competitive struggle do not view the outcome as just. They are probably less knowledgeable than the average business executive about why they failed and others succeeded. (If they knew what went wrong, they might have improved.)

The gale of creative destruction produces victims before it produces economic theories and proof of what is beneficial. The antitrust laws invite these victims to take their grievances to court. They hire lawyers who know less about the businesses than the people they represent. As the case arrives in court, the judge sees a business practice that has caused a formerly successful business to fail or to be deprived of a profitable opportunity ("foreclosure").

The judge knows even less about the business than the lawyers. At first hearing, the failure or lost opportunity is bound to seem a reduction in competition. Fewer competitors remain, and fewness is the definition of monopoly (or at least oligopoly). The defendant is unlikely to have a good explanation for its success. The time is not ripe. When the defendant lacks a powerful explanation for its conduct, and the evidence points to "exclusion," a judge is likely to conclude: "Why *not* prohibit this practice? If it is anticompetitive, the prohibition will be beneficial. If it is not anticompetitive, the prohibition will be harmless; the defendant cannot tell me why the practice is essential to efficiency."

Reasoning of this sort has led to the condemnation—often under a per se rule—of horizontal agreements by the dozen as well as tie-ins, resale price maintenance, vertical territorial and customer restrictions, patient pools, block booking, and a host of other business practices. The Supreme Court once said that "[t]ying agreements serve hardly any purpose beyond the suppression of competition,"[12] a phrase it has applied to many other practices. But it is not true. Economists have developed procompetitive explanations for all of these practices, sometimes several explanations for each practice. Then, too, practices that were deleterious yesterday may yield benefits today, as the balance of advantage between contractual and market organization changes. By the time scholars understand why the practice succeeded, it is too late.

It is too late in the sense that years of efficient business practices have been lost. Too late in the sense that the Court may invoke stare decisis,[13] and some member of Congress will call for the impeachment of the head of the Antitrust

12 Standard Oil Co. v. United States, 337 U.S. 293, 305-06 (1949).

13 *Compare* Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551, 1556 (1984) (saying that it is too late to abandon the 40-year-old per se rule against tie-ins, as four justices argued should be done; the Court nonetheless drained the per se rule of force, producing much the same result as express overruling), *with* Copperweld Corp. v. Independence Tube Corp., 104 S. Ct. 2731, 2742 (1984) (overruling a 37-year-old doctrine); Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36 (1977) (overruling a 10-year-old per se rule).

Division who takes the new learning seriously.[14] Too late in the sense that most people are comfortable with the way things are and do not like change. Some are intellectually comfortable, others (those whose business would be threatened by the competition from the practice in question) are financially comfortable. The prohibitory rules create their own constituencies.

Too late, finally, in the sense that businesses abandon the justifications newly opened to them. Once a practice has been declared unlawful, a business is likely to defend a lawsuit by denying that it engaged in the practice. Rarely will it say: "Yes, we did that, and here is why it is economically beneficial that we did." Judges thus are deprived of opportunities to reconsider, with the light of knowledge, what they decided in ignorance. This was brought home forcefully in the *Monsanto* case, in which the Supreme Court declined the Solicitor General's invitation to reassess the per se rule against resale price maintenance. The Court observed that the defendant had not asked the district court to overrule the earlier Supreme Court cases, and thus the issue was foreclosed.[15]

The practices that come before the courts today are more complex than "naked" tying or resale price maintenance, and the questions are more difficult. One recent case presented issues arising out of the "blanket license" issued by ASCAP and BMI, two performing rights societies, to those who play music. At one level, the blanket license is a raw price fixing agreement among almost all rivals in the market. At another level, the license is a cost-reducing device, allowing those who want music to get what they need without thousands of individual licensing transactions. The Supreme Court thought this sufficiently complex that it called for application of the Rule of Reason, which has hurled the lower courts into confusion.[16]

14 Seiberling, *Congress Makes Laws; The Executive Should Enforce Them*, 53 ANTITRUST L.J. 175 (1984). Senator Metzenbaum actually called for Assistant Attorney General Baxter's impeachment. *See also* Litvack, *Government Antitrust Policy: Theory Versus Practice and the Role of the Antitrust Division*, 60 TEXAS L. REV. 649 (1982); Pertschuk & Correia, *Resale Price Maintenance—Why the Per Se Rule Should Be Enforced* 15 NAT'L J. 1201 (1983).

15 Monsanto Co. v. Spray-Rite Serv. Corp., 104 S. Ct. 1464, 1469 n.7 (1984). One wonders just how bold the Court expects a defendant to be. Must it concede that it engaged in prohibited acts and ask the district court to do what it cannot properly do—disregard an opinion of the Supreme Court? If the defendant both denies that it did the prohibited thing and seeks a change in the law, it is at a substantial disadvantage. How can it argue the competitive benefits of the thing it denies doing?

16 Broadcast Music, Inc. v. Columbia Broadcasting Sys., 441 U.S. 1 (1979). On remand, the Court of Appeals found that there was not even any "restraint" because the TV networks easily could obtain licenses directly from copyright holders. Columbia Broadcasting Sys. v. ASCAP, 620 F.2d 930, 937-39 (2d Cir. 1980), *cert. denied*, 450 U.S. 970 (1981). In a separate suit, a district judge held the license unlawful under the Rule of Reason as applied to individual stations, because these cannot practicably obtain licenses directly. Buffalo Broadcasting Co. v. ASCAP, 546 F. Supp. 274, 286-96 (S.D.N.Y. 1982), *rev'd*, No. 83-7058 (2d Cir. Sept. 18, 1984). Of course the benefits of the blanket license are greatest when the users cannot practicably obtain licenses directly, so that the Rule of Reason here condemns the *most* efficient practices. *See* Landes, *Harm to Competition: Cartels, Mergers, and Joint Ventures*, 52 ANTITRUST L.J. 625, 631-35 (1983) (analyzing blanket license).

Another case presented an agreement among physicians in Arizona. The physicians specified payments from insurance companies that they would accept in satisfaction of all obligations of the insureds. At one level this appears to be raw price fixing. At another level it is a signalling device by which the lower-price physicians can identify themselves and through which the physicians offer to share some of the insurance function, thus addressing a problem of moral hazard. This time the Court, dividing four to three, invoked the refrain that such agreements "serve hardly any purpose beyond the suppression of competition."[17]

Last term the Court addressed a horizontal arrangement among the nation's colleges controlling the number of college football games available for broadcast. At one level this is a raw cartel; the NCAA has reduced the number of different contests shown on TV. At another the arrangement is like the cooperation inside any firm, in which the firm adopts the arrangements that make it most likely to succeed in competition with other firms. The NCAA is different from a firm only because integration is incomplete—cooperation on TV coexists with competition for talent and competition over the field. The NCAA portrayed its practices as elements in a struggle involving pro football, other sports, and entertainment in general; all were trying to attract viewers in a much larger advertising-entertainment business. The business as a whole required cooperation; Oklahoma did not want to destroy Nebraska and take Nebraska's business. The response of the lower courts: "Not persuaded," to which the Supreme Court added: "Not clearly erroneous."[18]

"Not persuaded" is a common answer. Many times there are no satisfactory explanations. Their development comes too late. Other times the explanation is very difficult. Even when people know why business practices work—which is not very often—the explanation is hard to convey. It may entail some fancy theory or complicated econometrics. What can be conveyed in the academic seminar or the corporate board room is hard to articulate in a trial, when the judge and jury lack economic training and business expertise. The explanations may show how cooperative practices (or practices that exclude or harm rivals), which appear at first glance to be restrictive, will have longer-run benefits in competition. Such explanations meet hostile reactions.

17 Arizona v. Maricopa County Medical Soc'y, 457 U.S. 332 (1982). See Easterbrook, *Maximum Price Fixing*, 48 U. Chi. L. Rev. 886 (1981), for an evaluation of the economic effects of such arrangements, and Gerhart, *The Supreme Court and Antitrust Analysis: The (Near) Triumph of the Chicago School*, 1982 Sup. Ct. Rev. 319, for one of the many criticisms of the decision. *But see* Leffler, *Maximum-Price Agreements in Markets with Insured Buyers*, 2 Sup. Ct. Econ. Rev. 187 (1983) (supporting the decision with the argument that an increase in the demand for the insured service will drive up the price to the uninsured; this is an interesting argument, although it omits discussion of competing approaches and of why everyone is not insured).

18 Board of Regents of the Univ. of Okla. v. NCAA, 546 F. Supp. 1276 (W.D. Okla. 1982), *aff'd in part*, 707 F.2d 1147 (10th Cir. 1983), *aff'd*, 104 S. Ct. 2948 (1984). See also Los Angeles Memorial Coliseum Comm'n v. NFL, 726 F.2d 1381 (9th Cir. 1984), for another illustration of the difficulties that arise when a court tries to grapple with a partially-integrated association.

The response "not persuaded" is natural when a judge is presented with a novel and difficult explanation of complex behavior. The benefits will not be precisely measurable. What evidence would suffice? The benefit of any arrangement is its improvement over the next-best method of obtaining the same objective. If it is hard to find what a given practice does, it is impossible to determine the difference in efficiency between a known practice and some hypothetical alternative.

Still, the existence of an alternative matters in the rhetorical contest. For example, vertical integration may achieve some of the benefits of restricted dealing. Extensive quality-control devices may be alternatives to tie-in sales. Everything has its alternatives. It is easy for a court to tell a party to use these alternatives. The alternatives may be more costly, but the defendant will not be able to show the amount of the difference. Because alternatives exist, the explanation for a particular practice may appear a too-clever effort to avoid the customary legal rules. The explanation may appear to be an attack on competition itself. It seeks to justify cooperation, does it not? It seeks to justify a market structure other than atomistic competition, does it not? Why should a judge be taken in? Any claim of long-run competitive gain invites judicial skepticism, and properly so. With skepticism come demands for "better," perhaps unavailable, proof. Why should a judge accept a fancy, novel, untested theory when he has the less restrictive alternative, closer to the model of atomistic competition, ready to hand?

The inescapable question is, what happens when a judge is "not persuaded" by the explanation offered for a complex practice? The inhospitality tradition calls for the judge to condemn the practice. That is the wrong answer. A judge who is not persuaded by the explanation should not leap to the conclusion that whatever is poorly understood must be anticompetitive. The judge instead should strive to find a way to distinguish the competitive from the anticompetitive explanations of the practice. Each explanation predicts certain consequences—for example, most anticompetitive explanations predict lower output and higher prices. The judge should depend less on the lure of the model of atomistic competition and more on the making and testing of predictions. The judge should employ some presumptions and filters that will help to separate pro- and anticompetitive explanations. These filters would be the alternative to the inhospitality tradition, the solution to the limits of antitrust.

II. The Shrinking Per Se Rule and the Empty Rule of Reason

Antitrust has two modes of analysis: per se and Rule of Reason. The per se method responds to the high costs of information and litigation. Courts try to identify categories of practices so rarely beneficial that it makes sense to prohibit the whole category even with knowledge that this will condemn some beneficial instances. The costs of these unfortunate condemnations are less than the costs—both litigation and error costs—of making decisions case by case about competitive benefit.

As time goes by, fewer and fewer things seem appropriate for per se condemnation. We see competitive benefits in practices that once were thought uniformly pernicious. Ten years ago tying arrangements, boycotts, territorial allocations, and resale price maintenance were unlawful per se. Since then the Supreme Court has removed territorial allocations from the per se category, removed tying arrangements in all but name, stood by while lower courts quietly abrogated the per se treatment of boycotts, and invited reconsideration of the rule about resale price maintenance.[19] It declined to apply the per se rule to a horizontal arrangement involving almost 100% of the composers of music, on the ground that this arrangement produced competitive benefits.[20] In the process, the Court announced that the per se rule may be applied only after evaluation of the possible competitive consequences of an arrangement—thus undercutting the simplicity that is the principal justification for the rule.

These changes in the structure of antitrust analysis follow ineluctably from changes in our understanding of the economic consequences of the practices involved. If condemnation per se depends on a conclusion that almost all examples of some practice are deleterious, then discoveries of possible benefits lead to new legal rules. We cannot condemn so quickly anymore. What we do not condemn, we must study. The approved method of study is the Rule of Reason.

A court could try to conduct a full inquiry into the economic costs and benefits of a particular business practice in the setting in which it has been used. But it is fantastic to suppose that judges and juries could make such an evaluation. The welfare implications of most forms of business conduct are beyond our ken. If we assembled twelve economists and gave them all the available data about a business practice, plus an unlimited computer budget, we would not get agreement about whether the practice promoted consumers' welfare or economic efficiency more broadly defined. They would discover some gaps in the data, some avenues requiring further exploration. Someone would invoke the principle of

19 Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36 (1977) (territorial allocations); United States Steel Corp. v. Fortner Enters., 429 U.S. 610 (1977) (applying a market power test to tie-ins, thus deviating from usual per se approach); Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551 (1984) (maintaining a nominal per se rule for tying, but requiring an inquiry into effect on competition to determine whether something is a tie-in; four justices wrote in favor of abandoning per se treatment altogether); Monsanto Co. v. Spray-Rite Serv. Corp., 104 S. Ct. 1464, 1469 n.7 (1984) (implicitly inviting further litigation about status of resale price maintenance). On the lower courts' abrogation of the per se rule against boycotts, see, for example, NCAA v. Board of Regents of the Univ. of Okla., 104 S. Ct. 2948, 2959-62 (1984) (the Supreme Court set aside a finding of per se liability without even mentioning the plaintiff's boycott argument, which the plaintiff had offered as an alternative ground of support of the judgment). *See also id*. at 2962 n.26 (suggesting that there is no longer a clear line between per se and Rule of Reason analysis, and that the status of tie-ins is uncertain); United States Trotting Ass'n v. Chicago Downs Ass'n, 665 F.2d 781 (7th Cir. 1981) (en banc).

20 Broadcast Music, Inc. v. Columbia Broadcasting Sys., 441 U.S. 1 (1979).

second best, claiming that monopoly could be a beneficial offset to distortions elsewhere. At least one of the economists would construct a new model showing how the practice *could* reduce efficiency if certain things (unknowable from the data) were present. A global inquiry invites no answer; it puts too many things in issue. To get an answer to a practical problem, we must start with some assumptions and fixed points of reference.

The economists might be able to reach agreement, though not on the basis of exhaustive empirical inquiry. They would resort to clues and shortcuts. They would use their economic knowledge of other markets to draw inferences about this one. Inference could be based on survival: if a practice has lasted a long time, despite competitive pressure, the practice is very likely beneficial. Otherwise the market position of the firm using the practice would have eroded under challenge from rivals. A firm collecting an overcharge ultimately loses sales to firms charging the competitive price. The evidence does not always permit such long run evaluation, though, and antitrust is designed to speed up the arrival of the long run (so that firms lose market power faster). The economists therefore might look at output changes in the short run. Does the firm using the challenged practice gain sales or lose them? An increase suggests efficiencies, a lower effective price per unit of quality delivered. Does the firm gain market share or lose it? Again an increase suggests net benefits. These tests require some difficult work—the economists need to employ regression analysis to hold other variables constant and isolate the effects of the challenged practice—but at least they offer a reliable rule of thumb.

If the economist has a way to approach new practices, a judge today has none. According to the Supreme Court, "[T]he inquiry mandated by the Rule of Reason is whether the challenged agreement is one that promotes competition or one that suppresses competition . . . . [T]he purpose of the analysis is to form a judgment about the competitive significance of the restraint . . . ."[21] How does a court tell whether the arrangement promotes or suppresses competition? It must

"consider the facts peculiar to the business to which the restraint is applied; its condition before and after the restraint was imposed; the nature of the restraint and its effect, actual or probable. The history of the restraint, the evil believed to exist, the reason for adopting the particular remedy, the purpose or end sought to be achieved are all relevant facts."[22]

21 National Soc'y of Professional Eng'rs v. United States, 435 U.S. 679, 691, 692 (1978).

22 Chicago Bd. of Trade v. United States, 246 U.S. 231, 238 (1918). For even longer lists of factors, see United States v. Penn-Olin Chem. Co., 378 U.S. 158, 176-77 (1964); Times-Picayune Publishing Co. v. United States, 345 U.S. 594, 614-26 (1953) (applying a list originally given in a merger case, United States v. Columbia Steel Co., 334 U.S. 495, 527-28 (1948), to the Rule of Reason in general).

These formulations are empty. Judges and justices rightly protest that courts cannot make these judgments. "Courts are of limited utility in examining difficult economic problems . . . . [They are] ill-equipped and ill-suited for such decision-making [and cannot] analyze, interpret, and evaluate the myriad of competing interests and the endless data that would surely be brought to bear on such decisions."[23]

Of course judges cannot do what such open-ended formulas require. When everything is relevant, nothing is dispositive. Any one factor might or might not outweigh another, or all of the others, in the factfinder's contemplation. The formulation offers no help to businesses planning their conduct. Faced with a list of such imponderables, lawyers must engage in ceaseless discovery. (They might find something bearing on a factor, and the factor might be dispositive.) The higher the stakes, the more firms are willing to spend on discovery and litigation. The marginal week of discovery or trial just might mean saving a few millions or tens of millions of dollars. Litigation costs are the product of vague rules combined with high stakes, and nowhere is that combination more deadly than in antitrust litigation under the Rule of Reason.[24]

Part of the difficulty in antitrust comes from ambiguity in what we mean by competition.[25] Antitrust aims at preserving competition as an instrument for creating economic efficiency. Yet as I pointed out in the introduction, competition cannot be defined as the state of maximum rivalry, for that is a formula of disintegration. Today's cooperation creates both today's benefits and tomorrow's competition. A joint venture extinguishes some competition yet creates more against other economic units. The antitrust laws do not supply the time horizon for analysis, and there is no "right" answer. For example, it is now understood that the grant of patent rights, though creating a restriction of output during the

23 United States v. Topco Assocs., 405 U.S. 596, 609, 612 (1972) (footnote omitted); *see also* Standard Oil Co. v. United States, 337 U.S. 293, 307-14 (1949). Both of these cases use the incapacity of the courts as a basis of per se condemnation, the opposite of the appropriate response to ignorance. Richard Markovits believes that the Court condemned these practices out of ignorance because judges required proof of benefits to overcome a populist antipathy to business. Markovits, *The Burger Court, Antitrust, and Economic Analysis*, in THE BURGER COURT: THE COUNTER-REVOLUTION THAT WASN'T 180, 183-84 (V. Blasi ed. 1983). If he is right, the departure of populist sentiment foreshadows a change in the response to uncertainty. But see Arizona v. Maricopa County Medical Soc'y, 457 U.S. 332, 342-45 (1982), in which the Court again used uncertainty and the limits on judicial ability to justify per se condemnation. Many cases continue to insist that firms use the "least restrictive alternative," a formula based on the inhospitality tradition that thrusts on defendants the entire burden of uncertainty. Perhaps Copperweld Corp. v. Independence Tube Corp., 104 S. Ct. 2731, 2740-43 (1984), which recognizes many of the benefits of coordination, will produce changes in this line of cases.

24 High stakes and vague rules also inhibit settlement. Cases are settled when the parties can agree on the likely outcome of a trial, and that agreement is harder to come by in antitrust. See Easterbrook, Landes & Posner, *Contribution Among Antitrust Defendants: A Legal and Economic Analysis*, 23 J.L. & ECON. 331, 353-64 (1980), for an analysis of the settlement process in antitrust.

25 *See* R. BORK, *supra* note 4, at 58-61.

patent's life, is important to give people incentives to invent. There is a tradeoff between optimal incentives *ex ante* and optimal use of existing knowledge, and intensive efforts to specify the "right" tradeoff have failed. The patent case is just a special application of the cooperation-competition balance. The search for *a* right answer is similarly doomed.

Occasionally the Court writes as if the Rule of Reason had content. In *GTE Sylvania*[26] the Court stated that territorial restraints should be evaluated by comparing the increase in interbrand competition created by additional point-of-sale services against the reduction in intrabrand competition created by the territorial restraint. The Court also called on district judges to separate price from nonprice restraints. These are snipe hunts.

It is pointless to weigh inter- against intra-brand competition because they are not commensurable. In restricted distribution cases, the "reduction in intrabrand competition" is the *source* of the competitive benefit that helps one product compete against another. Intrabrand competition as such is worthless; one might as well complain when a corporation does not have internal competition to make the product most cheaply. Integration eliminates this form of "competition," but in so doing it may enable the manufacturer to reduce its delivered price. No manufacturer wants to have less competition among its dealers for the sake of less competition. The reduction in dealers' rivalry in the price dimension is just the tool the manufacturer uses to induce greater competition in the service dimension.[27] There is no "loss" in one column to "balance" against a "gain" in the other, any more than the manufacturer's sole prerogative to decide what physical product to make creates a loss from "reduction in intrabrand competition." The dealers do not get to alter the product's specifications, and we do not see this as a loss of any sort.

If there were a loss, what would balancing entail? How much "reduction in intrabrand competition" is a court to tolerate in order to get how much "increase in interbrand competition"? Such matters ordinarily are settled in the market. As a question for litigation it has no answer—which suggests that it is the wrong question to ask.

The injunction to separate price from nonprice restraints is equally vacuous. *Every* restricted dealing arrangement is designed to influence price. If territorial limits induce dealers to supply additional service and information, they do so

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

27 *See* Easterbrook, *Vertical Arrangements and the Rule of Reason*, 53 ANTITRUST L.J. 135 (1984); Liebeler, *1983 Economic Review of Antitrust Developments: The Distinction Between Price and Nonprice Distribution Restrictions*, 31 UCLA L. REV. 384 (1983); Mathewson & Winter, *An Economic Theory of Vertical Restraints*, 15 RAND J. ECON. 27 (1984); Posner, *The Next Step in the Antitrust Treatment of Restricted Distribution: Per Se Legality*, 48 U. CHI. L. REV. 6, 18-22 (1981); Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86 (1960).

only because the limits raise the price and thus call forth competition in the service dimension. If restrictions are a way of compensating retailers for lending their reputations (as a form of advertising), again they must affect price in order to provide that compensation. The manufacturer can't get the dealer to do more without increasing the dealer's margins. Price and nonprice restraints merge. The Court recognized this in *Monsanto*, thus undercutting the method of analysis it had suggested in *GTE Sylvania*.[28] It left the Rule of Reason empty.

III. A Filter Approach to Antitrust Scrutiny

A. THE VALUE OF PRESUMPTIONS

Courts should use the economists' way out. They should adopt some simple presumptions that structure antitrust inquiry. Strong presumptions would guide businesses in planning their affairs by making it possible for counsel to state that some things do not create risks of liability. They would reduce the costs of litigation by designating as dispositive particular topics capable of resolution.

If presumptions let some socially undesirable practices escape, the cost is bearable. The per se rule condemns whole categories of practices even though some practices in these categories are beneficial.[29] The Court permits such overbreadth because all *rules* are imprecise. One cannot have the savings of decision by rule without accepting the costs of mistakes.[30] We accept these mistakes because almost all of the practices covered by per se rules are anticompetitive, and an approach favoring case-by-case adjudication (to prevent condemnation of beneficial practices subsumed by the categories) would permit too many deleterious practices to escape condemnation. The same arguments lead to the conclusion that the Rule of Reason should be replaced by more substantial guides for decision.

In which direction should these rules err? For a number of reasons, errors on the side of excusing questionable practices are preferable. First, because most forms of cooperation are beneficial, excusing a particular practice about which we are ill-informed is unlikely to be harmful. True, the world of economic theory is full of "existence theorems"—proofs that under certain conditions ordinarily-beneficial practices could have undesirable consequences. But we cannot live by existence theorems. The costs of searching for these undesirable examples are high. The costs of deterring beneficial conduct (a byproduct of any search for the undesirable examples) are high. When most examples of a category of conduct

28 Monsanto Co. v. Spray-Rite Serv. Corp., 104 S. Ct. 1464, 1470 (1984); *see* Easterbrook, *supra* note 27, at 169-72.

29 *See, e.g.*, Arizona v. Maricopa County Medical Soc'y, 457 U.S. 332, 342 (1982) (condemning a horizontal arrangement despite the assumption that it saved consumers millions of dollars).

30 *See* Ehrlich & Posner, *An Economic Analysis of Legal Rulemaking*, 3 J. LEGAL STUD. 257 (1974).

are competitive, the rules of litigation should be "stacked" so that they do not ensnare many of these practices just to make sure that the few anticompetitive ones are caught. When most examples of a practice are procompetitive or neutral, the rules should have the same structure (although the opposite slant) as those that apply when almost all examples are anticompetitive.

Second, the economic system corrects monopoly more readily than it corrects judicial errors. There is no automatic way to expunge mistaken decisions of the Supreme Court. A practice once condemned is likely to stay condemned, no matter its benefits. A monopolistic practice wrongly excused will eventually yield to competition, though, as the monopolist's higher prices attract rivalry.

IN MANY CASES THE COSTS OF MONOPOLY WRONGLY PERMITTED ARE SMALL, WHILE THE COSTS OF COMPETITION WRONGLY CONDEMNED ARE LARGE.

Third, in many cases the costs of monopoly wrongly permitted are small, while the costs of competition wrongly condemned are large. A beneficial practice may reduce the costs of production for every unit of output; a monopolistic practice imposes loss only to the extent it leads to a reduction of output. Under common assumptions about the elasticities of supply and demand, even a small gain in productive efficiency may offset a substantial increase in price and the associated reduction in output.[31] Other things equal, we should prefer the error of tolerating questionable conduct, which imposes losses over a part of the range of output, to the error of condemning beneficial conduct, which imposes losses over the whole range of output.

The legal system should be designed to minimize the total costs of (1) anticompetitive practices that escape condemnation; (2) competitive practices that are condemned or deterred; and (3) the system itself. The third is easiest to understand. Some practices, although anticompetitive, are not worth deterring. We do not hold three-week trials about parking tickets. And when we do seek to deter, we want to do so at the least cost. A shift to the use of presumptions addresses (3) directly, and a change in the content of the legal rules influences all three points.

Consideration (2) is especially important when most practices in the category are beneficial. A legal system that errs even a few percent of the time is likely to "catch" mostly desirable practices. If five percent of "tying" arrangements are deleterious, and the legal system errs ten percent of the time, it is apt to condemn

31 *See, e.g.*, Fisher, Lande & Vandaele, *Afterword: Could a Merger Lead to Both a Monopoly and a Lower Price?*, 71 CALIF. L. REV. 1697 (1983); Williamson, *Economies as an Antitrust Defense Revisited*, 125 U. PA. L. REV. 699 (1977). There is of course the problem that firms will expend resources to get and keep monopoly profits, so that the total loss from monopoly could be much larger than the welfare triangle. The size of this additional loss is very difficult to determine, however, and I pretermit discussion of the subject.

twice as many beneficial arrangements as it catches anticompetitive ones.[32] Better to change the presumption than to take this risk. Judge Breyer put it well:

> "[W]hile technical economic discussion helps to inform the antitrust laws, those laws cannot precisely replicate the economists' (sometimes conflicting) thinking. 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 and by lawyers advising their clients. Rules that seek to embody every economic complexity and qualification may well, through the vagaries of administration, prove counterproductive, undercutting the very economic ends they seek to serve. Thus, despite the theoretical possibility of finding instances in which horizontal price fixing, or vertical price fixing, are economically justified, the courts have held them unlawful per se, concluding that the administrative virtues of simplicity outweigh the occasional "economic" loss. Conversely, we must be concerned lest a rule or precedent that authorizes a search for a particular type of undesirable pricing behavior end up by discouraging legitimate price competition."[33]

The task, then, is to create simple rules that will filter the category of probably-beneficial practices out of the legal system, leaving to assessment under the Rule of Reason only those with significant risks of competitive injury.[34]

32 The rate of error may be quite high. In 1983 courts of appeals reversed in 17.3% of all civil antitrust cases, and this was after making full allowance for the discretion trial judges and juries possess to make questionable or erroneous findings of fact. 1983 AD. OFF. U.S. CTS. ANN. REP. 225. If the error rate on legal issues alone is 17%, how much more common are undetected or uncorrectable economic errors on complex matters with which courts are unfamiliar?

33 Barry Wright Corp. v. ITT Grinnell Corp., 724 F.2d 227, 234 (1st Cir. 1983) (citations omitted).

34 Four justices recommended a similar approach in Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551, 1569 (1984) (O'Connor, J., concurring, joined by Burger, C.J., and Powell & Rehnquist, JJ.), and commentators believe that simplification of antitrust is much to be desired, so I am not alone in making such a recommendation. For some other examples, each confined to a single set of antitrust issues, see Fisher & Lande, *Efficiency Considerations in Merger Enforcement*, 71 CALIF. L. REV. 1580 (1983) (use of presumptions to incorporate efficiency effects in merger cases); Joskow & Klevorick, *A Framework for Analyzing Predatory Pricing Policy*, 89 YALE L.J. 213 (1979) (filters to eliminate predatory pricing cases where there is little risk of monopoly); Posner, *supra* note 27 (use of rule of per se legality for many vertical practices); Note, *A Suggested Role for Rebuttable Presumptions in Antitrust Restraint of Trade Litigation*, 1972 DUKE L.J. 595; Note, *Fixing the Price Fixing Confusion: A Rule of Reason Approach*, 92 YALE L.J. 706 (1983) (discussing reasons for confining per se rule to naked price fixing). *See also* Easterbrook, *supra* note 27 (some presumptions for use in analyzing vertical practices). I have borrowed from and expanded that approach, generalizing it to all of antitrust.

B. SOME PROMISING FILTERS

The remainder of this essay describes and defends a series of presumptions. The first two would be employed in every case. The others would be used only if the defendant's practices offered potential economic benefits. All of these help to screen out cases in which the risk of loss to consumers and the economy is sufficiently small that there is no need of extended inquiry and significant risk that inquiry would lead to wrongful condemnation or to the deterrence of competitive activity as firms try to steer clear of the danger zone.

These filters operate before any effort to determine actual benefit. Recall from the prior discussion that determining actual economic benefit is difficult or impossible. The principal purpose of the sequential filter approach is to change the focus of antitrust from ascertaining the actual effects of practices (which leads the courts to condemn what they do not understand) to ascertaining whether practices harmed competition and consumers.

First, the plaintiff should be required to offer a logical demonstration that the firm or firms employing the arrangement possess market power. The demonstration need not entail the difficult market definition issues that so embroil courts in merger cases. More on that below. Second, the plaintiff should be required to demonstrate that the defendant's practices are capable of enriching the defendant by harming consumers. That is, the plaintiff must show that the defendant has an incentive to behave in an anticompetitive way and that antitrust sanctions are necessary to correct the defendant's incentives.

If these two inquiries suggest that the firms have an ability and incentive to behave in an anticompetitive way, a court should inquire whether the restraint is "naked." If the arrangement in question exists by itself—for example, if a group of firms agree on price but do not integrate any of their productive facilities—then it should be held unlawful. This is the function of the per se rule against cartels. The available evidence suggests that the application of this rule is beneficial to the economy, and so does the available economic theory. Cartels reduce output and produce nothing in return.

The question whether a restraint is "naked" requires some knowledge of its effects. The *Broadcast Music* inquiry plays a vital role here. The court appropriately attempts to discern whether a practice has potential competitive benefits, whether it can increase economic efficiency. Only if an agreement passes this potential-benefit filter would a court move on to the other inquiries.

The next question (the third filter) should be whether firms in the industry use different methods of production and distribution. If they do, then competition among these methods should be adequate assurance of benefit. If firms use similar arrangements, the court (fourth) should ask whether the evidence is consistent with a reduction in output. This entails (a) looking at changes in output shortly after a practice was adopted, and (b) looking at whether a practice has survived without substantial adverse effect on the defendants' market share. The fifth and final filter uses the identity of the plaintiff to infer something about the consequences of defendants' conduct. When a business rival brings suit, it is often safe to infer that the arrangement is beneficial to consumers.

Only when a potentially-efficient business practice passes all five filters should a court undertake the heroic efforts required by today's Rule of Reason. The use of the filters will cut the inquiry short in most cases, saving substantially in litigation costs and uncertainties. It will structure the proceedings in the rest, leading courts to focus on the most important issues.

Existing rules, unlike this proposal, ask the per se question first. But in recent years the per se inquiry has required more and more economic exposition. There is no longer any real "shortcut" to condemnation. A defendant may show that a practice is beneficial in fact and therefore does not have the attributes that call for per se condemnation. Under *NCAA* the defendant may offer an economic justification even of a "naked" restraint.[35] The defendant's opportunity to show benefits entails its obligation to assess competitive consequences, to which presumptions (1) and (2) direct attention.

There is still a category of per se cases in which no justification is allowed, but the costs of finding examples of this category have increased as courts have tried to refine the boundaries of the per se class. It seems better to start the inquiry with questions about power and incentives than with questions that are essentially definitional. At the same time, there is little to be lost. The value of a *real* per se approach—that is, condemnation without offering the defendant any chance to explain or justify its conduct—has fallen steadily since 1890. Reductions in transportation costs have enlarged the size of markets, so that it is no longer possible for a few firms to monopolize very many markets no matter how hard they try. The creation of world markets in many goods makes it difficult even for all firms in the United States to obtain monopoly profits. Most modern studies show that even the most concentrated industries behave competitively.[36] The increasing power of

35 *See* NCAA v. Board of Regents of Univ. of Okla., 104 S. Ct. 2948, 2965 (calling restraint naked), 2967-70 (evaluating justifications) (1984); *see also id*. at 2962 n.26, 2965 n.42.

36 *See, e.g.*, Kwoka, *The Effect of Market Share Distribution on Industry Performance*, 61 Rev. Econ. & Stat. 101 (1979) (once there are three substantial rivals in an industry, data suggest collusion becomes impossible or very unstable); Leitzinger & Tamor, *Foreign Competition in Antitrust Law*, 26 J.L. & Econ. 87 (1983) (once there are imports of a product, domestic concentration loses all predictive power with respect to profits); Libecap & Wiggins, *Contractual Responses to the Common Pool: Prorationing of Crude Oil Production*, 74 Am. Econ. Rev. 87 (1984) (five owners of a common resource appear to be too many for a stable agreement unless the government lends assistance); Ravenscraft, *Structure-Profit Relationships at the Line of Business and Industry Level*, 65 Rev. Econ. & Stat. 22 (1983) (concentration is unrelated to profits). Each of these approaches has difficulties, not the least of which is that accounting profit data may not measure anything important. But these studies and others like them suggest that the structure-conduct-performance paradigm on which much of antitrust is based—the belief that certain conditions are conducive to collusion and monopoly overcharges—may not be sound.

competition, as well as the suspicion that cooperation may be beneficial in ways we do not understand or cannot explain, counsel restraint in condemning practices without at least a little inquiry into market power and incentives. I turn, then, to the five filters.

1. Market Power

The first filter is market power. A court should look at the practices alleged by the plaintiff and ask whether the defendant or defendants have market power. If the complaint attacks the practices of a single firm, the court should look at that firm's power; if the plaintiff challenges the cooperative practices of many firms, the court should ask whether the defendants have power if they act together as alleged.

Market power is the ability to raise price significantly without losing so many sales that the increase is unprofitable. Most firms have a little power, because their products are not perfectly interchangeable with the goods of others. But few firms have substantial power over price. Firms that lack power cannot injure competition no matter how hard they try. They may injure a few consumers, or a few rivals, or themselves (see (2) below) by selecting "anticompetitive" tactics. When the firms lack market power, though, they cannot persist in deleterious practices. Rival firms will offer the consumers better deals. Rivals' better offers will stamp out bad practices faster than the judicial process can. For these and other reasons many lower courts have held that proof of market power is an indispensable first step in any case under the Rule of Reason.[37] The Supreme Court has established a market power hurdle in tying cases, despite the nominally per se character of the tying offense, on the same ground offered here: if the defendant lacks market power, other firms can offer the customer a better deal, and there is no need for judicial intervention.[38]

Consider how cooperation could hurt consumers and decrease economic efficiency. The usual method is an agreement among rivals to raise price (the cartel). If the parties to the agreement lack market power, though, they cannot reduce the industry's output—at least not by enough to be observable in litigation. Other firms will supply what consumers want at the competitive price, and there will be no injury. Other cooperative practices—boycotts, vertical integration and restricted dealing, and tie-ins—may raise rivals' costs of entry. For example, industry-wide vertical integration may require a prospective entrant to come in at two levels (say, manufacturing and distribution). This will take more time to arrange

37 *E.g.*, White & White, Inc. v. American Hosp. Supply Corp., 723 F.2d 495, 500-04 (6th Cir. 1983); Graphic Prods. Distrib., Inc. v. Itek Corp., 717 F.2d 1560, 1568-72 (11th Cir. 1983) (collecting authorities); Products Liab. Ins. Co. v. Crum & Forster Ins. Cos., 682 F.2d 660, 663-65 (7th Cir. 1982); Valley Liquors, Inc. v. Renfield Importers, Ltd., 678 F.2d 742, 745 (7th Cir. 1982); Muenster Butane, Inc. v. Stewart Co., 651 F.2d 292, 298 (5th Cir. 1981); Cowley v. Braden Indus., Inc., 613 F.2d 751, 755 (9th Cir.), *cert. denied*, 446 U.S. 965 (1980).

38 United States Steel Corp. v. Fortner Enters., 429 U.S. 610 (1977).

and increase the risk the entrant faces. But when there is no market power, many existing firms stand ready to sell on at least one of these levels. This makes simultaneous entry unnecessary. Vertical arrangements may lead to inferior outcomes if there are unusual demand conditions, but again this depends on the existence of a monopolized or tightly oligopolistic market.[39] No power, no problem.

The market power inquiry logically precedes the question whether a restraint is "naked" and thus within the scope of the per se rule. The inquiry is so ordered in tying cases, and it should be in others as well. Not all cooperation is bad, and often it is hard to determine whether a restraint is "naked" for per se purposes. When the collaborators possess no market power, either their cooperation is beneficial, in which event it will flourish, or it is not, in which event it will die as rivals take the sales. When the collaborators have no power, monopoly cannot be their objective, and we must consider the more likely possibility that the arrangements create efficiencies.

When there is no market power, the market is better than the judicial process in discriminating the beneficial from the detrimental. Judges who try to assess the merits of the collaboration are apt to err, and the consequences of these errors will be one-sided. If judges condemn efficient practices, they will disappear, their benefits lost. If judges tolerate inefficient practices, the wrongly-tolerated practices will disappear under the onslaught of competition. The costs of judicial error are borne by consumers, who lose the efficient practices and get nothing in return.

The history of antitrust is littered with practices condemned because of misunderstanding, when a simple market power inquiry would have revealed that they could not have caused injury. Sealy was a joint venture of about 30 firms that made mattresses. It adopted territorial allocations, rules on pricing, and other practices of the same sort any completely integrated firm applies to its plant managers. The mattress business was unconcentrated, and the restraints applied only to mattresses sold under the Sealy name. Most of the 30 firms made and sold non-Sealy brands in competition with Sealy products, and hundreds more rivals competed against these 30. The restraints on Sealy-brand mattresses had the same sorts of benefits as any other form of organization. They promoted efficient production, distribution, and advertising, benefits of the sort now well-recognized. The Court held the territorial limits on sales unlawful per se because they were "horizontal."[40] This exercise in formalism caused the Court to overlook the fact that, horizontal or not, the agreements could not have harmed competition and could well have helped it.

39 *See, e.g.*, Scherer, *The Economics of Vertical Restraints*, 52 Antitrust L.J. 687 (1983); Spence, *Monopoly, Quality, and Regulation*, 6 Bell J. Econ. 417 (1975).

40 United States v. Sealy, Inc., 388 U.S. 350 (1967).

Similarly, the Court held unlawful an arrangement under which small grocers introduced and promoted their own "Topco" brand of goods. The grocers limited the territories in which the "Topco" brand (but not other brands) could be sold. The grocery business is fiercely competitive, and these firms had a small share. If they had merged, the transaction would have been almost too small to notice. Again the Court said "horizontal therefore bad"; again it condemned conduct that may have helped promote the product and thus increase competition in retail food as a whole yet could not possibly have harmed consumers.[41] Even a cursory search for market power would have revealed that these practices had to be either beneficial or harmless.

An inquiry into power does *not* entail the definition of a "market," a subject that has bedeviled the law of mergers. Usually the search for the "right" market is a fool's errand. The seller of 100% of a particular good may have no power if consumers have substitutes or if rivals can make the good as cheaply. On the other hand, there may be tens of possible markets, each offering a little insight into conditions of competition.

Market definition is just a tool in the investigation of market power; it is an output of antitrust inquiry rather than an input into decisions, and it should be avoided whenever possible.[42] The process of identifying a product's substitutes in production and use, and the potential producers of these products—which is all market definition means—helps a court to determine whether a firm has the power to raise price significantly. Sometimes this is a close and difficult question, in which event the inquiry into power is of little use as a ready filter. At other times it is obvious on even the briefest inquiry that a firm has no power. One can ascertain power directly. A court might use either evidence of inability to raise price or evidence of price covariance between the defendant's goods and the products of rivals.[43] In either case the filter offers a quick, painless, and correct end to litigation.

A glance at some famous cases shows that it is easy to knock out many at the threshold. We have looked at *Sealy* and *Topco*. *Fortner*, a tying case, was in liti-

41 United States v. Topco Assocs., 405 U.S. 596 (1972).

42 *See* Areeda, *Market Definition and Horizontal Restraints*, 52 ANTITRUST L.J. 553 (1983); Landes & Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981); United States Department of Justice, Merger Guidelines—1984 (June 14, 1984), *reprinted in* TRADE REG. REP. (CCH) No. 655, at S-1 (June 18, 1984).

43 George Stigler and Robert Sherwin remind us that whenever the prices of two things move together closely they are in the same market, and one need not know how the process of substitution in supply or demand works to know that the producer of a small fraction of the goods lacks power. G. STIGLER & R. SHERWIN, THE EXTENT OF THE MARKET (Center for the Study of the Economy and the State Dec. 1983) (Working Paper No. 031). The market may include detergent as well as soap and may be national as well as local, but if we see a producer with a small fraction of the sales of soap in Detroit we may safely stop the inquiry. The discussion in text proceeds in that spirit.

gation for more than a decade before the Court finally got rid of it on the ground that a firm that supplies less than 1% of the nation's credit—in an almost atomistic market—lacks market power.[44] That was equally obvious on the day the complaint was filed. *GTE Sylvania*, the dominant territorial restraints case, also lasted more than a decade. In the end, as in the beginning, it was clear that a firm selling about 5% of America's TV sets, in a market with more than 100 rivals, had no power.[45] The *Standard Stations* case concerned exclusive dealing contracts signed by a refiner of petroleum with about 16% of the retail stations in the west.[46] Standard had six large and more than seventy small rivals. The contracts were for short terms, so that dealers could bolt to rival refiners very quickly (and rivals could bid for dealers). Once more, the absence of market power could have been determined on the pleadings. The list could be extended to *Brown Shoe* (vertical merger affecting less than 5% of an unconcentrated market), *White Motor* (exclusive distribution arrangements of a tiny firm in an industry dominated by General Motors), and a host of others. The FTC has adopted a market power filter,[47] and the courts should follow suit.

2. Logical Relation Between Profit and Reduced Competition

The threat of antitrust liability is not the only reason businesses shy away from certain practices. Entrepreneurs fear business losses more than damages. The business losses occur sooner and with greater certainty. Markets impose their judgments automatically.

Antitrust law is useful in making cartels and monopolistic practices unprofitable. The premise of the damages remedy is that the threat of losses deters.[48] Disgorgement of overcharges brings home to the offender the loss it imposes on others, and the trebling makes up for the likelihood that the offense will escape detection and punishment. The deterrent threat assumes that businesses attend to the risk of loss. If they do not, deterrence fails. If they do pay attention to losses, though, it is safe to confine antitrust remedies to practices by which businesses obtain profits by harming competition.[49] The market brings home to the

44 United States Steel Corp. v. Fortner Enters., 429 U.S. 610 (1977).

45 This litigation, which arose out of a dealer termination in 1965, was finally put to rest in Continental T.V., Inc. v. GTE Sylvania Inc., 694 F.2d 1132 (9th Cir. 1982), *on remand from* 433 U.S. 36 (1977).

46 Standard Oil Co. v. United States, 337 U.S. 293 (1949).

47 General Foods Corp., 3 Trade Reg. Rep. (CCH) ¶ 22,142, at 22,977 (1984).

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

49 *See* Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. Chi. L. Rev. 263, 276-79 (1981); Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. Chi. L. Rev. 652, 669-72 (1983); Posner, *The Rule of Reason and the Economic Approach: Reflections on the* Sylvania *Decision*, 45 U. Chi. L. Rev. 1, 16-17 (1977).

offender any losses it imposes on others—and it brings them home more quickly than courts do.

Unless there is a link between the antitrust injury and the defendant's profit, there is no need for judges to impose a sanction. The sanction imposed by the business losses will clear up the practice in due course. This is why, as part of the inquiry into conspiracy, courts require proof that the defendants' profits depended on monopoly.[50] Thus the filter already is in use for some things. This is also why courts do not impose penalties on firms that introduce unsuccessful products (such as the Lockheed L-1011 jet). These products may waste more of society's resources than antitrust violations do, and they may be "anticompetitive" in the sense that they deter entry by others, yet the losses imposed by failure are adequate to induce businesses to take care. And the cost of judicial intervention is high—it includes the risk of mistakenly condemning hard competition.

This filter does not depend on "faith in the market" or any similar ideology. Markets do not purge themselves of all unfortunate conduct, and purgation (when it comes) is not quick or painless. Information is costly, markets imperfect. Business executives may persist in deleterious practices for some time before the losses are high enough to provoke the managers' admission of defeat or to induce the firm's board to replace the managers.

The point is not that business losses perfectly penalize business mistakes, but that they do so better than the next best alternative. *The* fundamental premise of antitrust is the ability of competitive markets to drive firms toward efficient operation. The entire corpus of antitrust doctrine is based on the belief that markets do better than judges or regulators in rewarding practices that create economic benefit and penalizing others. The common belief that if markets are imperfect then something else must be better is a logical fallacy. One need not pretend that markets work perfectly to see that they are better than judges at penalizing inappropriate conduct. Business executives do not respond flawlessly to a decline in profit, but judges do not respond to profit at all. The "business judgment rule" of corporate law is based on the sound conclusion that judges lack the information, experience, and incentives to make business decisions. Judges therefore decline to substitute their judgment

THE ENTIRE CORPUS OF ANTITRUST DOCTRINE IS BASED ON THE BELIEF THAT MARKETS DO BETTER THAN JUDGES OR REGULATORS IN REWARDING PRACTICES THAT CREATE ECONOMIC BENEFIT AND PENALIZING OTHERS.

50 *E.g.*, Kreuzer v. American Academy of Periodontology, 735 F.2d 1479, 1487-88 (D.C. Cir. 1984); Bogosian v. Gulf Oil Corp., 561 F.2d 434, 455-56 (3d Cir. 1977), *cert. denied*, 434 U.S. 1086 (1978).

for that of the managers. Judges are at the same comparative disadvantage in antitrust.[51]

Some cases show how this filter would work in practice. Grinnell purchased mechanical snubbers for use in building nuclear reactors. It bought a two-years' supply from Pacific Scientific. Barry Wright Corporation, which had been Grinnell's supplier, brought suit, contending that the "exclusive" contract for a substantial portion of all snubbers reduced competition in the snubber market. If competition were reduced, though, suppliers of snubbers would charge higher prices in the future. Grinnell would be the poorer. It is a buyer of snubbers, not a producer. Why would Grinnell shoot itself in the foot? If contracts of this nature harm competition, the overcharges they create will induce the purchasers to abandon the arrangements; if the purchasers want them, that is excellent evidence that they are efficient.[52]

Many vertical arrangements may be handled in the same manner. A manufacturer that adopts a system of resale price maintenance or closed territories allows the dealer to increase its margin. From the manufacturer's perspective, the difference between the wholesale and retail price is the "cost of distribution," which it wants to keep as small as possible. For any given wholesale price, the manufacturer wants the markup as small as possible in order to sell additional units. Unless the vertical arrangement creates or enforces a cartel (which is rare), the manufacturer protects the consumer's interests. It will not permit the margin to rise unless the dealer supplies a service that the customer values at more than the increase in price. Many tying arrangements also may be handled from this per-

51 One court made the point nicely in dismissing an antitrust case even though it was not convinced that the defendant's arrangement was procompetitive or beneficial. The court noted that determining benefit

> would be beyond the intellectual power of this or any other court. Ultimately it is the market which will be the final arbiter of the efficiency, or lack thereof, of this [arrangement]. If [defendant] should persist in offering this [arrangement] and its competitors do not, the market will have the opportunity to choose between them. What we are dealing with are contracts made between and among consenting adults and corporations. Presumably they will act in such a way as to maximize their individual welfare, and it would be presumptuous and harmful if we were to substitute our ex-post judgment for their ex ante choice.

Consultants & Designers, Inc. v. Butler Serv. Group, Inc., 720 F.2d 1553, 1560 (11th Cir. 1983).

52 Judge Breyer made this point in a magnificent opinion from which I have already quoted a large chunk. As he explained: "Grinnell had every interest in promoting new competition. . . . Had Grinnell believed that the long-term nature of the contracts significantly interfered with new entry, or inhibited the development of a new source of supply, it is difficult to understand why it would have sought the agreements." Barry Wright Corp. v. ITT Grinnell Corp., 724 F.2d 227, 238 (1st Cir. 1983). Now Grinnell might abide by the agreement if it were small in relation to the market; the seller might compensate Grinnell for bearing the costs, in exchange for Grinnell's help in cementing a monopoly. But sellers cannot compensate all buyers in this way. At least some buyers must pay the overcharge, and these buyers will be open to the offers of rival sellers whenever their "exclusive" contracts expire. *See also* Car Carriers, Inc. v. Ford Motor Co., No. 83-1825 (7th Cir. Oct. 2, 1984) (making a similar point).

spective. If the firm establishing the tie does not supply the "tied" good itself, it has no reason to injure competition.[53]

Purportedly exclusionary or predatory practices furnish more examples. The logical story of any exclusionary practice is that a firm with market power adopts a strategy to increase its rivals' costs. This strategy is costly to the aggressor too, but it plans to recoup the costs by raising its prices after expelling the rival from the market or scaring the rival out of entering. The aggressor may reduce its price, and rivals must match the cut or lose sales; the aggressor may build a very large plant or introduce new products, making entry less attractive or diminishing the attraction of rivals' products to consumers; the aggressor may buy upstream or downstream suppliers, forcing rivals to search elsewhere for supplies; the list could be extended. These and other strategies are ambiguous. Low prices and large plants may be competitive and beneficial, or they may be exclusionary and harmful. We need a way to distinguish competition from exclusion without penalizing competition. *If* the practices are exclusionary, they will be profitable only if the aggressor can recoup. If the aggressor can not, there is no reason for antitrust concern. Either the business losses during the period of aggression will act as the penalty, or the conduct will turn out to be efficient.

The ongoing litigation about Japanese television sets offers a perfect illustration.[54] The plaintiffs maintain that for the last fifteen years or more at least ten Japanese manufacturers have sold TV sets at less than cost in order to drive United States firms out of business. Such conduct cannot possibly produce profits by harming competition, however. If the Japanese firms drive some United States firms out of business, they could not recoup. Fifteen years of losses could be made up only by very high prices for the indefinite future. (The losses are like investments, which must be recovered with compound interest.) If the defendants should try to raise prices to such a level, they would attract new competition. There are no barriers to entry into electronics, as the proliferation of computer and audio firms shows. The competition would come from resurgent

53 In Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551 (1984), a hospital required patients to purchase anesthesiology services from a group of four anesthesiologists that had signed an exclusive contract with the hospital. The Court concluded that the hospital lacked the kind of market power essential to an antitrust violation. If the hospital had possessed power, though, it would have had no reason to use its power to increase the price (or reduce the attractiveness) of its anesthesiological service. The hospital already could have extracted monopoly rents for the use of the operating room. Higher prices for physicians' services would have been captured by the anesthesiologists, and the hospital would have had to reduce its own price. Its concern for its self-interest ensured that it would not harm its patients by tying. Four concurring justices recognized this explicitly, and the majority did so implicitly in stating that "the self-interest of the hospital . . . presumably protect[s] the quality of anesthesiological services," *id*. at 1568 n.52, a statement as applicable to price as to quality. "Price" means price per unit of quality; a firm with no incentive to reduce quality at a given price also has no incentive to increase price at a given quality.

54 *In re* Japanese Elec. Prods. Antitrust Litig., 723 F.2d 238 (3d Cir. 1983), *petition for cert. filed sub. nom*. Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 52 U.S.L.W. 3921 (U.S. June 7, 1984) (No. 83-2004).

United States firms, from other foreign firms (Korea and many other nations make TV sets),[55] and from defendants themselves. In order to recoup, the Japanese firms would need to suppress competition among themselves. On plaintiffs' theory, the cartel would need to last at least thirty years, far longer than and in history, even when cartels were not illegal. None should be sanguine about the prospects of such a cartel, given each firm's incentive to shave price and expand its share of sales. The predation-recoupment story therefore does not make sense, and we are left with the more plausible inference that the Japanese firms did not sell below cost in the first place.[56] They were just engaged in hard competition.

Another example: Sometimes plaintiffs allege that their rivals engaged in predatory practices with respect to one product in a multiproduct line. One recent case considered a claim that the defendant, a bottler of soft drinks, sold 32-ounce returnable bottles at less than cost.[57] Suppose it had. This strategy would not have enabled it to exclude rivals. They could have used their bottling facilities to produce other, profitable packages, leaving the aggressor with nothing but losses in 32-ounce bottles. The court held that unless the aggressor sold its whole product line at less than cost—the only way to drive a rival out of business—the case must be dismissed. This result is consistent with the principle that if the practice cannot end in a monopoly profit, there is no antitrust problem.

Many business practices may be confused with exclusionary conduct because of peculiarities in the shape of a firm's cost curve. Attention to the link between profits and monopoly overcharges would resolve these difficulties. In some industries, firms' costs drop as cumulative output per firm increases. High-tech businesses often meet this condition. A manufacturer of microprocessors may find that its costs for the first thousand units are $100 per chip, but that as it makes more it can produce each one for less. (Economists call this "descending the learning curve.") The manufacturer may sell the chip for $20 in the first year and expect to make money by selling huge quantities for $10 in the second year, when its costs will have dropped to $5 per chip. This is an example of a deliber-

55 On April 15, 1984, the International Trade Commission ruled that manufacturers in South Korea and Taiwan are selling TV sets in the United States for too little! In 1983, there were $241 million of TV imports from South Korea and $180 million of imports from Taiwan. 49 Fed. Reg. 17,824-25 (1984) (investigation Nos. 731-TA-134 and 135). This shows the futility of a conspiracy to charge low prices; recoupment will be impossible. (The claim that so many firms from so many nations seek to lose money by selling TV sets in the United States suggests that something is fundamentally wrong with the way courts and the ITC measure costs, but that is another problem.)

56 This inference is fortified by the fact that the firms did not behave in the manner a "predatory cartel" suggests. If the firms were selling below cost, each would have had an incentive to "cheat" by reducing its share of sales, forcing others to take the loss. Quite the opposite occurred. Each firm tried to expand its share of sales, by means fair or foul. This implies that each unit fetched more than marginal cost.

57 Bayou Bottling, Inc. v. Dr Pepper Co., 725 F.2d 300 (5th Cir. 1984).

ate sale below cost, and it also may drive other firms out of business.[58] The price-cost comparison misleads. It is easier to see that the case does not satisfy the recoupment condition. The firm plans to make money not by raising the price and reducing output, but by raising output and reducing costs. A court should hold this practice lawful without regard to the price-cost test, because the firm's profits do not depend on reduction of output or monopoly prices.

The "learning curve" is related to ordinary economies of scale (volume per unit of time, as opposed to cumulative volume). The publisher of a new magazine or newspaper anticipates sales below cost for two to four years, in order to get up to the volume at which the venture is profitable. The business press reported that Time, Inc.'s *Sports Illustrated* magazine lost money for ten years before turning the corner.[59] Again a price-cost comparison would mislead. Time did not expect its profits to come from monopoly; there are thousands of other magazines. It expected profits to come from lower costs per customer and a readership more attractive to advertisers. If *Sports Illustrated* drove out some rivals, it might look "predatory"; if the suit were brought in the fifth year, the plaintiff might appear to have an ironclad case under the standard price-cost test for predatory conduct.[60] Nonetheless, an antitrust court should handle cases such as this by asking whether profits depended on monopoly. The profit filter sifts out those practices that are not likely to be anticompetitive.[61]

If courts had perfect information and wisdom, it might be appropriate to damn all inefficient practices. The threat of antitrust liability might speed up firms' recognition of their interests. If we are certain enough that some practice is harmful and must be snuffed out, no penalty is too high, no retribution too swift.

58 Sophisticated definitions of cost and price lead to the conclusion that $20 in the first year was not below cost at all. An economist would say that the manufacturer received two "payments" for its chip in year one: the $20 express price and an implicit additional payment that represents the amount by which selling an additional unit in year one depresses manufacturing costs in year two. Alternatively, an economist might say that the "cost" in year one was much less than $100 because the opportunity cost of *not* making the chip was very high: the firm would lose savings later on. It is unlikely that these true costs and prices could be determined, however, or that this methodology would seem compelling to a court.

59 Wall St. J., Jan. 23, 1981, at 1, col. 5.

60 D & S Redi-Mix v. Sierra Redi-Mix & Contracting Co., 692 F.2d 1245 (9th Cir. 1982), shows how misleading a price-cost comparison can be. The defendant formed a nonunion subsidiary to enter the business of selling concrete for building houses in Sierra Vista, Arizona. For nine months the subsidiary sold concrete for less than "cost," driving its principal rival out of business. It underpriced the rival "considerably." *Id*. at 1248. The court held that this violated the Sherman Act. Yet it never found that the subsidiary raised its prices to a level exceeding the former competitive price. For all we can tell, the subsidiary simply reduced its costs (in part by using a promotional price to operate at high volume) and thereafter offered savings to consumers. Perhaps the defendant did recoup (although there are no entry barriers in the concrete business). That is where the court should have looked first.

61 Again the FTC has led the way, adopting a filter much like the one discussed in the text. *See* General Foods Corp., 3 TRADE REG. REP. (CCH) ¶ 22,142, at 22,977 (1984).

But courts do not have perfect information, and the judicial process is both slow and costly. It is mistaken to suppose that because markets correct business errors only slowly, judges must be better. One must compare the costs and risks of the two processes.

The costs of the judicial process—including the costs of errors, which deter beneficial practices—suggest the wisdom of letting the competitive process rather than the courts deal with conduct that does not create profits by reducing competition. If the practice really is anticompetitive and privately unprofitable, it will go away in time. If it persists, the appropriate inference is that it has competitive benefits.[62] We may not yet understand these benefits, but our understanding is not a condition of legality.

3. Widespread Adoption of Identical Practices

I come now to the filters that should be employed if a practice passes the first two filters *and* a careful inquiry reveals that it has potential competitive benefits. By the time the inquiry gets this far, naked restraints will have been condemned, and obviously-harmless practices will have been dismissed. The court will have for decision a variety of practices that may or may not be beneficial to consumers. It needs ways to separate the beneficial from the detrimental.

Most of the practices that get this far will be vertical arrangements—tying, restricted dealing, and the like. These are forms of partial integration. They are more confined than full integration and do not last as long, yet they reduce short-term rivalry. How should a court respond? One filter is especially useful for these practices. Unless all or almost all firms in an industry use the same vertical restraints, a case should be dismissed. The rationale for this filter is that every one of the potentially-anticompetitive outcomes of vertical arrangements depends on the uniformity of the practice. For example, resale price maintenance (RPM) or territorial restraints can facilitate or enforce a cartel only if all firms in the industry use identical practices. If Sylvania uses RPM while GE and Sony do not, the RPM cannot facilitate anyone's cartel. Dealers that want to cheat on a dealers' cartel will sell more GE sets at reduced prices, And if practices are not identical in the manufacturing industry, then RPM cannot facilitate a cartel there, either. The whole point of a "facilitating practice" is that when everyone does things the same way, this reduces the number of things the cartel must mon-

62 Phillip Areeda has proposed that antitrust be used to condemn anticompetitive practices whether or not the perpetrator has market power. He gave as an example a boycott that excludes one firm from the market but leaves one hundred more in competition. Areeda, *Introduction to Antitrust Economics*, 52 ANTITRUST L.J. 523, 536 (1983). The boycott should be condemned, he reasoned, because it is "sensible to assume that business people are acting in their own self-interest and to assume that an unambiguously exclusionary purpose tends to indicate an anticompetitive effect." *Id*. Areeda wants to start with the obviously-anticompetitive practice and infer the bad effect. But is it not equally appropriate to infer from the obvious lack of market power that the practice is (a) not anticompetitive at all, or (b) a self-correcting mistake? To assert that *X* is obviously anticompetitive is to avoid one of the most difficult problems of antitrust analysis.

itor to control cheating. When everyone does *not* do things the same way, nothing can be "facilitated."

The argument that vertical practices may impede entry by requiring the new entrant to come in with several products (or at several levels) simultaneously also depends on uniform adherence to the restraint. If a monopoly manufacturer has long-term exclusive dealing contracts with its distributors, its distribution network is "foreclosed" to a would-be entrant. The prospective manufacturer must come in on two levels (making plus distributing) or arrange for coordinated entry. But if there are four manufacturers in the industry, and only one or two use exclusive distribution, the would-be entrant will find a group of distributors anxious to be its agents if it offers a better deal, which it will. (Recall the hypothesis: the lack of entry allows the existing firms to charge a price above the competitive level. The new entrant will find distributors queueing up if it charges a price closer to the competitive one. If the existing firms charge only the competitive price, there is no problem whether or not the new entrant can find distributors.)

The uniform-practice filter is exceptionally powerful. It screens out almost all challenges to vertical practices. In almost every market the manufacturers employ a staggering variety of selling methods. Some bundle products together and others do not; some use restricted dealing and others do not. It is hard to compile a list of ten cases in the history of antitrust that would proceed past this filter. Whatever explains a solitary manufacturer's use of RPM, exclusive contracts, ties, or other practices, the practice cannot be anticompetitive. Because other sellers use different methods, consumers have a choice. The competing offers of different products and different methods are competition at work.[63]

4. Effect on Output and Survival

If arrangements are anticompetitive, the output and market share of those using them must fall. This is a simple application of the Law of Demand. If a firm raises the effective price of a product of given quality, it will sell less. Similarly, if a firm improves the quality of a product and charges the same price, it will sell more. If it both increases the price and increases the quality, it may sell more or less, depending on whether consumers value the improvement at more than the cost. To take a trivial example, if Commodore puts a new and better keyboard on its Commodore 64 computer, it may raise its price a little to cover the extra cost. If

63 The Supreme Court has recognized this, for all practical purposes, in its recent tying cases. In United States Steel Corp. v. Fortner Enters., 429 U.S. 610 (1977), it gave, as one of the reasons for finding that United States Steel lacked market power in the credit market, the ability of other firms to elect to match or not match United States Steel's terms without interference from any artificial obstruction. In Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551 (1984), it emphasized the fact that some hospitals used exclusive anesthesiology contracts and some did not as a reason for concluding that the contract in question did not create anticompetitive forcing. *See also* Kenworth of Boston, Inc. v. Paccar Fin. Corp., 735 F.2d 622, 624 (1st Cir. 1984) (that different vendors use different practices negates the anticompetitive potential that could exist if all vendors used the same practices).

its sales increase despite the higher price, we know that the change was worth the higher price, and then some, to consumers.

We can perform this test in many antitrust cases.[64] Look at what happens when the manufacturer adopts the challenged practice. Hold other things, such as demand, constant. There are statistical tools for doing this, if the data are available. If the manufacturer's sales rise, the practice confers benefits exceeding its costs. If they fall, that suggests (although it does not prove) that there are no benefits.[65]

Most vertical arrangements appear to have increased output. In *GTE Sylvania* the adoption of the territorial restraints coincided with an expansion of Sylvania's sales and market share. United States Steel's "tie" increased its sales of prefabricated houses and credit. The hospital in *Hyde* adopted its "tie" when it opened its doors; it grew like Topsy and continues to expand at the expense of other hospitals that use different staffing practices.[66] In a number of restricted dealing cases that did not reach the Supreme Court, defendants put into evidence sophisticated economic studies of sales and share. So far as I am aware, in every vertical case in which modern econometric methods have been used, the economists found that the practices expanded output.[67]

Sometimes the challenged practices were adopted so long ago that information about changes in output and share is no longer available. If so, we can approach the output question from a different perspective: did the practice survive? If a practice produces monopoly profits, the firms using it ultimately lose their positions to those offering consumers a better deal. We can determine whether this occurred.

Erosion may take a long time—and the firms will collect monopoly profits in the interim—but if the practice extracts an overcharge, erosion happens sooner

64 Richard Posner has elaborated on this filter, and I therefore do not need to go into detail in the text. *See* Posner, *supra* note 49, at 17-19. F.M. Scherer's demonstration, *see* Scherer, *supra* note 39, at 697-701, that the output test *could* be inaccurate in some cases does not affect the point. If these cases are sufficiently rare, as his own analysis suggests they will be, then the output filter still has value. We are searching for useful filters, not perfect ones.

65 "Does not prove" because other things in the market may have happened at the same time. A rival's introduction of a popular new product might account for the change in sales, and the practice might still be harmless to competition or even beneficial.

66 By the time the case reached the Supreme Court, the Hospital, which opened in 1971, was the fourth of fifth largest in the New Orleans metropolitan area, with about 6.2% of the area's patient-days. *See* Brief for Petitioners at B-3, Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551 (1984).

67 Regrettably, these studies have not yet been made available in published form. A survey of older work finds mixed results, with RPM usually expanding output but sometimes producing cartel-like consequences. *See* T. OVERSTREET, RESALE PRICE MAINTENANCE: ECONOMIC THEORIES AND EMPIRICAL EVIDENCE (FTC Staff Report 1983).

or later. Even the best device for extracting an overcharge, merger to monopoly, does not last forever. General Motors, United States Steel, and other aggregations formed by merger are now but shadows of their former selves (in market share terms, anyway). Firms with impregnable monopolies protected by patents lose them quickly after the patents expire.[68]

When the barriers to entry into the business are low, we would expect the erosion of position to occur reasonably quickly. The Antitrust Division's merger guidelines suggest that two years is "reasonably quickly" in antitrust; the Division inquires how much new output would be available within two years in response to a five percent increase in price. But for some practices two years is too short. Prospective entrants recognize that a new distribution practice may be abandoned by the firm that adopted it; firms do make mistakes. Rivals may wait before entering. And entry itself may take a while. Thus, for current purposes five years may be a better guide than two.

The purposed filter, then, is that if a firm or group of firms have employed some arrangement continuously for five years, and have not substantially lost market position, a challenge to the practice should be dismissed. Five years is arbitrary. The length of time should depend on how difficult it is to enter the business—considering entry barriers (costs borne by the new firms that were not borne by the existing ones), entry hurdles (costs that would not be recoverable if entry were abandoned, an important consideration in any strategic decision about entry), and the entry lag (how long entry takes even if there are low hurdles and no barriers). The lower the barriers, hurdles, and lags, the less time a court should require before it deems that new entry would have smothered any anticompetitive practice.

No matter how we define a "persistent" practice, the most reasonable inference is that a persistent practice is persistently beneficial to consumers.[69] Long-term vertical arrangements cannot usefully be explained as cartel-facilitating practices. Cartels themselves rarely last five years. Although vertical arrangements may slow down entry, they do not interdict it. By the time five years has elapsed, most or all of the anticipated entry will have occurred. If the practice has survived for five years, it is probably beneficial; if it is not, its demise in the market probably will precede its demise at the hands of a court. Anticompetitive business practices customarily predecease the litigation they spawn.

68 *See* Easterbrook, *supra* note 49, at 296 (collecting studies).

69 This reverses the current approach. Courts today are lenient with the practices of new entrants but are apt to condemn these same practices if used after the firms grow. Since a firm's growth depends on the efficiency of the practices it uses, the courts have things exactly backwards.

5. The Identity of the Plaintiff

The antitrust laws are designed to prevent reductions in output and the associated higher prices. Yet higher prices are privately beneficial to the producers. Firms seek to enhance price when they can. One way to do so is to impose costs on rivals, for when rivals have higher costs the price in the market rises. (The price is set by the costs of the highest-cost producer able to stay in business.) Antitrust may be useful in raising rivals' costs.[70] A judicial declaration that some efficient business practice is unlawful will raise costs of production, because the rival must shift to the next-most-expensive method. The imposition of costs may be more direct: treble damages are a cost of doing business, as are the costs of legal assistance, the costs of changing business plans to steer clear of antitrust exposure, and the diversion of the time and energy of executives from production to litigation. Antitrust counterclaims are a common reply to contract or patent litigation precisely because they greatly raise costs.

IT IS THEREFORE IMPORTANT TO FIND WAYS TO REDUCE THE ATTRACTIVENESS OF ANTITRUST AS A METHOD OF RAISING RIVALS' COSTS, WHILE AT THE SAME TIME PRESERVING THE POWER OF ANTITRUST TO HELP CONSUMERS.

Antitrust litigation is attractive as a method of raising rivals' costs because of the asymmetrical structure of incentives. The plaintiff's costs of litigation will be smaller than the defendant's. The plaintiff need only file the complaint and serve demands for discovery. If the plaintiff wins, the defendant will bear these legal costs. The defendant, on the other hand, faces treble damages and injunction, as well as its own (and even its rival's) costs of litigation. The principal burden of discovery falls on the defendant. The defendant is apt to be larger, with more files to search, and to have control of more pertinent documents than the plaintiff.

Because of the asymmetries of the costs, antitrust may be a cheaper (and more effective) means of imposing costs on one's rivals than is resort to the political and administrative process. A firm seeking political relief from competition bears the bulk of the costs. It must overcome the difficulty of organizing a political coalition. The rivals get the benefit of inertia and instability; a political victory may be short-lived. In litigation, though, most costs and risks fall on the defendant, and the plaintiff's victory may last a long time. Regulation by antitrust cannot be undone through notice-and-comment rulemaking.

70 Indeed, some have suggested that the antitrust laws, like other programs of regulation, are the upshot of a struggle to obtain shelter from competition. *E.g.*, Telser, *Genesis of the Sherman Act*, in MANAGEMENT UNDER GOVERNMENT INTERVENTION: A VIEW FROM MOUNT SCOPUS 259 (1984). If the Sherman Act is an effort to promote the general welfare, why do other nations not regulate competition in the same way we do? But efforts to verify the interest group hypothesis have not been successful. *See* Stigler, *The Origin of the Sherman Act*, forthcoming in 14 J. LEGAL STUD. (1985) (although small producers rather than consumers were the principal political supporters of the Sherman Act, there is no evidence that they gained at the expense of other producers).

It is therefore important to find ways to reduce the attractiveness of antitrust as a method of raising rivals' costs, while at the same time preserving the power of antitrust to help consumers. One line worth drawing is between suits by rivals and suits by consumers. Business rivals have an interest in higher prices, while consumers seek lower prices. Business rivals seek to raise the costs of production, while consumers have the opposite interest. The books are full of suits by rivals for the purpose, or with the effect, of reducing competition and increasing price.[71] The Department of Justice, recognizing that public suits also may restrain competition, is reviewing existing antitrust decrees.[72] Courts cannot review old decrees on their own motion, but they should be careful not to create new restraints. They therefore should treat suits by horizontal competitors with the utmost suspicion.[73] They should dismiss outright some categories of litigation between rivals and subject all such suits to additional scrutiny.

One category of complaints that should not be entertained at all concerns lower prices. Here the suit seeks protection from competition, and dismissal should be automatic. The *Brunswick* doctrine implements this proposal for some cases.[74] The plaintiff in *Brunswick* was a bowling center attacking Brunswick's acquisition of other bowling centers. It complained that the acquisition kept in the market bowling emporiums that otherwise would have failed, thus diverting business from its lanes to Brunswick's and producing lower prices. The lower courts held the acquisitions unlawful (because Brunswick ended up with a large market share) and awarded plaintiff treble its lost profits. The Supreme Court dispatched the suit quickly, pointing out that the antitrust objection to mergers is higher prices, not lower ones, and that plaintiff's injury therefore was not com-

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71 *See, e.g.*, Utah Pie Co. v. Continental Banking Co., 386 U.S. 685 (1967); *see also* Bowman, *Restraint of Trade by the Supreme Court: The Utah Pie Case*, 77 YALE L.J. 70 (1967); Elzinga & Hogarty, Utah Pie *and the Consequences of Robinson-Patman*, 21 J.L. & ECON. 427 (1978). Much of the litigation about exclusionary practices (predatory pricing, introduction of new products, bundling, and related conduct) also falls into this category. See also ECOS Elecs. Corp. v. Underwriters Laboratories, Inc., No. 83-2734 (7th Cir. Aug. 29, 1984), in which the plaintiff brought an antitrust suit and asked the court to prevent UL from certifying as safe a rival's product. The court saw this as a bald use of antitrust to frustrate competition.

72 Many antitrust suits are regulatory. The Department of Justice used antitrust suits to establish district courts as regulatory agencies over industries in which the Antitrust Division was persuaded that competition was "unworkable" but in which the political process had not acted. *See, e.g.*, Associated Press v. United States, 326 U.S. 1, 22 (1945); United States v. Terminal R.R. Ass'n, 224 U.S. 383 (1912), and the interminable meatpackers' litigation. Approximately 53 antitrust decrees entered through 1979 are regulatory in character. R. POSNER & F. EASTERBROOK, ANTITRUST 761-63 (2d ed. 1981). This substantially exceeds the number of industries regulated by statute.

73 This covers a lot of suits. One investigation found that only five percent of private antitrust suits alleged price fixing or territorial division by horizontal rivals, the cases most important to the original purposes of antitrust. NATIONAL ECONOMIC RESEARCH ASSOCIATES, A STATISTICAL ANALYSIS OF PRIVATE ANTITRUST LITIGATION (1979) (report to the American Bar Association Section of Antitrust Law).

74 Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477 (1977).

pensable. All business practices cause dislocations and losses—the most successful practices cause the deepest losses—but antitrust does not offer insurance against competitive injury.

Brunswick's "antitrust injury doctrine" has been extended beyond mergers.[75] It is usually put as a restriction on remedies, though, and this diverts attention from the real problem. *Brunswick* responds to the fact that often the lure of damages (or the ability to raise rivals' costs) induces plaintiffs to challenge conduct that is procompetitive. The suits impose costs whether plaintiffs win or not; worse, given the unavoidable number of erroneous decisions in antitrust cases, the suits bring condemnation on useful conduct. The best way to deal with this is to generalize the *Brunswick* approach.

The suit by Chrysler against the General Motors-Toyota joint venture is a prime example. GM and Toyota agreed to make subcompact cars at a plant in California. The FTC investigated the proposal for almost a year, concerned that the joint venture was a mask for broader cooperation and would assist GM and Toyota in reducing their joint output. If the jointly-produced car should replace independent projects by each firm or induce Toyota to import fewer cars, it could have such an effect. The FTC, GM, and Toyota finally agreed on a consent judgment limiting the extent of the cooperation. Chrysler promptly filed suit against the joint venture.

The identity of the plaintiff is all the court needs to know. There are two hypotheses about the GM-Toyota agreement: one is that the two firms are conniving to reduce output and drive up prices, and the other is that they have found a way to combine their skills to make a new car at lower costs than either could alone. (A third is that the venture evades import restrictions. This has the same implications as the second hypothesis.) If the first hypothesis is true, then Chrysler will be a winner. It will reap the higher prices without having to reduce is own output. If the second hypothesis is true, then Chrysler will be injured by the ensuing price reduction and erosion of sales. Chrysler's suit demonstrates that it views the second hypothesis as the correct one. Because only the first hypothesis supports an antitrust objection, the suit contains the formula of its own dismissal. Any other suit by a business rival against a merger or joint venture should be dismissed for the same reason.[76]

Almost the same analysis applies to predatory practices suits brought by firms that have not left the market. Some of these suits explicitly request the court to

75 *E.g.*, J. Truett Payne Co. v. Chrysler Motors Corp., 451 U.S. 557 (1981).

76 The district court has declined to dismiss Chrysler's suit for opaque reasons. Chrysler Corp. v. General Motors Corp., 1984-1 Trade Cas. (CCH) ¶ 66,021 (D.D.C. May 29, 1984).

order a business rival to raise price, and they may be dismissed quickly.[77] The standard tale of predatory pricing (which is identical for these purposes to any other exclusionary practice) is that the aggressor inflicts fatal wounds on the rival in period one in order to drive it out of business, and thus collect monopoly profits in period two. If the rival does not depart, however, it will collect the same price in period two as the aggressor. If there never are monopoly prices, the case fails the second filter because the aggressor receives no profit from its conduct. Often, though, it is hard to tell whether the aggressor's conduct raised price. If the effect on price is uncertain, the suit by the surviving rival still should be dismissed. The plaintiff collects the same prices in today's market as the defendant. If the course of conduct creates a monopoly profit for the aggressor, it creates one for the plaintiff too. The plaintiff has little reason to challenge a business practice with this effect. Plaintiff's ideal world is to collect monopoly profits today and also obtain reimbursement for losses sustained in the period of aggression. But if the plaintiff expects to stay in business, this is not an obtainable end. The award of damages will make similar episodes—which, by hypothesis, yield net benefits to plaintiff and defendant—unprofitable for the defendant. The plaintiff does not want to kill the goose that laid the golden egg. Thus a court should infer from the challenge that the net effect of the defendant's conduct has been to reduce rather than increase price.

Many other plaintiffs also have the wrong incentives. Antitrust suits by the targets of tender offers often are designed to protect the managers' jobs or to increase the price paid for the target, rather than to protect consumers from higher prices. Targets may bring such litigation even though the sole effect of the acquisition would be to increase the joint firms' efficiency. Targets therefore are inappropriate plaintiffs.[78]

Suits by buyers and sellers of productive assets are suspect. Occasionally one person sells assets to another for a price dependent on subsequent sales or profits and then complains that the assets have been put to anticompetitive use. Such plaintiffs have all the wrong incentives. If their compensation is a percentage of sales, and the assets are used monopolistically, then the compensation goes up rather than down. Suits by sellers therefore typically allege too little promotion

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77 Arthur S. Langenderfer, Inc. v. S.E. Johnson Co., 729 F.2d 1050 (6th Cir. 1984), is a good example. The plaintiff complained that the defendant was setting price below the plaintiff's average costs, although above the defendant's average costs, with "intent" to drive the plaintiff out of business. The court saw that the plaintiff was seeking protection from competition by a lower-cost rival and dismissed the suit.

78 Several courts have so held. *E.g.*, Central Nat'l Bank v. Rainbolt, 720 F.2d 1183 (10th Cir. 1983); A.D.M. Corp. v. Sigma Instruments, Inc., 628 F.2d 753 (1st Cir. 1980); Carter Hawley Hale Stores, Inc. v. The Limited, Inc., 587 F. Supp. 246 (C.D. Cal. 1984); *see also* Easterbrook & Fischel, *Antitrust Suits by Targets of Tender Offers*, 80 MICH. L. REV. 1155, 1156 (1982). There are contrary holdings, however.

or use, which cuts down on the deferred payments they receive.[79] Any monopoly problem in such a case arises when the seller puts the assets in the hands of a firm that could increase prices by withholding production. The appropriate remedy is a public suit seeking divestiture under sections 7 and 16 of the Clayton Act. The seller does not suffer from high prices. Its interest, rather, is to compel sales at uneconomically low prices in order to generate gross receipts and thus royalties. The disparity between plaintiff's interests and those of consumers calls for dismissal. Disappointed sellers may resort to contract actions. It hinders optimal enforcement of contract law, though, to treble the awards by treating insufficient promotion as an antitrust offense. Trebling would lead either to too few sales of inventions as firms tried to reduce exposure or to a reduction in payments to inventors in order to subsidize excessive promotion of their inventions. Either result would reduce economic efficiency. (If the current rule of single damages in contract law is not optimal, the proper response is to change contract law, not to treat contract cases as antitrust cases.) Much the same considerations counsel dismissal when a would-be buyer of assets invokes antitrust.[80]

Some especially bold plaintiffs try to use antitrust to obtain monopoly prices. One plaintiff complained that it was denied a lucrative franchise and the court saw that suit as a request to be given a monopoly.[81] Other plaintiffs seem to get away with such requests. Dealership termination suits are frequent offenders. The dealers in these cases often say that the manufacturer's system is unlawful because it uses resale price maintenance or otherwise restricts competition among dealers. The termination, the dealer maintains, was designed to enforce the restraints. The dealer asks for lost profit damages—its historical or projected sales times treble its historical buy-sell margin. But if the dealership system is unlawful, the margin is at a monopolistic level. The plaintiff cannot properly recover treble the lost monopoly profit.

To make things worse, the terminated dealer probably was "cheating" on the restraints—for example, selling at a little less than the required resale price. Thus the dealer's pre-termination volume was attributable to the restraints, which reduced the competition from other dealers, and not to the fired dealer's great

79 *E.g.*, McDonald v. Johnson & Johnson, 722 F.2d 1370 (8th Cir. 1983). Here, the plaintiff had a stake in sales and alleged that defendant created a monopoly by withholding production of the asset sold (in this case an invention). Plaintiff sought damages and an order compelling defendant to market the invention aggressively.

80 *See, e.g.*, Bayou Bottling, Inc. v. Dr Pepper Co., 725 F.2d 300 (5th Cir. 1984) (relying on *Brunswick* to dismiss the suit of a frustrated buyer).

81 Almeda Mall, Inc. v. Houston Lighting & Power Co., 615 F.2d 343 (5th Cir. 1979), *cert. denied*, 449 U.S. 870 (1980); *see also* Mid-Texas Communications Sys. v. AT&T, 615 F.2d 1372, 1391 (5th Cir.), *cert. denied*, 449 U.S. 912 (1980); *cf*. Walker v. U-Haul Co., 734 F.2d 1068, 1072-74 (5th Cir. 1984) (terminated dealer cannot sue unless acts increase price to consumers); Jack Walters & Sons Corp. v. Morton Bldg, Inc., 737 F.2d 698, 708-09 (7th Cir. 1984) (when dealer could have lost business through lawful competition, it may not recover for termination).

competitive skills. Lost profit damages in dealership cases bear little relation to the economic costs of vertical restraints, and courts should take care not to allow the lure of getting monopoly profits by judgment to become an incentive to file inappropriate suits. When one dealer is replaced by another, the proper measure of damages depends on the effect on price to consumers. If the replacement reinforces a monopolistic system or drives up price, the award should be based on this overcharge times the affected volume of sales. It may be convenient to allow the fired dealer to be the consumers' champion, but the dealer will have the right incentives only if the courts calculate damages in the appropriate way. Awards of "lost monopoly profits" lead to excessive litigation and, inevitably, to judgments that reduce manufacturers' willingness to adopt efficient systems of distribution.

IV. Conclusion

Antitrust is an imperfect tool for the regulation of competition. Imperfect because we rarely know the right amount of competition there should be, because neither judges nor juries are particularly good at handling complex economic arguments, and because many plaintiffs are interested in restraining rather than promoting competition.

The per se rule is not a satisfactory response to these problems. Condemnation per se rests on a conclusion that all or almost all examples of some category of practices are inefficient, yet we cannot reach such a judgment for any practice other than naked horizontal restraints. The traditional Rule of Reason falls prey to all of the limits of antitrust. It assumes that judges can tap a fount of economic knowledge that does not exist, and it disregards the costs of judicial decisionmaking (including the costs of damning efficient conduct by mistake or design). Something must be done.

That "something" is to replace the existing method of antitrust analysis with a series of simple filters. Each filter should be designed to screen out beneficent conduct and pass only practices that are likely to reduce output and increase price. The filter approach shares with the per se approach the judgment that such screening should be done by category of case rather than one case at a time. The courts should establish rules, recognizing that one cost of decision by rule is occasional over- and under-breadth.

The filters deal with the ingredients of anticompetitive practices. If there is no market power, if the defendant cannot profit by reducing output, or if the conduct fails any of the other tests, there is no substantial competitive problem. Each filter errs, if at all, on the side of permitting questionable practices. Yet precision is unobtainable, and the bias in favor of business practices is appropriate. The price of case-by-case inquiry into the actual competitive consequences of business practices is large. The price includes prohibiting some efficient practices and deterring others. What we get in exchange today is not worth this price.

Economies as an Antitrust Defense: The Welfare Tradeoffs

Oliver E. Williamson

In this article, Oliver Williamson sets out the case for taking efficiency gains into account when analyzing allegedly anticompetitive conduct, especially in the case of mergers. The welfare tradeoff model applies most easily to the case of two firms that merge into a monopoly. The analysis begins by recognizing that in the case of a demand curve that is relatively elastic, the efficiency gains from a cost-reducing merger (toward monopoly) could easily outweigh the incremental deadweight loss from (post-merger) monopoly pricing. Given the cost of including an efficiency defense in merger litigation, Williamson concedes it might be desirable to require that the gains cross a threshold of substantiality before being admitted into court as evidence. Using a very simple model, Williamson has provided the core theoretical basis used today for taking efficiencies into account in horizontal merger analysis and for treating vertical and horizontal mergers differently.

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Suppose that a merger (or other combination) is proposed that yields economies but at the same time increases market power. Can the courts and antitrust agencies safely rely, in these circumstances, on a literal reading of the law which prohibits mergers "where in any line of commerce or any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly,"[1] or does this run the risk of serious economic loss? In the usual merger where both effects are insubstantial this problem is absent.[2] But in the occasional case where efficiency and market power consequences exist, can economies be dismissed on the grounds that market power effects invariably dominate? If they cannot, then a rational treatment of the merger question requires that an effort be made to establish the allocative implications of the scale economy and market power effects associated with the merger.

The initial indication of the Supreme Court's view on this question came on the occasion of the first merger case to come before it under the 1950 amendment to Section 7 of the Clayton Act. In a unanimous opinion, the Court took the position in *Brown Shoe* that not only were efficiencies no defense, but a showing that a merger resulted in efficiencies could be used affirmatively in attacking the merger since small rivals could be disadvantaged thereby [6, p. 374]. Opportunities to reconsider this position have presented themselves since, *Procter & Gamble* being the most recent.

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1 Public Law 899, Sec. 7, 38 Stat. 731, as amended; 15 U.S.C. 18.

2 Donald Dewey has observed in this connection that most mergers "have virtually nothing to do with either creation of market power or the realization of scale economies" [9, p. 257]. Jesse Markham agrees that since 1930 monopolization has not been a principal merger objective, but finds that "some mergers have undoubtedly come about as adjustments to major innovations...: the first great wave of mergers followed a period of rapid railroad building, and the wave of the 1920s came with the rise of the motor car and motor truck transportation and a new advertising medium, the home radio" [22, pp.181-82]. It might be useful briefly to summarize some of the ways in which efficiencies might result from combination. These would include miscalculation, shifts in demand, technological developments, displacement of ineffective managements, and mixtures thereof.

As an example of miscalculation consider two firms that have entered a market at an efficient plant scale but have incorrectly estimated the volume necessary to support an efficient distribution system. Combination here could lead to efficiencies but might also have some market power effects (reducing competition between the two but possibly enhancing their competitive position with respect to their rivals). A significant, persistent decline in demand might produce a condition of excess capacity in which combination would permit economies but would also have market power consequences. As discussed in Section III, an increase in demand might induce a change from job shop to assembly line type operations with vertical integration consequences. Technological developments may similarly provide opportunities for a significant reorganization of resources into more efficient configurations-the electronic digital computer being a recent example. Finally, merger may be the most expeditious way of displacing an inefficient by a more efficient management-but the benefits here may only be of a short-run variety. A manifestly inefficient management would, hopefully, be displaced by other means if, by reason of the market power consequences of a combination, the merger route were closed.

A merger can, of course, produce diseconomies as well. What I have previously characterized as the "control loss" phenomenon appears to be an increasing function of firm size [31]. See also Parts 7 and 8, Section II, infra.

Justice Douglas, in delivering the opinion of the Court, observed that Procter & Gamble "would be able to use its volume discounts to advantage in advertising Clorox," and went on to state that "economies cannot be used as a defense to illegality. Congress was aware that some mergers which lessen competition may also result in economies but it struck the balance in favor of protecting competition" [10, pp. 1230-31]. Although reference to congressional intent may relieve the Court of the responsibility for making tradeoff valuations, this does not fully dispose of the issue. What tradeoff calculus did Congress employ that produced this result?

In a concurring opinion to the Clorox decision, Justice Harlan provides the first hint that efficiencies may deserve greater standing. At least with respect to conglomerate or product-extension mergers "where the case against the merger rests on the probability [as contrasted, apparently, with a certainty] of increased market power, the merging companies may attempt to prove that there are countervailing economies reasonably probable which should be weighed against the adverse effects" [10, pp. 1240-41]. But inasmuch as the economies in Clorox were in his opinion merely pecuniary rather than real, which distinction is of course appropriate, he concluded that Procter's efficiency defense was defective [10, p. 1243].

Even if Justice Harlan's position were the prevailing one, it is clear that economies would be an acceptable antitrust defense for only a restricted set of structural conditions. Since the relevant economic theory, although widely available, has never been developed explicitly on this issue, such a result is not unexpected. Indeed, lacking a basis for evaluating net effects, for the Court to hold that the anticompetitive consequences of a merger outweigh any immediate efficiency advantages is only to be expected. An institution acting as a caretaker for the enterprise system does not easily exchange what it regards as long-term competitive consequences for short-term efficiency gains.

The merits of the Supreme Court's position on mergers are at the heart of the recent Bork and Bowman v. Blake and Jones debate [2, 3, 4, 5]. Although this dialogue deals directly with the critical issues, its failure to produce a consensus is at least partly due to the fact that essential aspects of the relevant economic model were not supplied. Lacking a tradeoff relation, Bork is forced to assert that "Economic analysis does away with the need to measure efficiencies directly. It is enough to know in what sorts of transactions efficiencies are likely to be present and in what sorts anticompetitive effects are likely to be present. The law can then develop objective criteria, such as market shares, to divide transactions [into those predominately one type or other]" [5, p. 411]. But this obviously leaves the mixed cases, which are the hard ones, unresolved. Blake and Jones, by contrast, conclude that "claims of economic efficiency will not justify a course of conduct conferring excessive market power. The objective of maintaining a system of self-policing markets requires that all such claims be rejected" [3, p. 427]. But what are the standards for "excessive" market power and "self-policing" markets? And are these really absolute or do they reflect an implicit tradeoff calculation? And if it is the latter, should we (if we can) make this tradeoff explicit?

Indeed, there is no way in which the tradeoff issue can be avoided. To disallow tradeoffs altogether merely reflects a particularly severe a priori judgment as to net benefits. Moreover, it is doubtful that a goal hierarchy scheme of the sort proposed by Carl Kaysen and Donald Turner has acceptable properties. As they formulate the problem, higher level goals strictly dominate lower level goals, so that only when the latter are available without sacrifice in the former is lower level goal pursuit allowed [16, pp. 44-45]. Inasmuch as they rank efficiency and progressiveness above reductions in market power, an absolute defense would appear to obtain when, for any structural condition present or prospective, it could be shown either that economies have not yet been exhausted or that discreteness conditions (indivisibilities) would not efficiently permit a separation [16, pp. 44-46, 58, 78]. But this may be to construe their intentions too narrowly; for it is with antitrust actions that results in *substantial* efficiency losses [16, pp. 44, 133] and involve *too great* a sacrifice in performance [16, p. 58] that they are especially concerned. Although these distinctions are important, they are not ones for which goal hierarchy analysis is well suited to deal. Tradeoff analysis, by contrast, is designed to cope with precisely these types of issues.

The relevant partial equilibrium model with which to characterize the tradeoffs between efficiency and price effects together with a representative set of indifference relations are developed in Section I of this paper. A variety of essential qualifications to this naive model are then presented in Section II. Extensions of the argument, which is developed initially in horizontal merger terms, to deal with questions of dissolution as well as vertical and conglomerate mergers, are given in Section III. The conclusions follow in Section IV.

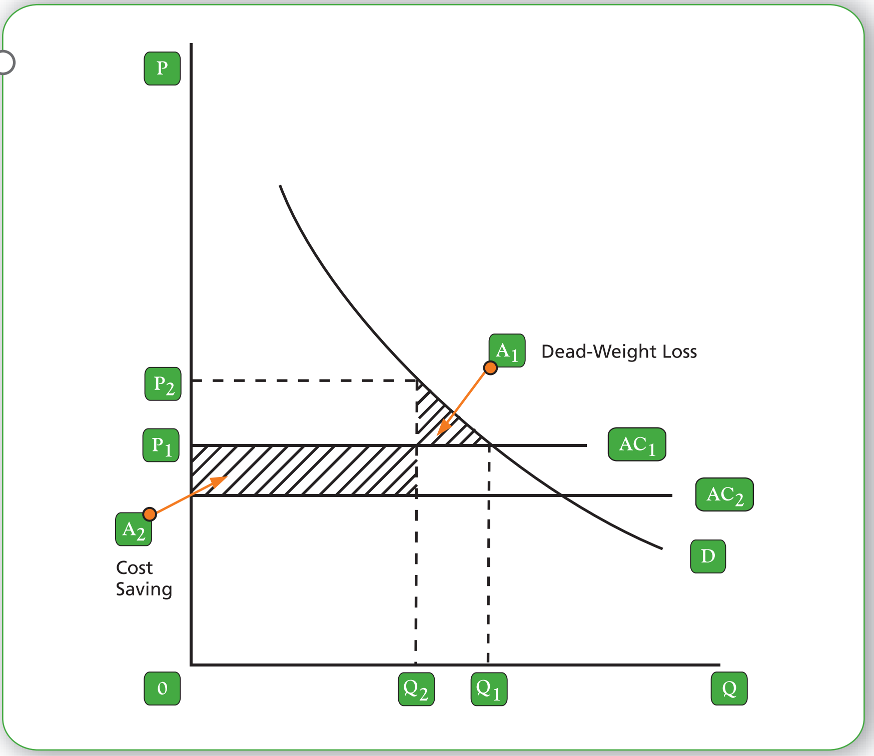
I. The Naive Tradeoff Model

The effects on resource allocation of a merger that yields economies but extends market power can be investigated in a partial equilibrium context with the help of Figure 1.

The horizontal line labeled AC_1 represents the level of average costs of the two (or more) firms before combination, while AC_2 shows the level of average costs after the merger. The price before the merger is given by P_1 and is equal to $k\ (AC_1)$, where k is an index of pre-merger market power and is greater than or equal to unity. The price after the merger is given by P_2 and is assumed to exceed P_1 (if it were less than P_1 the economic effects of the merger would be strictly positive).[3]

3 This is a simple but basic point. It reveals that market power is only a necessary and not a sufficient condition for undesirable price effects to exist. It would be wholly irrational to regard an increase in the price to average cost ratio ($P_2/AC_2 > P_1/AC_1$) as grounds for opposing merger if, at the same time, the post-merger price were less than the pre-merger level ($P_2 < P_1$).

Figure 1



The net welfare effects of the merger are given (approximately) by the two shaded areas in the Figure. The area designated A_1 is the familiar dead-weight loss that would result if price were increased from P_1 to P_2, assuming that costs remain constant. But since average costs are actually reduced by the merger, the area designated A_2, which represents cost savings, must also be taken into account. The net allocative effect is given by the difference, $A_2 - A_1$, of these two areas.[4]

The area A_2 is given by $(AC_2 - AC_1)Q_2$, or $[\Delta(AC)]Q_2$, while A_1 is given approximately by $\frac{1}{2}(P_2 - P_1)(Q_1 - Q_2)$, or $\frac{1}{2}(\Delta P)(\Delta Q)$. The net economic effect will be positive if the following inequality holds:

(1) $$[\Delta(AC)]Q_2 - 1/2(\Delta P)(\Delta Q) > 0.$$

4 My use of dead-weight loss is somewhat restrictive. Inefficiency is also a dead-weight loss. For convenience of exposition, however, I refer to the Marshallian triangle as the dead-weight loss and compare this to the cost saving (efficiency) aspects of a merger. Estimating the value of consumers' surplus by the Marshallian triangle follows the common (and broadly defensible) practice of suppressing the income effects associated with a price change. The net social benefit associated with a particular cost-price configuration is defined as total revenue plus consumers' surplus less social cost, where social and private costs are assumed to be identical (externalities and producers' surplus are both assumed to be zero).

Dividing through by Q_2 and substituting for $\Delta Q/Q$ the expression $\eta(\Delta P/P)$, where η is the elasticity of demand, we obtain:

(2)
$$\Delta(AC) - 1/2(\Delta P)\eta\frac{\Delta P}{P} > 0.$$

Finally, dividing through by $P_1 = k(AC_1)$ we have as our criterion:

(3)
$$\frac{\Delta(AC)}{AC} - \frac{k}{2}\eta\left(\frac{\Delta P}{P}\right)^2 > 0.$$

If this inequality holds, the net allocative effect of the merger is positive. If the difference is equal to zero the merger is neutral. If the inequality is reversed the merger is negative.

In words, the inequality shown in (3) says that if the decimal fraction reduction in average costs exceeds the square of the decimal fraction increase in price multiplied by one-half k times the elasticity of demand, the allocative effect of the merger is positive. Setting k equal to one (which it will be if the pre-merger market power is negligible), the cost reductions necessary to offset price increases for various values of the elasticity of demand are shown in Table 1.

Table 1

Percentage Cost Reductions $[(\Delta(AC)/AC) \times 100]$ Sufficient to Offset Percentage Price Increases $(\Delta P/P \times 100)$ for Selected Values of η

$[(\Delta P/P) \times 100]$ \ η	2	1	1/2
5	.25	.12	.06
10	1.00	.50	.25
20	4.00	2.00	1.00
30	9.00	4.50	2.25

For example, if price were to increase by 20 per cent, then running across the row $[(\Delta P/P) \times 100] = 20$ we observe that if η is 2 a cost reduction of 4 per cent will be sufficient to offset the price increase, while if η is 1 only a 2 per cent cost decrease is needed to neutralize the price effect, and if η is $\frac{1}{2}$, a cost reduction of 1 per cent is sufficient. More generally it is evident that a relatively modest cost reduction is usually sufficient to offset relatively large price increases even if the elasticity of demand is as high as 2, which is probably a reasonable upper bound. Indeed, if a reduction in average costs on the order of 5 to 10 per cent is available through merger, the merger must give rise to price increases in excess of 20 per cent if $\eta \cong 2$, and in excess of 40 per cent if $\eta \cong \frac{1}{2}$, for the net allocative effects to be negative. Moreover, it should be noted, if the merger reduces average costs by x per cent and the post-merger price increases by y per cent, the post-merger price to average cost differential slightly exceeds $x + y$ per cent. Thus, expressing price with respect to the post-merger level of average costs yields an even greater differential than is reflected by the relations stated above. The naive model thus supports the following proposition: a merger which yields nontrivial real economies must produce substantial market power and result in relatively large price increases for the net allocative effects to be negative.

II. Qualifications

Our partial equilibrium analysis suffers from a defect common to all partial equilibrium constructions. By isolating one sector from the rest of the economy it fails to examine interactions between sectors. Certain economic effects may therefore go undetected, and occasionally behavior which appears to yield net economic benefits in a partial equilibrium analysis will result in net losses when investigated in a general equilibrium context. Such a condition has been shown to exist in an economy in which monopoly exists in many sectors. Thus, whereas partial equilibrium analysis indicates that an increase in the monopoly price in any one sector invariably yields a loss, viewed more generally such an isolated price increase may actually lead to a desirable reallocation of resources.[5] Conceivably, therefore, a merger that has monopoly power and cost-saving consequences could yield benefits in *both* respects—although it is probably rare that operational content can be supplied to this qualification. But were there no other considerations, such bias as our partial equilibrium construction produces would be to underestimate the net economic gains of combination.

This does not, however, exhaust the range of qualifications. Among the other factors that can or should be taken into account are inference and enforcement expense, timing, incipiency, weighting, income distribution, extra-economic political objectives, technological progress, and the effects of monopoly power on managerial discretion.

A. INFERENCE AND ENFORCEMENT EXPENSE

The relevant effects are those which take the form of real rather than pecuniary economies. Also, since evaluating a claim that economies exist will itself absorb real resources, it seems reasonable to impose a requirement that the net gain exceed some threshold value before such a defense will even be entertained. This, in conjunction with qualifications B through D below, would appear to meet Donald Turner's point that if economies are to be invoked as a defense "the law might well require clear and convincing evidence that the particular merger would produce substantial economies that could not be achieved in other ways"

5 This is the familiar "second-best" argument. For a discussion of second-best qualifications in treating the monopoly problem, and references to this literature, see Ferguson [11, pp. 16-17, 49-51].

[27, p. 1328]. As the tools for assessing economies are progressively refined (and the incentive to make such improvements is obvious once an efficiency defense—even in principle—is granted), this threshold level should be reduced accordingly.

Operationally it may be essential to express the value of the threshold as a function of the ease with which economies can be established. Economies that have a highly speculative aspect should be required to reach a higher minimum level than those which are more objectively specified. (Thus if economies in both production and distribution expenses are claimed, and if the former are better specified than the latter, distribution economies would have to reach a higher threshold than would production economies to be admissible.) Since the ease with which exaggerated claims are detected varies directly with the degree of distortion attempted, and since evidence of distortion seriously debilitates a defense, adjusting the threshold in this way will tend to protect the enforcement agencies against grievously inflated efficiency claims.

ECONOMIES THAT HAVE A HIGHLY SPECULATIVE ASPECT SHOULD BE REQUIRED TO REACH A HIGHER MINIMUM LEVEL THAN THOSE WHICH ARE MORE OBJECTIVELY SPECIFIED.

Bork, apparently, would resist the argument that the defendants should bear the burden of proof on efficiencies since many efficiencies may be difficult to establish [5, p. 410]. But if efficiencies are to be a defense at all, it is clear that the companies—which are, presumably, sensitive to the relevant economies in proposing the merger in the first place—must be prepared to make the case for them in court. They have the data and these must be supplied. Otherwise the mixed case which involves both scale economy and market power effects can only be handled arbitrarily—and this is satisfactory to no one.

B. TIMING

Significant economies will ordinarily be realized eventually through internal expansion if not by merger. Growth of demand can facilitate this internal adjustment process; the necessity for part of the industry to be displaced in order that efficient size be achieved is relieved in a growing market. Thus, although a merger may have net positive effects immediately (cost savings exceed the dead-weight loss), when allowance is made for the possibility of internal expansion these effects can become negative eventually (the cost savings persist, but these could be realized anyway, and the dead-weight loss could be avoided by prohibiting the merger).

Designating the dead-weight loss effects of the merger by $L(t)$ and the cost savings by $S(t)$, the argument would be that the value of $S(t)$ falls while $L(t)$ persists over time. Thus, taking the discounted value of net benefits (V) we have:

(4) $$V = \int_0^T [S(t) - L(t)]e^{-rt}dt,$$

and if initially $S(t)/L(t) > 1$, but eventually $S(t)/L(t) < 1$, this can easily become negative. Consider, for example, the case where $S(t) = \overline{S}$ for a period of length T' and then becomes zero, while $L(t) = \overline{L}$ indefinitely. Using a social discount rate of 10 per cent, what initial combinations of $\overline{S}/\overline{L}$ and T' would leave us just indifferent over the allocative effects of a merger? For $\overline{S}/\overline{L}$ of 3, indifference occurs at a value of T' of 4 years; any value of T' less than 4 years would reveal that the scale economies can be realized by internal expansion in a sufficiently short interval that the merger should be disallowed, while any value of T' that exceeds 4 years would show that net gains are available by approving the merger. For $\overline{S}/\overline{L}$ of 2, the corresponding value of T' is 7 years, while for $\overline{S}/\overline{L}$ of 1.5, the value of T' increases to 11 years. The necessary qualifications to our earlier results are thus obvious: only if $\overline{S}/\overline{L}$ is relatively large, or T' reasonably long, should a merger which results in eventual net losses be approved.

By contrast with a growing market, to force economies to be realized by internal expansion in a static market is generally without merit. The market power effects will occur here anyway, and the internal expansion route merely delays and may upset the market adjustment.

The above results are merely illustrative. More generally, equation (4) calls attention to the importance of considering the shape of the time stream of benefits and costs that a merger produces. Thus it is not sufficient to justify a merger on the basis of merely potential economies. Not only is it relevant to consider whether the merger would produce net benefits, but whether the timing is such as to maximize these gains. If a merger is proposed that promises potential economies, but these will not be realized for some time, it may be better to delay the combination. Such might be the case in circumstances where the existing plant has not exhausted its useful life and has limited value in other uses; in this situation investment in the new facilities may not be economical immediately. For the merger to occur much earlier than the indicated economies will be realized would permit whatever market power effects as the merger produces to take effect at an earlier time than is clearly most beneficial.

Plausible as this last argument may appear, it raises a serious question of how extensive a "management" function the enforcement agencies should play in merger matters. It is an easy step from the suggestion that a proposed merger should be delayed until maximum net gains are realized to the proposition that the enforcement agencies should "arrange" optimal firm pairings. Both of these, however, are much more ambitious tasks than merely testing whether the net gain associated with a proposed combination is positive. Subject possibly to occasional exceptions where the social net benefit calculus identifies a distinctly superior timing or combination from that which has been proposed privately (and assuming that the change can be implemented), the simple requirement that discounted net gains be positive is probably a sufficient test. Otherwise, mergers are too complex to postpone casually; and the enforcement agencies are not designed (nor should they be redesigned) to function in a brokerage capacity.

C. INCIPIENCY

It is likewise vital to consider not merely the market power effects of any single merger taken in isolation, but whether the merger is representative of a trend. If a series of such mergers can reasonably be expected, the judgment of whether to permit any given combination should properly be cast in an industry context—in which case the anticipated economy and market power effects throughout the industry should be examined. Since, if economies are available by combining one pair of firms they will often be available more generally, this may frequently be an important consideration. The notion of incipiency thus has special relevance in administering the law on mergers where economies are claimed.

This proposition might usefully be contrasted with that of Bork and Bowman [2, p. 594]:

> "The difficulty with stopping a trend toward a more concentrated condition at a very early stage is that the existence of the trend is prima facie evidence that greater concentration is socially desirable. The trend indicates that there are emerging efficiencies or economies of scale—whether due to engineering and production developments or to new control and management techniques—which make larger size more efficient. This increased efficiency is valuable to the society at large, for it means that fewer of our available resources are being used to accomplish the same amount of production and distribution. By striking at such trends in their very earliest stages the concept of incipiency prevents the realization of those very efficiencies that competition is supposed to encourage."

Their evaluation of the social desirability of a trend suggests a certain insensitivity to the relevant scale economy-market power tradeoff considerations, and they appear to read the significance of a trend somewhat too loosely. That a trend necessarily implies emerging efficiencies is incorrect: it may also indicate an emerging awareness that market power advantages might be realized through a series of combinations.[6] Moreover, whereas they seem to suggest that to disallow a merger is to prevent the realization of scale economies altogether, ordinarily it is not a question of whether economies will be realized but when and with what market power effects. Thus, while Bork and Bowman may be correct in charging that scale economy justifications have not been given sufficient weight in the

6 This is George Stigler's point in his treatment of "Monopoly and Oligopoly by Merger" [24]. Bork concedes this possibility in his response to Blake and Jones [5, p. 412]; but his principal emphasis, which is probably correct, is that a trend signals emerging economies.

recent enforcement of the merger law, they are also guilty of a certain heavy-handedness in their own treatment of the incipiency question.

D. WEIGHTING

The economies that a merger produces are usually limited strictly to the combining firms. But the market power effects of a merger may sometimes result in a price increase across a wider class of firms. Where this occurs, a weighting factor should be introduced into expression (3) to reflect this condition. The criterion becomes:

$$\left(\frac{Q_2}{Q_T}\right)\frac{\Delta(AC)}{AC} - \frac{k}{2}\eta\left(\frac{\Delta P}{P}\right)^2 > 0, \qquad (3')$$

where Q_2 is the output of the merging firms and Q_T is the total quantity of industry sales for which the price increase becomes effective.

E. INCOME DISTRIBUTION

An additional qualification to our analysis involves income distribution effects. The rectangle in Figure 1 bounded by P_2 and P_1 at the top and bottom respectively and O and Q_2 on the sides represents a loss of consumers' surplus (gain in monopoly profits) that the merger produces. On the resource allocation criteria for judging welfare effects advanced above, the distribution of these profits becomes a matter of indifference. For specific welfare valuations, however, we might not always wish to regard consumer and producer interests symmetrically—although since, arguably, antitrust is an activity better suited to promote allocative efficiency than income distribution objectives (the latter falling more clearly within the province of taxation, expenditure, and transfer payment activities), such income distribution adjustments might routinely be suppressed. If they are not, the tradeoff between efficiency gains and distributive losses needs explicitly to be expressed. Thus, while economies would remain a defense, any undesirable income distribution effects associated with market power would be counted against the merger rather than enter neutrally as the naive model implies.

Inasmuch as the income redistribution which occurs is usually large relative to the size of the dead-weight loss, attaching even a slight weight to income distribution effects can sometimes influence the overall valuation significantly. Thus, expressing the dead-weight loss ($L = \frac{1}{2}(\Delta P)(\Delta Q)$) as a ratio of the income distribution effect ($I = (\Delta P)Q$), and substituting into this ratio the expression for the elasticity of demand (η), the fraction $L/I = \frac{1}{2}(\Delta P/P)\ \eta$ obtains. It is therefore obvious that, except where the elasticity of demand is "high," the dead-weight loss as a fraction of the income distribution effect is relatively small—certainly less than unity. Hence if, as is probably common, the income redistribution which results when market power is increased is regarded unfavorably, an appropriate weighting of this factor will, at least occasionally, upset a net valuation which on resource allocation grounds is positive.

Note in this connection that the transfer involved could be regarded unfavorably not merely because it redistributes income in an undesirable way (increases the degree of inequality in the size distribution of income), but also because it produces social discontent. This latter has serious efficiency implications that the above analysis does not take explicitly into account. This same point also appears to have gone unnoticed in the entire Bork and Bowman v. Blake and Jones exchange [2, 3, 4, 5]. Distinguishing social from private costs in this respect may, however, be the most fundamental reason for treating claims of private efficiency gains skeptically.

F. POLITICAL CONSIDERATIONS

Combinations which involve firms that are already very large in absolute terms might be resisted on grounds that these raise extra-economic problems of political significance. There is not, however, any obvious way in which to integrate these into the analysis. Rather, although the political implications of control over wealth are a matter for serious concern, these are separable from the economic problems posed by control over markets; a different calculus is required to deal with each. The necessary political judgment, ideally, is one for Congress to make. Possibly, as Carl Kaysen has suggested, this would take the form of a prohibition against expansion by merger of the largest 50 or 100 corporations [17, p. 37].

The issue here reaches beyond the social discontent matter raised above. Thus, whereas social discontent can be reduced, in principle at least, to efficiency-equivalent (net value product) terms, the political implications of the control over wealth involve a judgment of how the quality of life in a democracy is affected by size disparities. The latter is less easily (or even appropriately) expressed in efficiency terms. The issue is nevertheless important, and failure to deal with it may be unresponsive to the position taken by Blake and Jones. Inasmuch as several of the counterexamples that they pose in their critique of Bork and Bowman appear deliberately to have been selected from the giant firm universe [95, pp. 425-27], possibly it is mergers within this subset that concern them most. Should economies be allowed as a defense, therefore, the rule proposed by Kaysen would limit such a defense in a way which would presumably relieve this aspect of their concern.

G. TECHNOLOGICAL PROGRESS; AND H. MANAGERIAL DISCRETION

The highly conjectural nature of qualifications G and H makes it unclear at this time what weight ought to be assigned to them. It is at least arguable that the prevailing uncertainties are too great to give any effect to these two factors at this time. They are, nevertheless, potentially of such significance that to dismiss them may run the risk of serious error. In consideration of this potential importance, additional research which would permit us better to evaluate their actual significance would seem warranted. The manner in which each would influence the estimate of net effects is sketched out below.

Consider technological progress first. Such increases in market power that result in predictable effects on technological progress should, if they can easily, be taken into account. The present evidence, while hardly abundant, suggest that, as a general rule, the research and development expenditures of the four largest firms in an industry are neither as large proportionately nor as productive as those of their immediately smaller rivals.[7] But this fails to answer the question of what market structures most enhance progressiveness. The evidence on this latter is somewhat mixed.[8] It seems unlikely, however, that subsequent investigation will upset the basic proposition that progressiveness is promoted by at least some elements of competition at virtually every stage of an industry's development—if for no other reason than that competition tends to assure that variety in research approaches will be employed. Local or regional monopolies may provide partial exceptions (since here the requisite variety will be available nationally, although the rate at which innovations are implemented may nevertheless lag if competitive pressures are lacking), but monopoly, or near-monopoly, would not seem to be the perfect instrument for technical progress in industries for which the relevant market is national.

SUCH INCREASES IN MARKET POWER THAT RESULT IN PREDICTABLE EFFECTS ON TECHNOLOGICAL PROGRESS SHOULD, IF THEY CAN EASILY, BE TAKEN INTO ACCOUNT.

Lacking additional evidence, it would not seem injudicious to assume that mergers between relatively small-sized firms rarely have negative (and may fre-

7 With respect to size, Mansfield found that the ratio of innovations to firm size reached a maximum at about the sixth largest firm for the petroleum and coal industries, and at a much lower rank for steel [20, p. 566]. Elsewhere Mansfield reports that the largest firms in petroleum, drugs, and glass spent somewhat less on R&D, relative to sales, than did somewhat smaller firms; in chemicals they spent somewhat more; in steel they spent less, but the difference was not statistically significant [21, p. 334]. Scherer concludes from his study of patent behavior in a group of 448 firms selected from the Fortune list of the largest 500 industrial corporations in 1955 that "the evidence does not support the hypothesis that corporate bigness is especially favorable to high inventive output" [23, p. 1114]. Turning to productivity, Mansfield concludes that "in most industries, the productivity of an R&D program of given scale seems to be lower in the largest firms than in somewhat smaller firms" [21, p. 338]. Comanor found that diseconomies of scale in the pharmaceutical industry were encountered at even moderate firm sizes [8, p. 190]. For a recent review of this literature, see Johnson [15, pp. 169-71].

8 Hamburg [13, Ch. 4] and Horowitz [14, pp. 330-01] report a positive correlation between R&D expenditures and industrial concentration. Scherer finds a much weaker but slightly positive association [23, pp. 1119-21]. Kendrick concludes from an examination of Terleckyj' data that there is no significant correlation between productivity changes and industrial concentration [18, p. 179]. Stigler found in an earlier study "hints that industries with lower concentration had higher rates of technological progress" [26, p. 278], while I, using Mansfield's data, found a negative correlation between the proportion of innovations introduced by the four largest firms and industrial concentration [30].

quently have positive) effects of progressiveness, whatever the condition of concentration. This judgment probably holds for most mergers involving lower-middle sized firms as well. Thus it is mainly in the relatively larger firms, particularly those in moderately to highly concentrated national markets (which, of course, are also ones where market power effects may be important), that the effects of a merger on technological progress deserve special attention.

Whether the effects be positive or negative, the necessary extension to the model is identical. Assume therefore that a merger is proposed involving a large firm in a concentrated industry, and that while it yields economies it also predictably decreases the rate of progressiveness. Holding constant for the moment the effects on price, how large a change in the rate of technical progress would be required to offset the available economy of scale advantage? To obtain a crude estimate of this, let θ be the ratio of the immediate post-merger to pre-merger average costs (so that $1 - \theta$ is the immediate decimal fraction reduction in average costs), g_1 be the rate of productivity increase in the absence of the merger and g_2 the rate if the merger is approved (where $g_1 \geq g_2$), $Q(t)$ be the output in period t, and let r be the social discount rate. Then the merger will have neutral effects if the discounted value of costs under each condition is the same. This requires that the equality given below should hold:

(5) $$\int_0^\infty [(AC)Q(t)e^{-g_1 t}]e^{-rt}dt = \int_0^\infty [\theta(AC)Q(t)e^{-g_2 t}]e^{-rt}dt$$

Assuming that output increases exponentially at the rate α, the critical value of g_2 is given by:

(6) $$g_2 = \theta g_1 - (1 - \theta)(r - \alpha)$$

If, for example, the values of θ, g_1, and $r - \alpha$ were .90, .03, and .07 respectively, the critical value of g_2 would be .02. Were g_2 to fall below this value, an indicated economy of 10 per cent would not be sufficient to offset the cumulative productivity loss associated with the merger, to say nothing of the market power effects that the merger produces. If indeed the selected values of g_1 and $r - \alpha$ are at all representative, a predictable decrease in the rate of productivity advance by one-third or more would thus be sufficient to disallow a merger for which an efficiency advantage as large as 10 per cent could be expected.[9]

Consider now the managerial discretion argument. Here the direction of the effect is not so much a matter for dispute as is its quantitative significance. The argument is that market power provides a firm with the opportunity to pursue a variety of other-than-profit objectives. Although this is an "old" argument, its

9 If the beneficial economies of scale are available only to the combining firms, while the negative progressiveness effects are felt throughout the industry, the above results underestimate the extent of economies necessary to produce indifference.

persistence at least suggests the possibility that it may not be without merit.[10] Whether qualitatively there is anything to it turns essentially on the behavioral proposition that where competition in the product market presents no significant threat to survival, the resources of the firm are absorbed in part as corporate consumption activities by those members of the firm who are knowledgeable of discretionary opportunities, powerfully situated, and disposed to be assertive [29, 32]. Its quantitative significance rests on a judgment over whether the conspicuous evidence is sufficiently strong.[11]

If indeed a predictable relaxation in the least-cost posture of a firm which has acquired market power through merger can be made, the estimated cost savings that appear in equation (4) should be adjusted accordingly. Economies which are available in theory but, by reason of market power, are not sustainable are inadmissible.

III. Extensions

Although the foregoing analysis has been concerned exclusively with horizontal mergers, the argument applies generally to problems in which market power-efficiency tradeoffs exist. Dissolution, vertical mergers, and conglomerate mergers can all be treated within this general framework.

A. DISSOLUTION

The argument here is perfectly straightforward. It is simply not sufficient in a monopolization case for which dissolution is the indicated relief that (1) a persistent monopoly condition ($P_1 > AC_1$) exist, and (2) a reduction in price following dissolution ($P_2 < P_1$) be expected. It is necessary in addition that the gains realized by the price reduction be sufficient to offset any losses in economies that result. The relevant test is that shown in equation (3)—modified, as may be necessary, by the qualifications discussed in Section II above.

B. VERTICAL MERGERS

It is important to note in dealing with vertical mergers that the conventional analysis of vertical integration, which takes a historical definition of an industry as given, often leads to incorrect results. The logical boundaries of a firm are not

10 As Arthur Hadley observed in 1897, "The tendency of monopoly to retard the introduction of industrial improvement is...a more serious thing than its tendency to allow unfair rates. This aspect of the matter has hardly received proper attention. We have been so accustomed to think of competition as a regulator of prices that we have lost sight of its equally important function as a stimulus to efficiency. Wherever competition is absent, there is a disposition to rest content with old methods, not to say slack ones. In spite of notable exceptions this is clearly the rule" [12, p. 383].

11 This presently is the weakest part of the argument. For a recent survey of the data, see [19].

necessarily those which have been inherited but rather are defined by the condition that the firm be unable to arrange a transaction internally more cheaply than in the market.[12] This is not something which is given once-for-all but depends both on technology and the extent of the market. Thus what may be regarded as "vertical integration" under a historical definition of an industry might, in many instances, more accurately be characterized as a reorganization into a more efficient configuration. For example, as technology evolves processes that are more fully automated or as demand for a commodity increases sufficiently to warrant continuous processing techniques, combinatorial economies may result by serially linking activities within a single firm that had previously been done in separate specialty firms.[13] A transformation of this sort accomplished in part through vertical mergers is probably common in the production of commodities which shift from sequential job shop to continuous assembly line type operations.

THUS WHAT MAY BE REGARDED AS "VERTICAL INTEGRATION" UNDER A HISTORICAL DEFINITION OF AN INDUSTRY MIGHT, IN MANY INSTANCES, MORE ACCURATELY BE CHARACTERIZED AS A REORGANIZATION INTO A MORE EFFICIENT CONFIGURATION.

That vertical integration can produce real economies is a result of the fact that the market does not perform its exchanges costlessly. Going to the market involves search costs, contracting costs, misinformation costs, delay costs, transfer costs, interface costs, etc.,[14] and these must be balanced against the costs of organizing a transaction internally. Where the former exceed the latter, "vertical integration" is indicated. But of course this is vertical integration in only an apparent sense: in fact it represents a rationalization of the firm into an optimum economic unit.

The historical organization of an industry can ordinarily be presumed to reflect adequately basic efficiencies where significant market or technological developments have been lacking. And even where such recent changes have occurred, an efficiency defense is not automatic. Furthermore, if an efficiency defense can be supplied, any market power consequences that a vertical merger produces

12 As Ronald Coase has pointed out, "a firm will tend to expand until the costs of organizing an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organizing in another firm" [7, p. 341].

13 Stigler argues that increasing the extent of the market will often lead to dis-integration of manufacturing processes since now the market will be sufficient to support a specialized firm [25, pp. 188-90]. Although this may often occur, there is also the countervailing tendency to maintain or extend integration where coordination among the parts in the face of market uncertainties is critical-as it often is where assembly line operations are employed. See Coase [7, p. 337].

14 Coase discusses some of these [7, pp. 336-37]. (For an early example in which the costs going to the market were examined in a common law proceeding, see Hadley v. Basendale.) In addition, if suppliers possess market power, going to the market may involve pecuniary expenses that could be avoided by integrating backward into supply activities.

need also to be considered.[15] Again the basic tradeoff calculation is that given by equation (3)—modified as necessary by the qualifications discussed in Section II.

C. CONGLOMERATE MERGERS

The principal ways in which conglomerate mergers can produce efficiencies have been given previously by M. A. Adelman [1, pp. 241-42] and Turner [27, pp. 1323-39, 1358-61]. The ways in which conglomerate mergers may produce market power are also discussed by Turner. All that remains, essentially, is to deal with the tradeoff question. Again the rules for estimating net benefits are substantially those given above.

IV. Conclusions

Most mergers produce neither significant price nor efficiency consequences, and where this is true the analysis of this paper has limited relevance. Where both occur, however, and if without merger the transition to an efficient industrial configuration is apt to be both painful and delayed, an efficiency defense deserves consideration. This does not of course mean that the mere existence of economies is sufficient to justify a merger. But since a relatively large percentage increase in price is usually required to offset the benefits that result from a 5 to 10 per cent reduction in average costs, the existence of economies of this magnitude is sufficiently important to give the antitrust authorities pause before disallowing such a merger. There are, as indicated in Section II, a variety of qualifications that may upset this general conclusion in any particular case, but absent these and the result clearly holds.

It might be objected that the courts do not possess the expertise to make the types of judgments described. This is typically true. But that does not mean that an analysis of these effects should be not performed by the Antitrust Division or Federal Trade Commission before deciding to challenge a merger. The enforcement agencies can obtain, at reasonable cost, the necessary expertise to make these evaluations.[16] Only after they are convinced that such economies as may exist are not sufficient to justify a merger should a case go forward. Although pos-

15 Stigler identifies barriers to entry that take the form of increased capital and/or knowledge requirements as potential anticompetitive consequences of a vertical merger [25, p. 191].

16 That the enforcement agencies are sensitive to scale economy considerations is evidenced by the recent Federal Trade Commission merger guidelines "Enforcement Policy with Respect to Mergers in the Food Distribution Industries," issued January 3, 1967. See especially pages 6-9.

Justice Brennan observed in the Philadelphia National Bank merger that "a merger the effect of which 'may be substantially to lessen competition' is not saved because, on some ultimate reckoning of social or economic debits and credits, it may be deemed beneficial....[Such] is beyond the ordinary limits of judicial competence" [28, p. 371]. My point is that, at least with respect to efficiencies, such reckoning need not and indeed should not be beyond the competence of the antitrust agencies. It is here that the first critical decision of whether to file suit is made.

sibly this extends the responsibility of the enforcement agencies beyond those that are clearly intended, the alternative is scarcely acceptable. For if neither the courts nor the enforcement agencies are sensitive to these considerations, the system fails to meet a basic test of economic rationality. And without this the whole enforcement system lacks for defensible standards and becomes suspect.

Once economies are admitted as a defense, the tools for assessing these effects can be expected progressively to be refined. Since such refinements will permit both the courts and the enforcement agencies to make more precise evaluations, the threshold value under which an economies defense will be allowed can be reduced accordingly. Thus even if initially only a few mergers for which mixed effects are present are able to pass an appropriately qualified tradeoff test because of high threshold requirements, this proportion can be expected to increase as research results and analytical aids for evaluating scale economies accumulate. As an interim gain, solemn references to early oratory might finally be displaced in favor of analysis in the continuing dialogue on antitrust enforcement.

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