

WHERE ANTITRUST ENDS AND IP BEGINS – ON THE ROOTS OF THE TRANSATLANTIC CLASHES

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ABSTRACT

U.S. antitrust enforcers see little scope for antitrust policy to mitigate the consequences of imperfect IP policies. They are reluctant to intervene in what is perceived to be the sphere of IP policy and take the view that any competitive concerns are better remedied by changes in the IP policy. This trend corresponds with shielding antitrust policy away from fields occupied by other forms of regulation. Exactly the opposite tendencies are present in EU competition law. Both the European Commission and the ECJ seem to see a role for competition law to correct improvidently defined IPRs, even if it entails adjusting competition principles. It may seem reasonable, as unlike competition policy, most issues relating to IP policy within the European Union are still decided at the national level. Yet, there is an inherent danger in this approach. It may lead antitrust authorities to adopt analytically questionable approaches that undermine the coherence of antitrust law. Competition agencies must be particularly cautious in adopting the measures to curb IP laws, as they may discourage private R&D investment. The Commission's views on application of Article 82 to interoperability information, as expressed in the Microsoft Decision and the Article 82 Paper, confirm that these reservations are valid.

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TABLE OF CONTENTS

INTRODUCTION	46
I. MONOPOLIZATION AND ABUSE OF DOMINANCE: COWBOY CAPITALISM AND GENTLEMEN COMPETITION?	48
A. MONOPOLY POWER	50
B. MONOPOLY POWER AND IP	53
C. ABUSIVE CONDUCT	55
II. ESSENTIAL FACILITIES	59
III. LIMITS OF ANTITRUST: MONOPOLIES CREATED BY STATE	69
IV. STRIKING THE BALANCE BETWEEN ANTITRUST AND IP	72
A. WHEN DOES ANTITRUST INTERVENE?	77
1. Europe: Intellectual Property as an Essential Facility	77
2. Microsoft: A New Paradigm?	87
B. AMERICA: THE FOCUS ON INVALID PATENTS AND SHAM LITIGATION	93
C. SHOULD THERE BE SPECIAL RULES FOR INTEROPERABILITY INFORMATION? AND WHY MICROSOFT WAS INEVITABLE	101
CONCLUSIONS	106

INTRODUCTION

Antitrust authorities on both sides of the Atlantic agree that, in principle, the ultimate objective of antitrust regulation is to enhance consumer welfare.¹ As the U.S. Supreme Court explains the goal is “not to protect businesses from the working of the market; it is to protect the public from the failure of the market.”² Market mechanisms are not always sufficient to ensure that dominant companies do not preempt the competitive process. To remedy this problem, §2 of the Sherman Act makes it illegal to “monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade and commerce among the several States, or with foreign nations”. Similarly, Article 82 of the Treaty establishing the European Community (EC Treaty) prohibits “any abuse by one or more undertakings of a dominant position within the common market.”³ The Commission, however, does not go as far as to acknowledge that consumer welfare is the exclusive goal of antitrust policy.⁴ When considering whether efficiencies as a defense to anticompetitive conduct, the Commission expressly states that “[u]ltimately the protection of rivalry and the competitive process is given priority over possible pro-competitive efficiency gains.” Monopolization under §2 of the Sherman Act or abuse of a dominant position under Article 82 of the EC Treaty comprises two elements: possession of market power and anticompetitive conduct. Yet, there is little convergence between the European and American law of monopolization. The differences concern such fundamental issues as the definition of dominance, the assessment of what constitutes anticompetitive conduct, or the requirement of a causal link between maintenance of monopoly power and anticompetitive conduct. But perhaps the most fundamental difference lies in the philosophy behind the European and American law of monopolization. As Advocate General Jacobs noted in *Bronner*, whereas §2 of the Sherman Act is designed to protect competition by prohibiting the

¹ *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (holding that the Congress designed the Sherman Act *as a* consumer welfare prescription).

² *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458, (1993). The Court continuing: “the law directs itself not against conduct which is competitive, even severely so, but against conduct which unfairly tends to destroy competition itself. It does so not out of solicitude for private concerns but out of concern for the public interest.” *Id.*

³ The European Commission expressly acknowledges that the objective of Article 82 is the protection of competition on the market as a means of enhancing consumer welfare and of ensuring efficient allocation of resources. European Commission, DG Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Abuses, <http://europa.eu.int/comm/competition/antitrust/others/discpaper2005.pdf>.

⁴ See Brian A. Facey & Dany H. Assaf, *Monopolization and Abuse of Dominance in Canada, the United States, and the European Union: A Survey*, 70 ANTITRUST L.J. 513 (2002) (discussing the objectives of antitrust laws across jurisdictions); Eleanor M. Fox, *What is Harm to Competition? Exclusionary Practices and Anticompetitive Effect*, 70 ANTITRUST L.J. 371 (2002).

WHERE ANTITRUST ENDS AND IP BEGINS

acquisition or maintenance of “monopoly power”, Article 82 is used to regulate the actions of companies in “dominant positions”.⁵ As it will be shown below, less market power is required to find that a company has a dominant position than it is required to establish that it has monopoly power.

These differences have a bearing on the obligations of dominant companies controlling essential inputs, including intellectual property (IP), to share those inputs with rivals. There have been virtually no decisions condemning a unilateral refusal to license of a valid intellectual property right (IPR) in the United States. By contrast, in the European Union (EU), IP may be treated as an essential facility and courts and competition authorities may request that a dominant company shares its IP with competitors. Yet, this is only a part of the story of antitrust and IP law intersection in the transatlantic context. The less discussed but equally important part is the relation between antitrust law and regulation that may disrupt competitive processes. In unregulated markets, competition enforcement is necessary to address specific market failures. In regulated markets, competition law may also be used to address externalities created by regulatory activity. Patents, copyrights, trade marks, trade secrets and other forms of IP give their owners some exclusivity over a particular way in which a piece of information can be used or expressed. Enforcement agencies and commentators agree that IPRs combined with market power may give rise to competitive concerns. Unwarranted or overly broad IPRs not only harm competition in the short run, but also harm innovation in the longer run. In this context, the question whether antitrust enforcers see the role for antitrust as being to curb IPRs, when they are used to forestall innovation is particularly interesting. The analysis of the relevant case law points to the conclusion that EU competition law is applied to remedy the consequences of imperfect IP laws. In contrast, the U.S. antitrust agencies and courts note flaws in the IP system, but are much more reserved when it comes to remedying their negative effects; instead they defer such problems to the authorities responsible for IP policy. Application of antitrust rules to address imperfections in IP laws might offer significant advantages, in particular taken that IP policy makers often do not take due account of competition values. Yet, it has also dangerous implications. As the EU experience shows, the reasoning that leads to desirable outcomes in a particular case may create a danger of over-enforcement and negatively affect incentives to innovate if applied to valid IPRs.⁶ The challenge lies in

⁵ See Opinion of AG Jacobs in *Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, Mediaprint Zeitungsvertriebsgesellschaft mbH & Co. KG and Mediaprint Anzeigengesellschaft mbH & Co. KG*, 1998 E.C.R. I-7791, ¶ 46.

⁶ *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd. (ITP) v. Commission* [hereinafter *Magill*] 1995 E.C.R. I-743, ¶ 15-16. The first case decided by the

the coining of clear limiting principles for application of antitrust laws to IPRs.

The paper starts with an overview of antitrust principles applicable to unilateral conduct of dominant companies in the EU and in the U.S. to set field for the discussion. The second section discusses how these general principles have been applied to bottleneck monopolies. This issue is highly relevant for the discussion of the intersection between IP and antitrust, as the essential facilities doctrine forms a framework for curbing overbroad IPRs in the EU. The third section addresses application of antitrust principles to distortions created by sectoral regulation in the two jurisdictions. It traces how these principles influenced application of antitrust principles to IPRs in the EU and in the U.S. The antitrust principles applicable to unilateral conduct involving IP laws are the subject of the fourth section, which reviews the relevant case law and shows that the EU antitrust authorities, unlike their U.S. counterparts use antitrust to address flaws in the IP system. Conclusions follow.

I. MONOPOLIZATION AND ABUSE OF DOMINANCE: COWBOY CAPITALISM AND GENTLEMEN COMPETITION?

The law of monopolization is a highly controversial field, both in Europe and in the United States. The American commentators are currently digesting the Supreme Court's decision in *Trinko*,⁷ which seems to have significantly limited the scope for antitrust intervention under §2 of the Sherman Act.⁸ In response to the criticism that European rules on abuse of dominance lack consistency and economic rigor,⁹ the European

European Court of Justice (ECJ) where a compulsory license was ordered as a remedy. See in particular Opinion of AG Gulmann.

⁷ *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004).

⁸ See, e.g., Eleanor M. Fox, *Is There Life in Aspen After Trinko? The Silent Revolution of Section 2 of the Sherman Act*, 73 ANTITRUST L.J. 153 (2005); Herbert Hovenkamp, *Exclusion and the Sherman Act*, 72 U. CHI. L. REV. 147 (2005); John Thorne, *A Categorical Rule Limiting Section 2 of the Sherman Act: Verizon v Trinko*, 72 U. CHI. L. REV. 289 (2005); Thomas E. Kauper, *Section Two of the Sherman Act: The Search for Standards*, 93 GEO. L.J. 1623 (2005).

⁹ See, e.g., John Temple Lang, *Anticompetitive Non-Pricing Abuses Under European and National Antitrust Law* in BARRY HAWK(ED), FORDHAM CORPORATE L. INSTITUTE 235 (2003); Thomas Eilmansberger, *How to Distinguish Good from Bad Competition under Article 82 EC: In Search of Clearer and More Coherent Standards for Anti-Competitive Abuses*, 42 COMMON MARKET. L. REV. 129 (2005); Damien Geradin, *Limiting the Scope of Article 82 EC: What Can the EU Learn from the U.S. Supreme Court's Judgment in Trinko in the Wake of Microsoft, IMS, and Deutsche Telekom?*, 41 COMMON MARKET L. REV. 1519 (2004); Derek Ridyard, *Compulsory Access under EU Competition Law - A New Doctrine of "Convenient Facilities" and the Case for Price Regulation*, 25 EUR. COMPETITION L. REV. 669 (2004); Brian Sher, *The Last of the Steam Powered Trains: Modernizing Article 82*, 25 EUR. COMPETITION L. REV. 243 (2004); John Kallaugher & Brian Sher, *Rebates Revisited: Anti-Competitive Effects and Exclusionary Abuse Under*

WHERE ANTITRUST ENDS AND IP BEGINS

Commission published the Article 82 Paper¹⁰ with the aim to clarify and reform European antitrust rules applicable to unilateral conduct. The document presents the Commission's views on the standards for assessing abuse of a dominant position. It may be the first step in making the application of Article 82 less formalistic and more in line with modern economic thought. In some instances, particular recommendations advanced in the Discussion Paper do not correspond to the established principles of EU law on abuse of a dominant position. The Discussion Paper and the public consultations which will be held in the spring of 2006 may be turned into guidelines on Article 82 enforcement.

The dissatisfaction with law of monopolization is perhaps the only common ground for commentators across the jurisdictions.¹¹ There seems to be little convergence between U.S. and EU antitrust rules applicable to unilateral conduct. Some of the decisions taken in Europe were subject to severe criticism in the U.S. A senior U.S. antitrust official commented on the European Commission's decision in *Microsoft* that it was "protecting competitors, not competition, in ways that may ultimately harm innovation and the consumers that benefit from it".¹² Shortly after, another U.S. official suggested that whereas the U.S. system supports "cowboy capitalism", allowing monopolist to compete aggressively on the merits even if it entails injuries to its rivals, the Europeans require dominant firms to "compete like gentlemen".¹³ Sections 1.1.-1.3. offer some insights into these divergences. They are not a comprehensive comparative study of

Article 82, 25 EUR. COMPETITION L. REV. 263 (2004); John Temple Lang & Robert O'Donoghue, *The Concept of Exclusionary Abuse*, GCLC Research Paper on Article 82, (2005),

<http://www.coleurop.be/content/gclc/documents/GCLC%20Research%20Papers%20on%20Article%2082%20EC.pdf>.

¹⁰ See European Commission, Directorate General for Competition, *DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses* [hereinafter: *Article 82 Paper*], Dec. 19 2005, <http://europa.eu.int/comm/competition/antitrust/others/discpaper2005.pdf>.

¹¹ See, e.g., Einer Elhauge, *Defining Better Monopolization Standards*, 56 STAN. L. REV. 253 (2003); John Temple Lang & Robert O'Donoghue, *The Concept of an Exclusionary Abuse under Article 82 EC*; Robert Pitofsky, *Past, Present, and Future of Antitrust Enforcement at the Federal Trade Commission*, 72 U. CHI. L. REV. 209 (2005) (comparing to other fields of antitrust where there is more agreement as to the applicable standards); *supra* note 9 and accompanying text.

¹² Press Release, Department of Justice, Assistant Attorney General for Antitrust, R. Hewitt Pate, Issues Statement on the EC's Decision in its Microsoft Investigation, http://www.usdoj.gov/opa/pr/2004/March/04_at_184.htm.

¹³ See J. Bruce McDonald, Section 2 and Article 82: Cowboys and Gentlemen, the Modernisation of Article Speech at Article 82 Second Annual Conference, Brussels, Belgium (June 16-17, 2005); Mario Monti, Comments to the Speech of Hew Pate, Antitrust in a Transatlantic Context, Brussels, Belgium (June 7, 2004) at Article 82 Second Annual Conference, Brussels, Belgium (June 16-17, 2005); see also R. Hewitt Pate, Antitrust in a Transatlantic context – From the Cicada's Perspective Address at Article 82 Second Annual Conference, Brussels, Belgium (June 16-17, 2005).

monopolization law in the two jurisdictions, but offer some observations which may be helpful for understanding how American and European antitrust enforcers approach competitive concerns resulting from the combination of IP and market power.

A. MONOPOLY POWER

In principle, unilateral conduct gives rise to competitive concerns only if it is undertaken by a company with a significant degree of market. The theory goes that if there are substitutes on the market, no company can raise prices substantially above competitive level without losing market shares to its rivals. A monopolist has power over prices and can engage in exclusionary conduct.¹⁴ Monopoly power was defined by the U.S. Supreme Court as “the power to raise prices and exclude competition.”¹⁵ Along the same lines, the European Court of Justice’s (ECJ) definition of the dominance refers to possession of economic power in a relevant market “which enables [a company] to prevent effective competition being maintained in the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.”¹⁶

The conventional proxy for market power is the defendant’s share of the relevant market. In the U.S., market shares in the range of 70%-90% are sufficient to establish a prima facie case of monopoly power, provided that they are held over a significant period of time.¹⁷ A company that does not possess significant market power at the time of anticompetitive conduct may still violate § 2 if it obtains monopoly power as a result of that conduct. If the conduct does not result in a monopoly power, the company may be guilty of attempted monopolization.¹⁸ The classic formulation of attempted monopolization requires that three elements are present 1) a predatory or anticompetitive conduct, 2) an intent to monopolize, and 2) a dangerously

¹⁴ See *Rebel Oil Co. v. Atl. Richfield Co.*, 51 F.3d 1421, 1434 (9th Cir. 1995); *United States v. Microsoft Corporation*, 253 F.3d 51 (D.C. Cir. 2001) (demonstrating that a firm which has taken such actions indicates that it has monopoly power); William E. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 956-57 (1981); see also Elhauge, *supra* note 11, at 257-59.

¹⁵ *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 481 (1992).

¹⁶ See *United Brands v. Commission*, 1978 E.C.R. 207, 65; *Hoffman La-Roche v. Commission*, 1978 E.C.R. 461, 38-39.

¹⁷ *United States v. Aluminum Co. of America*, 148 F.2d 416, 424 (2d Cir. 1945) (holding that a market share of 90% was “enough to constitute a monopoly”, and that it was “doubtful whether 60 or 64 percent would be enough and certainly 33 percent is not.”) See, e.g., *Microsoft*, 253 F.3d at 54-55; *United States v. Dentsply International, Inc.*, 399 F.3d 181, 188 (3d Cir. 2005).

¹⁸ See PHILIP AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* 802 (2002).

WHERE ANTITRUST ENDS AND IP BEGINS

high probability of achieving monopoly power.¹⁹ In *Spectrum Sports*, the Supreme Court stressed that the dangerous probability of success could not be inferred from conduct alone.²⁰ Demonstrating the dangerous probability of monopolization in an attempt case requires inquiry into the relevant product and geographic market and the defendant's economic power in that market.²¹ The defendant does not need to have present monopoly power, but its position on the market must be sufficiently close to monopoly that the conduct threatens to bring about monopolization.²² There is a presumption that attempt does not occur in the absence of a significant market share.²³

Article 82 does not distinguish between monopolization and an attempt to monopolize. Only companies which dominate a particular market at the time when the alleged abuse started may be charged with an Article 82 violation. A dominant company has the power to prevent effective competition and to act independently on the market.²⁴ Seemingly, these concepts are akin to the U.S. Supreme Court's definition of the monopoly power as excessive power over prices or the ability to exclude competition.²⁵ The power to prevent effective competition can be equated with the power to engage in exclusionary conduct. The ability to act independently on the market has been defined as the ability to restrict output and raise prices significantly above the competitive level.²⁶ Yet, it

¹⁹ See e.g., *Swift and Co. v. United States*, 196 U.S. 375, 396 (1905); *Lorain Journal Co. v. United States*, 342 U.S. 143, 153-55 (1951); *United States v. Aluminum Co.*, 148 F.2d 416, 431-32 (2d Cir. 1945); *Spectrum Sports v. McQuillan*, 506 U.S. 447, 455-56 (1993).

²⁰ *Spectrum Sports*, 506 U.S. at 459 (holding that anticompetitive conduct may be sufficient to prove the necessary intent to monopolize). Professors Areeda & Hovenkamp suggest that in the light of this judgment specific intent to monopolize is largely irrelevant in defining the attempted monopolization offense. See AREEDA & HOVENKAMP *supra* note 18, at 804.

²¹ *Spectrum Sports*, 506 U.S. at 459.

²² See AREEDA & HOVENKAMP, *supra* note 18, at 807a.

²³ See *id.* (discussing the trend in recent decisions to impose significant minimum market share requirements on the attempt offense); *H.L. Hayden Co. of N.Y. v. Siemens Medical Sys.*, 879 F.2d 1005 (2d Cir. 1989); see also *Cohen v. Primerica Corp.*, 709 F. Supp. 63, 66 (E.D.N.Y. 1989); *International Logistics Group v. Chrysler Corp.*, 1988-2 Trade Cas. P68, 127 (E.D. Mich.), *aff'd*, 884 F.2d 904 (6th Cir. 1989), *cert. denied*, 494 U.S. 1066 (1990); *Bacchus Indus. v. Arvin Indus.*, 939 F.2d 887 (10th Cir. 1991).

²⁴ See *Hoffman La-Roche*, 1978 E.C.R. 461, 38-39 (discussing the power to prevent effective competition is the power to engage in exclusionary conduct. The ability to act independent on the market has been interpreted as the ability to restrict output and raise prices above the competitive level thereby enjoying increased profits).

²⁵ See, e.g., *United States v. E. I. du Pont De Nemours & Co.*, 351 U.S. 377, 391 (1956); *United States v. Grinnell Corp.*, 384 U.S. 563, 571 (1966); *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 481 (1992).

²⁶ See *Article 82 Paper*, *supra* note 10, at 21-24 (referring to the influence over prices and other "parameters of competition" such as output, innovation, and the variety of goods and services. Higher than "normal" profits may be the evidence of dominance); see also *id.*, at 26; *United Brands*, 1978 E.C.R. 207, 126, and Case 322/81, NV Nederlandsche Banden

appears that companies with less market power can be charged with an abuse of dominance than it would be required for monopolization under §2 of the Sherman Act. In *United Brands*, a company with a market share between 40 and 45% was sufficient to establish dominance. Though it is unlikely, even a company holding less than 40% of the relevant market can be found dominant.²⁷ What is more, dominance is more likely to be found on the basis of market share alone, whereas in the US other factors may be more important in the assessment of the market power. In *AKZO*, the ECJ held that a market share of 50% could be considered very large so that, in the absence of exceptional circumstances a company with such a market share would be presumed dominant.²⁸ The Article 82 Paper advocates a more flexible approach. The Commission takes the view that a company is only “likely” to be dominant when it has been holding 50% or more of the relevant market for some time and its rivals have substantially smaller market shares.²⁹ It also stresses that market share is “only a proxy for market power”³⁰ and that other factors, such as barriers to entry, need to be considered.³¹

Some authority points to the conclusion that there may be different degrees of dominance. Companies having extremely high market shares leading to a “super-dominant” position may be subject to stricter liability for exclusionary behavior.³² In the Article 82 Paper, the Commission advocates the view that “the degree of dominance may be relevant for

Industrie Michelin v Commission, 1983 E.C.R. 3461, 59; *see also* RICHARD WHISH, *COMPETITION LAW* 179-180 (2005).

²⁷ *See* 92 *Gøttrup-Klim and others Grovwareforeninger v. Dansk Landbrugs Grovvareselskab*, 1994 E.C.R. I-5641 (discussing the role a company with a market shares in the range of 32-36% was found dominant. The Article 82 Paper suggests that the cut-off market share is in the range of 25%).

²⁸ *See* Case C-62/86 *AKZO v. Commission*, 1991 E.C.R. I-3359.

²⁹ *See Article 82 Paper, supra* note 10, at 31.

³⁰ *Id.* at 32.

³¹ *Id.* at 34.

³² *See e.g.*, Opinion of AG Fennelly in Cases C-395 & 396/96 *P Compagnie Maritime Belge Transports SA and others v. Commission*, 2000 E.C.R. I-1365, 119; (declaring that the position of “overwhelming dominance verging on monopoly” would give rise to “particularly onerous special obligations” not to interfere with competitive process. The Commission referred to this line of case law in *Clearstream* (Commission Decision in case COMP/38.096 – *Clearstream*, 300) and in *Microsoft* (Commission Decision in case COMP/37.792 – *Microsoft*, 435)); *see also* IVO VAN BAEL & JEAN-FRANCOIS BELLIS, *COMPETITION LAW OF THE EUROPEAN COMMUNITY* 119 (2005); ALISON JONES & BRENDA SUFRIN, *EC COMPETITION LAW* 235 (2002); DAMIEN GERADIN, PAUL HOFER, FRÉDÉRIC LOUIS, NICOLAS PETIT & MIKE WALKER, *THE CONCEPT OF DOMINANCE, GCLC RESEARCH PAPERS ON ARTICLE 82 EC - JULY 2005*, AT www.coleurop.be/content/gclc/documents/GCLC%20Research%20Papers%20on%20Article%2082%20EC.pdf; Whish, *supra* note 26, at 189-90; *supra* note 9 and accompanying text.

finding abuse.”³³ The position of super-dominance is likely to be found when a company has market shares in excess of 75% and there is almost no competition from other actual competitors in the market.³⁴ Yet, until the EU Courts explicitly embrace the concept of super-dominance, its validity will remain uncertain.

B. MONOPOLY POWER AND IP

Market power cannot be inferred from the ownership of IPRs alone.³⁵ There is a difference between the exclusive rights granted by IPRs and the monopoly power that is the concern of antitrust law. Even if patented, it is likely that the product will have many substitutes in the market, some of which may be protected by IPRs. Similarly, the fact that the owner of an IPR may be able to charge a price higher than the marginal cost does not mean that she enjoys monopoly power, as there is usually a high sunk cost involved in the development of a new product. Yet under certain circumstances, IPRs may enhance market power and create barriers to entry. Barriers to entry are generally defined as factors that allow incumbent companies earn supra-competitive returns without attracting entry.³⁶ A patent, for example, may be a barrier to entry if it controls the only available technology.³⁷ In a market of differentiated products, a

³³ See *Article 82 Paper*, *supra* note 10, at 59. The relevant section provides “In general, the higher the capability of conduct to foreclose and the wider its application and the stronger dominant position, the higher the likelihood that an anticompetitive foreclosure results. In view of these sliding scales, where in the following sections various factors are used to indicate circumstances under which a likely foreclosure effect is considered to occur with high(er) or low(er) likelihood, it needs to be kept in mind that these descriptions can not be applied mechanically.”

³⁴ *Id.* at 92.

³⁵ See, e.g., 3 AREEDA & HOVENKAMP, *supra* note 18, at 703; 1 HERBERT HOVENKAMP ET AL, *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* 4.1-4.2. (2002); Edmund W. Kitch, *Patents: Monopolies or Property Rights?*, 8 RES. L. & ECON. 31 (1986); Edmund W. Kitch, *Elementary and Persistent Errors in the Economic Analysis of IP*, 53 VAND. L. REV. 1727, 1729-30 (2000); Simone A. Rose, *Patent Monopolyphobia: A Means of Extinguishing the Fountainhead?*, 49 CASE W. RES. L. REV. 509 (1999).

³⁶ ³⁶ See 2A AREEDA & HOVENKAMP, *supra* note 18, at 420a. The European Commission defines barriers to entry as “factors that make entry impossible or unprofitable while permitting established undertakings to charge prices above competitive level.” *Article 82 Paper*, *supra* note 10, at 38; see also, Harold Demsetz, *Barriers to Entry*, 72 AM. ECON. REV. 47 (1982); David Harbord & Tom Hoehn, *Barriers to Entry and Exit in European Competition Policy*, 14 INT’L REV. L. AND ECON. 411 (1994); GEORGE J. STIGLER, *THE ORGANIZATION OF INDUSTRY* 67 (1968); Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 929-31 (1979) (advocating a narrower definition of the barriers to entry).

³⁷ See *Article 82 Paper*, *supra* note 10, at 40. The European Commission also considers absolute cost-advantages, including access to innovation, R&D and intellectual property as barriers to entry.

defendant's product might enjoy a price-cost advantage that rivals cannot eliminate because patents, trademarks, or other factors prevent them from duplicating the defendant's version of the product.

Antitrust agencies in Europe and in the U.S. concur that IP does not confer market power,³⁸ and that the relevant market to be taken into account in the antitrust enquiry is that of alternative technologies and artistic offerings that are available or likely to be created, i.e. the range of available substitutes.³⁹ In *Magill*, the ECJ indicated that the mere ownership of an IPR does not confer a dominant position.⁴⁰ In the Article 82 Paper, the Commission confirms that "intellectual property rights do not as such confer dominance on the holder."⁴¹ Until recently, the issue was less clear in America. In a rather dated stream of case law, the U.S. Supreme Court created a presumption of monopoly power in tying cases, where the tying product was patented or covered by copyrights.⁴² This line of case law has been finally abrogated in *Independent Ink*, where the Supreme Court held that the fact that a tying product is patented does not support the presumption of market power in a patented product.⁴³

Whether or not monopoly power is inferred from IPRs, the key issue is the definition of a relevant market. If the relevant market is defined narrowly so that it includes solely the product covered by an IPR, the IP

³⁸ See U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Guidelines for the Licensing of Intellectual Property (April 6, 1995), at <http://www.usdoj.gov/atr/public/guidelines/ipguide.pdf>, 2.2 [hereinafter *U.S. Licensing Guidelines*]; The Commission Notice - Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements, 2004 *O.J.* (C 101) 2, 16-17 (discussing the need to assess the degree of market power in the relevant market) [hereinafter *EU Guidelines on the Transfer of Technology*]; *Article 82 Paper*, *supra* note 10, at 40.

³⁹ See *The U.S. Licensing Guidelines*, 3.2; *EU Guidelines on the Transfer of Technology*, *supra* note 38, 19-25. The American and European antitrust agencies identify three markets that need to be taken into account in the application of antitrust law to IPRs: the market for products or services covered by the technology subject to IP protection, the market for the technology and the market for research and development (innovation markets).

⁴⁰ See *Magill*, 1995 E.C.R. I-743, 46-47. In this case the Commission and the CFI based its finding of dominance on both, the de facto monopoly over the copyrighted subject matter and the legal monopoly stemming from the copyright. The ECJ did not even mention the legal monopoly in its discussion of dominance.

⁴¹ See *supra* note 38.

⁴² *United States v. Loew's, Inc.*, 371 U.S. 38, 45 (1962) (holding that "The requisite economic power is presumed when the tying product is patented or copyrighted"); *United States v. Times-Picayune Pub. Co.*, 345 U.S. 594, 608 (1953) (holding that patents confer monopolistic, albeit lawful, market control); *United States v. Paramount Pictures, Inc.*, 334 U.S. 1312 (1948) (holding that there is a presumption that copyrights confer market power); *Int'l Salt Co., Inc. v. G.S. Suppinger Co.*, 332 U.S. 392 (1947) (holding that there is a presumption that patents confer market power). In a more recent decision, the U.S. Supreme Court confirmed the presumption in dicta. *Jefferson Parish Hospital District No. 2 v. Hyde*, 466 U.S. 2, 16 (1984). The concurring Justices concluded that there should be no such presumption. *Id.* at 38.

⁴³ *Illinois Tool Works Inc. v. Independent Ink, Inc.*, 126 St. Ct. 1281 (2006).

holder will always be dominant.⁴⁴ This was the case for example in *Magill*,⁴⁵ where the ECJ rejected the possibility that dominance could be inferred from possession of copyright, but accepted a very narrow definition of the market, basically coinciding with the copyrighted subject-matter. Similarly, the Supreme Court found that a single brand of product or service can be “relevant market” under Sherman Act prohibition against monopolization.⁴⁶

C. ABUSIVE CONDUCT

The differences in the assessment of monopoly power shed some light on the “two systems of belief about monopoly”, but the definition of anticompetitive conduct is more telling. Neither in the U.S., nor in Europe is the mere possession of significant market power *ipso facto* sufficient for finding violation of antitrust laws. Both jurisdictions demand also anticompetitive conduct on part of the dominant company.

U.S. antitrust law prohibits exclusionary or anticompetitive conduct. If the notion of “exclusionary conduct” is interpreted literally, it denotes conduct that makes it more difficult for rivals to enter the monopolist’s market or to increase their output.⁴⁷ However, there is an understanding that only those unreasonably exclusionary practices that also reduce social welfare merit antitrust intervention. As the DC Circuit Court explained in *Microsoft* “[w]hether any particular act of a monopolist is exclusionary, rather than merely a form of vigorous competition, can be difficult to discern: the means of illicit exclusion, like the means of legitimate competition, are myriad. The challenge for an antitrust court lies in stating a general rule for distinguishing between exclusionary acts, which reduce social welfare, and competitive acts, which increase it.”⁴⁸ The classic formulation of abusive conduct requires showing that 1) the conduct is reasonably capable of creating, enlarging or prolonging monopoly power by impairing the opportunities of rivals; and 2) it is not reasonably necessary to achieve any consumer gains that the conduct promises.⁴⁹ The focus of this

⁴⁴ See generally M. Howard Morse, *Product Market Definition in the Pharmaceutical Industry*, 71 ANTITRUST L.J. 633 (2003).

⁴⁵ See Case T-69/89 RTE v. Commission 1991 E.C.R. II-485 (upheld on appeal by the E.C.J. in joined cases C-241/91 P and C-242/91 P, RTE and ITP v. Commission, 1995 E.C.R. I-743).

⁴⁶ *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 481-82 (1992).

⁴⁷ See Herbert Hovenkamp, *The Monopolization Offence*, 61 OHIO ST. L.J. 1035-37 (2000).

⁴⁸ See *supra* note 14; see also *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458-59 (1993), (commenting that it is sometimes difficult to distinguish robust competition from conduct with long-term anticompetitive effects; moreover, single-firm activity is unlike concerted activity covered by § 1, which “inherently is fraught with anti-competitive risk”).

⁴⁹ See 3 AREEDA & HOVENKAMP, *supra* note 18, at 651A; see also *United States v. Microsoft Corp.* 253 F.3d 34, 58-59 (2001) (ruling that it was appropriate to balance harmful conduct against its efficiency enhancing effects).

test is efficiency.⁵⁰ Proving monopolization also requires showing that the improper practices made or were likely to have made a contribution to the defendant's monopoly power.⁵¹

The focus on efficiency is the legacy of the Chicago School of Law and Economics, which revolutionized antitrust by applying price theory to the analysis of practices considered illegal under antitrust rules and by shielding antitrust law away from industrial policies. The Chicago scholars showed that many unilateral practices condemned as anticompetitive under §2 create efficiencies. In particular, the leverage theory of tying, hostility against vertical integration, and exaggerated notions of monopolization that failed to ask whether the defendant monopolized anything that was even capable of being monopolized were the subject of severe criticism.⁵² The Chicago School stressed the risk of error, the cost of condemning practices that are in fact beneficial for consumers,⁵³ as well as the difficulties in designing antitrust remedies so that are feasible to administer and enhance consumer welfare in a way that is superior to market mechanisms.⁵⁴ There was a belief that the competitive is robust and that market mechanisms can protect themselves better than it could be achieved by means of government intervention. Hence, the prescription that antitrust should target little or nothing aside from hardcore cartels and mergers to monopoly.⁵⁵ Although the pro-market and largely anti-government Chicago School approach had

⁵⁰ See Eilhauge, *supra* note 11, at 315-16. Professor Eilhauge focused on a slightly different test involving the proper monopolization standard which should focus on whether the alleged exclusionary conduct succeeds in furthering monopoly power 1) if the monopolist has improved its own efficiency or 2) by impairing rival efficiency whether or not it enhances monopolist efficiency. He proposed that the first category of conduct should be *per se* legal whereas the second should be *per se* illegal. Professor Eilhauge's test does not focus on balancing between the monopolist's efficiency gains and the anticompetitive harm. The question asked is whether the principal cause for enhancing monopoly power is an increase in economic efficiency of the monopolist or a decrease in rival's efficiency.

⁵¹ See 3A AREEDA & HOVENKAMP, *supra* note 18, at 806; *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1991) (holding monopolization occurs when a company foregoes its short-term profits in expectation of reaping benefits by exercising monopoly power in long-term. Such conduct is deemed anticompetitive if it is capable of excluding from defendant's market an equally or more efficient competitor); see also RICHARD A. POSNER, *ANTITRUST LAW* 194-96 (2d ed. 2001).

⁵² See generally ROBERT BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* (1978); RICHARD A. POSNER, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* (1976).

⁵³ See, e.g., BORK, *supra* note 52; Frank Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984).

⁵⁴ See, e.g., William M. Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. CHI. L. REV. 652 (1983); Abbott B. Lipsky & J. Gregory Sidak, *Essential Facilities*, 51 STAN. L. REV. 1187, 1188 (1999).

⁵⁵ See, e.g., Eleanor M. Fox & Lawrence A. Sullivan, *Retrospective and Perspective: Where Are We Coming From? Where Are We Going?*, in HARRY FIRST ET AL., *REVITALIZING ANTITRUST IN ITS SECOND CENTURY 2* (1991); Herbert Hovenkamp, *Antitrust Policy after Chicago*, 84 MICH. L. REV. 213 (1985).

WHERE ANTITRUST ENDS AND IP BEGINS

significant and lasting consequences for the US antitrust analysis, only some of its postulates were accepted in mainstream antitrust analysis. It has been pointed out that markets can be anticompetitive in a variety of circumstances that Chicago economists disregarded. Since the 1990s, the task of antitrust enforcers has been to find a middle ground that avoids the extremes of over-and under-enforcement.⁵⁶

In contrast, European antitrust enforcers perceive competition process as vulnerable and are more eager to address perceived distortions. The ECJ defines an abuse of a dominant position as “an objective concept relating to the behavior of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.”⁵⁷ A dominant company can do business as long as its conduct fits within the concept of “normal competition,”⁵⁸ but it “has a special responsibility not to allow its conduct to impair genuine undistorted competition on the Common Market.”⁵⁹ The concept of “special responsibility”⁶⁰ has been traced to Ordo-liberal school of thought and interpreted to mean that a dominant company cannot use its market power to exclude its rivals unfairly.⁶¹ Yet, it is not clear what the “special responsibility” exactly involves, other than conveying the message that conduct of dominant companies may violate antitrust law, even if the same conduct performed by a non-dominant company would not give rise to antitrust liability.⁶² The proposition that monopolists and firms in the

⁵⁶ See, e.g., Herbert Hovenkamp, *Post-Chicago Antitrust: A Review and Critique 2001*, COLUM. BUS. L. REV. 257 (2001); Robert Pitofsky, *Past, Present, and Future of Antitrust Enforcement at the Federal Trade Commission*, 72 U. CHI. L. REV. 209 (2005).

⁵⁷ *Hoffmann La-Roche*, 1978 E.C.R. 461, at 91.

⁵⁸ See, e.g., Case T-65/98 *Van den Bergh Foods Ltd v Comm'n*, 2003 E.C.R. II-4653, 157; Case T-65/89, *BPB Industries PLC & British Gypsum Ltd. v. Comm'n*, 1993 E.C.R. II-389, 94.

⁵⁹ *Michelin I*, 1983 E.C.R. 3461, at 57; see also *Joined Cases T-191/98, T-212/98 to T-214/98, Atlantic Container Line AB et al. v. Comm'n*, 2003 E.C.R. II-3275, 1460 [hereinafter *TACA*].

⁶⁰ What has become known as the Freiburg School or the Ordo-liberal School was founded in the 1930s at the University of Freiburg in Germany by economist Walter Eucken and two jurists, Franz Böhm and Hans Großmann-Doerth. Ordo-liberalism, an important trend in political economic theory and the theory behind the German social market economy, is based on the assumption that economic system cannot emerge.

⁶¹ See Viktor V. Vanberg, *The Freiburg School: Walter Eucken and Ordoliberalism*, in *FREIBURGER DISKUSSIONSPAPIERE ZUR ORDNUNGSÖKONOMIK* (2004). See generally DAVID J. GERBER, *LAW AND COMPETITION IN TWENTIETH CENTURY EUROPE. PROTECTING PROMETHEUS* ch. VII (1998).

⁶² See Lang & O'Donoghue, *supra* note 9, at 42.

process of acquiring market power are subject to greater scrutiny of their behavior than other firms is rather uncontroversial.⁶³ Indeed, similar formulae may be found in the U.S. case law and legal literature, where it was said that “behavior that otherwise may comply with antitrust law may be impermissibly exclusionary when practiced by a monopolist”⁶⁴ and that “a monopolist is not free to take certain actions that a company in a competitive (or even oligopolistic) market may take, because there is no market constraint on a monopolist’s behavior.”⁶⁵ The notion of “special responsibility” could potentially be understood as a means of shifting the burden of proof on dominant companies. However, unlike Article 81, which prohibits anticompetitive agreements, Article 82 does not provide for an exemption from the general prohibition of exclusionary conduct.

The approach to efficiencies resulting from exclusionary conduct of a dominant company is another major difference between the two jurisdictions. Though efficiency considerations play a role under Article 82, they are not an absolute defense to an exclusionary conduct. In principle, abusive practices are prohibited regardless of the advantages which may accrue to the perpetrators of such practices or third parties.⁶⁶ Economic efficiency, however, plays a role in assessing specific practices. For example, refusals to deal may be abusive only if the requested product or service is indispensable, which involves proving that an equally efficient competitor, operating on a comparable scale could not duplicate the input.⁶⁷ Predatory pricing is assessed in relation to the dominant company’s costs.⁶⁸ EU Courts have also acknowledged that a dominant company may engage in exclusionary practices if it offers an objective justification for its conduct.⁶⁹

Article 82 Paper is an important step toward the recognition of efficiency justifications in EU competition law. The Commission acknowledges that the purpose of Article 82 is “not to protect competitors

⁶³ See *Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451, 488 (1992), where Justice Scalia, who represents the conservative camp in antitrust analysis, concedes that “[w]here a defendant maintains substantial market power, his activities are examined through a special lens: Behavior that might otherwise not be of concern to the antitrust laws -- or that might even be viewed as procompetitive -- can take on exclusionary connotations when practiced by a monopolist.”

⁶⁴ *United States v. Dentsply Int’l, Inc.*, 399 F.3d 181, 187 (3d Cir. 2005).

⁶⁵ *LePage’s Inc. v. 3M*, 324 F.3d 141, 151-152 (3d Cir. 2003); *see also* 3 AREEDA & HOVENKAMP, *supra* note 18, 813, 300-02.

⁶⁶ *TACA*, 2003 E.C.R. II-3275, ¶ 1112.

⁶⁷ *Bronner*, 1998 E.C.R. I-7791, ¶¶ 42-44.

⁶⁸ *See, e.g.*, Case C-62/86, *AKZO Chemie BV v. Comm’n*, 1991 E.C.R. I-3359, ¶¶ 71-72; Case C-333/94P, *Tetra Pak Int’l SA v. Comm’n*, 1996 E.C.R. I-5951, ¶¶ 39-44. The issue of assessment of predatory pricing remains controversial under EU competition law.

⁶⁹ *See, e.g.*, *United Brands*, 1978 E.C.R. 207, ¶¶ 182-184; Case 311/84, *Centre belge d’études de marché - Télémarketing (CBEM) v. SA Compagnie luxembourgeoise de télédiffusion (CLT) and Information publicité Benelux (IPB)*, 1986 E.C.R. 3261, ¶ 27; Case C-163/99, *Portugal v. Comm’n*, 2001 E.C.R. 2613, ¶ 53.

WHERE ANTITRUST ENDS AND IP BEGINS

from dominant firms' genuine competition based on factors such as higher quality, novel products, opportune innovation or otherwise better performance, but to ensure that these competitors are also able to expand in or enter the market and compete therein on the merits, without facing competition conditions which are distorted or impaired by the dominant firm."⁷⁰ Thus, it takes the view that "in general only conduct which would exclude a hypothetical 'as efficient' competitor is abusive."⁷¹ Exclusionary conduct will not be condemned under Article 82 if a dominant company "can demonstrate that its conduct produces efficiencies which outweigh the negative effect on competition."⁷² To benefit from the efficiency defense, a dominant company must demonstrate that the challenged conduct 1) gives rise or is likely to give rise to efficiencies; 2) is indispensable to achieve the efficiencies; 3) consumers benefit from the efficiencies; and 4) competition in respect of a substantial part of the products concerned must not be eliminated.⁷³ These conditions are cumulative. Yet, even substantial efficiency gains cannot justify exclusive conduct if it results in elimination of all competitors. The Commission stresses that the ultimate aim of competition law is "the protection of rivalry and the competitive process" and that possible pro-competitive efficiency gains must give way to this goal.⁷⁴ The Commission takes the view that a super-dominant company engaging in an exclusionary conduct is unlikely to be able to rely on efficiency gains to justify its conduct.⁷⁵

Article 82 Paper brings the European position closer to the American views on exclusionary conduct, albeit with the important reservation about the protection of competitive process. This development should be welcomed, as it gives room for a more economically sound assessment of exclusive conduct under EC competition law. It seems, however, that these general rules have limited influence on the Commission's stance on particular examples of exclusionary practices discussed in the Article 82 Paper. The treatment of refusals to deal, both in the Commission's practice and the Article 82 Paper is a good example of this phenomenon.

II. ESSENTIAL FACILITIES

The instances where Article 82 or § 2 of the Sherman Act were applied to condemn unilateral refusals to deal are among the most controversial antitrust cases. They provide an excellent example of how

⁷⁰ See *Article 82 Paper*, *supra* note 10, at 54.

⁷¹ The "as efficient" competitor is defined as "a hypothetical competitor having the same costs as the dominant company." *Id.* at 63-64.

⁷² *Id.* at 77.

⁷³ *Id.* at 84.

⁷⁴ *Id.* at 91.

⁷⁵ *Id.*

the differences in the general concepts applicable to unilateral conduct play out in individual cases. The rules applicable to unilateral refusals to deal are the framework under which unilateral refusals to license are assessed in the two jurisdictions. This section is meant to comment on the status of the essential facilities in the two jurisdictions, as a background to understand the differences in the application of antitrust law to unilateral refusals to license.

Both in Europe and in the United States, the basic premise is that a monopolist does not have an obligation to deal or to assist its competitors.⁷⁶ Yet, in a number of cases refusals to deal were condemned as anticompetitive in the two jurisdictions. This has been particularly the case where a refusal to supply concerned an “essential” or “bottleneck” facility: a product that is so superior that it is essential for the rivals to compete and cannot practically be duplicated.⁷⁷ The essential facilities doctrine has been traced back to the Supreme Court decision in *United States v. Terminal Railroads Association*.⁷⁸ The Terminal Road Association acquired all railroad facilities necessary to load or unload freight traffic or passengers anywhere within the area of St. Louis. The government brought an antitrust suit seeking to dissolve the Association. The Court found that consolidation of terminal facilities created important benefits, so instead of splitting the Association, it requested that competing railroad lines are given access to the facilities under fair and impartial terms. Another case often discussed in the context of essential facilities theory is *Otter Tail Power Co. v. United States*.⁷⁹ The case concerned an antitrust charge against Otter Tail, an electric power company, concerning the maintenance of its monopolistic position by preventing the towns it served from establishing their own municipal systems when its retail franchises expired. Otter Tail refused to sell energy at wholesale and refused to agree to wheel power from other

⁷⁶ *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 408 (2004). The ECJ held that refusals to deal give rise to liability under Article 82 of the EC Treaty only in limited circumstances. See *Bronner*, 1998 E.C.R. I-7791, ¶¶ 38-47. Advocate General Jacobs in his Opinion in this case said that “the right to choose one’s trading partners and freely dispose of one’s property are generally recognized principles in the laws of the Member States, in some cases with constitutional status.” *Id.* ¶ 56; see also Case C-418/01, *IMS Heath GmbH & Co. OHG v. NDC Health GmbH & Co. KG (IMS)*, 2004 E.C.R. I-5039, ¶ 34 (holding that refusal to license cannot in itself constitute an abuse of a dominant position) and the Opinion of AG Jacobs in Case C-53/03, *Synetairismos Farmakopoion Aitolias & Akarnanias (Syfait) and Others v. GlaxoSmithKline AVEVE*, 2005 E.C.R. I-4609, ¶ 53. The Commission in the Article 82 Paper confirms that dominant companies are “generally entitled to determine whom to supply and to decide not to continue to supply certain trading partners.” *Article 82 Paper*, *supra* note 10, ¶ 207.

⁷⁷ See, e.g., Philip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58 ANTITRUST L.J. 841 (1989); Elhauge, *supra* note 11, at 261-62; Abbott B. Lipsky, Jr. & J. Gregory Sidak, *Essential Facilities*, 51 STAN. L. REV. 1187 (1999).

⁷⁸ 236 U.S. 194 (1915).

⁷⁹ 410 U.S. 366 (1973).

WHERE ANTITRUST ENDS AND IP BEGINS

suppliers of wholesale energy to these municipalities. The Supreme Court held that Otter Tail's policy violated § 2 of the Sherman Act. Otter Tail was not insulated from antitrust scrutiny for refusing to wholesale or wheel power to municipal distribution systems, even though a regulatory agency had the authority to compel involuntary interconnections of power. In *Aspen*,⁸⁰ the Supreme Court ruled that Aspen Skiing Company, owner of the three flagship ski mountains in Aspen, violated § 2 of the Sherman Act by refusing to cooperate with its smaller rival in providing a four-mountain ticket. Under *Aspen*, a monopolist's refusal is illegal when it significantly excludes rivals, unless defendant proves an efficiency justification.⁸¹ In *MCI v. AT&T*,⁸² the Seventh Circuit expressly relied on the essential facilities doctrine and identified four elements necessary to establish antitrust liability under the doctrine as follows: (1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility.⁸³ In such circumstances, access to the facility may be ordered on reasonable and non-discriminatory terms.

The essential facilities doctrine has been the subject of severe criticism in the United States.⁸⁴ The Supreme Court joined this criticism in *Trinko*. The case challenged anticompetitive practices of Verizon, an incumbent local telephone service exchange carrier for New York. Verizon controls a local loop, access to which is necessary to provide local telephone service. Under the Telecommunications Act of 1996, incumbent local exchange carriers are obliged to share their networks with competitors and to give them access to individual network elements to the same extent and quality as they make it available to themselves.⁸⁵ In particular, Verizon was obliged to provide access to operations support systems (OSS) used to provide services to customers and ensure quality. The rivals complained to telecom regulators that many of their orders were going unfulfilled, in violation of Verizon's obligation to provide access to OSS functions. This impeded the rivals' ability to compete in the market for local telephone service. The investigation that ensued resulted in a consent decree

⁸⁰ *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985).

⁸¹ *Id.* at 605, 608. See also Eleanor M. Fox, *The European Union: Dedicated to the Professor Valentine Korah: Article: A Tale of Two Jurisdictions and an Orphan Case: Antitrust, Intellectual Property, and Refusals to Deal*, 28 FORDHAM INT'L L.J. 952, 957-58 (2005).

⁸² *MCI Communications Corp. v. American Tel. & Tel. Co.*, 708 F.2d 1081 (7th Cir. 1983); see also *Twin Labs., Inc. v. Weider Health & Fitness*, 900 F.2d 566 (2d Cir. 1990).

⁸³ *Id.* at 1132-1133.

⁸⁴ See, e.g., 3A AREEDA & HOVENKAMP, *supra* note 18, 770E, 771b-c, 773a; Areeda, *supra* note 77; Lipsky & Sidak, *supra* note 77.

⁸⁵ The GATS Telecommunication Services Reference Paper (1996), http://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm, specifies that access to network must be given on reasonable, transparent and non-discriminatory terms.

subjecting Verizon to remediation measures and additional reporting requirements. Following the publication of the consent decree, Trinko, a customer of one of Verizon's rivals, filed a class action alleging, *inter alia*, that Verizon's behavior with respect to providing access to its network was a § 2 violation. The question before the Supreme Court was whether monopolists controlling a necessary input were obliged under the Sherman Act to provide its rivals with access to that input. The Court begun its reasoning by stressing that firms which "acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers" should not be compelled "to share the source of their advantage" with their competitors.⁸⁶ It warned of the cost of false condemnations and difficulties in administering remedies in refusal to deal cases.⁸⁷ The Court recognized, however, that there are two exceptions from the freedom to deal principle: the *Aspen* exception and, possibly, the essential facilities exception. The Court stressed that it has never recognized the essential facilities doctrine.⁸⁸ Without acknowledging that the doctrine is valid, the Court gave it a narrow reading. It held that it could not be applied in a situation like the one before it, where an inferior access to the facility is given, or if compelled sharing can be ordered under state or federal laws.⁸⁹ Neither *Aspen* exception was available, as it could only be applied to a unilateral termination of a voluntary and profitable course of dealings suggesting that the defendant was willing to "forsake short-term profits to achieve an anticompetitive end."⁹⁰ By contrast, Verizon had never voluntarily shared its infrastructure with rivals, and probably would not have done so absent statutory compulsion. It seems that the *Trinko* Court narrowed *Aspen* exception to the situation where a monopolist 1) terminates a voluntary and presumptively profitable agreement with a competitor and 2) sacrifices its short-term profits to create or strengthen its monopoly and reap greater profits in the long run. *Trinko* suggests that there are two narrowly tailored exceptions to a general principle that a refusal to deal does not violate antitrust law: 1) essential facility theory (assuming that it is valid) and 2) in case of termination, a modified version of the short-term profit sacrifice test.⁹¹ The *Trinko* decision is controversial

⁸⁶ Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 408 (2004).

⁸⁷ *Id.* The Court said that the doctrine "requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing" and that it may chill the incentives to invest in infrastructure development, or even facilitate collusion.

⁸⁸ *Id.* at 411.

⁸⁹ *Id.* at 410-11. The Court ruled that Verizon's insufficient assistance in the provision of service to its competitors did not give rise to antitrust liability under the Court's refusal-to-deal precedents.

⁹⁰ *Id.* at 408-09.

⁹¹ See Eleanor M. Fox, *A Tale of Two Jurisdictions and an Orphan Case: Antitrust, IP, and Refusals to Deal* 28 FORDHAM INT'L L.J. 952, 958-59 (2005); see also John Thorne, *A Categorical Rule Limiting Section 2 of the Sherman Act: Verizon v. Trinko*, 72 U. CHI. L.

WHERE ANTITRUST ENDS AND IP BEGINS

and it remains to be seen how it will be interpreted by lower courts, but it may significantly limit the scope for antitrust condemnation of unilateral refusals to deal.

Whereas the essential facilities doctrine has been questioned in the U.S., it has been steadily growing in significance in Europe. The Article 82 Paper stands for a relatively wide scope for antitrust intervention in cases involving unilateral refusals to deal. The Commission concedes that forced sharing may have adverse effects on investment incentives, but notes its beneficial influence on competition in the secondary market and investment in follow-on R&D.⁹² It identifies four situations in which refusal to deal violates EU competition law: 1) terminating an existing supply relationship; 2) refusing to supply an essential input; 3) refusing to supply information protected by IPRs; and 4) refusing to supply information necessary for interoperability.⁹³ The Commission notes that the requested input is usually necessary to compete in the downstream market and a refusal to provide it leads to a vertical foreclosure.⁹⁴ Refusals to deal are abusive only when they have “a likely anticompetitive effect on the market which is detrimental to consumer welfare.”⁹⁵ An obligation to deal pursuant to Article 82 may be established after a close scrutiny of the factual, regulatory, and economic context in which the case arises.⁹⁶

The Article 82 Paper gives a broad reading to the essential facilities doctrine. A dominant company may be subjected to a duty-to-deal when it controls an essential input and the refusal to supply it is “likely to have a negative effect on competition” and if it is not “objectively justified.”⁹⁷ The requested input must be indispensable, which implies that there must be no real or potential substitutes available on the market and that it is impossible to duplicate the input.⁹⁸ As it has been discussed above, the Commission takes the view that apart from an outright refusal to supply other practices such as “delaying tactics in supplying, imposing unfair trading conditions, or charging excessive prices for the input” may be caught.⁹⁹ Termination of an existing customer attracts even greater degree of antitrust scrutiny, as in

REV. 289, 298-99 (arguing that refusals to deal may violate Section 2 of the Sherman Act, only when there is an element of discrimination and a history of previous dealings. In such cases, it is easier for courts to define the terms of granting access).

⁹² See *Article 82 Paper*, *supra* note 10, at 213.

⁹³ *Id.* at 209, 215.

⁹⁴ *Id.* at 209, 212-13. The Commission notes that other types of refusal to deal, i.e. those that are ancillary to other types of anticompetitive conduct such as tying or exclusive dealing, may lead to a horizontal foreclosure. The Commission also notes that elimination of competition in the downstream market may make it less attractive for potential rivals to challenge the position of the dominant company in the upstream market.

⁹⁵ *Id.* at 210.

⁹⁶ *Id.* at 214.

⁹⁷ *Id.* at 224.

⁹⁸ *Id.* at 228-29.

⁹⁹ *Id.* at 225.

such case a dominant company must be able to prove that the termination was objectively justified.¹⁰⁰ The Commission seems to take the view that the history of previous dealings obviates the need of showing indispensability.¹⁰¹ Termination of an existing customer or a refusal to start supplying an input may violate Article 82 if they have “market distorting foreclosure effect.” This is not understood to mean the complete elimination of all competition; in some cases an exclusion of one competitor may be sufficient to establish “market distorting foreclosure effect.” The Commission seems to infer that a refusal to deal is anticompetitive if the owner of the input is itself active in the downstream market.¹⁰² Notably, the Commission does not adopt a list of necessary and sufficient conditions for imposing a duty-to-deal; the conditions listed in the Paper are merely guidelines under which refusals to deal will be assessed.¹⁰³

The *Clearstream Decision*¹⁰⁴ is a good illustration of how the Commission approaches cases involving unilateral refusals to deal in practice, since it is recent and based on the Commission’s past experience. Clearstream is the sole provider of primary clearing and settlement services for securities issued under German law and is the only German Central Securities Depository. Euroclear Bank asked Clearstream to provide it with direct access to primary clearing and settlement services for German securities. Though Clearstream was slow to respond to Euroclear Bank’s request, it eventually agreed to provide the service. The Commission found that Clearstream had a dominant position in a narrowly defined market for the “provision by the issuer [Central Security Depository] to intermediaries like [Central Securities Depositories] and [International Central Securities Depositories] of primary clearing and settlement services for securities

¹⁰⁰ *Id.* at 222, 224; see also BAEI & BELLIS, *supra* note 32, at 941-45; JONES & SUFRIN, *supra* note 32, 376-77.

¹⁰¹ See *Article 82 Paper*, *supra* note 10, at 218. However, it would be difficult to fulfill the condition that a refusal to deal is likely to have a negative effect on competition, if other sources of supply are actually or potentially available. As it will be explained below, this position seems to be at odds with the ECJ’s ruling in *Bronner*.

¹⁰² *Id.* at 222-24, 231-33. The Commission takes the view that termination of an existing customer, if the input owner is itself active in the downstream market, creates a presumption of a negative effect on competition in the downstream market. If a dominant company wishes to integrate downstream and itself perform the downstream activities, it has to show that “consumers are better off with the supply relationship terminated.”

¹⁰³ See, e.g., *id.* at 218 (referring to conditions that “normally have to be fulfilled” to find the termination of a supply relationship abusive); *id.* at 224 (referring to conditions that “normally have to be fulfilled” to find a refusal to supply an essential facility abusive); *id.* at 237 (referring to additional condition that “may have to be met” to find a refusal to license abusive).

¹⁰⁴ Commission Decision in case COMP/38.096 (June 2, 2004), at <http://europa.eu.int/comm/competition/antitrust/cases/decisions/38096/en.pdf>. Under appeal case T- 301/04.

WHERE ANTITRUST ENDS AND IP BEGINS

issued under German law.”¹⁰⁵ It decided that the delay in providing the service constituted a refusal to deal in violation of Article 82 of the EC Treaty because: 1) Clearstream was an “unavoidable trading partner”: there was no alternative to its services; 2) Euroclear Bank could not duplicate the service offered by Clearstream; and 3) Clearstream’s refusal to supply impaired Euroclear’s ability to offer its services in the downstream market for cross-border clearing and settlement of EU securities. In addition, the Commission took into account the fact there was a reduction in the services that Clearstream provided to Euroclear Bank and Clearstream’s discriminatory behavior. The companies concerned had a history of previous dealings. The reduction in the services provided to Euroclear Bank allegedly resulted from the growing importance of registered shares in Germany, for which the requested service was crucial. Clearstream’s behavior amounted to a breach of Euroclear’s “legitimate expectations” that it would be supplied by Clearstream with primary clearing and settlement services within a reasonable time.¹⁰⁶ The Commission alleged that Clearstream provided other companies with access to its services within a shorter period of time following their request. Clearstream also charged Euroclear Bank higher prices for its services. The Commission did not allege that competition in the downstream market would be eliminated or that rival’s existence depended on giving access to the requested service.¹⁰⁷ Indeed, it can hardly be said that the delay in providing services led to the elimination of all competition in this case, though it might have imposed a number of disadvantages on Euroclear Bank.

Early ECJ case law also points to the conclusion that there are numerous circumstances when the duty to deal may be imposed under EU competition law. In *Commercial Solvents*, the Court ruled that a refusal to supply raw materials by a company “which has a dominant position in the market in raw materials and which, with the object of reserving such raw material for manufacturing its own derivatives, refuses to supply a customer, which is itself a manufacturer of these derivatives, and therefore risks eliminating all competition on the part of this customer, is abusing its dominant position within the meaning of Article [82].”¹⁰⁸ No inquiry was made in the actual effects of the termination in the downstream market. Whereas, in *Commercial Solvents*, the Court challenged vertical integration,

¹⁰⁵ *Id.* at 199-201. The Commission at great length explains why, for *certain* customers, indirect access to the issuer Central Securities Depository or the provision by the issuer of primary settlement and clearing services to other clients (banks) are separate markets to the provision of primary clearing and settlement services to Central Securities Depositories and International Central Securities Depository. *Id.* at 135-95.

¹⁰⁶ *Id.* at 224, 227-43.

¹⁰⁷ In the same vein, the Article 82 Paper provides that although a refusal to deal can only be abusive when it has a negative effect on competition, it does not mean that the refusal can only be found abusive if it leads to elimination that all competition from the downstream market. See *Article 82 Paper*, *supra* note 10, at 222, 231.

¹⁰⁸ Case 6 and 7/73, *Commercial Solvents v. Comm’n*, 1974 E.C.R. 223, 25.

in *United Brands*,¹⁰⁹ exclusive dealing was targeted. In *United Brands*, the Court ruled that United Brand's termination of a customer, after the latter had participated in an advertising campaign of one of United Brand's competitors, was an abuse of a dominant position. The Court reasoned that a dominant company "for the purpose of marketing a product which cashes on the reputation of a brand name known to and valued by consumers cannot stop supplying a long standing customer who abides by regular commercial practice, if the orders placed by that customer are in no way out of the ordinary."¹¹⁰ Unlike in *Commercial Solvents*, the terminated distributor retained other sources of supply and there was no danger that competition from the downstream market would be eliminated. Again, there was no evidence that a refusal to supply will lead to higher prices in the downstream market. In *Télémarketing*, the Court held that a company that was granted exclusivity in a particular market may commit an abuse of a dominant position if it "reserves to itself an ancillary activity which might be carried out by another undertaking as a part of its activities on a neighboring but separate market, with the possibility of eliminating all competition from such undertaking."¹¹¹ Thus, a state-owned company

¹⁰⁹ 1978 E.C.R. 207.

¹¹⁰ *Id.* at 182.

¹¹¹ See Case 311/84, Centre belge d'études de marché - Télémarketing (CBEM) v. SA Compagnie luxembourgeoise de télédiffusion (CLT) and Information publicité Benelux (IPB), 1985 E.C.R. 3261, 25-27. CLT run the RTL TV station and IPB was the exclusive agent who sold television advertising aimed at the Benelux countries. CBEM organized telemarketing services on the RTL station. It concluded an agreement with IPB, whereby CLT had a legal monopoly in the market for television advertising aimed at viewers in French-speaking Belgium. By contrast, competition was possible in the market for telemarketing services. The case concerned a refusal by the CLT and IPB to sell CBEM television time on the RTL TV station for telephone marketing operations using a telephone number other than that of IPB. The court held that Article 82 applied to a company holding a dominant position on a particular market where that position is due not to the activities of the company itself, but to the fact that by reason of provisions laid down by law there can be no competition or only very limited competition on the market. *Id.* ¶ 18. Such company abuses its dominant position if it reserves to itself an ancillary activity in a neighboring market thereby excluding any other company from that market. The Court applied this principle in a different set of circumstances in Case C-18/88, Régie des télégraphes et des téléphones (RTT) v. GB-Inno-BM SA, 1991 E.C.R. I-5973. RTT held a monopoly over the establishment and operation of the public telephone system in Belgium, it also supplied telecommunication equipment for use by its customers. The law also gave it the exclusive competence to approve the equipment that could be connected to its network. GB-INNO sold in its shops equipment that was not approved by RTT. RTT sued GB-INNO to enjoin it from selling telephones without informing the purchasers that they were not approved by RTT. Relying on its decision in CBEM, the Court held that the extension of the dominant position of a company to which the State has granted special or exclusive rights results from a State measure, such measure constitutes an infringement of Article 82 of the EC Treaty, §§ 18-21. In this case, the exclusion or restriction of competition in the neighboring market could not be justified by a task of public service: the quality of the equipment could have been secured by means of laying down specifications for the said equipment and by establishing a procedure for type-approval to check whether

WHERE ANTITRUST ENDS AND IP BEGINS

could not refuse to supply its competitor in a downstream market with an input over which it held monopoly. The Court applied similar reasoning in the cases concerning refusals to license IPRs. As it will be explained in more detail below, these cases stand for the proposition that although a simple refusal to license does not violate antitrust law, a holder of IP cannot extend her monopoly to a separate, neighboring market. Unilateral refusals to deal were targeted under Article 82 in different circumstances and few, if any, limiting principles could be inferred from the older ECJ's case law.¹¹²

The more recent pronouncements on refusals to deal from the ECJ indicate that the Court limited the circumstances in which a refusal to deal may be deemed abusive. In particular, the *Bronner* decision¹¹³ sets new, higher standard under which a duty to deal may be imposed.¹¹⁴ The case concerned a refusal to include a newspaper in a home-delivery scheme of Mediaprint, a large Austrian newspaper group. Advocate General Jacobs advised the Court to limit the scope of refusals to deal doctrine. He noted that forced sharing reduces the incentives to make the original investment in the development of a facility, reduces the incentives of competitors to develop better products,¹¹⁵ and forces courts to act as regulators in setting of the terms under which access should be granted.¹¹⁶ He concluded that a duty to deal should be imposed only when an essential facility is involved and the refusal leads to elimination of all competition on the part of the company requesting the service.¹¹⁷ The ECJ followed suit. It first invited the Austrian court to consider whether a home-delivery scheme could be considered a separate market, or whether other methods of distributing newspapers (sale in shops and kiosks, delivery by post) should be included in the relevant market. Assuming that Mediaprint was dominant in the market for home-delivery scheme, the *Bronner* Court held that a duty to deal may be imposed only if 1) the refusal is likely to eliminate all competition in the downstream market on the part of the person requesting

those specifications are met. It must be stressed that there was no allegation that RTT behaved improperly in its authorization of telephones. The Court did not question the behavior of the dominant company, but rather, it was the state measures which effectively extended the monopoly position from one market to another.

¹¹² See Sebastien J. Evrard, *Essential Facilities in the European Union: Bronner and Beyond*, 10 COLUM. J. EUR. L. 491, 505 (2004); Lang, *supra* note 9.

¹¹³ Case C-7/97 Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, Mediaprint Zeitungsvertriebsgesellschaft mbH & Co. KG and Mediaprint Anzeigengesellschaft mbH & Co. KG (Bronner), 1998 ECR I-7791.

¹¹⁴ See Eilmansberger, *supra* note 9, at 156-57; Evrard, *supra* note 112, at 494-95; Geradin, *supra* note 9, at 1526; Petros Mavroidis, Damien Neven & Bronner Kebab, *Beyond Refusal To Deal And Duty To Cooperate*, in EUROPEAN COMPETITION LAW ANNUAL (Claus D. Ehlermann & Isabella Atanasiu eds., 2003); James S. Venit, *Article 82: The Last Frontier – Fighting Fire with Fire*, 28 FORDHAM INT'L L.J. 1157, 1173-74 (2005).

¹¹⁵ Opinion of AG Jacobs in *Bronner*, 1998 ECR I-7791, 57.

¹¹⁶ *Id.* at 69.

¹¹⁷ *Id.* at 58.

the service; 2) the refusal is not objectively justified, and 3) the requested service is indispensable for the person requesting it to carry on that person's business, inasmuch as there are no actual or potential substitute for the requested facility.¹¹⁸ The requirement of indispensability is not fulfilled if there are other means to obtain the input, even if such means are less advantageous. In assessing the ability to obtain actual or potential substitutes, courts should not consider the situation of the company requesting the input, but rather, a company of a comparable size and efficiency to the dominant firm. Absent from the earlier case law, the requirement of indispensability limits application of Article 82 to cases involving essential inputs. Under *Bronner* a duty to deal may be imposed only with respect to an input that can be validly characterized as an essential facility, even if there was a history of previous dealings.¹¹⁹ The key issue is *Bronner's* relation to the *Commercial Solvents* line of case law. I agree with those commentators who see *Bronner* as a case that builds on the older cases by adding economic rigor to the analysis.¹²⁰ *Bronner's* limiting principles are equally applicable to termination cases. After all, the main competitive concern in refusal to deal cases is the access to a captive input regardless whether it has been granted before or not.¹²¹ Yet, the Commission's interpretation seems to be that a history of previous dealings obviates the need to show indispensability.¹²²

To my mind, the open-ended approach advocated by the Commission and its broad reading of the conditions of indispensability and market foreclosure goes against the *Bronner* Court's intentions. The standards proposed by the Commission to assess refusals to deal create the risk of over-enforcement and may encourage rivals to engage in antitrust

¹¹⁸ *Id.* at 41.

¹¹⁹ See BAEL & BELLIS, *supra* note 32, at 946-47.

¹²⁰ This conclusion is supported by the ECJ's interpretation of its earlier case law. The Court held that "[a]lthough in *Commercial Solvents v Commission* and *CBEM*, cited above, the Court of Justice held the refusal by an undertaking holding a dominant position in a given market to supply an undertaking with which it was in competition in a neighbouring market with raw materials (*Commercial Solvents v Commission*, paragraph 25) and services (*CBEM*, paragraph 26) respectively, which were indispensable to carrying on the rival's business, to constitute an abuse, it should be noted, first, that the Court did so to the extent that the conduct in question was likely to eliminate all competition on the part of that undertaking." *Bronner*, 1998 ECR I-7791, 38; see also Opinion of AG Maduro in Case C-109/03, *KPN Telecom v. OPTA*, ¶ 32; Geradin, *supra* note 9, at 1526; Cyril Ritter, *Refusal to Deal and Essential Facilities: Does Intellectual Property Require Special Deference Compared to Tangible Property?*, 28 WORLD COMPETITION 281, 282-84. But see Hatzopoulos, Case Note, *IMS*, 41 COMMON MKT. L. REV. 1613 (2004) (arguing that *IMS* confirms that "essential facilities" case law is different from *Commercial Solvents* line of case law).

¹²¹ See, e.g., Christophe Humpe & Cyril Ritter, *Refusal to Deal*, GCLC RESEARCH PAPER ON ARTICLE 82, at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=771907.

¹²² *Id.*

WHERE ANTITRUST ENDS AND IP BEGINS

litigation instead of investing in the development of better products.¹²³ Clear standards are particularly important now that national competition authorities of Member States are obliged to apply Article 82.¹²⁴ Recent decisions suggest that national competition authorities are inclined to follow the Commission's approach to refusals to deal, or even go further than that, making over-enforcement a real threat.¹²⁵ I submit that the test adopted by the ECJ in *Bronner* provides a better guidance than the Commission's approach to refusals to deal expressed in the Article 82 Paper and in its recent decisions. The *Bronner* test is also more akin to the restraint exercised by the Supreme Court in *Trinko*. Yet, even *Bronner*, the case when the ECJ adopted the narrowest reading of essential facilities doctrine, goes further than the U.S. Supreme Court in *Trinko*. This, as it will be shown in Section 4 below, has a decisive effect on the assessment of unilateral refusals to license.

III. LIMITS OF ANTITRUST: MONOPOLIES CREATED BY STATE

The use of essential facilities doctrine to remedy negative effects that state-created monopolies have on markets is an example how antitrust rules may impinge on industrial regulation. The relation between sectoral regulation and antitrust rules is also relevant for the application of antitrust rules to mitigate the consequences of imperfections in IP regime. The ECJ willingness to scrutinize Member States' national laws for their compliance with EU competition policy is relevant in the context of IP legislation. A number of commentators interpreted the ECJ decisions in cases involving

¹²³ See Ridyard, *supra* note 9, at 670; Ian S. Forrester, *Article 82- Remedies in Search of Theories*, 28 FORDHAM INT'L L.J. 919, 921-22 (2005).

¹²⁴ As of May 1, 2004, in accordance with Council Regulation No 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, all EU Member States' antitrust authorities are obliged to apply EU competition law in parallel to their domestic provisions, if the challenged conduct may affect trade between Member States.

¹²⁵ For example, the Greek Competition Commission by Decision No 193/111 of 3 August 2001 ordering interim measures found that GSK violated Article 82 and Greek competition law by limiting the supply of certain pharmaceutical products in order to limit parallel imports to other EU Member States. The case was referred to the ECJ (C-53/03 *Synetairismos Farmakopoion Aitolias & Akarnanias (Syfait) and Others v. Glaxosmithkline AVEE*, 2005 E.C.R. I-4609), which refused to rule on the merits. The Polish Office of Competition and Consumer Protection found that Kompania Weglowa, a grouping of several Polish coal mines, violated Polish competition law by refusing to supply coal to a small distributor. The Office found the refusal abusive as a smaller part of a vertical integration strategy, leading to the elimination of small distributors from the coal distribution market. It does not seem very likely that coal can be characterized as an essential input and the decision did not address the question whether vertical integration could have been justified by efficiency considerations (Decision of 12 December 2005, No. RKT-64/2005).

compulsory licensing as a restraint that EU competition law imposes on what was considered an “aberrant” national IP right.¹²⁶

European integration brought about an opening of national markets and it has been accompanied by a process of economic liberalization. After the removal of customs duties and quantitative barriers to trade, the next hurdle was national monopolies, often associated with distortion of trade within the EU.¹²⁷ State-owned monopolies and monopolies created by companies which were awarded an exclusive or protected position hinder competition. EU competition law was used to curb anticompetitive policies at the national level and to erode the position of national monopolies.¹²⁸ In *Höfner*, the Court ruled that under certain conditions, the very existence of a state monopoly right may violate EU competition law.¹²⁹ A way in which state monopoly is organized can also violate the EC Treaty.¹³⁰ In *Fiammiferi*,¹³¹ the ECJ concluded that the EC Treaty obliges Member States to refrain from introducing measures which may deprive competition rules of their useful effect by requiring or encouraging anti-competitive conduct, reinforcing the effects of such conduct, or delegating to private

¹²⁶ See, e.g., Valentine Korah, *Patents and Antitrust*, 4 INTELL. PROP. Q. 395, 402-07 (1997); Ian S. Forrester, *Compulsory Licensing in Europe: A Rare Cure to Aberrant National Intellectual Property Rights?*, Department of Justice/Federal Trade Commission Hearings, Washington (May 22, 2002), <http://www.ftc.gov/opp/intellect/020522forrester.pdf>.

¹²⁷ See Wolfgang Streeck, *The Internationalization of Industrial Relations in Europe: Prospects and Problems*, Max Planck Institute for the Study of Societies, 1 WORKING PAPER SERIES IN EUROPEAN STUDIES, No. 1, 3-4, <http://uw-madison-ces.org/papers/streeck.pdf>.

¹²⁸ See Article 86 of the EC Treaty which concerns application of EU competition law to State-owned companies and those granted special or exclusive rights. In Case 13/77 SA G.B.-INNO-B.M. v Association des détaillants en tabac (ATAB), 1977 E.C.R. 2115, ¶31, the ECJ held that the Treaty imposes a duty on Member States not to adopt or maintain in force measures which could deprive the competition provisions of their effectiveness.

¹²⁹ Case C-41/90 Klaus Höfner and Fritz Elser v Macrotron GmbH, 1991 E.C.R. I-1979, 28-31; see also Case C-323/93 Société Civile Agricole du Centre d'Insémination de la Crespelle v Coopérative d'Élevage et d'Insémination Artificielle du Département de la Mayenne, 1994 E.C.R. I-5077, 18.

¹³⁰ Case 260/89 Elliniki Radiophonia Tileorassi AE (ERT) v Dimotiki Etairia Pliroforissis, 1991 E.C.R. I-2925, 11. The Court held that EC Treaty prevented the granting of an exclusive right to transmit and an exclusive right to retransmit television broadcasts to a single company, where those rights were liable to create a situation in which that company is led to infringe Article 82 by virtue of discriminatory broadcasting policy which favors its own programs. *Id.* at 37-38. The test employed in this case is less strict than that adopted in *Höfner*, where the infringement by the monopolist was unavoidable. In this case, cumulating of rights in the hands of the monopolist created a situation when a monopolist was led to infringe Article 82, as it would inevitably discriminate in favor of retransmitting its own programs. See JONES & SUFRIN, *supra* note 32, at 442; see also Case C-179/90 Mercis convenzionali porto di Genova SpA v Siderurgica Gabrielli SpA, 1991 E.C.R. I-5889, 17, 19.

¹³¹ Case C-198/01 CIF Consorzio Industrie Fiammiferi v. Autorità Garante della Concorrenza e del Mercato, 2003 E.C.R. I-8055.

WHERE ANTITRUST ENDS AND IP BEGINS

traders responsibility for taking key decisions affecting the economic sphere.¹³² The Court referred to Articles 4(1) and 98 of the EC Treaty, which provide that Member States must observe the principle of an open market economy and free competition in the context of their national economic policies.¹³³ Invoking the principles of supremacy and effectiveness of EU law, the ECJ concluded that a national competition authority must ensure that the EC Treaty rules on competition are observed and disregard any conflicting national legislation.¹³⁴

By comparison, the scope for antitrust intervention in the case of state-created distortions to competition is limited in America. According to the state action doctrine, the Sherman Act is generally inapplicable to action by a state operating in its sovereign capacity, or to private conduct approved and supervised by a state as a matter of state policy.¹³⁵ The doctrine was established by the Supreme Court in *Parker v. Brown*,¹³⁶ a case concerning the Californian Agricultural Prorate Act. The Act provided that private producers could be ordered to hold raisins off the market in order to raise prices and thereby prevent “economic waste” and giving the authority to make such decisions to a self-interested body.¹³⁷ The Court found that such arrangements were not preempted by the Sherman Act. The Court’s holding rested both on statutory history and language, and on considerations of federalism: “[i]n a dual system of government in which, under the Constitution, the states are sovereign, save only as Congress may constitutionally subtract from their authority, an unexpressed purpose to nullify a state’s control over its officers and agents is not lightly to be attributed to Congress.”¹³⁸ The Court reasoned that Congress did not intend for federal antitrust laws to be a mechanism for challenging state policies.

¹³² *Id.* at 46, 50.

¹³³ *Id.* at 47.

¹³⁴ *Id.* at 47-48. The Court clarified that in such situation companies involved in the anticompetitive conduct were shielded from penalties and private litigation until the public authority does not question the legislation as anticompetitive.

¹³⁵ The scope of the exception depends on the nature of the defendant and the type of challenged action. Actions taken by government bodies are virtually always exempt. More stringent standards apply to actions taken by private parties, who must demonstrate that the conduct challenged as anticompetitive was both clearly authorized by the state and was subject to active state supervision. *See generally* 1 AREEDA & HOVENKAMP, *supra* note 18, at 221.

¹³⁶ *Parker v. Brown*, 317 U.S. 341, 351 (1943).

¹³⁷ California Agricultural Prorate Act of June 5, 1933, Statutes of California 1933, ch. 754, as amended by chs. 471 and 743, Statutes of 1935; ch. 6, Extra Session, 1938; chs. 363, 548 and 894, Statutes of 1939; and chs. 603, 1150 and 1186, Statutes of 1941. A program of restrictions could be adopted by a state commission, on application by ten producers. The program was to be administered by a committee including the representatives of the producers. The committee could propose price-enhancing restrictions, which were subject to the approval of the state commission. The restrictive program would go into effect upon a favorable vote of the producers.

¹³⁸ *See Parker*, 317 U.S. at 351.

Under *Parker*, there is limited scope for application of federal antitrust laws in a situation where the state attempts to authorize or compel anticompetitive private behavior.

The federal preemption doctrine was used more successfully against state laws that prevent pro-competitive behavior.¹³⁹ In the context of IP, the Supreme Court held that states were not permitted to use their common law of unfair competition to prevent copying of unpatented and unpatentable product, as it would interfere with federal patent and antitrust law.¹⁴⁰ The Court has also held that federal law preempted state contract law that prevented a licensee from challenging the validity of the licensed IP.¹⁴¹ It must be noted, however, that in both cases the state laws were struck chiefly because they were inconsistent with federal patent laws, while antitrust laws seemed to play a marginal role in the Court's reasoning.

The existence of state-created monopolies and the inefficiencies they entail are a source of concern on both sides of the Atlantic. Europeans see an important role for antitrust to address such distortions. In contrast, Americans prefer to remedy such problems through sectoral regulation. As it will be showed below, the same pattern can be identified in the way antitrust law is applied to IP in these two jurisdictions.

IV. STRIKING THE BALANCE BETWEEN ANTITRUST AND IP

The most frequently noted economic rationale for IP protection is that it encourages private investment in R&D and spurs innovation.¹⁴² Bringing new products onto the market is costly and without IP protection competitors could appropriate the invention before its creator had the ability to earn a profit from her investment. Assigning exclusive rights in the outcomes of creative and intellectual efforts increases incentives to develop

¹³⁹ See Areeda, *supra* note 18, at 217.

¹⁴⁰ *Sears, Roebuck & Co. v. Stiffel Co.* 376 U.S. 225 (1964).

¹⁴¹ *Lear, Inc. v. Adkins*, 395 U.S. 653 (1969).

¹⁴² See, e.g., Kenneth Arrow, *Economic Welfare and the Allocation of Resources for Inventions*, in *THE RATE AND DIRECTION OF ECONOMIC ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 619 (R. Nelson ed., 1962); WILLIAM NORDHAUS, *INVENTION, GROWTH, AND WELFARE: A THEORETICAL TREATMENT OF TECHNOLOGICAL CHANGE* (1969); I HOVENKAMP ET AL., *supra* note 35, ¶ 1.1; William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325 (1989); Richard A. Posner, *IP: The Law and Economics Approach*, 19 J. ECON. PERSP. 57 (2005). Other authors rely on the Lockean labor-deserves argument: people are entitled to hold as property whatever they produce by their own initiative, intelligence, and industry, for example, Justin Hughes, *The Philosophy of IP*, 77 GEO. L. J. 287, 299-330 (1988), or the theories based on privacy and sovereignty of individuals, for example, MARGARET JANE RADIN, *REINTERPRETING PROPERTY* (1993); JEREMY WALDRON, *THE RIGHT TO PRIVATE PROPERTY* (1988). For an overview see for example, William Fisher, *Theories of IP*, in STEPHEN R. MUNZER, *NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY* (2001); ROBERT L. OSTERGARD, *DEVELOPMENT DILEMMA: THE POLITICAL ECONOMY OF IPRs IN THE INTERNATIONAL SYSTEM* 11 (2002).

new products. IPRs also play a role in the dissemination of innovation and facilitate commercial development of ideas.¹⁴³ They may also contribute to coordination of follow-on research. Yet, the IP system comes at a price. Granting exclusive rights in IP denies society the benefit of using and possessing something that all people could use and enjoy concurrently. It interferes with diffusion of ideas, follow-on innovation and limits the options for putting these ideas to work. It prevents competition in the commercialization of artistic works and scientific inventions and usually gives IP holders some power over prices. Though it may be necessary to allow the latter to recover of R&D expenditure and to create incentives for follow-on innovation, it also means higher prices for consumers in short run.¹⁴⁴

IP laws are designed to strike a balance between these divergent interests by granting owners exclusive rights and protecting the interests of users through a variety of exceptions and limitations. IPRs never give unlimited protection against copying. Their duration is limited and they protect only certain aspects of the work or invention. Copyright covers the form alone, but not the ideas underlying the work. Trade secrets are protected insofar as they are kept secret. A patent extends only to commercial exploitation of the protected invention. The scope of a patent is defined by patent claims and the claims may extend only to the elements that are new and non-obvious. There are also numerous specific exceptions embodied in IP laws. The exercise of patent rights is restricted by patent misuse doctrine. “Fair use” of copyrighted works is allowed, so is independent development of similar works. Copyright law contains a number of compulsory licensing provisions applicable *inter alia* to cover versions of musical compositions,¹⁴⁵ and retransmission of broadcast stations by cable systems.¹⁴⁶ The same is true for new forms of IP protection. For example, the EU Software Directive allows reproduction of

¹⁴³ See, e.g., Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J. L. & ECON. 265 (1977); James Anton & Dennis Yao, *Expropriation and Inventions: Appropriable Rents in the Absence of Property Rights*, 84 AM. ECON. REV. 190 (1994).

¹⁴⁴ It also means monopoly loss, which the monopolist imposes on society by limiting his output below the level which consumers would be willing to purchase at a competitive price. In simple terms, fewer people will be able to buy the work than if it were sold at a competitive price. For discussion of economics of IP see for example, WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF IP* (2003); Stanley M. Bessen & Leo J. Raskind, *An introduction to the Law and Economics of IP*, 5 J. ECON. PERSP. 3 (1991); Mark A. Lemley, *Ex Ante versus Ex Post Justifications for IP*, 71 U. Chi. L. R. 129 (2004); Suzanne Scotchmer, *The Political Economy of IP Treaties*, 20 J. L. ECON. & ORG. 415 (2004).

¹⁴⁵ 17 U.S.C. § 115. Such exception was also included in the UK Copyright Act of 1911 and in the 1956 Act, but it was not retained in the 1988 Act. A compulsory license in such cases is permitted under Article 13 of the Berne Convention. See also J.A.L. STERLING, *WORLD COPYRIGHT LAW* ¶ 2.106 (2d ed. 2003).

¹⁴⁶ 17 U.S.C. § 111. A compulsory license in regard to the broadcasting and cable retransmission rights of authors is allowed under Article 11*bis* (2) of the Berne Convention.

programming code and translation of its forms (decompilation) if it is “indispensable to obtain the information necessary to achieve the interoperability of an independently created computer program.”¹⁴⁷ A similar exception for reverse engineering of computer programs exists in the United States.¹⁴⁸ A number of exceptions from the general right to exclude have been recognized by the TRIPS agreement.¹⁴⁹

Fine tuning IP law is not an easy task. In an ideal world, patents would not be granted unless the invention or the work would not have been commercialized or disclosed during the time of exclusivity.¹⁵⁰ This is not always the case. Poor patent quality, patent thickets, and defensive patenting are a reality in some industries.¹⁵¹ Questionable IPRs may give rise to significant competitive concerns, and they may also obstruct innovation. Sham litigation can paralyze technological process for years. IPRs may erect barriers to entry to a market. Agreements involving IPRs may affect competition. Dominant companies may use their IPRs in an anticompetitive manner and prevent new products from coming into the market.

The key question is whether and how antitrust should intervene when IPRs give rise to such problems. The mainstream view is that IP and antitrust laws should work in unison to maximize wealth by promoting innovation and economic progress.¹⁵² This implies that IPRs are not

¹⁴⁷ Article 6 of the Council Directive 91/250/EEC on the legal protection of computer programs, 1991 O.J. (L 122) 42.

¹⁴⁸ See, e.g., *DSC Communications Corp. v. DGI Technologies, Inc.*, 898 F. Supp. 1183, *aff'd on other grounds*, 81 F.3d 597 (5th Cir. 1996) (ruling that reverse engineering, to access unprotected functional elements of computer programs, constitutes a fair use under § 107 of the Copyright Act). The court held that a telecommunications equipment manufacturer's intermediate copying of firmware embedded in a competitor's microprocessor cards is "copying" but constitutes a fair use.

¹⁴⁹ Agreement on Trade-Related Aspects of IPRs (TRIPS). See also Gianna Julian-Arnold, *International Compulsory Licensing: The Rationales and the Reality*, 33 IDEA 349, 372-95 (1993) (surveying adoption of TRIPS provisions); Donna M. Glitter, *International Conflicts Over the Patenting of Human DNA Sequences in the United States and the European Union: An Argument for Compulsory Licensing and a Fair-Use Exception*, 76 N.Y.U.L. REV. 1623 (2001). The TRIPS Agreement provides also for the possibility of compulsory licensing in antitrust cases, preserving the broad discretion of national authorities to order compulsory licensing in antitrust cases. See Jean-François Bellis, *EC Competition Law remedies and TRIPS: Limitations on the Use of Compulsory Licensing as a Competition Law Remedy*, in MICHAEL HUTCHINGS & MADRS ANDENAS, COMPETITION LAW YEARBOOK 185 (2002).

¹⁵⁰ This reflects the rationale for granting IP protection, the benefit the society obtains in exchange for granting exclusivity. See, e.g., Luis Kaplow, *The Patent Antitrust Intersection: A Reappraisal*, 97 HARV. L. REV. 1815, 1825-29.

¹⁵¹ See, e.g., Bronwyn H. Hall & Rosemarie Ham Ziedonis, *The Patent Paradox Revisited: An Empirical Study of Patenting in the U.S. Semiconductor Industry (1979-1995)*, 32 RAND J. ECON. 101 (2001) (finding that large-scale manufacturers of semiconductors were involved in patent portfolio races).

¹⁵² The idea was first proposed in WARD BOWMAN, JR., PATENT AND ANTITRUST LAW: A LEGAL AND ECONOMIC APPRAISAL (1973) and has been embraced by the academia, for

immune from antitrust intervention, but also that the special features of IPRs must be taken into account when antitrust law is applied to them. Though IP confers specific rights, there may be some ambiguity as to their scope. Antitrust may be used as a tool to define the scope of IPRs. Yet, application of antitrust law to IPRs may result in under- or over-enforcement. Careful balancing is necessary, as over-enforcement of antitrust laws may undermine the objectives of IP.

Though IP and antitrust law do not have conflicting aims, they strive to achieve them by different and sometimes conflicting means.¹⁵³ Antitrust law seeks to foster competition by constraining the way monopoly power is created and maintained. IP may in some cases permit or even encourage monopoly to create incentives to innovate. IPRs are granted in unique goods and it is possible that they are used to obtain unwarranted market power and interfere with competition in various ways. In particular, overly broad IPRs can have a negative effect on competition; they may also inhibit innovation. Under some circumstances, tensions between these two branches of law are bound to occur. For many years courts and commentators have struggled to define what constitutes a legitimate exercise of IPRs and what type of conduct involving IP should be deemed illegal under antitrust laws. The intersection between IP and antitrust has been characterized by periods of over and under enforcement, in which first antitrust was trumping and then IP gained ground.¹⁵⁴ Striking the balance between antitrust and IP requires taking into account static and dynamic efficiency considerations.¹⁵⁵ Static efficiency focuses on present market

example, Lewis Anton & Dennis Yao, *Some Reflections on the Antitrust Treatment of IP*, 63 ANTITRUST L.J. 603 (1995); 1 HOVENKAMP ET AL, *supra* note 35, ¶ 1.3; Luc Peepkorn & Emil Paulis, *Competition and Innovation: Two Horses Pulling the Same Cart*, in PAUL LUGARD & LEIGH HANCHER, ON THE MERITS: CURRENT ISSUES IN COMPETITION LAW AND POLICY (2005), as well as antitrust enforcers, for example, Atari Games Corp. v. Nintendo of America, Inc., 897 F.2d 1572, 1576 (Fed. Cir. 1990); Carl Schenck, A.G. v. Nortron Corp. 713 F.2d 782, 786 (C.A.Fed.,1983); and EU Guidelines on the Transfer of Technology, *supra* note 38, ¶ 7.

¹⁵³ SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1203 (2d Cir. 1981) (“The conflict between the antitrust and patent laws arises in the methods they embrace that were designed to achieve reciprocal goals”); *see also* 1 HOVENKAMP ET AL, *supra* note 35, ¶ 1.3b.

¹⁵⁴ For an overview of the history of the interaction between antitrust and IP see 1 HOVENKAMP ET AL, *supra* note 35, ¶ 1.3b (in the U.S.); Abbott B. Lipsky, *To the Edge: Maintaining Incentives for Innovation After Global Antitrust Explosions*, 35 GEO. J. INT’L LAW 521, 523-30 (2004) (in the U.S.); Valentine Korah, *The Interface Between IP and Antitrust: The European Experience*, 69 ANTITRUST L.J. 801, 802-08 (2002); Ian S. Forrester, *European Competition Law and IP*, in proceedings of the Twelfth St. Gallen International Competition Law Forum, University of St. Gallen (April 28-29, 2005).

¹⁵⁵ *See, e.g.*, Kaplow, *supra* note 150, at 1821-23, 1829-33 (proposing a test that balances profits derived by the patentee from a given practice and the monopoly loss inflicted on the society); Janusz A. Ordover, *A Patent System for Both Diffusion and Exclusion*, 5 J. ECON. PERSP. 43, 42-44 (1991); 1 HOVENKAMP ET AL, *supra* note 35, ¶1.3a (arguing that the key to economic efficiency lies in balancing the social benefit of providing economic incentives for creation and the costs of limiting the diffusion of knowledge).

terms and its main concern is the level of prices. It mandates that knowledge-assets are readily available for anyone who is willing to pay the marginal costs of dissemination, which implies that property rights in such assets should be minimal and owners of such assets should be forced to share them with competing companies as a means to lower the prices. Dynamic efficiency, on the other hand, is concerned with long-term effects, such as the level of innovation, the development of new products and services and the pace of technological progress. Innovation brings better products, more choice for consumers, and lower prices. Thus, even if it can be established that IP involves static inefficiency, it is socially desirable if the *ex ante* incentives to innovate due to the additional reward are sufficiently great.¹⁵⁶ Long-term efficiencies are particularly important in the context of technology driven industries. In these industries IPRs may be critical for innovation. It has been argued that the importance of IP for innovation in the context of a particular industry should be taken into account for the purpose of antitrust scrutiny.¹⁵⁷ IPRs that are of poor quality or that are too broad can be harmful also in the long run, as they obstruct dissemination of information and impair technological progress. The value of the IPR at stake, the scope of protection afforded under IP legislation, and its importance in the context of a particular industry is not without consequence for the application of antitrust rules.

There seems to be some agreement among commentators as to what types of agreements involving IP are anticompetitive. Moreover, after the EU adopted the new Technology Transfer Regulation¹⁵⁸ and the Guidelines on the Transfer of Technology,¹⁵⁹ the European Commission's position on restrictions in licensing agreements was brought closer to U.S. standards.¹⁶⁰

¹⁵⁶ Kaplow, *supra* note 150, at 1821-23.

¹⁵⁷ See, e.g., Michael A. Carrier, *Unraveling the Patent-Antitrust Paradox*, 150 U. PA. L. REV. 761, 813-15 (2002); Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition Law and Patent Policy* [hereinafter FTC Report] (Oct. 2003), ch. 1, <http://www.ftc.gov/opa/2003/10/cpreport.htm>.

¹⁵⁸ Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements, 2004 O.J. (L 123) 11.

¹⁵⁹ Commission Notice - Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements, 2004 O.J. (C 101) 2.

¹⁶⁰ There is a consensus as it comes to the basic principles, but there are still some important differences between American and European regulations applicable to technology licensing. See, e.g., Makan Delrahim, *The Long and Winding Road: Convergence in the Application of Antitrust to IP*, remarks presented at the George Mason Law Review Symposium (Oct. 6, 2004), <http://www.usdoj.gov/atr/public/speeches/205712.htm>. For a comment on the new European regulations on IP licensing see Erik Vollebregt, *The New Technology Transfer Block Exemption: From Straitjacket to Moving Targets*, 10 COMPUTER & TELECOMM. L. REV. 123 (2004); Frank Fine, *The EU's New Antitrust Rules for Technology Licensing: A Turbulent Harbour for Licensors*, 29 EUR. L. REV. 766 (2004); William E. Kovacic & Andreas P. Reindl, *An Interdisciplinary Approach to Improving Competition Policy and Intellectual Property Policy*, 28 FORDHAM INT'L L.J. 1062, 1070-73 (2005).

This can hardly be said about potentially anticompetitive unilateral conduct relating to IPRs. As discussed above, the standards for condemning unilateral practices are different in Europe and in the United States. To be sure, this has had a significant impact on the way unilateral practices that involve the use of IPRs are assessed in these two jurisdictions.¹⁶¹ But perhaps a more important question is whether antitrust authorities see a role for themselves in curbing IPRs, when they become a source of competitive concerns. Antitrust law limits the freedom of IP owners in many different ways, but the focus of this article is cases where the attack on IP is direct and deprives the rights holder of exclusivity, the essence of all IPRs. This essentially happens if enforcement of an IPR as such constitutes an antitrust violation, or if antitrust law mandates forced sharing of IP. Can refusal to license violate antitrust law? Can IP be an essential facility? Should antitrust law be concerned with the poor quality of IPRs? Cases in which courts tackled these questions involve a true conflict between IP law and trade regulation. They are also among the most controversial antitrust disputes.

A. WHEN DOES ANTITRUST INTERVENE?

When does unilateral conduct involving IP violate antitrust laws? There seems to be a number of theories which appear prominently in the cases and in the literature on both sides of the Atlantic: (1) the right is invalid; (2) the IP at stake has been improvidently defined or granted; (3) the IP owner attempts to extend its right beyond the scope warranted by IP laws; (4) the IP held by a dominant company constitutes an “essential facility”, access to which is indispensable for the existence of viable competition on the market; (5) special rules may apply when the refusal concerns interoperability information. The section below examines the relevant European and American case law concerning unilateral conduct involving IPRs. It analyzes the way in which specific anticompetitive concerns are addressed in these two jurisdictions, the differences in the prevailing theories and traces their roots in the diverging principles of antitrust law.

1. Europe: Intellectual Property as an Essential Facility

As it has been said above, the European law concerning abuse of a dominant position and refusal to deal is in the state of flux. The same is true for rules applicable to unilateral refusals to license. The case law is scarce and many questions have been left open. However, two key observations can be made. One is that the ECJ’s jurisprudence seems to gravitate towards a more restrictive reading of the obligations of dominant

¹⁶¹ Kovacic & Reindl, *supra* note 160, at 1082-83.

companies to share their IP. The very same line of the development can be observed in the case law concerning unilateral refusals to deal. The second is that the European Commission seems to see a larger scope of antitrust intervention and prefers not to be bound by formalistic tests, but rather to be able to base its decision on all the circumstances of a case.

But let us start from the beginning. The first cases involving using IPRs to strengthen monopoly power concerned spare parts and independent repairers, a situation that may be familiar to American readers. In *Volvo/Veng*¹⁶² and *Renault*¹⁶³, the ECJ was faced with the question of whether a refusal to grant a license for the import and sale of car spare parts can constitute an abuse of a dominant position. In both cases, the original car manufacturer, relying on its IPRs, prevented repairers from producing or importing spare parts produced elsewhere without the authority of the car manufacturer. The ECJ replied that the right to exclude was the “substance of the exclusive right, and that a refusal to grant such a license cannot in itself constitute an abuse of a dominant position.”¹⁶⁴ In *Renault*, the Court added that the fact that the original manufacturers charge a higher price for the parts than the independent producers did not “necessarily constitute an abuse, since the proprietor of protective rights in respect of an ornamental design may lawfully call for a return on the amounts which he has invested in order to perfect the protected design.”¹⁶⁵ The Court noted, however, that a refusal to license may violate Article 82 if it involves an additional element of an abusive conduct, such as “an arbitrary refusal to deliver spare parts to independent repairers, the fixing of prices for spare parts at an unfair level or a decision no longer to produce spare parts for a particular model even though many cars of that model remain in circulation.”

In *Magill*,¹⁶⁶ the ECJ had an occasion to elaborate on the circumstances that could make a refusal to deal abusive. *Magill TV Guide Ltd.* published weekly TV guides in Ireland and Northern Ireland containing listings of RTE, BBC, ITV, the major Irish TV stations. The latter published their own TV guides in the form of weekly periodicals. The listings were copyrighted, but they also distributed schedules of their television programs free of charge to newspapers and other media.¹⁶⁷ *Magill* began publishing a comprehensive weekly listing, containing the programs of major Irish TV stations for the following week. The TV stations sued for copyright infringement and an Irish court issued an interim

¹⁶² Case 238/87, *Volvo AB v. Erik Veng (U.K.) Ltd.*, 1988 E.C.R. 6211.

¹⁶³ Case 53/87, *Consorzio italiano della componentistica di ricambio per autoveicoli and Maxicar v Régie nationale des usines Renault*, 1988 E.C.R. 6039.

¹⁶⁴ *Volvo/Veng*, 1988 E.C.R. 6211, ¶ 8.; *see also Renault*, 1988 E.C.R. 6039, ¶¶ 15-16.

¹⁶⁵ *Renault*, 1988 E.C.R. 6039, ¶ 17.

¹⁶⁶ Case T-69/89, *RTE v. Commission*, 1991 E.C.R. II-485, upheld on appeal by the ECJ in joined cases C-241/91 P and C-242/91 P, *RTE and ITP v. Commission*, 1995 E.C.R. I-743.

¹⁶⁷ The license was subject to the condition that there should only be reference to programs intended to be broadcast within the next 24 hours (or 48 hours, in the case of weekends).

WHERE ANTITRUST ENDS AND IP BEGINS

injunction restraining Magill from publishing weekly program listings. Magill, on its part, lodged a complaint to the Commission alleging that the refusal to license constituted an abuse of a dominant position. The Commission agreed with the complainant and decided that by preventing the publication of the comprehensive weekly TV guide, the TV stations abused their dominant position in the market for their individual advance weekly program listings.¹⁶⁸ It ordered the infringement to cease by imposing a compulsory license on the TV stations concerned. The Commission's Decision was upheld by the CFI and, on appeal, by the ECJ. The ECJ stressed that mere ownership of an IPR does not confer a dominant position,¹⁶⁹ and a unilateral refusal to license could not in itself constitute an abuse of a dominant position.¹⁷⁰ The Court rejected the argument that a refusal to license a copyright should be considered per se legal.¹⁷¹ It found that the TV stations possessed a de facto monopoly over the information necessary to compile TV listings;¹⁷² they were "the only source of information on program scheduling which is the indispensable raw material for compiling a weekly television guide."¹⁷³ The refusal to license was abusive because it 1) prevented the appearance of a new product (a comprehensive weekly TV listings), which the TV stations did not offer and for which there was a potential consumer demand, 2) there was no justification for the refusal (the Court did not elaborate further on this point) and 3) by refusing to license Magill and other such companies, the TV stations reserved for themselves the secondary market of weekly television guides by excluding all competition from the market.¹⁷⁴ The Court upheld the remedy imposed on the TV stations by the Commission: a compulsory license with the right to charge reasonable and non-discriminatory royalties.

The *Magill* Court left a number of burning questions open. It was not clear whether the list of conditions under which a refusal to license violates Article 82 was exhaustive, nor whether the conditions listed by the CFI and the ECJ were cumulative or alternative. Although some commentators understood *Magill* as a leveraging case and the ECJ judgment as prohibiting a refusal to license that has anticompetitive effects "other than those that would be caused in the market primarily protected by

¹⁶⁸ Though the Court upheld the market definition and the finding of dominance on the relevant market, an interesting question is whether such a narrow market definition was correct. The question is particularly interesting taken the fact that the Court explicitly rejected the possibility that a dominant position could be implied from the possession of an IP right (see below).

¹⁶⁹ See *Magill*, 1995 E.C.R. I-743, ¶ 46.

¹⁷⁰ *Id.* at 49.

¹⁷¹ *Id.* at 48.

¹⁷² *Id.* at 47.

¹⁷³ *Id.* at 53.

¹⁷⁴ *Id.* at 54-56.

the IPRs,”¹⁷⁵ most commentators explained the case in terms of a corrective measure applied to questionable national IP laws.¹⁷⁶ Although the Court failed to comment on the value of the IPRs at stake, the condition relating to the lack of justification could be understood as referring to the fact that the broadcasters made little investment in the development of the listings, and a compulsory license would not be a real disincentive to continue their publishing activities.¹⁷⁷ If the poor quality of copyright at stake were not a decisive factor under *Magill*, the holder of an improvement patent might be able to routinely require the holder of a basic patent to grant a license under the basic patent.¹⁷⁸ *Magill* seems to make sense in terms of the idea/expression dichotomy, as the copyrighted subject matter was ancillary to the real inputs: the TV program information needed by *Magill*.¹⁷⁹ The TV listings were also a by-product of the TV stations’ core business. Another factor not discussed by the ECJ, but noted by the CFI,¹⁸⁰ which clearly might have had a bearing was discrimination: the same TV listings were given free of charge to newspapers who published TV listings on a daily basis.¹⁸¹ All these factors seem to have played a role in the Court’s reasoning. I submit that *Magill* is best understood as a case in which the Court questioned the existence of an IP right, which it did not consider

¹⁷⁵ John Temple-Lang, *European Community Antitrust Law: Innovation Markets and High Technology Industries*, 20 FORDHAM INT’L L.J. 717, 730 (1997).

¹⁷⁶ TV listings are not protected by copyright in most EU Member States. See e.g., JONES & SUFRIN, *supra* note 32, at 404, 407; Forrester, *supra* note 126, Maurits Dolmans, *Restrictions on Innovation: An EU Antitrust Approach*, 88 ANTITRUST L.J. 455, 470 (1998); Valentine Korah, *The Interface between IP and Antitrust: The European Experience*, 69 ANTITRUST L.J. 801, 810-13 (2002); Christopher Stothers, *The End of Exclusivity? Abuse of IPRs in the EU*, 24 EUR. INTELL. PROP. REV. 86, 92-93 (2002).

¹⁷⁷ Opinion of AG Jacobs in *Bronner*, 1998 ECR I-7791, ¶ 63; Dolmans, *supra* note 176; Forrester, *supra* note 126; Korah, *supra* note 176, 811. It is worth noting that the U.S. Supreme Court held that that bits of information that were not selected, coordinated, or arranged in an original way did not meet constitutional or statutory requirements for copyright protection. *Feist Publications, Inc. v. Rural Telephone Service Co., Inc.*, 499 U.S. 340, 361-64 (1991).

¹⁷⁸ JONES & SUFRIN, *supra* note 32, at 404; Korah, *supra* note 176, at 811.

¹⁷⁹ The idea/expression dichotomy prevents copyright from monopolizing information and ideas, and leaves these essential resources in the public domain. See, e.g., P. Bernt Hugenholtz, *Abuse of Database Right: Sole-Source Information Banks under the EU Database Directive*, in FRANÇOIS LÉVÊQUE & HOWARD SHELANSKI, ANTITRUST, PATENT AND COPYRIGHT: EU AND U.S. PERSPECTIVES 203 (2005); Burton Ong, *Anticompetitive Refusals to Grant Copyright Licenses: Reflections on the IMS Saga*, 26 EUR. INTELL. PROP. REV. 505, 506-07 (2004).

¹⁸⁰ Case T-69/89 *Magill*, 1995 E.C.R. I-743, 46-47, ¶ 73. See also the CFI judgment in 504/93 *Tiercé Ladbrooke SA v. Commission*, 1997 E.C.R. II-923, ¶¶ 124-30 (finding that there was no discrimination in a situation where a refusal to license concerned a separate geographic market where the owner of IPRs did not exploit these rights on its own account or by granting access to a third party).

¹⁸¹ Forrester, *supra* note 126; Nicholas Green, *IP and the Abuse of Dominant Position under European Union Law: Existence, Exercise and the Evaporation of Rights*, 20 BROOK. J. INT’L L. 141, 146 (1993).

WHERE ANTITRUST ENDS AND IP BEGINS

reasonable in terms of providing an incentive to creative efforts. Notably, the case coincided with the adoption of the Broadcasting Act in Britain, which provided for compulsory licensing of program listings.¹⁸² With respect to ECJ case law, an analogy may be drawn to *Höfner*,¹⁸³ where the Court effectively outlawed national legislation giving exclusivity over job brokerage services to a state employment agency. The Court held that granting an exclusive right is not incompatible with Article 82 as such, but it may violate EU competition law if the company in that position cannot avoid abusing its dominant position merely by exercising the exclusive rights granted to it. In *Höfner*, this condition was met because the state employment agency was not capable of meeting the demand for executive recruitment. In *Magill*, the exclusivity granted to the TV stations effectively allowed them to prevent the emergence of a new, useful product. However, as the history shows, instead of dwelling on these concepts, the ECJ has analyzed unilateral refusals to license using the framework of the essential facilities theory.

The rulings that followed *Magill* resolved some, but not all, of these controversies. In *Ladbroke*, both the Commission¹⁸⁴ and the CFI narrowed *Magill* to the effect that a refusal to license could be abusive only if the service required was either essential for the exercise of the activity in the downstream market, in that there was no real or potential substitute, or if it concerned a new product or service for which there was “specific, constant and regular demand.”¹⁸⁵ The Court also stressed the importance of the presence of the IP owner in the downstream market.¹⁸⁶ *Oscar Bronner*, discussed above, was another blow to the broad reading of the Court’s jurisprudence imposing a duty to deal on dominant companies. Invoking *Magill*, the ECJ held that a refusal to deal may be abusive only if it is both indispensable for carrying out the rival’s business and capable of eliminating all competition on the part of undertaking seeking access.

Twelve years after *Magill*, the Court had the opportunity to revisit unilateral refusals to license in the *IMS* case.¹⁸⁷ As in *Magill*, at stake was the scope of a copyright covering the so-called “brick structure”. *IMS*

¹⁸² See JONES & SUFRIN, *supra* note 32, at 403, n.242.

¹⁸³ Case C-41/90 Klaus Höfner and Fritz Elser v Macrotron GmbH, 1991 E.C.R. I-1979, ¶¶ 28-31.

¹⁸⁴ *Ladbroke*, a company operating betting services on horse races, filed a complaint with Commission alleging that the refusal to supply its outlets with television pictures and commentary on French horse races constituted an abuse of a dominant position. *Ladbroke* alleged that the company that refused the license was dominant in the market for transmission of French horse races, there was no substitute for the requested service, the refusal to supply its outlets was unjustified, and that its sole purpose was to restrict competition. The Commission rejected the complaint.

¹⁸⁵ Case 504/93 Tiercé *Ladbroke* SA v. Commission, 1997 E.C.R. II-923, ¶ 131.

¹⁸⁶ *Id.* ¶ 133.

¹⁸⁷ Case C-418/01, *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG (IMS)*, 2004 E.C.R. I-5039.

Health, a company engaged in tracking sales of pharmaceutical products, worked together with its clients to devise a “brick structure”, a geographical division of Germany based largely on post code zones. The brick structure was available free of charge to pharmacies, doctors and associations of health insurance schemes. It has become a *de facto* industry standard and IMS’ rivals found it impossible to market the pharmaceutical data other than by using structures similar to that created by IMS. To prevent them from doing so, IMS brought proceedings before a German court alleging a copyright infringement. The national courts found that the brick structure was protected as a database under German copyright law and issued an interim order restraining IMS’ rivals from using any form of the brick structure derived from the one designed by IMS. The competitors requested a license for the duration of the proceedings, but their request was denied. Thus they lodged a complaint with the Commission alleging that IMS abused its dominant position. The Commission, relying on the essential facilities theory, issued an interim measures decision finding that IMS’ refusal to license violated Article 82.¹⁸⁸ It found that the refusal was unjustified and likely to eliminate all competition in the downstream market, and that the license was indispensable because there was no actual or potential substitute in existence for the requested service.¹⁸⁹ The EU Courts suspended the decision, but did not review the substantive issues raised by it.¹⁹⁰ The case reached the ECJ again through a request for a preliminary reference in national proceedings before a German court.

The *IMS* judgment is so far the most comprehensive pronouncement of the ECJ on unilateral refusals to license. The Court began its reasoning by confirming the presumption that a refusal to license is legal, even if it is the act of a dominant company. Only exceptional circumstances can make it abusive.¹⁹¹ Combining *Magill* and *Bronner*, the Court held that a refusal to license by a dominant company is abusive if four cumulative conditions are met: 1) the protected product or service is indispensable to compete in a particular market; 2) the refusal is “such as to exclude any competition on a secondary market”; 3) the refusal prevents the emergence of a new product for which there is potential consumer demand; and 4) the refusal is not objectively justified.¹⁹² The Court left open the question of whether these conditions are necessary or merely sufficient for finding that a refusal to license violates Article 82. The Court refers to these conditions as being

¹⁸⁸ Commission Decision 2002/165/EC of 3 July 2001 (NDC Health/IMS Health: Interim Measures), 2002 O.J. (L 59) 18.

¹⁸⁹ *Id.* ¶¶ 70-74.

¹⁹⁰ Case T-184/01 R, *IMS Health v. Commission*, 2001 E.C.R. II-3193, *upheld*, Case C-481/01 P(R) *NDC Health Corporation and NDC Health GmbH & Co. KG v. IMS Health Inc. and Commission*, 2002 E.C.R. I-3401. The original decision was withdrawn by Commission Decision 2003/741/EC of 13 August 2003 (NDC Health/IMS Health: Interim Measures), 2003 O.J. (L 268) 69.

¹⁹¹ *IMS*, 2001 E.C.R. II-3193, ¶¶ 34-35.

¹⁹² *Id.* ¶¶ 37-38.

WHERE ANTITRUST ENDS AND IP BEGINS

“sufficient”, yet its interpretation of the indispensability and new product criteria indicates that at least these criteria may be both sufficient and necessary.¹⁹³ The ECJ’s determination of this issue will be pivotal for the outcome of the *Microsoft* litigation.

The ECJ confirmed the narrow definition of indispensability adopted in *Bronner*: the requested service or product would be deemed indispensable only if an equally efficient competitor of the company that controls the existing product or service could not produce it.¹⁹⁴ The participation of the pharmaceutical industry and its dependency on the brick structure was relevant for the assessment of indispensability.¹⁹⁵ The condition relating to the likelihood of excluding all competition on the secondary market implies that the upstream market for the requested product or service and the secondary market, on which the product or service in question is used for the production of another product or the supply of another service, must be identified.¹⁹⁶ The Court agreed with the Advocate General that this condition is fulfilled if a potential or hypothetical secondary market could be identified.¹⁹⁷ Some commentators point out that the requirement of eliminating all competition is closely linked, if not identical, with the requirement of indispensability, as interpreted by the ECJ.¹⁹⁸ Indeed, in the U.S., showing that a facility is essential to a competitor involves demonstrating that the facility is critical to the plaintiff’s own competitive viability,¹⁹⁹ and that it is vital to enhancing competition in general.²⁰⁰ It seems that the *IMS* Court’s reading of the requirements of indispensability and foreclosure of the competition in the downstream market does not support this proposition. The Court’s interpretation of the condition that all competition in the secondary market should be eliminated limits application of a refusal to license to leveraging cases. It adds to the condition of “indispensability” the requirement that two markets must be identified. There is more of a case for antitrust intervention when the exclusivity enjoyed by a rights holder in one market is used to exclude competition in a second, vertically related market, thus forcing a potential market entrant to attack the monopolist simultaneously

¹⁹³ Christian Ahlborn, David S. Evans, & Jorge Padilla, *The Logic and Limits of the ‘Exceptional Circumstances Test’ in Magil and IMS Health*, 28 FORDHAM INT’L L.J. 1109, 1127-28 (2005).

¹⁹⁴ *IMS*, 2001 E.C.R. II-3193, ¶ 28.

¹⁹⁵ *Id.* ¶ 29.

¹⁹⁶ *Id.* ¶ 42.

¹⁹⁷ *Id.* ¶ 44; Opinion of AG Tizzano in *IMS*, 2001 E.C.R. II-3193, ¶¶ 56-59.

¹⁹⁸ See note 113 and accompanying text (discussing *Bronner*); see also, Net Le, *What Does ‘Capable of Eliminating All Competition’ Mean*, 26 EUR. COMPETITION L. REV. 6, 6-7 (2005) (arguing that this criterion is identical to the criterion of indispensability).

¹⁹⁹ See, e.g., *Fishman v. Estate of Wirtz*, 807 F.2d 520, 539 (7th Cir.1986); *TCA Bldg. Co. v. Northwestern Resources Co.*, 873 F.Supp. 29, 39 (S.D.Tex. 1995); 3A AREEDA & HOVENKAMP, *supra* note 18, ¶¶ 773a, 773b.

²⁰⁰ 3A AREEDA & HOVENKAMP, *supra* note 18, ¶ 773b3.

in two separate markets.²⁰¹ In this context, it is concerning that the Court held that a separate market for IP could be defined even if IP was never sold separately, but used only as an input in the development of another product. This interpretation points to the conclusion that the two market condition will always be satisfied, as nearly all types of IP could potentially be marketed as a stand-alone item.²⁰² Also, for the purpose of assessing indispensability, the ECJ takes into account factors that may or may not weigh on the possibility of excluding competition in the secondary market. For example, the Court felt it was relevant for the purpose of assessing indispensability whether clients were involved in the development of an essential facility.²⁰³

A compulsory license may be granted only if the requesting company intends to produce new goods or services not offered by the owner of the right and for which there is a potential consumer demand.²⁰⁴ Whether the new product test is right from an economic perspective is debatable.²⁰⁵ To my mind, the new product requirement can be a reasonable limiting principle, as long as the requirement is strictly interpreted. The *IMS* Court held that the new product must be sufficiently different from products available on the market and that they satisfy consumer demand that the existing products failed to provide for. This says little about the degree of novelty that is required from the “new product”. From an economic perspective, the key issue in this context is whether the new product could be a substitute for the product offered by the IP holder. Advocate General Tizzano advised the Court that it is sufficient that the new product is of a “different nature” than the product available on the market and that it does not exclude the possibility that the new product is in

²⁰¹ Paul D. Marquardt & Mark Leddy, *The Essential Facilities Doctrine and Intellectual Property Rights: A Response to Pitofsky, Patterson, and Hooks*, 70 ANTITRUST L.J. 847, 850-52 (2003).

²⁰² Geradin, *supra* note 9, at 1530.

²⁰³ Customer participation in the creation of IP is not necessarily an indication of anticompetitive conduct. *See, e.g.*, Donna M. Gitter, *Strong Medicine for Competition Ills: The Judgment of the European Court of Justice in the IMS Health Action and its Implications for Microsoft Corporation*, 15 DUKE J. COMP. & INT’L L. 153, 178-80 (2004).

²⁰⁴ *IMS*, 2001 E.C.R. II-3193, ¶¶ 48-49.

²⁰⁵ *See, e.g.*, Ahlborn, Evans & Padilla, *supra* note 193, (arguing that the new product test is in line with economic theory); David S. Evans & A Jorge Padilla, *Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach*, 72 U. CHI. L. REV. 73, 87-88 (2005); Ian S. Forrester, *Regulating Intellectual Property via Competition? Or Regulating Competition via Intellectual Property? Competition and Intellectual Property: Ten Years on, the Debate Still Flourishes*, proceedings of the Tenth Annual EU Competition Law and Policy Workshop, Robert Schuman Centre for Advanced Studies, European University Institute, Florence, Italy (June 3-4, 2005) (suggesting that the new product test makes sense from “an orthodox antitrust point of view”). *But see* Eilmansberger, *supra* note 7, at 158-59; Geradin, *supra* note 9, at 1531-32; Derek Ridyard, *Compulsory Access Under EC Competition Law – A New Doctrine of ‘Convenient Facilities’ and the Case for Price Regulation*, *supra* note 9, at 670.

WHERE ANTITRUST ENDS AND IP BEGINS

competition with the products offered by the IP holder.²⁰⁶ The Court did not embrace his position, leaving the question of substitutability open. In my opinion, the new product and the product offered by the IP holder should not be in direct competition with one another. Allowing compulsory licensing in such situations inevitably decreases the reward obtained by the IP holder and thus the incentives to invest. If the products at stake are not close substitutes, the IP holder can still exploit his own invention, but will be prevented from forestalling technological progress. It is not enough that the company requesting access to IP offers a somewhat modified version of the product that is already on the market; it must be able to prove that the access to IP is needed to commercialize an important innovation. Thus, antitrust may be used *ex post* to define the scope of IPRs, assuming a refusal to license. To be sure, the scope of IPRs should be *ex ante* clarified under applicable IP laws so that they do not paralyze follow-on innovation. Yet where overly broad IPRs create competitive concerns, antitrust may be used as a remedy.

Admittedly, compulsory licensing in such cases may affect the incentives of the IP holder to invest in product development. Yet this would be offset by increased incentives to invest on the part of the competitor, which has proved that it is better placed to do so, by building on the dominant company's innovations. The new product test interpreted in such a way will be a forward looking test designed to accommodate dynamic efficiency considerations. It will also limit the risk of over-enforcement. It has the additional advantages of being feasible to administer by antitrust enforcers and providing a degree of legal certainty.

IMS illustrates a trend in the Court's case law to set higher standards for compulsory licensing under Article 82. By making the conditions cumulative, the ECJ applied a higher standard than the CFI in *Ladbroke*. It is worth noting that the Court based its reasoning exclusively on refusal to license cases, thus suggesting that a higher standard is applicable to refusals to license as compared to other types of refusals to deal.²⁰⁷ Unlike the Commission, the Court held that the essential facilities doctrine cannot be applied to IP simply because rival firms are not capable of competing with the product incorporating IP. The balance of interest tips in favor of IP unless there is complete foreclosure of the secondary market and where the refusal to license prevents the emergence of a new product for which there is a potential consumer demand. A dominant company will be forced to share its IP only if it uses IP to forestall innovation. It is not enough, the Court stressed, that the company that requested the license essentially duplicates the goods or services already offered on the secondary market by the owner of an IPR.

²⁰⁶ Opinion of AG Tizzano in *IMS*, 2001 E.C.R. II-3193, ¶ 62.

²⁰⁷ See, e.g., Forrester, *supra* note 205; Humpe & Ritter, *supra* note 120, at 142-47.

Unfortunately, *IMS* does not shed light on the relevance of the value and scope of IPRs at stake. In both *Magill* and *IMS* competitive concerns resulted from the breadth of copyright protection. The scope of copyright over the brick structure was contestable and in the course of litigation German courts found a solution based in copyright law to address the competitive concerns arising from *IMS*' refusal to license.²⁰⁸ The EU Database Directive,²⁰⁹ the source of the German copyright provisions applicable to the *IMS*' brick structure, specifically instructs the Commission to examine whether the right granted in a database has led to an abuse of a dominant position or other interference with free competition that would justify introduction of compulsory licensing provisions. Moreover, the original draft directive contained a compulsory licensing provision,²¹⁰ which was eventually replaced with a provision allowing Member States to introduce limited exceptions to the database right.²¹¹ In *IMS*, as in *Magill*, the main source of competition concerns was overly broad copyright protection.²¹² It is unclear whether the ECJ would apply its "essential

²⁰⁸ Although the Frankfurt Higher Regional Court on appeal upheld the finding that *IMS*' brick structure was protected under German copyright law and that direct reproduction of *IMS*' structure was illegal, it found that *IMS*' competitors "could not simply be prohibited from developing freely and independently a brick structure that is similarly [to the *IMS*' structure] based on a breakdown by district, urban district and post-code district and for that reason comprise more or less the same number of bricks...In particular, the defendant or third parties could not be expected to produce a data structure that does not sufficiently satisfy the practical requirements simply in order to keep as much distance as possible from the plaintiff's product. Instead, variations cannot be demanded where the overlaps are based on material technical requirements and, in the light taking into account 'the need of availability' for competitors, the appropriate performance of the technical task depends on these features." Commission Decision 2003/741/EC of 13 August 2003 (NDC Health/*IMS* Health: Interim Measures), 2003 O.J. (L 268) 69, ¶ 10. The Commission found that as a result of this ruling *IMS*' competitors were able to devise a structure that allowed them to compete with *IMS* and that the ruling coincided with the improvement of their market position.

²⁰⁹ Council Directive 96/9/EC of 11 March 1996, 1996 O.J. (L 77) 20 [hereinafter Database Directive].

²¹⁰ Art. 8(1) of the draft Directive provided that "[n]otwithstanding the right provided for in Article 2(5) to prevent the unauthorized extraction and re-utilization of the contents of a database, if the works or materials contained in a database which is made publicly available cannot be independently created, collected or obtained from any other source, the right to extract and re-utilize, in whole or substantial part, works or materials from that database for commercial purposes, shall be licensed on fair and non-discriminatory terms." Council Communication, 1992 O.J. (C. 156) 9.

²¹¹ See Database Directive, art. 9. For the discussion of legislative history of the Database Directive see Mark Powell, *The European Union's Database Directive: An International Antidote to the Side Effects of Feist?*, 20 FORDHAM INT'L L.J. 1215 (1997).

²¹² No IPR protection exists under U.S. law for databases, and efforts to introduce similar protection have not been successful. The EU *sui generis* database right can confer substantial market power on producers of single source data that can be exploited in downstream markets for derivative products and services. The ECJ addressed this problem by curbing the database right in case C-46/02 *Fixtures Marketing Ltd v. Oy Veikkaus AB*, 2004 E.C.R. I-10365. See generally Hugenholtz, *supra* note 129; P. Bernt Hugenholtz &

facilities plus” approach to a valid patent. It is reasonable to expect that the value of IP at stake and the cost of research and development could be considered as an “objective justification” for a refusal to license.

2. Microsoft: A New Paradigm?

In Section 2 above the *Bronner* Court’s restrictive reading of the obligation to deal was contrasted with the Commission’s approach exemplified by the *Clearstream* Decision and the Article 82 Paper. Similar observations can be made with respect to the treatment of refusals to license. The Commission’s position on unilateral refusals to license is best exemplified by the *Microsoft* Decision,²¹³ which was adopted just a month before the *IMS* judgment was handed down. The Commission concluded that Microsoft abused its dominant position in the PC operating systems market by refusing to supply “interoperability information”²¹⁴ necessary for Microsoft’s rivals to be able to effectively compete in the workgroup server operating market. In this context, it is important to distinguish between the work group server operating system and the Windows client PC operating system. Only the latter constitutes a *de facto* industry standard. In the Commission’s view, the refusal to license allowed Microsoft to leverage its dominant position in the client PC operating systems market into the market for workgroup server operating systems, and ultimately, to preserve its monopoly in the market for PC operating systems.²¹⁵ Microsoft’s strategy consisted in particular of preserving privileged connections between its Windows PC operating system and its work group server operating system to the detriment of its competitors in the work group server operating market.

The Commission Decision was preceded by a settlement that concluded an antitrust case against Microsoft in the United States, under which Microsoft had been obliged to license specifications for the communication protocols used by the Windows server operating system to make it compatible with Windows Client PC operating systems.²¹⁶ The

Mark J. Davison, *Football Rights, Horse Races, and Spin-offs: the ECJ domesticates the database right*, 27 EUR. INTELL. PROP. REV. 13 (2005).

²¹³ Commission Decision in Case COMP/C-3/37.792 – Microsoft [hereinafter *Microsoft Decision*].

²¹⁴ The Commission defined “interoperability information” as “the complete and accurate specifications for all the Protocols implemented in Windows Work Group Server Operating Systems and...used by Windows Work Group Servers to deliver file and print services and group user administration services, including Windows Domain Controller services, Active Directory services and Group Policy services, to Windows Work Group Networks” *Microsoft Decision*, *supra* note 213, art.1. The interoperability information concerned both server-to-server and server-to-client communication.

²¹⁵ *Microsoft Decision*, *supra* note 213, ¶¶ 185-279.

²¹⁶ Under Section III.E of the US settlement “Microsoft shall make available for use by third parties, for the sole purpose of interoperating or communicating with a Windows

Commission, however, considered that these disclosures were insufficient to remedy competitive concerns it had identified. It stressed that the US settlement was not “specifically targeted at work group server operating system vendors” and did not address issues beyond the scope of the US antitrust case. In particular, the disclosures under the US settlement were “strictly limited by Microsoft to client-to-server communication” and did not “cover server-to-server protocols that are functionally related to the client PC.”²¹⁷ Thus, whereas the U.S. settlement addressed the client-to-server interoperability issue, the EU case against Microsoft focused on server-to-server interoperability. Arguably, this fact weakens the leverage theory, as the refusal to license and its effects occurred in the same market: the market for server operating systems.²¹⁸

The second prong of the Commission’s case against Microsoft was tying of media functionality (Windows Media Player) and the Windows PC operating system.²¹⁹ As a remedy for the first infringement, Microsoft was ordered to license proprietary information concerning the communications protocols²²⁰ by which Microsoft’s server operating systems communicate with one another. Microsoft maintains that the information it was asked to disclose was covered by patents, copyrights and trade secrecy. As a remedy for the second infringement, Microsoft had to develop a “fully-functioning” version of Windows without Media Player and offer it to customers in Europe.²²¹ The two abuses identified by the Commission were penalized by a fine amounting to €497 million, the largest in competition law history.

The Microsoft Decision has many fascinating aspects, one of which is the test adopted by the Commission for the assessment of unilateral refusals to license, a test that is markedly different from the *IMS* test. The Commission starts from the established premise that only in exceptional circumstances may the exercise of an IPR by the proprietor involve abusive conduct. It reasons that IP should be treated as other forms of property for

Operating System Product, on reasonable and non-discriminatory terms [...], any Communications Protocol that is [...] (i) implemented in a Windows Operating System Product installed on a client computer, and (ii) used to interoperate, or communicate, natively (i.e., without the addition of software code to the client operating system product) with a Microsoft server operating system product.” *New York v. Microsoft*, 224 F.Supp.2d 76, 269 (D.D.C.,2002).

²¹⁷ *Microsoft Decision*, *supra* note 213, ¶¶ 273-79, 703-08.

²¹⁸ See e.g., Roberto Pardolesi & Andrea Renda, *The European Commission’s Case against Microsoft: Kill Bill?*, 27 *WORLD COMPETITION* 513, 547-49 (2004).

²¹⁹ *Microsoft Decision*, *supra* note 213, ¶¶ 792-813.

²²⁰ Protocols are defined as “a set of rules of interconnection and interaction between various instances of Windows Group Server Operating Systems and Windows Client PC Operating Systems running on different computers in a Windows Work Group Network.” *Microsoft Decision*, *supra* note 213, art. 1(2)

²²¹ Offering a version of Windows without the Media Player involved redesigning Microsoft’s Windows operating system to eliminate the code-commingling with the Windows Media Player.

the purpose of assessing unilateral refusals to deal.²²² After a brief restatement of the relevant case law,²²³ the Commission concludes that there is “no persuasiveness to an approach that would advocate the existence of exhaustive checklist of exceptional circumstances and would have the Commission disregard *a limine* other circumstances of exceptional character that may deserve to be taken into account when assessing a refusal to supply.”²²⁴ Consequently, it said that Microsoft’s refusal to supply interoperability information was abusive because 1) interoperability information is needed by competitors in the market for work group server operating systems to “viably stay on the market;”²²⁵ 2) Microsoft’s conduct involved a disruption of previous levels of supply;²²⁶ 3) there was “a risk of eliminating all competition in the work group server operating system market”;²²⁷ 4) the refusal to supply had the consequence of “preventing innovation in the work group server market and of diminishing consumers’ choice by locking them into a homogenous Microsoft’s solution;”²²⁸ and 5) the refusal was not objectively justified because on balance “negative impact of an order to supply on Microsoft’s incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft).”²²⁹

Although the Commission concedes that a refusal to license is not anticompetitive as such, and that only exceptional circumstances warrant compulsory licensing, its approach can be fairly characterized as a full-blown rule of reason analysis. The Commission provides no meaningful constraints on application of Article 82 to refusals to license by dominant companies. It applies criteria that were coined by the ECJ in *Magill* and *IMS* in a somehow diluted version. In *IMS*, the Court ruled that the requested service must be indispensable for carrying on a particular business and that it must be likely to exclude all competition in the downstream market. The Commission considered Microsoft’s refusal abusive because it “puts Microsoft’s competitors at a strong competitive disadvantage,”²³⁰ and creates “a risk of eliminating all competition” in the downstream market. Clearly, it would be very difficult to prove the likelihood of total foreclosure of a secondary market where, as in *Microsoft*, the dominant company holds 60% market share and its rivals have market

²²² *Microsoft Decision*, *supra* note 213, ¶ 550.

²²³ The Commission quoted both cases involving compulsory licensing (*Volvo/Veng* and *Magill*) and cases where a refusal to deal did not concern IP.

²²⁴ *Microsoft Decision*, *supra* note 213, ¶ 555.

²²⁵ *Id.* ¶ 779.

²²⁶ *Id.* ¶¶ 780, 578-84.

²²⁷ *Id.* ¶¶ 781, 585-692.

²²⁸ *Id.* ¶¶ 782, 693-708.

²²⁹ *Id.* ¶¶ 783, 709-78.

²³⁰ *Id.* ¶ 589.

shares of 5-10%.²³¹ By rejecting Microsoft's assertions that reverse engineering and the licensing program under the U.S. settlement gives its rivals the necessary access to interface information, the Commission weakens the requirement of indispensability. Whereas the compulsory license will undeniably assist Microsoft's rivals, it is unclear whether it is essential for them to be able to compete. The Commission only marginally addresses the new product criterion,²³² probably because Microsoft's rivals were not able to show that the disclosure of interoperability information would allow them to make new, different products.

The new balancing test used to assess whether a refusal to license was justified calls for a highly complex economic analysis, which makes it difficult to apply²³³ and gives a high degree of discretion to antitrust enforcers, which has negative impact on legal certainty.²³⁴ The Commission's application of the balancing test in *Microsoft* confirms that this criticism is valid. The Commission reasoned that a compulsory license would not lower Microsoft's incentives to innovate. On the contrary, Microsoft will innovate more once it is faced with competitive pressure.²³⁵ Even one of the most ardent advocates of the Commission's balancing test,

²³¹ See also Pardolesi & Renda, *supra* note 218, at 543-47 (arguing that the market definition and calculation of market shares in the Microsoft Decision is flawed, and that in reality, Microsoft's position in the market for server operating systems may not be as strong as the Commission suggest).

²³² The Commission reasoned that lack of interoperability deterred Microsoft's competitors from developing new products. *Microsoft Decision*, *supra* note 213, ¶¶ 694, 700. Professor Leveque argued that this is sufficient to consider the new product criterion is satisfied. See François Lévêque, *Innovation, Leveraging and Essential Facilities: Interoperability Licensing in the EU Microsoft Case*, 28 *WORLD COMPETITION* 71, 75 (2005). It will be for the Court to decide, assuming that Microsoft's interfaces are covered by IPRs and that the requirement of "new product" is necessary for compulsory licensing, whether such a speculative statement about the possibility of developing unspecified products by Microsoft's rivals will be sufficient to satisfy the condition. If that would be the case, this requirement would be considerably weakened (if not devoid of any significant meaning).

²³³ See, e.g., Ahlborn, Evans & Padilla, *supra* note 193, at 1145-46; Ridyard, *supra* note 9, at 671.

²³⁴ See, e.g., Forrester, *supra* note 205; Geradin, *supra* note 9, at 1542-43. But see Lévêque, *supra* note 232, at 76-78 (arguing that the Commission's balancing test is correct from an economic perspective).

²³⁵ An involved Commission official explained "Microsoft's refusal to disclose the interoperability information was itself reducing the incentives of rivals to bring innovative products to the market... [Microsoft's rivals] know that however good their products are...they will not be able to compete on the merits simply because Microsoft has reserved for itself an artificial interoperability advantage. Our remedy will therefore increase the degree of innovation in the market – with it, rival server vendors will know that it is worth their while to focus development efforts on innovations in their products...., there will be a spur to Microsoft's own incentives to innovate, as it will no longer be able to simply rely on the artificial interoperability advantage to win in the market." Jürgen Mensching, *The Microsoft Decision - Promoting Innovation*, Sweet & Maxwell 4th Annual Competition Law Review Conference (Oct. 22, 2004), http://europa.eu.int/comm/competition/speeches/text/sp2004_017_en.pdf.

WHERE ANTITRUST ENDS AND IP BEGINS

Professor Lévêque, sees flaws in this argument.²³⁶ He points out that it is based on an assumption that companies enjoying market power have fewer incentives to innovate, which is at least controversial.²³⁷

To my mind the balancing test is flawed, even if we assume that antitrust authorities and judges have the prophetic skills required to apply it. The Commission correctly focuses on innovation, the common denominator by which antitrust and IP should be measured and compared.²³⁸ The Commission's test, however, fails to account for important factors that have an effect on the level of innovation. First, the Commission ignores the fact that forced sharing reduces the incentives of Microsoft's rivals to develop products competing with the Windows platform. Though arguably forced sharing will increase the incentives of Microsoft's rivals to compete with Microsoft on the market for server operating systems, it will also decrease their incentives to attack Microsoft in the market for PC operating systems.²³⁹ Second, the balancing test focuses on the effect of a compulsory license in a particular market, whereas it will affect the value of IPRs held by various companies whether or not they compete with Microsoft.²⁴⁰ In other words, it creates a risk that one day the Commission will decide that innovation in the market for antiviral drugs would be spurred if Roche were ordered to license the patent covering Tamiflu®. Investing in innovation is like buying a lottery ticket. It is reasonable to infer that fewer people would buy lottery tickets if selected jackpots were partially confiscated, even if it were to promote some sort of carefully selected and socially beneficial objective.

The Commission's position about compulsory licensing has been recently confirmed in the Article 82 Paper.²⁴¹ The document contains a somewhat modified version of the balancing test.²⁴² The Commission seems to treat a refusal to license as a separate type of a refusal to deal, but

²³⁶ Lévêque, *supra* note 232, at 79-80.

²³⁷ For example, Timothy F. Bresnahan is of the view that although network effects may mean that monopolies such as the one of Microsoft's or Intel's may persist for decades, the monopolists are constantly challenged by potential entrants and must keep abreast of minor technological improvements. See Timothy F. Bresnahan, *New Modes of Competition: Implications for the Future Structure of the Computer Industry*, in COMPETITION, INNOVATION, AND THE MICROSOFT MONOPOLY: ANTITRUST IN THE DIGITAL MARKETPLACE 158-163 (Jeffrey A. Eisenach & Thomas M. Lenard eds., 1999). On the relation between market power and innovation see MORTON I. KAMIEN & NANCY L. SCHWARTZ, MARKET STRUCTURE AND INNOVATION (1982).

²³⁸ This is in line with recent scholarship on the subject, See e.g., Michael A. Carrier, *Unraveling the Patent-Antitrust Paradox*, 150 U. PA. L. REV. 761 (2002).

²³⁹ For a discussion of the problems concerning economics of interoperability and reverse engineering see Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L. J. 1575, 1607-30 (2002).

²⁴⁰ See Elhauge, *supra* note 11, at 275; Geradin, *supra* note 9, at 1540.

²⁴¹ The Commission rejects the position that a refusal to license may be abusive only if the *Magill/IMS* test is met. See *Article 82 Paper*, *supra* note 10, ¶ 239.

²⁴² *Id.* ¶¶ 213, 236.

comments on it only briefly.²⁴³ One of the interesting issues is the discussion of the new product criterion. The Commission acknowledges that “an additional condition may have to be met” when a refusal to license concerns an IPR.²⁴⁴ This requirement is that “the refusal to grant a license prevents the development of the market for which the license is an indispensable input, to the detriment of consumers”, which is met only when the company requesting the license “does not intend to limit itself essentially to duplicating the goods or services already offered... by the owner of the IPR, but intends to produce new goods or services not offered by the owner of the right.”²⁴⁵ The Commission, however, does not stop its reasoning there and asserts that a refusal to license is abusive also if it concerns “an IPR protected technology which is indispensable as a basis for follow-on innovation by competitors”.²⁴⁶ If this interpretation were to be adopted, the new product test could hardly be seen as any limiting principle on the refusal to license. Just as in *Microsoft*, the Commission diluted the criteria relating to indispensability and foreclosure, and in the Article 82 Paper, it undermines the new product criterion.

The framework proposed by the Commission to tackle the issues at the intersection of antitrust and IP law creates a risk of over-enforcement and has negative impact on the incentives to invest in R&D. This danger is even greater given that EU competition law is now applied also by national competition authorities that may lack the Commission’s expertise and need clear guidance as to the type of conduct that make a unilateral refusal to license abusive. This is hardly a hypothetical problem. Only recently, the Italian antitrust authority found that one of Merck’s patents covering a pharmaceutical product was an essential facility and ordered it to license the patented compound to a competitor.²⁴⁷ The French Competition Council had to rule whether Apple’s refusal to license its digital rights management technology to a competitor in the downstream market for music downloads constituted an abuse of a dominant position.²⁴⁸

²⁴³ *Id.* ¶¶ 237-40.

²⁴⁴ *Id.* ¶ 237.

²⁴⁵ *Id.* ¶ 239.

²⁴⁶ *Id.* ¶ 240.

²⁴⁷ Decision of 15 June 2005, Case A364, Merck-Principi Attivi, Autorità Garante della Concorrenza e del Mercato Bulletin, no. 23/2005, 7; see also Alain Georges & Matteo F. Bay, *Essential Facilities: A Doctrine Clearly in Need of Limiting Principles?*, 17 INTELL. PROP. & TECH. L. J. 1 (2005). Merck’s patent in question expired in most countries, but not in Italy. An Italian company requested a license because it wanted to commence production of the patented compound in Italy for export to other countries.

²⁴⁸ In this case a refusal to license did not give rise to liability under competition law. Conseil de la Concurrence, Décision No. 04-D-54 du 9 novembre 2004 relative à des pratiques mises en œuvre par la société Apple Computer, Inc. dans les secteurs du téléchargement de musique sur Internet et des baladeurs numériques, <http://www.conseil-concurrence.fr/pdf/avis/04d54.pdf>. See also Giuseppe Mazziotti, *Did Apple’s Refusal to License Proprietary Information enabling Interoperability with its iPod Music Player*

WHERE ANTITRUST ENDS AND IP BEGINS

The *IMS* judgment, *Microsoft* Decision and the Article 82 Paper illustrate a sharp disagreement as to the standards applicable to unilateral refusals to license in Europe. Many fundamental issues have not been resolved. The Microsoft case is now pending on appeal before the CFI. Hearings are expected to take place in the spring of 2006. The stakes are high and it is most likely that the CFI's decision will be appealed to the ECJ, the EU's highest court. This means it may take a few years until any firm conclusions can be made about the intersection between IP and antitrust law in the Europe.

B. AMERICA: THE FOCUS ON INVALID PATENTS AND SHAM LITIGATION

The application of antitrust law to unilateral conduct involving IPRs has a long history in America. Claims involving the use of invalid IPRs to obtain a competitive advantage are what American courts are most likely to embrace.²⁴⁹ Unlike in Europe, a refusal to license or enforcement of a valid IPR can hardly give rise to antitrust liability. Although the proposition that an IPR may constitute an essential facility has not been ruled out,²⁵⁰ U.S. courts are highly skeptical about applying the essential facilities doctrine to IP. It has not proven helpful in *Intel v. Intergraph*.²⁵¹ In this case, Intel cut off the supply of microprocessors and proprietary information to Intergraph, one of its customers, as the retaliatory measure for the latter's attempt to enforce its IPRs against Intel and its other customers. Intergraph claimed, among other things, that Intel's chips and technical knowledge were so vital for its interests that they constituted an essential facility and that they should be licensed on reasonable and nondiscriminatory terms. The District Court agreed and granted a preliminary injunction that obliged Intel to supply Intergraph with the relevant Intel product information and microprocessors.²⁵² The Federal Court reversed the decision. In the Court's view the essential facilities doctrine can be applied only if there is a competitive relationship between the company controlling the facility and

Constitute an Abuse under Article 82 of the EC Treaty, 28 WORLD COMPETITION 253 (2005).

²⁴⁹ "By far the most common allegations relating to IP concern the allegedly improper acquisition or enforcement of an IP right, which act is commonly claimed to be in furtherance of monopolization or attempted monopolization." 1 HOVENKAMP ET AL., *supra* note 35, ¶ 11.1.

²⁵⁰ *Bell South Adver. & Publ'g Corp. v. Donnelly Info Publ'g Inc.*, 719 F. Supp. 1551, 1566 (S.D. Fla. 1988), *rev'd on other grounds*, 999 F.2d 1436 (11th Cir. 1993) is cited as a case suggesting that information and other intangibles could constitute an essential facilities. See 1 HOVENKAMP, *supra* note 35, ¶ 13.3c2; James B. Kobak, Jr., *Intellectual Property, Refusals to Deal and the U.S. Antitrust Laws*, 832 PLI/P at 385.

²⁵¹ *Intergraph Corp. v. Intel Corp.*, 195 F.3d 1346 (Fed. Cir. 1999).

²⁵² *Intergraph Corp. v. Intel Corp.*, 3 F. Supp. 2d 1255 (N.D. Ala. 1998).

the company requesting the access.²⁵³ Since Intel did not compete with Intergraph in the downstream market for workstations, the essential facilities doctrine did not apply. The Court was skeptical about the claim that the refusal to supply proprietary information was anticompetitive. Even though it was established that Intel's withholding proprietary information lacked business justification, it was not established that Intel's behavior contributed to creating, maintaining or enlarging Intel's dominance.²⁵⁴ The Court squarely rejected the leveraging theory, again on the ground that no harm to competition in the downstream market was established.²⁵⁵ Interestingly, the government also challenged Intel's conduct, but on different grounds and with more success. The FTC alleged that Intel maintained its monopoly power by denying or threatening to deny technical information about Intel microprocessors to Intel customers who have developed and patented innovations in microprocessor technology, as a means of coercing these customers into granting royalty-free licenses to their innovations to Intel.²⁵⁶ The FTC alleged a pattern of conduct that helped Intel to maintain its monopoly by discouraging leapfrogging innovations.²⁵⁷ The case ended with a consent decree in which Intel agreed not to cease dealing with companies merely because they sued to enforce their IPRs. The essential facilities doctrine was not invoked. The FTC stressed that the remedy imposed was not compulsory licensing,²⁵⁸ and that

²⁵³ *Intergraph Corp. v. Intel Corp.*, 195 F.3d 1346, 1357 (Fed. Cir. 1999). The Court's reasoning suggested, however, that essential facilities doctrine could be applied to IPRs.

²⁵⁴ *Id.* at 1358-59.

²⁵⁵ *Id.* at 1359-60.

²⁵⁶ See FTC Complaint, *In re Intel Corp.*, No 9288 ¶ 11 (filed June 8, 1998), at <http://www.ftc.gov/os/1998/06/intelcmp.pdf>. The FTC alleged in particular that when Digital Equipment Corporation, Intergraph Corporation and Compaq Computer Corporation, companies that hold important patents on microprocessor and related technologies, sought to enforce those patents against Intel or other computer companies who buy Intel products, Intel retaliated by cutting off the necessary technical information and threatening to cut off the supply of microprocessors. For a comment on Intel's case see 1 HOVENKAMP ET AL. *supra* note 35, ¶ 13.4d; Maureen A. O'Rourke, *Striking a Delicate Balance: Intellectual Property, Antitrust, Contract, and Standardization in the Computer Industry*, 12 HARV. J. L. & TECH. 1, 11-23 (1998).

²⁵⁷ See 1 HOVENKAMP ET AL., *supra* note 35, 13.4d.

²⁵⁸ The FTC stated that "[t]he The Proposed Order does not impose any kind of broad "compulsory licensing" regime upon Intel. So long as it is otherwise lawful, Intel is free to decide in the first instance whether it chooses to provide or not provide information to customers, and whether to provide more information or earlier information to specific customers in furtherance of a joint venture or other legitimate activity. Moreover, the Order is limited to the types of information that Intel routinely gives to customers to enable them to use Intel microprocessors, not information that would be used to design or manufacture microprocessors in competition with Intel." See FTC, Analysis of Proposed Consent Order to Aid Public Comment, <http://www.ftc.gov/os/1999/03/d09288intelanalysis.htm>.

WHERE ANTITRUST ENDS AND IP BEGINS

Intel was entitled to withhold its IP from rivals planning to compete directly with Intel's monopoly product.²⁵⁹

An attempt to apply the essential facilities doctrine to IP was also rebuffed in *Aldridge*.²⁶⁰ Aldridge was a seller of a disk cache computer program. Microsoft effectively preempted its market by including such a program in its new version of Windows (Windows 95). In addition, when Microsoft's operating system detected Aldridge's software, it displayed a series of message alerts, warning that Aldridge's software decreased system performance and advising that it should be removed. Aldridge argued that Windows was an essential facility and that Microsoft's behavior effectively excluded Aldridge from the market. The Court found that the essential facility doctrine could not apply in this case. First, it held that Windows was not essential. The disc cache program relied upon an imperfection in the design of Microsoft's software and its sole purpose was to overcome these imperfections and improve system performance. All Microsoft did was design a new version of Windows which remedied this imperfection. The Court reasoned that "Microsoft's operating systems are essential to Aldridge only to the extent that the systems operate less efficiently" and that it should not be punished for improving its own product since "antitrust laws do not require a competitor to maintain archaic or outdated technology; even monopolists may improve their products."²⁶¹ The essential facilities doctrine could not be relied on because, unlike other essential facilities cases, *Aldridge* did not involve a natural monopoly or a state-supported one.

Some American commentators argue that the existence of IPRs by themselves is sufficient justification for a refusal to license,²⁶² while others see the scope for antitrust intervention in only very limited circumstances.²⁶³ The idea that a unilateral refusal to license could give rise to antitrust liability also did not travel well in U.S. courts. The Federal Circuit in *In re Independent Service Organizations Antitrust Litigation*²⁶⁴ took the position that a unilateral refusal to license a valid IPR was *per se*

²⁵⁹ In an earlier case, the FTC explicitly recognized that a refusal to license IPRs providing a competitive advantage to direct competitors could not, as such, violate antitrust laws (In the Matter of E.I. Dupont de Nemours & Co., 96 F.T.C. 653, 206-07 (Oct. 20, 1980)).

²⁶⁰ David L. Aldridge Co. v. Microsoft Corp., 995 F. Supp. 728 (S.D. Tex. 1998).

²⁶¹ *Id.* at 753.

²⁶² See, e.g., See 1 HOVENKAMP ET AL., *supra* note 35, ¶¶ 13.3c2, 13.3d4; Lipsky & J. Sidak, *supra* note 77, at 1218-19; Paul D. Marquard & Mark Leddy, *The Essential Facilities Doctrine and Intellectual Property Rights: A Response to Pitofsky, Patterson and Hooks*, 70 ANTITRUST L.J. 847, 859-63 (2003); Elhauge, *supra* note 11, at 300-05.

²⁶³ See, e.g., Ian Ayres & Paul Klemperer, *Limiting Patentee's Market Power Without Reducing Innovation Incentives: The Perverse Benefits of Uncertainty and Non-Injunctive Remedies*, 97 MICH. L. REV. 985 (1999); Robert Pitofsky, Donna Patterson & Jonathan Hooks, *The Essential Facilities Doctrine Under U.S. Antitrust Law*, 70 ANTITRUST L.J. 443, 452-54 (2003).

²⁶⁴ *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322 (Fed. Cir. 2000).

legal, unless the case involved tying or sham litigation. In this case, the Independent Service Organizations (ISOs) sued Xerox, claiming that its refusal to sell patented parts and copyrighted manuals and to license copyrighted software violated antitrust laws. Xerox counterclaimed that ISOs infringed patents covering Xerox's machines' parts and copyrights in Xerox's service drawings. The Court asserted that a dominant company had no obligation to license its IP and that there was "no reported case in which a court has imposed antitrust liability for a unilateral refusal to license."²⁶⁵ It concluded that "[i]n the absence of any indication of illegal tying, fraud in the Patent and Trademark Office, or sham litigation, the patent holder may enforce the statutory right to exclude others from making, using, or selling the claimed invention free from liability under the antitrust laws."²⁶⁶

Other Circuit Courts that dealt with similar cases adopted a strong but rebuttable presumption that a refusal to license is legal. In *Data Gen. Corp. v. Grumman Systems Support Corp.*,²⁶⁷ the First Circuit refused to immunize refusals to license from antitrust scrutiny.²⁶⁸ Data General stopped supplying its copyrighted diagnostic software to ISOs repairing Data General's computer hardware with the aim to increase its sales in the aftermarket. ISOs used the software without permission and Data General sued for copyright infringement. ISOs, relying on *Aspen*, counterclaimed that cutting off the supply of software violated §2 of the Sherman Act. The Court took the view that neither antitrust nor IP should be given primacy one over each other. It found that "an author's desire to exclude others from use of its copyrighted work is presumptively valid business justification for any immediate harm to consumers."²⁶⁹ The presumption could be rebutted by evidence that the monopolist acquired the protection of the IP laws in an unlawful manner.²⁷⁰ The Court found no antitrust violation because, unlike in *Aspen*, there was no competitive market prior to Data General's refusal to license its diagnostic software. The Ninth Circuit took a somewhat different route in *Kodak*.²⁷¹ The case, just as the other two cases discussed above, concerned a refusal to supply patented spare parts to ISOs. Kodak, however, claimed that its refusal to deal was justified by IP only towards the end of the litigation. The Ninth Circuit, referring to *Data General*, held that "while exclusionary conduct can include a monopolist's unilateral refusal to license a [patent or] copyright," or to sell its patented or copyrighted work, a monopolist's "desire to exclude others from its [protected] work is a presumptively valid business justification for any

²⁶⁵ *Id.* at 1326.

²⁶⁶ *Id.* at 1327.

²⁶⁷ *Data Gen. Corp. v. Grumman Sys. Support Corp.*, 36 F.3d 1147 (1st Cir. 1994).

²⁶⁸ *Id.* at 1184-87.

²⁶⁹ *Id.* at 1187.

²⁷⁰ *Id.* at 1188.

²⁷¹ *Image Tech. Serv. v. Eastman Kodak Co.*, 125 F.3d 1195 (9th Cir. 1997).

WHERE ANTITRUST ENDS AND IP BEGINS

immediate harm to consumers.”²⁷² Unlike the First Circuit, however, the Ninth Circuit reasoned that the evidence of a pretext could rebut the presumption. Ultimately, the Court found that the presumption did not apply and upheld the jury’s finding that Kodak’s refusal to supply ISOs violated §2 of the Sherman Act.

The scope for antitrust intervention has been further limited by *Trinko*. In *NYMEX*,²⁷³ the Intercontinental Exchange (“ICE”) developed an on-line Internet-based exchange to compete against the New York Mercantile Exchange (“NYMEX”), the world’s largest exchange for the trading of physical commodity futures contracts and options on those commodity contracts. NYMEX operated as an “open outcry” system, whereby traders transact with each other by physical communications on a physical trading “floor”. It also acts as a clearinghouse for all the commodity futures contracts and options traded over its exchange. The settlement prices have gained a status of the market prices for the underlying commodities. They are used as benchmarks in transactions executed outside of NYMEX. NYMEX is statutorily obliged to report its settlement prices, among other data, to the public. It makes them available to the public on an almost instantaneous basis by reporting them on its website and by distributing them to subscribers. The data obtained on real-time basis by subscribers was made available subject to the condition that it could not be used in competition with NYMEX. ICE entered the market for executing the trades and was effectively forced to rely on NYMEX’s settlement prices. NYMEX, allegedly to eliminate competition from ICE in the electronic trading market, sued ICE for violating NYMEX’s copyright in the settlement prices. ICE counterclaimed that NYMEX’s refusal to supply the data constituted a violation of §2 of the Sherman Act. Relying on *Trinko*, the court found that the facts did not come within the *Aspen* exception or within the essential facilities doctrine. The essential facilities doctrine did not apply because ICE had some access to the data and because the scope of access was subject to sectoral regulation. The *Aspen* exception was unavailable because ICE and NYMEX had no prior history of previous dealings. Thus, there was no indication that NYMEX was foregoing short-term profits by refusing to cooperate with ICE. The Court held that NYMEX has a legitimate business interest in preventing ICE from freeriding on its settlement prices.²⁷⁴ Though competitive concerns posed by this case were not addressed by application of antitrust rules, the *NYMEX*

²⁷² *Id.* at 1218.

²⁷³ *New York Mercantile Exch., Inc. v. Intercontinental Exch., Inc.*, 323 F. Supp. 2d 559 (S.D.N.Y. 2004).

²⁷⁴ For comment on the *NYMEX* case, see Eleanor M. Fox, *A Tale of Two Jurisdictions and an Orphan Case: Antitrust, Intellectual Property, and Refusals to Deal*, 28 *FORDHAM INT’L L.J.* 952, 959-61. (2005)

court found the remedy in copyright law.²⁷⁵ It dismissed NYMEX's claim for copyright infringement and related IP claims. The settlement prices were non-copyrightable words or short phrases. Moreover, the merger doctrine precluded copyright protection for the settlement prices, as NYMEX's idea of settlement price and fact of settlement price used by market participants could not be distinguished from its expression.²⁷⁶

The U.S. courts see a very narrow, if any, scope for application of antitrust laws to a unilateral refusal to license a valid IPR. The spare parts cases, in which the Circuit Courts got closest to condemning unilateral refusals to license, are more properly characterized as tying than refusal to license cases.²⁷⁷ The majority of American courts refused to find unilateral refusals to license illegal, even if the refusal had an anticompetitive purpose or effect.²⁷⁸ Yet, it is wrong to assume that IP owners engaging in anticompetitive behavior are immune from the scrutiny of U.S. antitrust laws. Courts have often found IP-owners guilty of exclusionary practices, particularly under §1 of the Sherman act if they tied an unpatented product with the patented one.²⁷⁹ §2 of the Sherman Act has also been frequently used to address concerns relating to improper acquisition or enforcement of intellectual property rights.²⁸⁰ In *Walker Process Equipment v. Food Machinery & Chemical*,²⁸¹ the patentee brought a suit for patent infringement against a competitor. The competitors counterclaimed that the patent at issue was obtained by defrauding the Patent and Trademark Office (PTO)²⁸² and that patent enforcement in this situation was an attempt to monopolize. The Supreme Court held that the proof that a patent was obtained by knowingly and willfully misrepresenting facts to the PTO "would be sufficient to strip owner of its exemption from the antitrust laws."²⁸³ In such a case, §2 of the Sherman Act could be infringed, if the other elements necessary to establish a §2 violation are present. Fraudulent procurement of a patent is not itself an antitrust violation. There must also an antitrust injury manifested in adverse effects on consumer welfare.²⁸⁴ In particular, there must be an attempt to enforce such patent or to use it in an

²⁷⁵ *New York Mercantile Exch., Inc. v. Intercontinental Exch., Inc.*, 389 F.Supp.2d 527 (S.D.N.Y. 2005).

²⁷⁶ *Id.* at 541-43.

²⁷⁷ *See* 1 HOVENKAMP ET AL., *supra* note 35, ¶ 13.3d4.

²⁷⁸ *Id.* ¶ 12.3d1.

²⁷⁹ *See, e.g.*, *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 493 (1942).

²⁸⁰ It has been pointed out that whether very few cases relating to unilateral refusals to license are many reported before the U.S. courts, there are many reported decisions concerning these issues. *See* 1 HOVENKAMP ET AL., *supra* note 35, ¶ 11.1.

²⁸¹ 382 U.S. 172 (1965).

²⁸² In this case the patentee filed a sworn statement in the PTO that it neither knew nor believed that invention had been used in the United States prior to the filing of the patent application. In fact, the patentee itself had used the patent publicly, prior to the filing of the patent application.

²⁸³ *Walker Process*, 382 U.S. at 177.

²⁸⁴ *FMC Corp. v. Manitowoc Co.*, 835 F.2d 1411, 1418 (Fed. Cir. 1987).

WHERE ANTITRUST ENDS AND IP BEGINS

anticompetitive manner.²⁸⁵ The application of the Walker Process doctrine requires a high standard of proof, in particular with respect to the willful fraud on the PTO.²⁸⁶ The enforcement of an IPR that, while not obtained by fraud, is known by its owner at the time of enforcement to be invalid, unenforceable, or not to be infringed may also constitute an antitrust violation. In *Handgards*,²⁸⁷ the Ninth Circuit held that bringing patent infringement suits against rivals in such situations can be a §2 violation. In this case, the patent was obtained in good faith, but the patentee knew before filing the patent infringement suit that its patent was invalid. Filing an IP infringement suit against someone that is known by the IP holder not to infringe his IPR may also give rise to liability under §2 of the Sherman Act. To be sure, an IP holder does not violate antitrust laws merely because it brings an enforcement suit on a novel question. The lawsuit must be objectively baseless in the sense that no reasonable litigant could realistically expect success on the merits.²⁸⁸

Situations involving sham litigation or the use of invalid IP rights present probably the clearest case for antitrust intervention. It could hardly be said that using antitrust laws in such cases undermines the objectives of IP laws or may have negative effects on the incentives to innovate. Attempts to enforce invalid IPRs undermine the objectives of both IP and antitrust laws. Thus, it is surprising that EU competition law only recently has been used for the first time to address this type of anticompetitive conduct.²⁸⁹

The U.S. antitrust enforcers have noted a number of anticompetitive concerns resulting from patent policy. The FTC's Report *To Promote Innovation: the Proper Balance of Competition and Patent Policy*²⁹⁰

²⁸⁵ See 1 HOVENKAMP ET AL., *supra* note 35, ¶¶ 11.2e, 11.4a.

²⁸⁶ *Id.* ¶ 11.2f.

²⁸⁷ *Handgards, Inc. v. Ethicon, Inc.*, 601 F.2d 986 (9th Cir. 1979).

²⁸⁸ *Prof'l Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 60 (1993); see also 1 HOVENKAMP ET AL., *supra* note 35, ¶ 11.3b.

²⁸⁹ Last year the Commission adopted a decision in *AstraZeneca* case (Commission Decision in case COMP/37.507 - Generics/AstraZeneca), the first case in which Article 82 has been applied to alleged abuse of patent procedures. The Commission found that AstraZeneca, a pharmaceutical company, infringed Article 82 of the EC Treaty by misusing public procedures and regulations in a number of EU Member States which allowed it to extend patent protection for its anti-ulcer drug Losec and exclude generic firms from the market. A possible reason for leaving *Walker Process* type of cases outside the scope of antitrust intervention could be the distinction between existence and exercise of IPRs, which guided application of Articles 81 and 82 of the EC Treaty to national intellectual property right. Under this doctrine, EU competition law did not interfere with the existence and grant of IPRs, but only limited the way IP holders were able to exercise their rights. Arguably, this distinction has been abandoned in more recent ECJ's jurisprudence. See also Nikas Fagerlund & Søren Bo Rasmussen, *AstraZeneca: The First Abuse in the Pharmaceutical Sector*, COMPETITION POL'Y NEWSL., No.3, 2005, at 54.

²⁹⁰ Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition Law and Patent Policy* (Oct. 2003) [hereinafter FTC Report], ch. 2, <http://www.ftc.gov/opa/2003/10/cpreport.htm>.

confirms that more has to be done to strike the right balance between IP and antitrust laws. The most recent policy statement from the U.S. antitrust agency suggests that this time it is not antitrust but IP policy that is at odds with mainstream economics. The FTC is particularly concerned with the quality of the patents issued by the PTO. The Report identifies a number of undesirable consequences resulting from existence of questionable patents such as deterring entry by imposing additional costs, either by royalties or litigation.²⁹¹ Unwarranted patents may be difficult to eliminate because in many cases firms lack the incentives to engage in litigation, as the cost of obtaining a license is smaller than the potential litigation costs. In industries with incremental innovation, such as the software industry, they contribute to defensive patenting and dramatic increases in transaction costs. The Report provides apt evidence of “patent stacking” and “patent thickets” in certain industries.²⁹² Uncertainty as to the validity of patents issued by PTO and their scope aggravates the situation.²⁹³ The FTC makes several recommendations to improve patent quality and minimize anticompetitive costs of the patent system. The Report is also an appeal to incorporate economic considerations in patent policy. Notably, the FTC declares that antitrust policy cannot remedy all competitive concerns. The FTC warns that overeager enforcement of antitrust laws may reduce incentives to innovate. The FTC stresses that identifying anticompetitive conduct involving IP requires thorough understanding of the efficiencies that businesses may legitimately realize through particular types of patent-related conduct and the role of patents in innovation and competition in particular industries.²⁹⁴

The Report and the case law analyzed above point to the conclusion that, unlike their European counterparts, U.S. antitrust enforcers see little scope for antitrust policy to mitigate the consequences of imperfect IP policies. They are reluctant to intervene in what is perceived to be the sphere of IP policy and take the view that any competitive concerns are better remedied by changes in the IP policy. This trend corresponds with shielding antitrust policy away from fields occupied by other forms of regulation. Exactly the opposite tendencies are present in EU competition

²⁹¹ FTC Report, *supra* note 290, ch. 5. The consequences of uncertainty were identified as difficulties in business planning and raising capital, increased investment risk and disruptions in negotiating licenses.

²⁹² This is in particularly an important issue in the field of computer hardware industry. Patent proliferation and defensive patenting gave rise to patent thickets that are harmful for innovation by diverting the R&D money to obtaining and maintaining defensive patent portfolios and negotiating licenses from numerous patent holders. Defensive patenting was also considered to accelerate in the software industry, and panelists explained that it was used to maintain détente with rivals, to obtain the necessary patent portfolio in order to enter into cross-licensing agreements and to be used as a shield in case of an infringement suit by a rival. See FTC Report, *supra* note 290, ch. 3; Hall & Ziedonis, *supra* note 151.

²⁹³ FTC Report, *supra* note 290, ch. 5.

²⁹⁴ FTC Report, *supra* note 290, ch.1.

law. Both the European Commission and the ECJ seem to see a role for competition law to correct improvidently defined IPRs, even if it entails adjusting competition principles. It may seem reasonable, as unlike competition policy, most issues relating to IP policy within the European Union are still decided at the national level.²⁹⁵ Yet, there is an inherent danger in this approach. It may lead antitrust authorities to adopt analytically questionable approaches that undermine the coherence of antitrust law. Competition agencies must be particularly cautious in adopting measures to curb IP laws, as they may discourage the efficient creation and exploitation of IPRs.²⁹⁶ The European Commission's proposals concerning application of competition law to interoperability information confirm that these reservations are valid. This issue is the subject of the following section.

C. SHOULD THERE BE SPECIAL RULES FOR INTEROPERABILITY INFORMATION? AND WHY MICROSOFT WAS INEVITABLE

The Article 82 Paper sheds new light on the Commission's stance as to compulsory licensing in the context of IT. The Paper's chapter dealing with refusals to deal contains a separate section entitled "[r]efusal to supply information needed for interoperability". The Commission classifies a refusal to supply proprietary information that allows a dominant company "to extend its dominance from one market to another"²⁹⁷ as a separate offense from a refusal to license an IPR. The Commission acknowledges that interoperability information may be covered by trade secrecy, but reasons that it "may not be appropriate to apply to such refusals to supply information the same high standards for intervention as those [applicable to refusals to license an IPR]."²⁹⁸ The Commission acknowledges "there is no general obligation even for dominant companies to ensure interoperability." However, a refusal to supply interoperability information may be abusive, if 1) interoperability information is controlled by a dominant company; 2) it is necessary for interoperability between one market and other; and 3) the refusal is a means to leverage market power from one market to another.²⁹⁹ The Commission does not specify whether, as one could expect, a refusal to provide interoperability information must also create foreclosure in a secondary market. Neither the new product nor objective justification criteria are discussed. It is unclear whether refusal to supply is "a special case" whether or not the requested interoperability information is covered

²⁹⁵ IP laws have been harmonized to some degree during the last 20 years, but still there are no EU-wide patents or copyrights, as it is the case in the U.S.

²⁹⁶ Kovacic & Reindl, *supra* note 160, at 1066-68.

²⁹⁷ See *Article 82 Paper*, *supra* note 10, ¶ 241. The Commission characterizes a refusal to supply interoperability information as a "special case" among refusals to deal.

²⁹⁸ *Id.* ¶ 242.

²⁹⁹ *Id.* ¶ 241.

by IPRs other than trade secrets. In any case, a refusal to provide interoperability information may be a very serious violation of EU competition law, potentially resulting in multi-million dollar fines.³⁰⁰

Three observations can be made about the Commission's views on a refusal to supply interoperability information: 1) the Commission sees a larger scope for antitrust intervention in regulating access to knowledge in high technology industries. The specific reference to interoperability information indicates that the Commission would not apply the same rules to patented plugs or other parts that allow connecting physical objects, even though similar competitive concerns may arise in such cases; 2) the Commission treats leveraging as a separate antitrust offense, at least in the context of the IT sector; and 3) the Commission thinks that trade secrets are less worthy of protection than other forms of IP. I will limit myself here to the first two implications of the "interoperability offense".

The "interoperability offense" must be analyzed in the light of the *Microsoft* Decision. Yet, *Microsoft* is not the first case in which the Commission alleged that a dominant company refused to supply interoperability information. There has been a series of developments in EU competition law of which *Microsoft* is a grand finale. *Microsoft* bears striking resemblance to the *IBM* case settled some twenty years ago.³⁰¹ Just as in *Microsoft*, *IBM* concerned bundling and non-disclosure of interface information. In the 1970s, IBM began bundling peripheral equipment control functions into mainframe hardware in response to increasing competition from "plug-compatible" manufacturers.³⁰² It also changed from its full disclosure policy to keeping operating system software source code secret, limiting and delaying interface disclosures. This prompted U.S. antitrust authorities to commence an investigation into IBM's practices. IBM's strategy was also challenged in the U.S. Courts, which firmly rejected the claim that IBM may be under duty to provide its competitors with secret information concerning the architecture of its products.³⁰³ The government monopolization case was eventually voluntarily withdrawn

³⁰⁰ *Microsoft Decision*, *supra* note 213, ¶¶ 1065, 1068. A fine for a "very serious infringement" of Article 82 is likely to be above EUR 20 million.

³⁰¹ *IBM Undertaking*, 3 COMMON MARKET L REV. 147 (1984); *see also* Forrester, *supra* note 126.

³⁰² Some companies built peripheral equipment (tape storage drives, disc drives, and add-on memory units) that plugged into the standard interfaces used on IBM System 360 and then System 370 mainframes. IBM also faced competition from main frame producers whose computers could be used interchangeably with IBM computers and were cheaper.

³⁰³ *See, e.g.*, *Memorex Corp. v. Int'l Bus. Machs Corp.* 636 F.2d 1188 (9th Cir. 1980); *California Computer Products, Inc. v. Int'l Bus. Machs Corp.* 613 F.2d 727, 744 (9th Cir. 1979); *see also* *Telex Corp. v. Int'l Bus. Machs Corp.* 510 F.2d 894, 931-32 (10th Cir. 1975). Along the same lines, in *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263 (2d Cir. 1979), it was held that Kodak did not have a duty to pre-disclose information about its new amateur camera system to its competitors in the film and photographic supplies market so they can compete with Kodak when the new system is released.

following submission of all the evidence. Thus, it has been firmly established that a refusal to make technology compatible, in the absence of a purpose to create or maintain monopoly and assuming legitimate business purposes, does not create an antitrust problem.³⁰⁴

This, however, was not the end of the *IBM* case. It continued in Europe, where the Commission commenced an investigation following complaints from IBM competitors. Eventually a settlement was reached. IBM undertook to license the interface information sufficient to allow hardware and software manufacturers to design their products so that they can be used with System/370, the then most powerful range of computers manufactured by IBM. IBM was also required to support international standards for open system interconnection for products, systems, and networks of different manufacturers.³⁰⁵ This was the first time in the history of EU competition law where a unilateral refusal to license was attacked and a compulsory license imposed as a remedy. The case is significant also for another reason: it inspired the provisions of the EU Software Directive that allow decompilation of computer programs when it is necessary to obtain interoperability information.³⁰⁶ Article 6 of the Directive provides for a limited right to reverse engineer proprietary software to obtain interoperability information; it does not oblige copyright holders to disclose relevant interface information that is necessary to achieve interoperability. Article 9(1) of the Directive nullifies license terms forbidding decompilation of computer programs to achieve interoperability. The Article 82 Paper suggests however that the Commission considers that the duties of dominant companies in this respect may go as far as to provide interoperability information to their competitors and support open standards. Indeed, in *Magill*, the Commission suggested that a compulsory licensing case would be beneficial as a precedent in the field of computer software.³⁰⁷ The *Microsoft* case and the Article 82 Paper confirm that the Commission's policy goes in this direction. An additional observation is due here. *Microsoft* and now also the Article 82 Paper, just as *IMS* and *Magill*, touch upon the controversial field of IP. The arguments concerning the proper construction of the Software Directive and whether or not the interface information Microsoft was requested to supply is protected by IPRs belong to the key issues in the Microsoft litigation. It is not only the problem of trade secrets, as the Commission seemed to notice in the Article 82 Paper, but also the scope of other types of IPRs that may cover interoperability information.

³⁰⁴ David Balto & Robert Pitofsky, *Antitrust and High-Tech Industries: The New Challenge*, 606 PLI/P at 513, 529-30.

³⁰⁵ IBM Undertaking, *supra* note 301; *see also* Abbott T. Lipsky, *To the Edge: Maintaining Incentives for Innovation after the Global Antitrust Explosions*, 35 GEO. J. INT'L L. 521, 537-39 (2004).

³⁰⁶ Forrester, *supra* note 126.

³⁰⁷ Opinion of A.G. Gulmann in *Magill*, 1991 E.C.R. II-485, ¶ 136.

Arguably, there are reasons that support the proposition that the IT industry requires a higher degree of antitrust scrutiny. The sector is characterized by extensive vertical integration and network effects. Network effects can constitute a significant barrier to entry and lead to a collective lock-in of an established technology.³⁰⁸ Yet the speed of technological change and the market dynamics in the IT sector make the latter less of a candidate for antitrust intervention. The key question seems to be how to address the problems stemming from the existence of a monopolist that controls a *de facto* industry standard. A radical proposal, which seems to be advocated by the Commission, is to insist on extensive opening of access to valuable bottlenecks. Should competing software manufacturers be allowed to benefit from the network effects generated by the company who has been the first mover in the market? As the *Microsoft* case illustrates, “open access” is not necessarily a panacea. First, it involves the daunting questions relating to the circumstances that warrant forcing a dominant company to give access to interoperability information and setting the terms of such access.³⁰⁹ Though there is a possibility of a lock-in, the software market is generally dynamic and driven by technological change. The timing, scope and conditions of access are crucial, if it is to improve competitive conditions on the market. Second, open access favors intra-system competition over inter-system competition. Several commentators noted that whereas it is not clear whether antitrust should be concerned with intra-system competition, protecting inter-system competition is crucial in the context of new technologies.³¹⁰

As to leveraging, the concept has no precise definition. The claim that a monopolist may use its market power in one market to “leverage” a monopoly into another is controversial from an economic perspective.³¹¹

³⁰⁸ On economics of high-tech markets see, for example, Michael L. Katz & Carl Shapiro, *Antitrust in Software Markets*, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY: ANTITRUST IN THE DIGITAL MARKETPLACE 29 (Eisenach & Lenard, eds., 1998); Robert Pitofsky, *Antitrust at the Millennium (Part II): Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property*, 68 ANTITRUST L. J. 913 (2001); and Richard A. Posner, *Antitrust at the Millennium (Part II): Antitrust in the New Economy*, 68 ANTITRUST L.J. 925 (2001).

³⁰⁹ One difficulty is the precise definition of “interface.” This gave rise to a dispute between Microsoft and the Commission on the implementation of the Microsoft Decision. European Commission, “Competition: Commission sends new letter to Microsoft on compliance with decision”, Press Release No. IP/06/298 of March 10, 2006, *available at* <http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/06/298&format=HTML&aged=0&language=EN&guiLanguage=en>; see generally JONATHAN BAND & MASANOBU KATOH, INTERFACES ON TRIAL: INTELLECTUAL PROPERTY AND INTEROPERABILITY IN THE GLOBAL SOFTWARE INDUSTRY 6-7 (1995).

³¹⁰ On this point, see Balto & Pitofsky, *supra* note 306; Pardolesi & Renda, *supra* note 218, at 552; and Samuelson & Scotchmer, *supra* note 239, at 1615-26.

³¹¹ Cf. AREEDA & HOVENKAMP, *supra* note 18, ¶ 652; BORK, *supra* note 52, at 372-74; Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COLUM. L. REV. 515 (1985); Lévêque, *supra* note 232, at 80-82; Posner, *supra* note 36, 929; Michael H. Riordan

WHERE ANTITRUST ENDS AND IP BEGINS

The Chicago School has attacked the idea that monopoly power could be extended into a neighboring market with great vehemence. Though a monopolist may be able to use its market power to force consumers to buy products it offers in another competitive market, any supra-competitive profit obtained in the second market would have to be offset by lower prices in the monopolized market. Though such strategy may harm competitors in the secondary market, it is unlikely that it will harm consumers absent predation, which is unlikely. On the contrary, vertical integration may be the source of efficiency gains, from which consumers also benefit.³¹² When it is unlikely that a secondary market will not be monopolized, the leveraging in fact is good for consumers and should not be a concern of antitrust policy.³¹³ Recent economic literature suggests that integration into a second market may give rise to competitive concerns under certain circumstances. A monopolist may want to take over a complementary market in an attempt to defend its existing monopoly against perceived competitive threats. This may raise barriers to entry, as the entrant would have to attack the monopolist in two markets at the same time.³¹⁴ Denying interoperability information to competitors in the neighboring market may also help raise the profits of the monopolist, by impairing rivals' ability to compete in this market.³¹⁵ Considering these observations, refusal to provide interoperability information is anticompetitive, if the dominant company is likely to succeed in obtaining a monopoly in the downstream market.³¹⁶ Dominant companies should not be forced to share

& Steven C. Salop, *Evaluating Vertical Mergers: A Post-Chicago Approach*, 63 ANTITRUST L. J. 513..

³¹² Posner, *supra* note 36, at 929.

³¹³ See, e.g., *Alaska Airlines v. United Airlines*, 948 F.2d 536, 549 (9th Cir. 1991) (pointing out that leverage activity may tend to undermine monopoly power, just like monopoly pricing); *Spectrum Sports v. McQuillan*, 506 U.S. 447, 459 (1993) (holding conduct of a single firm unlawful under § 2 only when it actually monopolizes or dangerously threatens to do so; finding of an attempt to monopolize requires market inquiry and cannot be based solely on the existence of “unfair” or “predatory” tactics); 3 AREEDA & HOVENKAMP, *supra* note 18, ¶ 652; Hovenkamp, *Federal Antitrust Policy*, *supra* note 55, 317-18;. Both in *Bronner* and in *IMS*, the ECJ required the proof that a refusal to deal leads to elimination of competition in the downstream market.

³¹⁴ For an analysis of the dynamic two-level entry theory see, for example, Timothy J. Murris, *Is Heightened Antitrust Scrutiny Appropriate for Software Markets*, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY: ANTITRUST IN THE DIGITAL MARKETPLACE 95-97 (Jeffrey A. Eisenach & Thomas M. Lenard, eds., 1998).

³¹⁵ Janusz A. Ordover & Robert D. Willig, *Access and Bundling in High-Technology Market*, in, COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY: ANTITRUST IN THE DIGITAL MARKETPLACE 108 (JEFFREY A. EISENACH & THOMAS M. LENARD, EDS. 1998). Leveraging theory played a significant role in the U.S. government case against Microsoft. See 1 HOVENKAMP ET. AL., *supra* note 35, ¶ 10.3b4.

³¹⁶ The Commission itself suggests that a conduct of a dominant company may be abusive only if “a likely market distorting foreclosure effect may be established” and that a refusal to supply in general may be abusive when there is a vertical foreclosure. See *Article 82 Paper*, *supra* note 10, ¶¶ 58, 72.

interoperability information solely because they enter a neighboring market. If that were the case, competition law would discourage innovation by monopolists. Yet, the language used in the “interoperability section” suggests that the Commission stops short of adopting a presumption that a refusal to supply interoperability information by a dominant company is abusive. It reasons that “it may not be appropriate to apply to [refusals to provide interoperability information] the same high standards for intervention as those [applicable to refusals to license].”³¹⁷ These announcements of the Commission’s position already encouraged new complaints alleging that a refusal to provide interoperability information is invalid.

A refusal to provide interoperability information may be abusive for exactly the same reasons as a refusal to license. It can be anticompetitive only if the requested information is indispensable and the refusal leads to foreclosure in the neighboring market, and where there is no objective justification for such refusal. In most cases competing companies will be able to reverse engineer the product and make their products compatible, so the information at stake must be indispensable to avoid frivolous antitrust claims. Just as in an abusive refusal to license, it may result in compulsory sharing of valuable proprietary information. Moreover, some types of product interfaces may be patentable and in the computer industry, copyrights protect the source code of APIs, though it remains unclear whether APIs themselves are protected by copyrights. Thus, limiting principles are as necessary as in the case of other refusals to license. There seems to be no good reason why a refusal to provide interoperability information should be a “special case” in light of the rather flexible approach that the Commission adopted with respect to refusals to license and its broad reading of the new product criterion.³¹⁸ This can only create more uncertainty about the standards applicable to refusals to deal in Europe.

CONCLUSIONS

It is striking that although Americans historically have been more concerned with the concentration of market power, it is Europeans who nowadays tend to interfere more with it. Americans were traditionally suspicious of combinations and monopolies that limited rivalry on the market. More recently, however, the effectiveness of antitrust intervention to regulate monopolies has been questioned. There has also been a trend to shield trade regulation away from industrial policy. These developments have been matched by the decrease in the scope for antitrust intervention under § 2 of the Sherman Act. A growing concern that antitrust

³¹⁷ *Article 82 Paper*, *supra* note 10, ¶242

³¹⁸ *See supra*, Section 4.2.2.

WHERE ANTITRUST ENDS AND IP BEGINS

intervention may distort the objectives of the IP system has further limited the application of antitrust law to unilateral conduct involving IPRs.

Europeans have traditionally been much more comfortable with concentrations of power through big governments and nationalized industries.³¹⁹ They have also been more confident that specific market failures can be remedied by antitrust intervention.³²⁰ To be sure, this has had a significant bearing on the duties of dominant companies to share their IP. However, it seems that above all, unlike U.S. antitrust law, EU competition law has been applied to correct imperfections in IP laws in the same way it has been applied to remedy imperfections in national sectoral regulation. The European cases discussed above targeted improvidently defined IPRs. *Volvo/Veng* involved industrial designs and copyrights covering spare parts, a right whose scope was controversial at the point *Volvo/Veng* was decided. At stake in *Magill* was a copyright over TV listings. In *IMS*, the Commission targeted anticompetitive effects of an overly broad database right that conferred substantial market power on a database producer. The asset at stake was a modified version of a postal code grid. *Microsoft* involved difficult questions concerning access to interoperability information. It is unfortunate that the Court provided no guidance as to how much the value of IP at stake influenced its reasoning. Application of antitrust principles to curb improvidently defined or granted IPRs creates a dangerous caveat. In the pursuit of equilibrium between IP and antitrust law, European enforcers have embraced theories that may have led to a desirable outcome in a particular case but are unsuitable to serve as a general rule. More guidance as to the applicable standards is necessary, particularly now that national antitrust authorities and courts apply Article 82 separate from the European Commission and EU courts. Relying on essential facilities theory to cure flaws in the IP system creates a risk of over-enforcement and deterring investment in innovation when the same principles are to be applied for example to patents covering pharmaceutical products, as it has recently been the case in Italy. If these issues are not addressed, application of EU competition law to IP may undermine the Commission's efforts to develop a framework for innovation policy that would strengthen the innovation process and increase private R&D

³¹⁹ It has been also pointed out that at least in the beginning of the EU's existence, the enforcement of antitrust laws against the type of behavior traditionally seen as anticompetitive, such as cartels, has not been very strong. The focus was predominantly on market integration. The European Commission was much more rigorous (by comparison with American decisions) about conduct that resulted in geographical division of the market. See, e.g., GIULIANO AMATO, ANTITRUST AND THE BOUNDS OF POWER: THE DILEMMA OF LIBERAL DEMOCRACY IN THE HISTORY OF THE MARKET 43-45 (1997); Claus D. Ehlermann, *The Contribution of EC Competition Policy to the Single Market*, 29 COMMON MARKET L REV. 257 (1992).

³²⁰ AMATO, *supra* note 319, at 65-66.

spending in the EU.³²¹ Hopefully the EU Courts will clarify what the limiting principles in the Microsoft litigation are. It is also desirable that they explain how much bearing the value of IP had on the EU compulsory licensing cases. Last but not least, the compulsory licensing cases in Europe show that there is a need for more coordination between IP and antitrust policy makers.

³²¹ *See generally* European Commission, Communication of 11 March 2003, Innovation policy: updating the Union's approach in the context of the Lisbon strategy" COM(2003) 112 (final, not published in the Official Journal).