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COMPETITION AND INTELLECTUAL PROPERTY IN THE EUROPEAN UNION

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Introduction

It is generally recognized that, notwithstanding their distinct histories and individual enforcement agencies, competition law and intellectual property law are not just compatible instruments of economic policy; they are complementary instruments. The two bodies of law pursue the common goal of economic efficiency. This does preclude a certain tension between them. To understand why, it is useful to briefly recall the more specific objectives of each body of law.

The contemporary economist views competition policy as “*the set of policies and laws which ensure that competition in the marketplace is not restricted in a way as to reduce economic welfare*” (Motta, 2004, p. 30). This perception of the role of competition policy has not always been paramount in Europe. Integration towards a single market used to be a central objective of competition policy. Although the aforementioned present-day view of the role of competition policy has been in ascendancy at the Community level and in Member States after creation of the single market, European competition authorities still hold the view that national intellectual property rights hold back economic integration.

According to Landes and Posner (2003, p. 1) intellectual property consists of “ideas, inventions, discoveries, symbols, images, expressive works, ... or in short any potentially valuable human product (broadly, “information”) that has an existence separable from a unique physical embodiment, whether or not the product has actually been “propertized”, that is brought under a legal regime of property rights”. Therefore, intellectual property laws represent the set of statutes, institutions and policies that grant, for a limited time, to authors and inventors exclusive rights over the expression of their writings and intellectual creations (copyrights) or over the ideas themselves embodied in their technical inventions (patents).

To what extent is the existence of such exclusive rights compatible with competition? In this regard it is key to note an important difference between the European Union and the

¹ We thank Roger Clark and Eleanor Morgan for their insightful comments on a previous version (december 2004).

United States (Korah, 2001). Unlike the US, the EU grants no intellectual property rights other than trademarks. Patents and copyrights are granted under the law of Member States, complemented by the so-called European patent, created by the European Patent Convention (1973)² currently signed by 28 contracting states. According to Articles 2 and 3, a European patent granted by virtue of this Convention and covering one or more of the contracting states shall have the effect of and be subject to the same conditions as a national patent granted by a contracting state. Therefore, a European patent is just a bundle of national patents granted by the European Patent Office (EPO). The EPO provides a one-stop shop that makes it possible to get around the transaction costs associated with having examinations carried out in individual states. A patent granted by the EPO is recognized in a Member State if translated into the national language. A proposal for a Council Regulation on the Community Patent (O.J. 2000/C337 E/278) relying on the EPO, that would establish a single patent for the whole European Union, has not been adopted. Although cases are litigated before national courts, the European Court of Justice (ECJ) has given Community authorities a powerful instrument when it “drew a distinction between the grant or existence of a national intellectual property right, which was not subject to the Treaty, and its exercise, which was ... The Court took power to override member states with respect to intellectual property rights that threatened to divide the common market along national boundaries” (Korah, 2001, 805).

Initially, the European Community had an inimical perception of property rights. They were considered as impediments for the achievement of the common market. “The ECJ used the distinction between the existence and exercise of property rights in the early 1970s to develop a judicial doctrine of the Community exhaustion of intellectual property rights: once a protected product has been put on the market by the holder ... or with its consent in one member state, the right was exhausted and a parallel intellectual property right could not be used to restrain the commercial importation of the product to another member state” (Korah, 2001, 805).

Things began to change in the 1980s (Encaoua *et al.* (2003), Martinez and Guellec, 2003). The major role of intellectual property rights in stimulating innovation and growth gained greater recognition. New governing bodies have emerged, for example the World Trade Organization (WTO), the World Intellectual Property Organization (WIPO), and the

² Available at <http://www.european-patent-office.org/legal/epc/>

Court of Appeals for the Federal Circuit (CAFC) in the US.³ Moreover patent legislation has entered a harmonization process across countries via bilateral and multilateral treaties.⁴

From a competition policy perspective it also matters that over the same period there have been important changes in the motives that drive firms to obtain patents. A number of studies point to the fact that firms increasingly file applications covering technologies that are neither developed nor licensed. In some high-tech industries, firms seek patents for strategic purposes, specifically, to exclude potential rivals (Carlton and Gertner, 2002, Cohen, Nelson and Walsh, 2000, Hall and Ziedonis, 2001). For example the US semiconductor industry builds patent fences around core inventions. One observes a proliferation of mutually blocking patents that coalesce into patent thickets that exclude potential rivals. This comes in addition to implicit threats of infringement suits that serve as bargaining chips to obtain access to other firms' technologies or to force others to accept cross licensing arrangements (Shapiro, 2001, Encaoua and Hollander, 2002).

These practices raise a host of issues at the interface of IP and competition policy⁵. More specifically they may require a fresh exploration of areas where the grant of exclusive rights may shackle competitive market processes. Two forms of competition should be considered: product competition and research competition. Product competition yields allocative efficiency and gives consumers the opportunity to obtain products at prices that are close to costs. Research competition produces new products and new technologies. It allows firms to escape the constraints of product competition, especially in neck by neck industries where firms have access to the same technologies and produce under the same costs (Aghion et al. 1997, 2001, Encaoua and Ulph, 2000).

However, market incentives may be insufficient to produce the optimal amount of innovation. The standard modelling of competition under a competitive process does not account for important specificities. Not only the outcome of R&D is uncertain as everyone recognizes, but, more importantly, its output is an information good, i.e. it is non rivalrous and non excludable, except by legal means. Granting the original inventor an exclusive right appears as an *ex ante* incentive to innovate, inasmuch as it encourages investment in research by avoiding free-riding. Note that it is the *ex ante* incentive that matters for the purpose of

³ The Court of Appeals for the Federal Circuit has nationwide jurisdiction and hears specialized cases like patent and international trade cases. See www.fedcir.gov

⁴ The agreement on Trade Related aspects of Intellectual Property Rights (TRIPS), which has over 140 members goes beyond the requirement that protection applies to foreign inventors as to domestic ones by also specifying a minimum set of rights that each member state must provide (see Scotchmer, 2004, chapter 11 "Innovation in the Global Economy", 320)

⁵ For an overview of the tensions at the interface of IP and competition policy, see Federal Trade Commission (2003)

investment rather than the *ex post* reward to an inventor. The *ex post* reward approach that is prevalent among lawyers, would lead to the conclusion that since the investment cost is already sunk, the exercise of the exclusive right has to be strictly scrutinized under the competition law. By contrast, an *ex ante* approach leads to the inverse conclusion that the successful investor shall not be deprived from exclusive right to commercialise or sell invention in order to keep the *ex ante* incentive to invest.

Thus the grant of an exclusive right that limits competition in the product market is part and parcel of a trade-off. “Alike ordinary property rights that promote competition in production by preventing competition in consumption, intellectual property rights are a way (but not the only one) to promote innovation, by restricting some kinds of competition in production” (Vickers, 2001). Even so, later competition is encouraged because a patent is granted on condition of disclosure of the knowledge that underpins the invention. The disclosure favours the diffusion of know-how, allowing others to build around or improve on earlier inventions (Encaoua and Ulph, 2000). Protecting an innovation under secrecy does not allow such diffusion. The dissemination of knowledge also benefits from licensing agreements and other arrangements such as the pooling of patents⁶. The latter also improve static efficiency because innovators are not always the best equipped to exploit existing know-how.

Today many economists and legal scholars “acknowledge that analysis and evaluation of intellectual property law are appropriately conducted within an economic framework that seeks to align that law with the dictates of economic efficiency ... Cases, doctrines and principles have to be examined from the standpoint of whether they are efficient in an economic sense and, if not, how they might be changed to make them efficient” (Landes and Posner 2003, p. 4).

Still, as soon as one trades in the bliss of pronouncing on fundamental objectives for the mundane pleasures of understanding the consequences of specific rules, it becomes plain that there exist areas of stress between the two bodies of law. The following sections show how European courts have managed these stresses in three areas: (1) Parallel imports and market segmentation; (2) Refusals to supply essential inputs protected by patents and copyrights; (3) Forms of conduct by copyright collectives.

⁶ A patent pool is an agreement under which the owners of different technologies license them as a bundle. See Merges (1999), Carlson (1999), Lerner and Tirole (2002), Lerner *et al.* (2003), Scotchmer (2004, 175-180)

1. Parallel imports and competition

Firms segment markets for efficiency reasons and in support of collusive agreements. It is also likely that they do so to gain a capacity to discriminate in terms of prices or qualities. Because intellectual property rights enhance right holders' ability to segment markets, courts are constantly required to balance a desire to protect the holders of patents, copyrights and trademarks with a desire to give consumers access to products at competitive prices. From an economic perspective, the issue is not merely one of trading off dynamic and static efficiency. In addition the issue is how, in specific cases, segmentation affects static welfare.

With respect to international segmentation, there are specific issues related to exhaustion regimes (explain exhaustion regimes in footnote) and the legal treatment of parallel trade. Parallel trade takes place when products put into circulation in one country are exported to another country via distribution systems not set up, or consented to, by the party who put them on the market first. Parallel trade - also called grey trade - is not the same as trade in counterfeited goods⁷. Products that circulate in parallel trade are genuine. They are generally marketed first by a person who holds the IPRs in these products, or by a licensee of such person. What sets parallel trade apart from ordinary commerce is the diversion of products from the markets ostensibly targeted by the (delete) IPR holders.

Parallel trade responds to cross-country price disparities.⁸ It limits the capacity of firms to segment national markets. This means that from an economic perspective, restrictions on parallel trade should be looked as devices that facilitate territorial segmentation.

In the following, we start by recalling the incentives firms have to segment markets. Then we consider the view of the European institutions on the barriers to parallel trade; first imports from outside the Union, then trade among Member States.

1.1. Market segmentation: some theory

A firm with market power can increase profits by segmenting markets and engaging in geographic price discrimination. However, there is no unambiguous answer to the question how this will affect overall welfare. Price discrimination brings about a welfare reducing misallocation of output across markets but total output may be larger than under uniform

⁷ "Grey trade" means that the products are neither black, i.e. counterfeited, nor white since they are sold against the will of at least one IPR holder.

⁸ The price gaps may be due to differences in demand elasticity or to divergent pricing by regulators across countries, as is the case of pharmaceuticals.

pricing - possibly because additional markets are being served. The latter is welfare increasing.⁹ Malueg and Schwartz (1994) have shown that when there is a large disparity in the willingness to pay across national markets, a mixed regime of discrimination across groups of countries differentiated from each other by substantial differences in willingness to pay, but not among countries within individual groups yields greater world welfare than uniform pricing on a global scale.¹⁰

A capacity to discriminate may be necessary to insure that profits are positive. This applies mainly to industries where fixed costs are very large compared to variable cost. One thinks of industries that rely heavily on R&D or other creative effort. The argument essentially boils down to the claim that in certain industries, a mere right to exclude conferred by intellectual property law does not insure that returns are sufficient to elicit a socially optimal level of innovation.

In this regard it is important to stress that economic theory does not give an unequivocal answer to the question whether a switch from uniform to discriminatory pricing increases industry profits when firms confront rival producers. While it is true that each firm benefits from acquiring a capacity to discriminate, it loses when rival producers obtain the same capacity. The net effect on profits depends on the intensity of the rivalry. Allowing discrimination intensifies competition in market segments where buyers view the products of different producers as good substitutes, but, at the same time, it allows firms to capture larger profits in market segments that have a strong preference for their particular variety.¹¹

It is not always the desire to discriminate that steers firms towards market segmentation. Manufacturers may grant distributors exclusive territories to encourage them to invest in promotional activities such as presale information, product advertising and quality control. In the absence of exclusivity, the investment by one distributor benefits rival distributors. Distributors that do not invest could attract customers who have already sought information from distributors who do invest, by undercutting them. The very fact that their costs are lower gives them **this** option. The result is that each distributor has less incentive to invest than is optimal from the manufacturer's perspective. To address this problem the

⁹ When additional markets are being served, consumers in these countries will benefit and consumers in countries that would have been served under uniform prices need not lose.

¹⁰ Adoption of such policies would, however, run afoul of importers' most favoured nation obligations under WTO rules. WTO membership does **limit (allow?)** a country's freedom to choose its policy with respect to parallel trade. However, it requires the country to abide by the most favoured nation rule regardless of the policy it chooses.

¹¹ The relevant literature is reviewed in Stole (2004). See also Encaoua and Hollander (2004).

manufacturer **may** take measures that reduce the likelihood that buyers in a territory allocated to one distributor would be served by distributors in another territory.

While the alignment of distributors' and manufacturers' incentives is likely to be welfare enhancing, it could come at a cost. For example, the elimination of downstream competition can lead to double marginalization.¹² This reduces manufacturers' profits and consumers' welfare. It also reduces interbrand competition. Rey and Stiglitz (1995) have shown that the latter is due to the fact that distributors with market power do not fully pass on to their buyers increases in the wholesale price. Therefore the demand faced by manufacturers is less elastic than it would be if distributors were in competition. The outcome of the reduction in elasticity can mirror collusion¹³.

Manufacturers adopt a variety of measures to curtail grey trade and enhance their capacity to profit from price discrimination. They sometimes put quotas on the quantities delivered in a national territory.¹⁴ At other times they limit the coverage of guarantees to the territory where the product was first put into circulation. Every so often, they use technical means that preclude use in one country of an article originally sold in another territory.¹⁵ At times, they try to create in the mind of consumers residing in high price countries, the belief that grey goods are counterfeit, pirated, **(omit comma)** or of lesser quality.¹⁶

The laws that protect intellectual property provide another avenue for the segmentation of national markets. A central issue concerning intellectual property protection is which rights are relinquished upon the first legal sale of a product in which rights are initially held. Consider, **for example** the case of CDs containing music. Composers, publishers and, possibly, makers and performers hold initial rights in the music as well as in the CD that contains the music. However, upon first sale of the CD they lose the right to prohibit its

¹² That is both the manufacturer and the distributor set price above marginal cost.

¹³ Gallini and Hollis (1999) give a detailed overview of the pros and cons of market segmentation, focussing on the restrictions on parallel imports achieved via trademark protection.

¹⁴ See Crampes, Hollander and Macdissi (2004).

^{15,15} For example, the international distribution of films on DVD has been technologically and legally segmented into geographical markets. The regional coding system requires that all DVD players be manufactured for distribution and use in one of six geographic regions around the world. It is a global initiative by agents of the film and DVD industries aimed at preventing the free movement of licensed copies of copyright DVDs around the world. Dunt, Gans, and King (2001) have studied whether the restrictions on DVD usage across regions can be justified as a means of generating potentially socially desirable price discrimination for content providers or are simply a means of restricting competition. They conclude that **"the conditions that may theoretically allow such restrictions to be efficient are unlikely to hold in the case of DVDs and that social welfare is likely to be significantly enhanced by eliminating such technical restrictions."** (not italic, add page ref.) Their argument is that among the four potential consequences of such restrictions on regional flows (price discrimination, **collusion, free-riding,** and the prevention of consumer confusion), the latter two -potentially socially desirable- consequences are unlikely to be important.

¹⁶ However, in some instances a moderate amount of parallel imports may actually benefit a manufacturer. See Anderson and Ginsburgh (1999).

resale. That right has been exhausted.¹⁷ In the discussion below, exhaustion of a right will always refer to the loss of the right to control reselling.

IPRs are territorial. The right to control a particular use of protected material applies only within the national boundaries of the jurisdiction that grants that right. This applies equally to the exhaustion of rights, i.e., (omit commas) the national law determines under what circumstances a right holder – resident or foreigner – exhausts the right to control resale in the national territory.

There are several exhaustion regimes. Under a regime of national exhaustion, the person holding the IPRs (delete s) in a product waives the right to prohibit resale of that product in the national territory upon the first legal sale within the boundaries of that territory.¹⁸ In countries that accept international exhaustion, the original right holder forfeits the power to control resale within the (delete the) national boundaries as soon as the product is legally put into circulation anywhere in the world.

The particular regime a country chooses may vary from one type of IPR to another. For example, a country may adopt international exhaustion in the case of trademarks and national exhaustion for patents. Furthermore, regimes may occasionally be product-specific. The exhaustion regime a country chooses always reflects a somewhat uneasy balance between, on one hand, a desire to protect the interest of IPRs (delete s) holders, and on the other hand, the wish to guarantee consumers and businesses the opportunity to make informed purchases in a competitive environment.

In the following, we discuss the approach of the European Union towards parallel imports from a perspective of competition policy. The EU makes a distinction between parallel trade between Member States and trade between the Union and non-members. The most important difference between the EU and other jurisdictions is the adoption by the former (delete) of a regime of regional exhaustion under the Trade Marks Harmonization Directive.¹⁹ Article 7 of the Directive prescribes a regime under which the owner of a

¹⁷ Some of these rights holders can still prohibit certain uses of the CD. For example, they can forbid the CD's performance on radio or in any public place. The reason is that the right to perform in public the music fixed on the CD is not exhausted upon the first sale of the CD.

¹⁸ This assumes that the goods have not been altered after they have been put on the market by the owner of the trade mark or with his consent. Repackaging is not *per se* forbidden; see Commission Communication on parallel imports of proprietary medicinal products – frequently asked questions, MEMO/04/7, Brussels, 19th January 2004.

¹⁹ The Directive was adopted in 1989 (89/104 (EEC) 21 December 1988) but became effective only in 1996. “A trade mark may consist of any sign capable of being represented graphically, particularly words, including personal names, designs, letters, numerals, the shape of goods or of their packaging, provided that such signs are capable of distinguishing the goods or services of one undertaking from those of other undertakings.” (article 2).

trademark cannot avail himself of the right conferred by trademark law to prevent the sale anywhere in the EU of a good marketed first by him or with his consent in any territory of the European Economic Area. This, however, ceases to apply when the proprietor of the trademark has legitimate reasons to oppose further commercialization, especially when the condition of the goods is changed or impaired after they have been put on the market. Trade mark rights in Member countries are not exhausted by first circulation of the product outside the EEA.²⁰

1.2. Grey goods originating outside the EEA

The conditions under which exhaustion of right conferred by trade marks occurs have been clarified in several decisions rendered by the European Court of Justice (ECJ).

In the *Silhouette* case, the ECJ ruled that a Member State could not adopt a wider exhaustion regime than set out in Article 7 of the Trade Mark Directive. This was founded in part on the wording of the Directive, and on the observation that “if some members practiced international exhaustion and others did not there would be barriers to trade, and this would affect the functioning of the internal market, and this is precisely the objective pursued by the Directive”.²¹

The notion of consent received further (delete) elucidation in the subsequent (delete) *Sebago* judgment in which the ECJ rejected the validity of an importer’s claim that the trademark holder exhausted his right to prevent the sale within the EU of all batches of a good once he had consented to the marketing of a single batch of identical goods.²²

The objective of a trade mark is to help buyers to identify the source of products. This gives producers the incentive to improve quality.

²⁰ Before the Directive went into effect, most EU countries operated under international exhaustion. A concise review of the history of the Directive appears in Trogh (2002). Although the exhaustion regime is mainly applied to trademarks, it also concerns the topography of semiconductors (article 5(5) of Directive 87/54/EEC), patents (art. 28 of Agreement 89/695/EEC), biological inventions (article 10 of Directive 98/44/EC) and designs (article 15 of Directive 98/71/EC). The European Court of Justice applied the principle to copyrights (Cases 55/80 and 57/80 *Musik-Vertrieb Membran GmbH and KKK-Tel International v. GEMA*) and to patents (Case 15/74 *Centrafarm v. Sterling Drugs*). Our focus here is on the competition issues raised by the protection afforded by trade marks.

²¹ Opinion of Advocate-General Jacobs, paragraph 41 cited by Trogh (2002) page 29 (delete). The case involved the attempt by the Austrian owner of the *Silhouette* trademark to prohibit the importation into Austria of a type of genuine *Silhouette* sunglasses legally marketed in Bulgaria but no longer sold in Austria. Prior to accession to the EU, (delete comma) Austria operated under a regime of international exhaustion. Having failed in its action for trademark infringement before the lower courts, *Silhouette* appealed to the Supreme Court of Austria which submitted a reference to the European Court of Justice. The ECJ, therefore, overturned the decision in the Austrian courts.

²² The case involved a suit brought by the owner of the *Sebago* trademark against a Belgian firm that imported shoes from the Salvadorian manufacturer of the genuine product for resale under the original label. The claimant argued that the importer had infringed his trademarks because he had not received consent to market the shoes in the EU.

The meaning of consent was also at the heart of **the** later Davidoff and Levis cases (C-414/99 to C-416/99). The ECJ held that consent cannot be inferred from the absence of contractual provisions or communication to that effect, or from the fact that the goods carry no warning that sale outside a specific area is prohibited. The ECJ held that consent requires an unequivocal demonstration of renunciation of one's right to oppose importation into the EEA.

While the aforementioned decisions bear on the question whether trade mark law can be used for blocking parallel imports into the Union, they do not address the question whether contractual provisions between private undertakings that commit one party to sell only in assigned territories outside the EU are prohibited. This question was addressed by the ECJ in response to a question raised by a French court. The case involved proceedings brought by Yves St Laurent Parfums (**YSLP**) against Javico. The perfume manufacturer had entered into a contract for the distribution of its products in selected territories outside **the** EEA. The contract provided that the distributor would not sell the product outside these territories or to unauthorized dealers in the territory. When YSLP discovered that products sold to Javico were marketed in several countries of the Community, it broke the contract and started legal proceedings. When a French court upheld both termination of the contract and its claim for compensation, the defendant appealed on the ground that the controversial contractual provision was prohibited by Article 85(1) (now 81(1)) and therefore automatically void.

The ECJ ruled that in order to determine whether agreements such as the one concluded between YSLP and Javico run afoul of Article 85(1), one must consider whether their purpose or effect is to restrict to “an appreciable extent competition within the common market and whether the ban may affect trade between Member States”.²³ The Court held that agreements could not be struck down unless they were capable of affecting trade between Member States. The ruling it handed down was that the provisions at issue “did not constitute agreements which, by their very nature, are prohibited by Article 85(1)” (paragraph 21 of the judgment). It remained for the national court to determine whether they did in fact have such effect.²⁴

²³ Case C-306/96, *Javico International and Javoco AG v. Yves Saint Laurent Parfums SA*, 28 April 1998.

²⁴ The Court said that a violation may take place “where the Community market in the products in question is characterized by an oligopolistic structure or by an appreciable difference between the prices charged for the contractual product within the Community and those charged outside the Community and where, in view of the production and sales in the Member States, the prohibition entails a risk that it might have an appreciable effect on the pattern of trade between Member States such as to undermine attainment of the objectives of the common market” (paragraph 28 of the judgement).

The significance of the Javico ruling may be rather limited in view of the ECJ's decision in Davidoff and Levis. A possible consequence of the latter is that firms concerned about the importation of their trademarked products into the EU will find such prohibitions as imposed on Javico redundant.²⁵ This would be true all the more if it was determined that international exhaustion applies in circumstances where contractual measures designed to prevent importation into the EU contravene Article 81 or Article 82.

1.3. Partitioning of the EU into national markets

The stance of competition authorities with respect to territorial restrictions that restrain grey trade within the Community appears less flexible. The courts have held that an agreement whose object it is to prevent grey trade within the Community is by its very nature a violation of Article 81(1).²⁶ This means that in order to find a breach of Article 81(1) it is sufficient to show: i) that the measures taken amount to an agreement; and ii) that the object of the agreement is to prevent parallel trade within the Community. The following decisions illustrate the point.

Yamaha²⁷ sold instruments through a network of official dealers located in various EU countries. It signed contracts with its dealers that bound the latter to the following: 1) sell solely to final customers; 2) buy solely from Yamaha's national subsidiary; 3) supply solely distributors authorized by the national subsidiary, and 4) contact Yamaha Europe in Germany, before exportation via the Internet.(close gap)²⁸ In addition, the guarantees issued by Yamaha were in effect only in the country of original purchase of the instrument they covered.²⁹ Furthermore, the contract between Yamaha and its Icelandic dealer contained an explicit prohibition of parallel trade.

The Commission concluded that commitments to sell exclusively to final consumers, buy solely from Yamaha's national subsidiary and supply solely distributors authorized by the national subsidiary had the object of preventing cross-supplies within Yamaha's dealer

²⁵ Unless such provisions allowed the owner of the trade mark to claim damages for infringement that would otherwise not be awarded.

²⁶ For example, in **the (delete)** Case IV/35.733 – VW, “(t)he obstruction of parallel exports of vehicles by final consumers and of cross-deliveries within the dealer network hampers the objective of the creation of the common market, a principle of the Treaty, and is already for that reason to be classified as a particularly serious infringement.”

²⁷ Commission Decision of 16.07.2003, Case COMP/37.975 PO/Yamaha.

²⁸ The details of the contractual provision differed to some extent from one country to another but their essence was very similar.

²⁹ The contracts also contained provisions that restricted the dealers' pricing policies.

network.³⁰ It reached this conclusion by examining the possible consequences of the aforementioned provisions. The Commission also argued that "although the object of the agreement (to contact Yamaha before exporting) may not have been to directly restrict exports, it clearly had the potential effect of discouraging dealers from exporting products to other Member States." (Paragraph 109 of the decision). Interestingly, the Commission did not even broach the question of object or effect in regard to the Icelandic contract. It simply invoked the ruling without considering Yamaha's claim that, given Iceland's remote location, it was unlikely that the contractual clause would in fact restrict trade.³¹

The question which kind of conduct is required to create an agreement within the meaning of Article 81 was at the heart of the subsequent Bayer case. The local distributors of the pharmaceutical firm had signed contracts that included provisions that were designed to eliminate grey trade among Member States. The European Commission held that there existed an agreement between Bayer and its dealers and fined Bayer (by how much?) (96/478/EC). Its finding was based on the observation that the dealers had continued their business relationship with Bayer, and, in response to the contract, had adapted the way they placed orders. The Commission noted but did not discuss the implications of the fact that in response to Bayer's measures the wholesalers put together their orders as if the product they received would serve to meet only the demand of their national market, and that they did their best to inflate the national quotas imposed on them by Bayer. The evidence examined by the Commission also showed that wholesalers tried to get additional quantities by ordering from other, generally smaller, wholesalers who were not monitored by Bayer.

The Court of First Instance (CFI) overturned the Commission's decision. (2001/C 95/13). It held that the Commission had erred by considering that it had established the existence of a concurrence of wills between Bayer and the dealers. And, the mere absence of such concurrence meant that there was no agreement within the meaning of Article 81(1).³² The CFI argued that the Commission was wrong in concluding that the reduction in orders could only be understood by Bayer as a sign that dealers had accepted its demands. The

³⁰ It also noted that under settled case law there is no need for the purpose of application of Article 81(1), to show an actual anti-competitive effect of agreed conduct whose object it is to restrict competition within the Common Market.

³¹ The *Javico* ruling mentioned in section 1.2 states that "an agreement which requires a reseller not to resell products outside the contractual territory has as its object the exclusion of parallel imports within the Community and consequently restriction of competition in the common market ... Such provisions, in contracts for the distribution of products within the Community, therefore constitute by their very nature a restriction of competition." C-306/96, paragraph 14.

³² Remind that establishing the existence of a potentially anticompetitive agreement relieves the Commission of the obligation to show an effective or probable lessening of competition as a result of the agreement.

Commission could not maintain that the reason wholesalers had to order additional quantities from other dealers was because they agreed to Bayer's demands. The CFI opined that these orders were not indicative of the fact (delete) that wholesalers did acquiesce.³³ It also explained why Bayer's behavior justified a decision at variance with the earlier Sandoz ruling in which it had determined that an agreement existed.³⁴ Sandoz had on repeated occasions indicated on the bills sent to its clients that export of the goods was prohibited. The fact that its distributors had continued to order without protest and had de facto respected the ban meant that they had tacitly acquiesced to Sandoz' terms. However, whereas Sandoz had put a specific anticompetitive clause in the contract, a formal prohibition to export was lacking in Bayer. Furthermore, Bayer had not implemented a systematic monitoring of the final destination of the product and there was no evidence that the manufacturer had threatened or punished a wholesaler who exported, or made the delivery of product conditional on wholesalers' compliance with the alleged export ban.

The ECJ upheld the CFI's judgment. (C-2/01 P and C-3/01 P delivered on 6 January 2004). It indicated that while existence of a monitoring system and penalties may amount to an indicator of an agreement, they do not prove its existence. The Court emphasized that the mere fact that Bayer imposed a quota that may have had the same effect as an export ban, does not imply it had imposed a ban, or that there existed an agreement. The Court stressed that the concurrent existence of an agreement that is neutral from a competition standpoint and a measure restrictive of competition that is imposed unilaterally does not amount to a violation of Article 81(1). Because there had been no claim that Bayer was dominant, the need to examine whether Article 82 had been violated did not arise.

The decision in Bayer does not fully answer the question whether unilateral behavior by a dominant actor designed to rein in parallel trade would be treated by competition authorities in the same way as other potentially abusive forms of conduct.³⁵ The answer to this question ultimately depends on how competition authorities and the courts view discriminatory practices, in particular price discrimination. It appears that exemptions to the prohibition of price-discrimination by competition authorities are rare (reference for this?). This is somewhat surprising in view of the fact that there is no basis in theory for a claim that

³³ This begs the question whether some forms of cheating on a mundane price-fixing cartel could similarly protect a participant from being accused of tacit collusion.

³⁴ Sandoz Prodotti Farmaceutici/Commission (C-277/87, rec. P.I-45)

³⁵ After all, restrictions of parallel trade go against a fundamental objective of the Treaty of Rome which is integration of national markets.

discrimination is more harmful to the competitive process than the other forms of conduct mentioned in Article 82.

As indicated at the beginning of the section, the economic literature points to several circumstances under which price discrimination yields higher welfare than uniform pricing. Even from a consumer welfare point of view one cannot argue that discrimination always lacks redeeming value. Furthermore, the empirical evidence on the price effects of parallel trade within the European Union remains sparse. Some analysis suggests that the rents captured by parallel traders exceed the benefits to consumers in countries that import via parallel channels and consumer gains are small or moderate.³⁶ This and the fact that parallel trade consumes resources would suggest that grey products may affect welfare adversely or not at all. One must admit, however, that at this stage it is not clear **yet (delete)** whether **some of the(delete)** assumptions underlying the conclusion that consumers in the EU draw little benefit from parallel trade, are critical to that finding.³⁷

2. Refusals to supply an essential intellectual property right

Rights of exclusion differ according to category of IP. A patent owner can prevent others from making, using or selling the patented invention for a period of 20 years from the date of issue of the patent. Copyright protection which applies to original works of authorship embodied in a tangible medium of expression normally expires in the European Union 70 years after the death of the author. Unlike a patent, a copyright protects only the form of expression. It does not protect the underlying idea. This means that a right holder in a work “a” holds no rights in an independently created work “b” based on a similar idea. Trade secrecy protection applies to information whose commercial value depends on non disclosure. Of course, trade secrets have no expiry date and they do not provide a legal barrier that stops others from independently producing and using the same invention.

From an intellectual property perspective, one’s right to exclude others is key. Competition authorities do of course recognize the right to exclude since it is granted under

³⁶ See Ganslandt and Maskus (1999) and NERA (1999).

³⁷ Nevertheless European Competition authorities seem to take a particularly dim view of restrictions designed to prevent arbitrage. In the words of the Director General of DG Competition at the Commission "... sales restrictions may be used to prevent arbitrage and support price discrimination between different markets. This will in general lead to a loss of consumer welfare. While some consumers will pay a higher price and others will pay a lower price, collectively consumers will have to pay more to finance the extra profits obtained by the supplier and to cover the extra costs of supporting the price discrimination scheme. Therefore consumer welfare will in general decline unless it can be clearly shown that otherwise the lower priced market(s) would not be served at all and that therefore the price discrimination will lead to an undisputable increase of output. It's only in the latter case that consumer welfare may actually increase." See Lowe (2003).

patent and copyright laws. Their concern arises when that right protects an input that is indispensable to another party. They may consider that a refusal to licence an essential input is abusive when it prevents competition. This creates a potential for friction between intellectual property law and competition law.

According to the essential facilities doctrine a firm holding a dominant position in the provision of an input that is indispensable for the production of another good that competes with the good in which the firm is dominant, acts abusively when, without objective justification, it refuses to supply the input. The application of this doctrine must obey to stringent conditions: i) the facility must be under the control of a dominant firm; ii) the access to the facility is unavoidable to allow a competitor operate in a downward market; iii) it is practically impossible to duplicate the facility; iv) the access to the facility by competitors is technically feasible under standard safety rules; v) the plaintiff is willing to accept the standard commercial terms and vi) the refusal to supply access to the facility has no objective reason. Despite the severity of these requirements, it seems that competition authorities in different countries have often be too ready to apply the essential facilities doctrine, mainly in the case of natural monopolies such as utilities and transportation services³⁸.

The application of this doctrine is much more difficult when the so called essential input is related to an intangible asset. In principle, firms that produce patented or copyrighted information goods and wield substantial monopoly power are not shielded from antitrust liability. However, it is only in exceptional circumstances that courts in the EU and the US, have invoked the doctrine. This raises the difficult question of whether licensing should be made compulsory in some circumstances.

2.1 The economics of compulsory licensing

Gilbert and Shapiro (1996) argue that conditions such as the ones listed above cannot by themselves justify compulsory licensing on economic grounds: “These conditions do not characterize the circumstances under which compulsory access to a facility or to intellectual property would be beneficial to economic welfare. A firm may choose to deny access to an actual or potential competitor ... for many different reasons. These include reasons that are likely to enhance economic efficiency”. Preventing free riding that would diminish incentives for investment and innovation, preserving a desired level of service quality and designing appropriate contracts that compensate the intellectual property owner for the loss of revenue

³⁸ A useful introduction to the essential facility doctrine can be found in Temple Lang (2000). Different illustrations related to the transport sector under EC competition rulings are given in Motta (2004, note 53, ch.2).

that may result from access may justify the refusal to deal. Still one cannot dismiss a pure strategic motive behind a refusal to license. Therefore, a detailed inquiry on a case by case basis is needed to analyze the consequences of a refusal to license an essential intellectual property right. The inquiry must take into account the economic conditions under which welfare would be diminished if access to the facility was denied (Katz and Shapiro, 1985, Gilbert, 2000, 2002, 2004, Scotchmer, 2004, Maurer and Scotchmer, 2004).

On economic grounds, the short run effects of a refusal to license depend on how the price of the license is determined. Under a fixed fee regime, if the competitor had access to the IPR, its decisions would not be affected by the value of the fee. The fixed-fee license does not change the market outcome and its effect is purely distributive. But even in this case, the effect on welfare of an order to license depends on the licensee's efficiency. If the licensee is not very efficient or at least less efficient than the patent's holder when using its proprietary technology, an order to license is detrimental to economic welfare. However, there are also situations where licenses to efficient competitors could be optimal but are not voluntary. It is in these situations that compulsory licensing is welfare improving in the short run.

Under a royalty regime with royalties linear on units supplied, the outcome may depend on whether the patent holder does produce or not himself. If the patent holder does not produce, linear royalties combined to fixed fees are sufficient to support the profit maximum (Scotchmer, 2004, 187-189). In this case licensing is based on private incentives and there may be no scope for compulsory licensing. But when the patent holder is also a producer, the situation is different since a linear royalty leads to an inefficient outcome, except if the licensee is more efficient than the patent holder. One solution to this problem could be either to impose a royalty rate that is a decreasing function of the licensor's output or to cap the licensor's output by imposing a maximal bound (Maurer and Scotchmer, 2004).

Since the proponents of compulsory licensing only require that the royalty be reasonable and do not propose a certain payment formula, it is difficult to assess the short run consequences of a compulsory license for economic efficiency.

An obligation to license also affects long run incentives to invest in R&D. Consider the case where investment in R&D is represented by a bid for an innovation produced by an upstream laboratory. Gilbert and Shapiro (1996) identify two adverse effects of compulsory licensing. "First, a compulsory license reduces the profits of the winning bidder by forcing the winner to license in situations where it is not privately rational to do so. Second, compulsory licensing is likely to lower the value of the winning bid because it increases the profits of the losing bidder. Under compulsory licensing, the losing bidder is assured that it will benefit

from the innovation, assuming the owner of the technology is compelled to license the technology at a price that the licensee would be willing to pay. The size of the winning bid is determined by a firm's value of owning the technology, less the value to the firm if the technology is in the hands of its rival. Compulsory licensing lowers the first component and raises the second. Thus, compulsory licensing can have two negative effects on economic welfare. It can reduce welfare in the short run by compelling inefficient licensing. It can also reduce welfare in the long run by reducing incentives for innovation.”

2.2 Decisions of European courts

To illustrate these difficulties, we discuss a number of competition cases that address refusals to license essential inputs protected as intellectual property. Some major decisions clarify under what circumstances European competition authorities consider that a right holder abuses a position of dominance by refusing to sell or license a protected input to a competitor.

*Renault*³⁹ and *Volvo*⁴⁰ cases.

The facts of two cases are similar. Renault and Volvo had design rights on their models for car body panels. They denied access to their design rights to independent repairers, preventing them from supplying spare parts. The ECJ did not set out the circumstances in which a refusal to sell is abusive. It did, however, provide examples of abusive conduct, pointing out that the latter can result from the exercise of intellectual property rights. They include: (a) the arbitrary refusal to supply; (b) fixing prices at an unfair level; (c) ending the production of spare parts for models still in circulation. The ECJ ruled that the freedom of an IP owner is the core subject matter of the exclusive right and that the refusal in itself could not be an abuse of dominant position under Article 82. Refusal to license could be an abuse only if there was additional abusive conducts of the types reported above. So the ECJ did not condemn the defendants.

*Magill*⁴¹

In the Magill decision, the ECJ set out for the first time circumstances a refusal to license can be said to constitute an abuse of dominance⁴². They include (a) preventing the emergence of a

³⁹ Case C-53/87, ECR 6039, 1988

⁴⁰ Case C-238/87, ECR 6211, 1989

⁴¹ Case T-69/89, ECR II-485, 1991

new product for which there is a potential demand; (b) a non-justified refusal to license; and (c) the monopolization by the right's holder of a secondary market by exploiting power in a primary market.

The facts of this case are as follows: Three Irish TV broadcasting stations held copyrights on their individual program listings. Each station published its own TV guide to inform viewers of its program for the following week. Each station also granted a license to daily papers to publish its list of programs one day in advance and the license was granted free of charge. When Magill decided to publish an all-inclusive weekly guide for all three stations, they sued for copyright infringement and got a preliminary injunction. The stations subsequently refused to grant licenses to Magill and the company filed a complaint with the European Commission. The Commission concluded that refusal was in breach of Article 82. It ordered the stations to put an end to their abusive conduct by supplying "third parties on request and on a non-discriminatory basis with their individual advance weekly programme listings and permitting reproduction of those listings by such parties" (89/205/EEC).

This decision was upheld on appeal by the CFI and the ECJ. In a famous decision the highest court said that, although the right to exclude is the substance of the exclusive right, the refusal to license in the special circumstances listed above violates the general obligation of dominant firms to supply a downstream competitor. The ECJ held that although "mere ownership of an intellectual property right cannot confer a dominant position", there was a de facto monopoly over the information produced by the TV stations since they were the only source. The refusal to supply a license was preventing the emergence of a new product for which there was apparently a market demand; and finally there was no justified reason the refusal. The refusal to license judged under the heading of the essential facilities doctrine. The Court did not address the question whether one's obligation to license should in some ways be affected by the economic value of the asset protected under intellectual property law. The social benefit of the right to prohibit publication of a TV guide is hardly obvious. Neither the inspiration behind an artistic creation nor the perspiration behind a research effort is present: there was no significant sunk cost to justify an IP protection. The economic rationale may be that the public wants to be confident that the published programmes are reliable. This, however, does not explain why the holder should be granted exclusivity, except if there is a risk of error in the competitors' publications.

⁴² The presentation of this case is inspired from Korah (2001) and Derclaye (2003).

Much of the litigation to the refusal to license would not take place if intellectual property rights were granted on more solid grounds. The proliferation of IPRs, many of dubious background, exacerbates problems at the interface of Intellectual Property law and competition policy. It would be useful to assign a screening function to the intellectual property system by sorting out inventions that would be undertaken without any intellectual protection from those that would not. Without such selection, frivolous intellectual property rights will most likely proliferate without adding a real social benefit and provoking expensive litigation. This is not to say that is not socially valuable, but since is clearly profitable, the profit incentive should be sufficient to induce broadcasters without intellectual protection.

*Ladbroke*⁴³

The association that organizes horse races in France holds the copyright on the sounds and pictures of races. It refused to grant Tiercé Ladbroke - a Belgian bookmaker - a license to rebroadcast French horse races live. The Commission rejected a complaint by Ladbroke and the CFI rejected an attempt by Ladbroke to invoke Magill. The CFI limited the obligations of a dominant actor under Magill by holding that there was no duty to license live of French horse races to a firm that was already the leading provider of betting services in Belgium. But, it also made explicit the obligation of a producer to provide access to an indispensable input. The courts held that there might be a duty to supply where access was essential because there were no substitutes.⁴⁴

*Oscar Bronner*⁴⁵

Although it does not deal directly with intellectual property, the Oscar Bronner case has much in common with the previous cases. Mediaprint, an Austrian newspaper publisher and distributor, refused to distribute the daily newspaper of Oscar Bronner - a small publisher - through its national home-delivery network. Bronner complained to an Austrian court that, as a small publisher, it could not invest in another distribution network next to that of Mediaprint who was dominating the distribution service. Mediaprint argued that it was not required to help a competitor. The Austrian court referred to the ECJ the question whether the refusal by

⁴³ Case T-504/93, 1997, ECR II-923

⁴⁴ "The refusal to supply the applicant could not fall within the prohibition laid down by Article 86 (now 82) unless it concerned a product or service which was either essential for the exercise of the activity in question, in that there was no real or potential substitute, or was a new product whose introduction might be prevented, despite specific, constant and regular potential demand on the part of consumers "(CFI, Case T-504/93, par. 131).

⁴⁵ Case C-7/97, 1997, ECR II-923

a group holding a substantial share of the market in daily newspapers to allow the publisher of a competing newspaper access to its home-delivery network constituted an abuse of a dominant position. The Court argued that refusal would not constitute an abuse if there were alternatives to home delivery or if it was not impossible to develop a competing home delivery system. Considering that the plaintiff had not shown that it would be uneconomical for competitors to set up a second system, the Court ruled that there was no breach.

The ECJ decision has contributed to a better understanding of the doctrine. “Advocate General Jacobs used very general language in narrowing the obligation of a dominant firm to grant access. He observed that the ECJ has not used the term “essential facility” in this case law, but has held in many cases that for a dominant firm to cut off supplies to an existing consumer amounts to an abuse” (Korah, 2001, 815). Most importantly, the Advocate General stressed that in assessing the balance between the need to keep incentives to creation of the facility and the need to protect competition “particular care is required where the goods or services or facilities to which access is demanded represent the fruit of substantial investment. That may be true in particular in relation to refusal to license intellectual property rights. Such exclusive rights are granted for a limited period that in itself involves a balancing of the interests in free competition with that of providing an incentive for research and development and for creativity. It is therefore for good reason that the Court has held that the refusal to license does not of itself, in the absence of other factors, constitute an abuse”.⁴⁶

*NDC/IMS*⁴⁷

IMS supplies reports on the regional sales of pharmaceutical products in different countries including Germany. In order to respect confidentiality pharmacies are grouped by zones called bricks or modules. IMS has created a protected (copyright on a data base) structure of 1860 modules in Germany. In 1999, National Data Corporation (NDC) and Azyx entered the German market by creating a structure that was compatible with that of IMS. IMS sued for infringement and won. When IMS refused to issue a license to NDC, the latter filed a complaint that this constituted an abuse of dominant position. The Commission compelled IMS to grant a license to undertakings already present in the market. However, the order was suspended on appeal by the CFI. This suspension was later upheld by the ECJ. The Commission has now withdrawn its decision.

⁴⁶ Advocate General Jacob’s opinion in C7/97, 1998 I/7817, §61

⁴⁷ Interim Measures: Case COMP D/338.044 OJ L 59/18 (2002), CFI judgement: Case T-184/01, 2001, ECR II-3193

The case contrasts the views of the Commission and those of CFI and ECJ (Derclaye, 2003). The Commission reasoned as if there had been an implicit adoption of the essential facilities doctrine and as if the aforementioned decisions, particularly Magill, imply an unambiguous formula. For that reason it simply checked that the conditions listed by the ECJ were met. Because it found that IMS had a dominant position in the German market, that its refusal was unjustified, that the refusal eliminated competition and that there was no actual or potential substitute to the IMS structure, it made an order to license.

By contrast the CFI emphasized that the circumstances of Magill were exceptional. It argued that the facts in Magill and IMS were different. The judge advocated that "the applicant has made out a provisional prima facie case that the Commission has misconstrued the scope of the principles set out in Magill" (24 in Case T-184/01 R).

According to Derclaye (2003), the judgment suggests that there are two interpretations of the Magill case: the cumulative and the alternative interpretation. Under the cumulative interpretation the Commission failed to apply the first condition set in Magill, namely that the refusal to license prevented the appearance of a new product which the IPR holder did not offer and for which there was a potential demand. Since such condition was not apparent in the IMS case, the CFI suspended the decision of the Commission. Under the alternative interpretation, blocking access in order to weaken competition would have been sufficient to invoke article 82.

*Microsoft*⁴⁸

After the complaint made by Sun Microsystems (1998) that its rival Microsoft does not disclose information on technical interfaces to Windows NT that is necessary to allow competition in the market for server operating system, the European Commission expanded its investigation in 2002 on how streaming media technology (Media Player) has been integrated into Windows. The European case against Microsoft involves thus two issues, both related to potential abuses of a dominant position, one about the access restriction on the interface between Windows PC and non-Microsoft work group servers and the other one related to tying Windows Media player with the dominant Windows operating system. In 2003, the European Commission announced a preliminary injunctive decision to require Microsoft to provide greater technical information to its server competitors and to reduce the ties between its operating system and Media Player. After the collapse of the settlement talks

⁴⁸ Case T-201/04R

between the European Commission and Microsoft in 2003, the Commission issued a decision (24 March 2004) ruling that the company abused twice its market dominance. As regards interoperability, Microsoft was required not later than 4 months after the decision to disclose complete and accurate interface information which would allow non-Microsoft work group servers to achieve full compatibility with Windows PCs and servers. Moreover, the disclosed information had to be updated each time Microsoft brings to the market new versions of its products. As regards tying, Microsoft was required in a delay of 3 months to offer to PC manufacturers a version of its Windows PC operating system without Media Player. According to the Commission, the effect this remedy would allow the bundle configuration to reflect what consumers want and not what Microsoft imposes. Finally, Microsoft has been fined 497 million euros for abusing its market power in the EU.

Microsoft applied for interim measures, requesting from the CFI a suspension of the measure on the grounds that it would make irreparable damage. The CFI dismissed the application for interim measures⁴⁹.

We focus here on the disclosure order. The technical documentation allowing interoperability does not concern the Windows source code, as it is not necessary for the development of interoperable products. It concerns only the specifications of the interface between the Windows PC operating system and the non-Microsoft work group servers⁵⁰. Whether these specifications are covered or not by IP is a complex and technical issue. Even if it does not rule out the possibility that these specifications may be covered by copyright, the Commission maintains that their implementation by others does not constitute a breach of copyright since they lead to clearly distinct works (point 168 in the CFI Order). If these specifications were protected by patents, the issue would likely be different. What would happen if these specifications were protected only by trade secrecy law? The argument of the Commission is not completely convincing: “The Commission acknowledges that Directive 91/250 does not require the inventor to disclose the information on his own initiative. However, from the aspect of any trade secret that Microsoft may have, disclosing interoperability information is not comparable to licensing a competitor to copy a work protected by intellectual property legislations. That assertion is supported by the technical relevance of such disclosure, by the practices existing in the software industry and by Microsoft’s own behaviour when it entered in the market” (point 183 in the CFI order).

⁴⁹ Order of the President of the CFI, 22 December 2004, available at <http://www.europa.eu.int>

⁵⁰ A group server operating system runs on central network computers that provide services to office workers around the world in their day to day work (file sharing, printing, etc.)

At this stage, it is difficult to draw a definite conclusion from the Microsoft case except the very general one that the evolution of technology raises new and complex issues at the interface of IP and competition law. It could be interesting to develop some guidelines clarifying the exceptional circumstances under which access would be mandatory. For instance, it could be helpful to state that non access is acceptable except when all the following conditions hold: i) access is indispensable for providing a product on a secondary market, ii) there is an objective potential demand for the would-be product and iii) there are no objective justifications for the refusal. But even if these conditions are met, other questions remain open. For instance what would be the *reasonable price* for the licensing of the disclosed information if access and interoperability were made compulsory?

To conclude this section, we would like to emphasize that the treatment of refusal to license essential intellectual property rights is a very important question in the framework of cumulative innovation, particularly in ICT and biotechnology⁵¹ The cumulative character of successive innovations, in which improvements and applications derive from previous inventions, raises concerns that intellectual property rights may create difficulties for follow-up inventions. But, rather than compelling intellectual property holders to license their right when it is essential, another suggested way is to develop bilateral or multilateral agreements such as cross-licensing, grant backs, patent pools and collective management of intellectual property rights. We turn now to this last issue.

3. Collective management of intellectual property rights

Collective management of rights allows authors to overcome the transaction cost hurdle that impedes the individual exercise of rights granted to them under copyright law. Copyright collectives — also called collection societies — emerged to manage rights in works that have a great number of potential users but where the value of a single work to the individual user is small. In such situations, management of rights by individual rights' holders is not economically justified. Under individual management, the costs of negotiating with users, collecting payments, identifying those who infringe and suing them would exceed the amount the right-holder could expect to collect. Collective administration of copyright addresses the problem by spreading the costs over a great many works.

Under collective management, individual right-holders assign their right(s) to an organization which carries out the following tasks on their behalf: it monitors the use of works

⁵¹ See Walsh, Arora and Cohen (2002)

in its repertoire and takes legal action against those who infringe copyright in these works; it negotiates fees with users and collects payments; it distributes payments to its members after deduction of overhead.⁵²

The oldest and largest collectives manage public performance rights **for music** in a repertoire that contains millions of works. **These** license music users such as broadcasters, restaurants, concert halls and sports arenas.⁵³ The typical license granted by a performing rights society is a blanket license. Such **a** license gives the licensee the right to unlimited use of all the works in the repertoire managed by the collective for a period of one year. Typically, the licensing fee correlates with **the** scale of users' operations and the importance of music to their activities.⁵⁴ The amounts that are redistributed by the collective to its members depend on the amount of use of their music, and on whether that music played a central or ancillary role for the purposes it was used.

By tradition collectives are active only in the territory of the country where they are located. However, within that territory they administer a worldwide repertoire made up of works entrusted to them by local authors, and works assigned to them under reciprocal representation agreements with foreign collectives. This arrangement allows local users to obtain via the collective in their national territory **an (delete)** unlimited access to a (virtual) worldwide repertoire of copyrighted music. Such **a right to use (delete)** is important to music users who need unlimited and unplanned access to a large repertoire. The blanket license offers such users the guarantee that any music performed in public will not infringe copyright.

Although public performance often requires that complementary rights be cleared, collectives rarely provide users a one-stop-shop. For example, a broadcaster may have to copy songs on hard disk in order to perform them in public. This means that the right to reproduce the work must also be cleared. For such **a** user a collective becomes a one-stop-shop only if it administers the public performing right, the reproduction right, and the remaining copyrights and neighbouring rights that must be cleared to perform the music.⁵⁵

In almost all countries a single society manages the performing rights. Users who need spur-of-the-moment access to a very large repertoire, cannot circumvent the national society when: 1) it holds the exclusive license to manage the performing rights in all present

⁵² Members repossess their rights when they leave the society.

⁵³ The right to perform a work of music in public is one among several exclusive rights that copyright law grants composers.

⁵⁴ The tariff base often equals the revenues earned by the user during a representative period; the tariff rate is lower for sports arenas where music plays a lesser role than for concert halls where its role is central.

⁵⁵ The rights that must be cleared to broadcast a piece of music are those in the musical work (**mostly** held by composer and publishers) and copyright and/or neighbouring rights in the sound recording (held by performers and producers/**makers (delete)**).

and future works of its members; and 2) when a substantial portion of authors who produce the type of work required by the user are members. As a rule, performing right societies are assigned exclusive rights by their members.⁵⁶

Interestingly, the presence of two or more performing right societies within the same single territory does not give rise to rivalry in the conventional sense unless the repertoire controlled by each have a considerable degree of overlap.⁵⁷ The reason is that users may need access to the repertoire of both societies to ensure there is no infringement.

The role of collectives in copyright management has been expanding. Collectives are active in areas such as synchronization, reproduction, droit de suite (translate), neighbouring rights, (delete comma) and public lending.⁵⁸ More often than not, one society is responsible for the collective administration of a specific right for a particular class of works.⁵⁹

This section will deal almost exclusively with performing rights societies in music because they are the oldest societies and they have been the subject of most of the (delete) antitrust scrutiny.

3.1 Competition issues

The forms of conduct that have come under scrutiny on both sides of the Atlantic are usefully grouped under the following headings: actions that strengthen the collectives' capacity to exploit existing market power vis-à-vis users; actions designed to strengthen or preserve market power vis-à-vis users (repeats above?); and actions designed to favour some members at the expense of other members. We will discuss how European competition authorities have addressed some of the issues in what follows.⁶⁰

Blanket licenses versus limited repertory licensing

The question whether collectives abuse their position of dominance when they refuse to grant licenses for a portion of their repertory was addressed by the European Court of Justice in the Tournier Judgment. Years before, the claimants - a group of discotheque owners - had

⁵⁶ The most notable exception to this arrangement is found in the United States where the two main societies (ASCAP and BMI) are bound under the terms of consent agreements to accept only non-exclusive licenses.

⁵⁷ In the US there are two major performing right societies (ASCAP and BMI) and one minor one (SESAC) (delete as repetitive)

⁵⁸ A review of various types of collective administration can be found in WIPO (1990) and Gervais (2001).

⁵⁹ For example, there may be two societies that manage reproduction where one will deal with the reproduction of musical works while the other specializes in the reproduction of literary works.

⁶⁰ To address the concerns of monopoly power, some countries, including the UK and Canada, have adopted systems of compulsory licenses or regulation of tariffs by specialized administrative tribunals. Other countries rely primarily on the enforcement of competition law.

initiated a case before the French competition authority, arguing that the SACEM – the French performing rights society – was acting abusively by refusing them licenses limited to popular dance music of predominantly Anglo-American origin. The claimants argued that they should not have to pay for the rights in other works that they would never use. They had already been refused licenses for such music by the foreign collectives.

The ECJ (referred to by a French court for a preliminary ruling) held that “the refusal by a national society for the management of copyright in musical works to grant the users of recorded music access only to the foreign repertoire represented by it does not have the object of restricting competition in the common market unless access to part of the protected repertoire could entirely safeguard the interest of the authors, composers and publishers of music without thereby increasing the costs of managing contracts and monitoring the use of protected musical works”.⁶¹ The apparent implication is that a refusal to issue only blanket licenses would be illegal if collectives could somehow fully uphold authors’ interests without incurring cost increases.

The economic rationale behind a demand for partial repertory licenses is not clear. The royalties paid to collectives do – in principle at least – reflect the value of the music to users. The mere fact that an individual uses a small subset of a repertoire does not imply that the music he uses is less valuable to him. To some users (e.g. discotheques) the music is vital. One must assume that the demands for limited repertory licenses derive from a belief that some regulatory authority would have (delete) enforce a form of price control under which the royalty for a limited repertory license would relate to the royalty charged for a blanket license in a way that reflects the difference in the number of works cleared.

Also, there is little doubt that making limited repertory licensing available is costly. One cost component is that of allocating works to different classes. This cost cannot be recovered if it turns out ex post that there are no takers for a limited repertory.⁶² Also, because a substantial portion of a collective’s repertory consists of new songs, users who acquire a limited license would have to verify on a continuous basis whether new releases they want to play are in fact covered by their license. In addition, monitoring costs are higher because

⁶¹ Ministère Public versus Jean-Louis Tournier, case 395/87, 13 July 1989.

⁶² In this regard it is noteworthy that expert testimony submitted in a US court that dealt with a similar complaint indicated that a specific song could be allocated to more than one class and that classification would depend on whether the criterion for classification is the type of music or the style of performance. Broadcast Music Moor – Law Inc. Civ. A 77-325

societies want to insure that users do not perform works for which they have not cleared the rights.⁶³

Because of the extra cost associated with fractional licensing, and because the product being licensed is a public good, it is likely that the parties would settle on a blanket license even if the collective was bound to issue a limited repertory license on demand. One can presume that users who demand licenses for part of the repertory do so in the hope of lowering the payment for the blanket licenses. Such hope can only be based on the belief that a competition authority or other regulatory body would order a substantially lower tariff for the partial license. (Point already made)

The assignment of rights to collectives

The questions often raised by competition authorities concerning collective societies are:

1. Does a society act abusively when it accepts to administer a specific right only on condition that the right holder hand over other rights pertaining to the same works?

2. Does a society lessen competition unduly when it declines to administer a specific right on behalf of a person who refuses to assign that right in respect to all possible uses or users of a work?

3. Does a collective abuse its position of dominance when it demands that rights be assigned in a form that rules out direct and independent licensing by members with respect to the same rights?

4. Does a society unduly restrict competition when it accepts members on condition that the rights they assign embrace all the works in which they hold such rights?

Questions 1, 2 and 4 address the issue whether the requirements imposed by a society have the effect of drawing under the umbrella of collective management activities that could be carried out on an individual and presumably competitive basis.⁶⁴ Question 3 addresses the issue whether a demand for exclusivity goes beyond the minimum requirement for effective management.

The following principles were laid down by the European Commission in the GEMA decision:⁶⁵ members of collectives must have the right to choose which rights, among a number of rights or utilisation categories established by the Commission, they wish to exploit

⁶³ A further concern is that different societies may classify works differently.

⁶⁴ Or more efficiently by another collective.

⁶⁵ GEMA (Gesellschaft für Musikalische Auffuerungs und Mechanische Verfielfaetigungsrechte) is the German performing rights society.

through the collective; a collective may demand that a member assign a specific right to all works within the categories that it administers.⁶⁶

The Commission considered the issue of partial assignment again when two members of Daft Punk (a French techno-music group) applied for membership in SACEM⁶⁷ in respect of all their rights except two categories identified in the GEMA decision. They were advised by the French society that membership would be denied unless they showed that another society had been appointed in respect of the excluded rights. In response to a finding by the Commission that such a requirement was abusive of SACEM's dominant position, the French society amended the internal regulation that barred membership of authors who reside in the European Union and do not assign all rights to it or to (delete) another society. Under the amended rule, SACEM may derogate from this regulation and accept the author. The decision to do so must be well-founded. This was accepted by the Commission, which stressed that refusals to derogate would have to be exceptional and based on objective reasons.⁶⁸

Neither the GEMA nor the SACEM decision disputed the legality of a collective's demand that a right assigned to (delete) be exclusive. It is significant therefore that some jurisdictions have expanded the list of situations in which members can withdraw from collective management. In Ireland and the UK, performing right societies are required to allow members to divide the performing right into categories and decide which of the categories they entrust to the collective administration system. Upon request from a member, the local societies are duty-bound to license back, on a non-exclusive basis, all or part of the performing right in members' works performed in live concerts - the so-called "live event right" - by the members. This arrangement allows members to negotiate a performance royalty at the time they settle on other contractual terms with promoters of concerts or owners of venues. The reason given by the UK Monopolies and Mergers Commission (give reference) for recommending that members be entitled to administer their own live performances rights is that the circumstances in which this would occur would be tightly and clearly defined, and that live performances, such as major tours, were in many respects similar to performances of operas and ballets which are classified as grand rights where the articles of association permit direct agreement between their copyright holder and the organizer of the performance.⁶⁹

⁶⁶ GEMA, EC Official J. L134. June 20, 1971 and GEMAI EC Official J. L 166, July 24, 1972

⁶⁷ SACEM is the French performing rights society. (delete as repetition)

⁶⁸ Wood (2001) and Bulletin EU 7/8-2002 Competition (24/40).

⁶⁹ The UK society had argued unsuccessfully before the competition authority that the absence of mention of "live event rights" in the lists provided by the European Commission implied that it was not compelled to issue

Rivalry among collectives

As indicated **above**, the licenses granted by societies allow **for** the public performance of music within the national boundaries of the territory in which these societies operate. The main justification for such territorial limitation is the need **for** a local presence to monitor the uses of works entrusted to the collective. Such presence is not necessary for on-line distribution because specialized software allows monitoring at a distance of all the music delivered via a particular server. This makes worldwide management via a single organization possible. For that reason it holds the promise of significant cost savings. It also removes a key justification for societies not to compete in the cross-border provision of services. To enhance the management efficiency of the rights in music delivered via the Internet, a number of societies established in different national territories have entered into agreements that allow users such as broadcasters to clear rights for many national territories via a single organization.

The Commission has recently handed down an important ruling in regard to agreements that cover the rights of performers in music distributed concurrently by broadcast and on the Internet. This form of distribution is called simulcasting.⁷⁰ The competition issues raised by simulcasting were brought to the Commission's attention by an application for a negative clearance for an agreement among 29 European and other societies. The agreement **would have (delete)** allowed music users to clear rights for multiple territories and/or pay equitable remuneration via a single party.⁷¹

licenses for such uses. A similar argument did, however, carry weight with the Norwegian Competition Authority (NCA). The NCA took action to bar **a** local performing rights society from claiming exclusive management of its members rights to **"all existing and future rights in respect of all types of use within the fields of recording and performance where exclusivity is understood as allow its members an opportunity to manage their own works through means other than the society"**. (not italic) However, The NCA did not forbid exclusive management in the sense that once a work or category is placed under the society's management, it is managed solely by the society. It ordered that room be made for performance and/or recording contracts **separate from** the society. Because the NCA held that the categories listed in the GEMA decisions are no longer relevant in that they do not conform "with the possibilities and needs in present day management of rights" it requested that the society "propose suitable categories of works and/or forms of use, for its final decision and approval." **See** Norwegian Competition Authority, Decision V99-33 Re: Revocation of TONO's dispensation and action against TONO's rule-sections 3-9 and 3-10 of the Act relating to competition.

⁷⁰ Case COMP/C2/38.014 *IFPI Simulcasting*, decision of 8 October 2002, OJ L107 (30.04.2003) p. 58. Another (Santiago Agreement) deals with performance license when no simulcasting is involved; see press release IP/04/586. A third agreement (Barcelona Agreement) deals with reproduction rights.

⁷¹ Clearance was sought by the International Federation of **the** Phonographic Industry (IFPI).

Under the original agreement a collective could grant a multi-territorial license only to simulcasters whose signals originated in its national territory.⁷² The licensing fee would have been equal to the sum of the individual tariffs set by each society for simulcasting on its own territory.⁷³ Because of concerns expressed by the Commission, the agreement was amended in a way that allowed any party that had entered the agreement and was established in the EEA to grant a multi-territorial simulcasting license to any broadcaster whose signals originated in the EEA.

This amendment opened a door to some competition among the EEA-based collectives that were party to the **agreement**. However, price competition remained limited because aggregation of national tariffs meant that all participating societies would **apparently (delete)** grant one and the same product **at** an identical price. The only price-related competition that could possibly benefit users related to such factors as conditions of payment and **eventual (what are these?)** rebates.

The Commission opined that this limited price competition was too feeble to benefit small or medium scale users. It reasoned that the amalgamation of the royalty and the administrative fee in a single amount, as provided under the original and amended agreements, was not necessary to **the** existence of an agreement and that it “prevents prospective users from assessing the efficiency of each one of the participating societies and from benefiting from the licensing services from the society capable of providing them at a lower cost.”⁷⁴ The Commission held that competition would be enhanced if the aggregate payments were broken up into separate components: a copyright royalty and an administration fee.

In response to this concern, IFPI submitted a second amendment that provided a mechanism under which collecting societies in the EEA would specify which part of their tariff corresponds to the administration fee charged to the user. This part would be determined with reference to actual administration cost of the individual grantor society.

With such **a** split **in** place, the Commission no longer opposed the principle of a common royalty determined by aggregation of the tariffs established by the individual societies. The Commission defended this stance by arguing that this arrangement is the “least restrictive of the alternatives in the present circumstances so as to create and distribute a new

⁷² Under an earlier version of the agreement notified on 16/11/2000 a collecting society was empowered to grant a license only to simulcasters whose signals originated in the country traditionally served by that collective.

⁷³ The latter could be based on a percentage of the revenue generated from the simulcast within its territory.

⁷⁴ Commission decision (08.10.2002) relating to a proceeding under Article 81 of the EC Treaty and Article 53 of the EEA Agreement, Case No. COMP/C2/38.014-IFP “Simulcasting”.

product”. It held that in **the** absence of a “minimum degree of control over licensing terms” societies could earn revenue lower than by not participating in an agreement necessary to provide a new product to users”. If so, their incentive to participate would disappear.⁷⁵ The Commission’s decision was also motivated by the fact **that** the form of co-operation between societies required under the agreement did not **replace existing competition. (reduce competition below existing levels?)**

Opening up of alternative options.

The effects the amendments will have on welfare will depend on the following: Will they allow new actors to license the right managed by the collective? If so, will the presence of such actors add significantly to competitive pressure? If both of these conditions are met, how will the presence of additional actors affect welfare? The options that matter from a competition perspective are primarily those that allow right holders and users to bypass the collective.

Consider first the option of non-exclusive licenses. Such **an** option removes the contractual impediment to direct negotiation between music users and right holders or their representatives, in regard to rights managed by collectives. To exert competitive pressure, the option must be credible, i.e. it must be attractive to some users and the owners of the music they wish to perform. Direct licensing of the right may be appealing to a user who has no need for unlimited and unplanned access to a large repertoire of copyrighted works. It may also draw users who require such access for a segment of their activities if they can acquire a mini blanket license for that segment at a price sufficiently lower than the standard blanket licence.⁷⁶ A related question is from how many authors such **a** user would have to obtain a license to satisfy programming requirements not filled by the mini-blanket license.⁷⁷

Transaction costs are also increased by mandating the option. A major component of transaction costs **s** is the cost of monitoring music users who do not hold a blanket license. Another increase may be due to the cost of negotiating terms of the performing license. However, the latter is likely to be less when the user commissions new music than when he seeks to acquire the performing right for an existing work **since when** the user commissions **work from a supplier**, the parties are already engaged in dialogue.

⁷⁵ Ibid. **para.** 111-113.

⁷⁶ Such **a** user could be a broadcaster who uses only pre-recorded music **selected (delete)**.

⁷⁷ Also, interest in direct licensing would quickly wane if problems of *hold-up* arose because of the complementarity of works needed for a particular use.

How much pressure on prices?

The mere opening of additional licensing avenues does not guarantee that the price of performing music will go down. The performing right is only one component of the cost of performing music. Blanket licensing rules out price competition for the performance of components of the repertoire. It does not, however, preclude efforts by right holders to bring price strategies into play in order to stimulate the demand for their music. Some users – film makers for example – may have to acquire both a performing and a synchronization license. As long as the royalty paid to clear other rights pertaining to the same works are set individually, there remains competition for the works. The user of music is concerned about the sum of payments for all the rights he must clear. The decomposition of payments into performing royalties and other royalties hardly matters. As long as some important complementary rights are licensed individually, an increase in the price of the blanket performing license should be accompanied by some decrease in the price of the complementary licenses.

A similar trade-off may exist **in the supply of new works**. Producers of TV or radio programmes who commission new music pay artists a creative fee. They are also concerned with the total cost of the music which includes the creative fee plus all payments to clear the rights for all intended uses. Because the creative fees are negotiated on an individual basis, a major component of the cost of music is determined in **the** market where competition is present.

The payment of **a** payola is also a form of price competition. **A** payola refers to payments made to persons in broadcasting to persuade them to give more **play time** to works in which the person making the payment has an interest. Payola exists because **play time** stimulates the sales of recordings. Some jurisdictions try to proscribe the **payment of a payola**; **for example, it is illegal in the US.**

4. Conclusion

This **chapter** has looked at three areas where the exercise of **intellectual property rights granted appear to conflict** with competition policy objectives. It has discussed major judgments handed down by **the** European courts that clarify how Articles 81 and 82 of the **EC** Treaty rein in rights to exclude granted under intellectual property laws.

The analysis of parallel trade suggests that courts are more likely to strike down agreements to segment the EU into national markets than arrangements that serve to protect

the EU market from imports originating from outside the Union. The Trade Marks Directive illustrates in the clearest possible fashion the paramountcy of creating a single market as policy objective of European competition policy. It is now established that unless explicit authorization to sell into the Union is granted, the holder of a European trade mark can block such imports. Also, private agreements that pursue this objective are not considered, by their very nature, to be anticompetitive. Further evidence of the weight assigned to creating a single market is provided by the Commission's per se treatment of explicit private agreements to stop parallel trade among Member States.

Such harsh treatment of segmentation is difficult to justify on purely economic grounds. An interesting question, therefore, is whether competition authorities will continue to deal in this way with agreements or unilateral conduct that partition the EU into territories that do not match national markets (delete). The courts may well face this issue in the near future because existence of a significant gap in purchasing power between old and new Member States raises the benefits from geographical segmentation.

The judgments that address refusals to license know-how, or products protected by patents and copyright, do not provide as lucid a picture of the conditions under which a right holder will be compelled to issue a license. It is clear that competition objectives do limit the scope of the right to exclude granted by intellectual property laws, but the circumstances when they do appear to be largely case-specific. The conditions of the much cited Magill decision have been termed exceptional. The Oscar Bronner judgment which stresses that the cost of developing the essential input is crucial appears well-founded economically. However, its impact on future rulings remains uncertain.

Copyright collectives have always raised challenging questions from an antitrust perspective. Blanket licensing and requirements that authors assign all rights or none to the collective certainly appear to have anti-competitive potential. Also, the organization of the (delete) markets in which collectives operate gives these (delete) collectives a position of dominance. Yet, because of the specificities of the markets in which these societies operate, they have been allowed to engage in conduct that would otherwise run afoul of competition rules. European courts have rightly been concerned that mandating alternative contractual arrangements between on the one hand, collectives and users, and on the other hand, collective organizations and their members, would undermine the capacity of authors to exercise rights granted to them by law. It appears that national courts (authorities?) rather than European authorities have currently gone furthest in experimenting with some alternative arrangements.

The trade-off between the desire to promote the emergence of new products and the desire to promote competition comes across very clearly in the process that led to adoption of the final version of the Simulcast agreement. The Commission finally settled for a formula that rules out price competition for the product itself but gives parties to the agreement an incentive to minimize overall charges.

References (references not cited in the chapter are shown with yellow)

AGHION, P., C. HARRIS, and J. VICKERS (1997), "Competition and Growth with Step-by Step Innovation: An Example", *European Economic Review*, Papers and Proceedings, pp. 771-782.

AGHION, P., C. HARRIS, P. HOWITT and J. VICKERS (2001), "Competition, imitation and growth with step-by-step innovation", *Review of Economic Studies*, 68, 467-492

ANDERSON, S.P. and V. GINSBURGH (1999), "International Pricing with Costly Consumer Arbitrage", *Review of International Economics*, 7(1), 126-139.

CARLSON, S.C. (1999), "Patent Pools and the Antitrust Dilemma", *Yale Journal of Regulation*, 359.

CARLTON, D. and R. GERTNER (2002), "Intellectual property, antitrust and strategic behaviour", NBER W.P. 8976

COHEN, W., R. NELSON and J. WALSH, (2000), "Protecting their intellectual assets: Why US manufacturing firms patent (or not)", NBER W.P. 7552

CHARLES RIVER ASSOCIATES (2003), "Report on multiparty licensing", London

CRAMPES, C., A. HOLLANDER and C. MacDISSI (2004), "On non-contractual means to curtail parallel trade", Université de Montréal, mimeo.

DERCLAYE, E., (2003), "Abuses of dominant position and intellectual property rights: A suggestion to reconcile the Community Courts Law", *World Competition*, 26(4), 685-705

DUNT, E., J.S. GANS and S.P. KING (2001), "The Economic Consequences of DVD Regional Restrictions", University of Melbourne, mimeo.

ENCAOUA, D. and A. HOLLANDER (2002), "Competition policy and innovation", *Oxford Review of Economic Policy*, 18, 1, 63-79.

ENCAOUA, D. and A. HOLLANDER, (2004), "Price discrimination, competition and quality selection", Université Paris I, mimeo

ENCAOUA, D., D. GUELLEC and C. MARTINEZ (2003), "The Economics of patents: from natural rights to policy instruments", Cahiers de la MSE, EUREQua, 2003-124

ENCAOUA, D. and D. ULPH (2000), "Catching-up or leapfrogging? The effects of Competition on Innovation and Growth", Cahier de la MSE, EUREQua, W.P. 2000.97

FEDERAL TRADE COMMISSION (2003), "To promote innovation: The proper balance of competition and patent law", report available at www.ftc.gov/os/2003/10/innovationrpt.pdf

GALLINI, N.T. and A. HOLLIS (1999), "A contractual approach to the gray (correct spelling?) market", *International Review of Law and Economics*, Vol. 19(1), 1-21.

GANSLANDT M. and K. MASKUS (1999), "Parallel Imports of Pharmaceutical Products in the European Union", World Bank Research, Washington

GERVAIS, D. (2001), "Gestion collective du droit d'auteur et des droits voisins au Canada: perspective internationale", Rapport pour le Ministère Canadien du Patrimoine; available at http://www.pch.gc.ca/progs/ac-ca/progs/pda-cpb/pubs/collective/collective_f.pdf

GILBERT, R. and C. SHAPIRO (1996), "An economic analysis of unilateral refusals to license intellectual property", *Proceedings of National Academy of Science, USA*, 93, 12749-12755

GILBERT, R. (2000), "Antitrust policy for the licensing of intellectual property: An international comparison", *International Journal of Technology Management*, 19, 1/2, 206-223

GILBERT, R. (2002) "Antitrust for patent pools: A century for policy evolution", W.P. University of California, Berkeley.

GILBERT, R. (2004), "Convergent doctrines? US and EU Antitrust Policy for the licensing of intellectual property", Competition Policy Center, University of California, Berkeley, Paper CPC04'044

HALL, B. and R.M. ZIEDONIS (2001), "The patent paradox revisited: An empirical study of patenting in the U.S. Semi-conductor industry", *Rand Journal of Economics*, Vol. 32, No. 1, spring.

KATZ, A. (2002), "The Misguiding Guidelines: Conceptual Loopholes in the Antitrust – Intellectual Property Guidelines", Faculty of Law - University of Toronto, April.

KATZ, M. and C. SHAPIRO (1985), "On the licensing of innovation", *Rand Journal of Economics*, 16, 504-520

KENNY, P. and P. McNUTT (1999) "Competition, Parallel Imports & Trademark Exhaustion: Two Wrongs from a Trademark Right." DP No 8, Irish Competition Authority, December.

KORAH, V. (2001), "The interface between intellectual property and antitrust: The European experience", *Antitrust Law Journal*, 69, 801-839

LANDES, W. and R. POSNER, (2003), *The Economic Structure of Intellectual Property Law*, Cambridge, Mass. The Belknap Press of Harvard University Press

LERNER, J. and J. TIROLE (2002), "Efficient patent pools", National Bureau of Economic Research, WP 9175

LERNER, J., M. STROJWAS and J. TIROLE (2003), "Cooperative marketing agreements between competitors: evidence from patent pools", mimeo, Harvard University and University of Toulouse

LOWE P. (2003), "Current issues of EU competition law -The new competition enforcement regime", *North-Western Journal of International Law and Business*, n°3, Spring

MALUEG and SCHWARTZ (1994,) "Parallel imports, demand dispersion and international price discrimination" *Journal of International Economics*, 37, 167-195

MARTINEZ C. and D. GUELLEC (2003) "Overview of recent trends in patent regimes in United States, Japan and Europe", DSTI/STP/TIP (2003)6, OECD

MAURER, S. and S. SCOTCHMER (2004), "Profit Neutrality in Licensing: The Boundary between Antitrust Law and Patent Law", CPC04-43, University of California, Berkeley

MERGES, R. (1999), "Institutions for intellectual property transactions: The case for patent pools", WP University of California, Berkeley

MEURER, M.J. (2001), "Copyright Law and Price Discrimination", *Cardozo Law Review*, 55.

MOTTA, M., (2004), *Competition Policy, Theory and Practice*, Cambridge University Press

NERA (1999), "The Economic Consequences of the Choice of a Regime of Exhaustion in the Area of Trademarks", Final Report prepared for the European Commission

REY, P. and J. STIGLITZ (1995), "The Role of Exclusive Territories in Producers' Competition", *Rand Journal of Economics*, 26, 431-451.

SCOTCHMER, S. (2004), *Innovation and Incentives*, Cambridge, Ma. The MIT Press

SHAPIRO, C. (2001), "Navigating the patent thicket", in *Innovation Policy and the Economy*, Jaffe, Lerner and Stern, eds., National Bureau of Economics

STOLE, L. (2004), "Price Discrimination and Imperfect Competition" in M. Armstrong and R. Porter, eds. *Handbook of Industrial Organization*, volume III, North Holland, forthcoming.

TEMPLE LANG, J. (2000), "The Principle of Essential Facility Doctrine in European Community Competition Law", *Journal of Network Industries*, 375-405

TROGH, R. (2002), "The International Exhaustion of Trade Mark Rights after Silhouette: the End of Parallel Imports? " University of Lund, Spring 2002

VICKERS, J., (2001), "Competition policy and innovation", Office of Fair Trading, Speech to the International Competition Policy Conference, Oxford

WALSH, J., A. ARORA and W. COHEN (2002), "The patenting and licensing of research tools and Biomedical inventions", prepared for the Science, Technology and Economic Policy Board of the National Academies, USA.

WIPO (1990) "Collective Administration of Copyright and Neighbouring Rights", World Intellectual Property Organization World Intellectual Property Organization (688(E)), Geneva, WIPO Publication.

WOOD, D. (2001): "Collective Management and EU Competition Law" Directorate General for Competition, European Commission, available at http://europa.eu.int/comm/competition/speeches/text/sp2001_025_en.pdf