

POLICY ROUNDTABLES

Competition Policy and Intellectual Property Rights

1997

Introduction

The OECD Competition Committee debated competition policy and intellectual property rights in October 1997. This document includes an executive summary, an analytical note by Mr. Willard Tom (US FTC) and submissions from Australia, Austria, Belgium, Brazil, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Chinese Taipei, Turkey, the United Kingdom, the United States, the European Commission and BIAC, papers by MM. Tadashi Shiraishi, John H. Barton, Michael Trebilcock, Ms. Nancy Gallini and Ms. Valentine Korah, as well as an aide-memoire of the discussion.

Overview

Long-run benefits from innovation justify granting intellectual property rights (IPRs), even though free copying would yield short-run benefits because products incorporating the intellectual property could be priced close to marginal cost. On the other hand, IPRs can unduly restrict "secondary" innovation or reduce incentives for further innovation.

Competition agencies are generally reluctant to second-guess the appropriate breadth of IPRs, and they have not usually interfered with unilateral decisions by IPR holders about their pricing and licensing policies. Competition agencies are more likely to intervene when IPR holders that are actual or potential competitors cross license one another, or when IPR holders adopt licence terms having the effect of increasing the scope or duration of their statutory protection. Licenses may nonetheless be accepted if competition will be greater with the licence, despite its restrictions, than with no licence at all.

Related Topics

Intellectual Property Rights (2004)
Competition Policy and Intellectual Property Rights (1989)

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FOREWORD

This document comprises proceedings in the original languages of a Roundtable on competition issues relating to intellectual property rights which was held by the Committee on Competition Law and Policy in October 1997.

This compilation which is one of several published in a series named "Competition Policy Roundtables" is issued to bring information on this topic to the attention of a wider audience.

PRÉFACE

Ce document rassemble la documentation, dans la langue d'origine dans laquelle elle a été soumise, relative à une table ronde sur les problèmes de concurrence en matière de droits de propriété intellectuelle. Cette table ronde s'est tenue en octobre 1997 dans le cadre de la réunion du Comité du droit et de la politique de la concurrence.

Cette compilation qui fait partie de la série intitulée "les tables rondes sur la politique de la concurrence" est diffusée pour porter à la connaissance d'un large public, les éléments d'information qui ont été réunis à cette occasion.

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* "Guidelines for the Regulation of Unfair Trade Practices with Respect to Patent and know-how Licensing Agreements (Issued by the Fair Trade Commission, February 15, 1989.)

** "Antitrust guidelines for the Licensing of Intellectual Property" (Issued by the DOJ and FTC, April 6, 1995.)

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EXECUTIVE SUMMARY

Considering the discussion at the roundtable, the background paper, and papers by panellists and delegates, the following key points emerge:

- *Despite sharing important goals intellectual property rights (IPR) and competition policies are not purely complementary policies and managing the interface between them can be difficult.*

At the highest level of analysis IPR and competition policies are complementary because they share a concern to promote technical progress to the ultimate benefit of consumers. Firms are more likely to innovate if they are at least somewhat protected against free-riding. They are also more likely to innovate if they face strong competition. The problem is that even completely legitimate use of IPR can restrict competition at least in the short run thus producing a trade-off between the benefits of increased competition and the gains from further innovation. Such a trade-off probably lies outside patent office mandates, and is inherently difficult for competition agencies to make. This problem could be aggravated by competition agencies taking a strictly short run view of competition. Such agencies, however, are increasingly adopting a dynamic view especially in the so-called high-technology industries where IPR can play a very important role in the competitive process.

Possible friction between IPR and competition policy will be reduced if competition agencies are constrained, either by statutes or administrative policy from seeking to fine-tune IPR protection, i.e. do not seek to reduce the effects of what they regard as dubious patent protection or narrow what they consider to be unduly broad patents.

Even if competition agencies refrain from explicitly fine-tuning patent protection, e.g. through compulsory licensing, that does not eliminate the need to make difficult efficiency trade-offs. There remains a host of problems that could arise where firms use IPR in anticompetitive ways that go beyond what was contemplated in the rights themselves. The challenge in such instances is to reduce the anticompetitive effects while respecting the existence of IPR and the public goals that IPR is intended to promote.

- *IPR protection in some sectors (notably biotechnology) and countries may be so broad that it actually inhibits innovation. Even if this is true, however, there remain valid reasons for competition agencies rejecting direct remedial measures, though they should engage in competition advocacy to ensure patent offices are aware of the anticompetitive effects of overbroad patents.*

Though broader patents will typically translate into greater rewards to primary innovators, they simultaneously tend to increase the costs and uncertainties facing secondary innovators. Empirical studies have yielded inconclusive results concerning the net effect of patent breadth on both types of innovation taken together. This might encourage competition offices to take action to reduce anticompetitive effects of what they might consider unnecessarily broad patents. Unfortunately, such *ex post* interference by competition agencies would tend to reduce innovation by introducing greater uncertainty about possible rewards. Moreover, there is already a certain degree of automatic fine-tuning being practised by competition agencies. This arises through the positive correlation between patent breadth and likelihood of finding that an IPR holder enjoys a dominant position. In many countries, such a finding is pre-

requisite to the competition agency taking some action against a competitive restraint, including one linked to IPR.

Both competition agencies and patent offices lack the knowledge required to determine optimal patent breadth, but of the two, the patent offices seem to be in a better position to make trade-offs between incentives for primary as opposed to secondary innovation. At the same time, competition agencies enjoy a comparative advantage in discovering and appreciating the anticompetitive effects that overly broad patents might entail. Competition agencies should ensure that patent office decisions about patent breadth are well informed concerning their possible anticompetitive effects.

- *Competition agencies should not only accept the legitimacy and potentially pro-competitive nature of IPR despite possible inherent short run restrictions on competition, they should also recognise the unique features of IPR which call for a customised approach to cases involving IPR.*.

The most obvious reason for customised enforcement in cases featuring IPR is that many countries' competition laws provide exemptions or exceptions designed to ensure that such laws do not negate the exclusive rights explicitly granted by patent, know-how and copyright laws. Even without such legal constraints, competition agencies should be cautious about constraining the use of IPR because of the pro-competitive potential inherent in innovation. As in merger review, this is an area where competition agencies are forced to make difficult trade-offs involving uncertain future effects.

There are certain unique features of IPR which must be borne in mind by competition agencies. Prominent among them are:

1. though costing a great deal to produce, an IPR can be applied at very low marginal cost, i.e. a price above marginal cost is not indicative of market power;

2. IPR can be easily misappropriated through unauthorised copying or use so owners will seek to protect themselves in ways that could tangentially restrict competition; and

3. IPR often must be used in combination with other IPR, and the agreements required to expedite this should be analysed under the more liberal competition policy standard typically applied to vertical as opposed to horizontal agreements.

- *The roundtable displayed general, though not unqualified, support for the following three policy principles:*

1. it should not be presumed that an intellectual property right creates or increases market power;

2. competition policy should acknowledge and respect the basic rights granted under patent law;

3. a licensing restriction should not be prohibited under competition law if it leads to a situation which is less anticompetitive than would occur if there were no license at all (i.e. competition agencies should not implicitly assume that if the restriction were proscribed, the license would still be granted). Where a licensing restriction fails this test, it should nevertheless be permitted under competition law if it is associated with sufficient actual or potential efficiency effects.

No one disagreed with the first principle and a considerable number of Members indicated approval. There was less obvious support for the third principle. Even before the roundtable turned to examine specific cases, it was apparent that the second principle was the one most in need of elaboration and possible qualification.

Most competition agencies attempt to draw a line between the existence of IPR (i.e. defining or inherent rights), and the use of IPR particularly through entering licensing agreements with other firms. The latter are sometimes referred to as extending or augmenting the benefits that legislators intended to grant by way of patent or copyright protection, i.e. the protection required to foster innovation. This can best be understood by looking at the areas where competition agencies seem most ready to take action against employing IPR in an anticompetitive fashion:

1. using IPR to create or co-ordinate a cartel;

2. leveraging IPR to create an advantage outside of the market where the innovation took place;

3. prohibiting post-termination use of a licensed technology or requiring royalty payments for a term exceeding the life of a patent; and

4. prohibiting a licensee from challenging the validity of a patent.

- *Though there can be cases where abuse of dominance laws should be applied to IPR and companies forced to license their technology or reduce their royalty charges, such actions bear a high potential cost in terms of reducing incentives to innovate and should be used sparingly.*

In jurisdictions where high pricing could amount to an abuse of dominance, both product pricing by a patentee and his chosen level of royalties could presumably be adjusted downward if the patentee has a dominant position. The problem, however, would lie in identifying what constitutes an abusively high price. Marginal cost would not supply a suitable benchmark in cases applying to IPR, especially if a competition agency recognises the need to assure an adequate return to investments in innovation. Not surprisingly, competition agencies seem reluctant to require compulsory licensing or lower royalties from IPR holders judged to have dominant positions.

The more common way in which abuse of dominance cases could lead to action restricting IPR is where a patentee's refusal to license, or its excessively high royalties, inordinately restrict the development of competition. These are candidates for application of the essential facilities doctrine to IPR. Once again, it is difficult to see how competition agencies can take action in such cases without directly attacking the exclusivity lying at the very heart of IPR.

Perhaps the most defensible example of interference by a competition agency occurs when a firm seeks to monopolise technology by obtaining patents not just on processes and products it intends to use and sell, but on a wide variety of competing processes and products that it intends to leave idle. This ostensibly took place in the early years of the photocopying industry when the leading producer acquired a "killer patent portfolio" that was difficult to innovate around. The case was settled by the pioneering firm essentially acceding to compulsory licensing.

Through discussion of the Boeing/McDonnell Douglas and Ciba-Geigy/Sandoz mergers, the roundtable illustrated that compulsory licenses could also feature prominently in merger approvals. This appears to be less controversial, however, because a right to combine IPR is not inherent in IPR.

- *The "innovation market" analysis employed in the Ciba-Geigy/Sandoz merger case has the potential to significantly expand the degree to which competition policy interacts with IPR, but is not yet widely practised by competition agencies.*

The Ciba-Geigy/Sandoz merger raised the issue of whether action should be taken against threats to competition even before a specific technology or process/product is clearly in view. This merger combined two of only a few entities capable of commercially developing a broad range of gene therapy products and threatened to significantly reduce competition to innovate in that area. The merged entity would have less incentives to proceed quickly to make gene therapy innovations than was the case for the parties before the merger. In addition, the merger reduced incentives for other companies to enter a field where they would in future have only one source of necessary IPR instead of two, and only one potential buyer for resulting technology. Accordingly, the competition authority abstained from blocking the merger only after the parties agreed to certain compulsory licensing conditions.

Discussion at the roundtable clarified that potential competition analysis, as applied for example in conglomerate mergers, may be an imperfect substitute for innovation market analysis. The main advantage of the innovation market concept lies in its focus on an easier to understand actual rather than hypothetical constraint on competition. [1]

- *Licensor imposed restrictions on the pricing decisions of licensees in relation to licensed technology do not usually lead to greater anticompetitive effects than would occur if there were no licensing at all. Countries might therefore wish to review their opposition to such restrictions.*

Though competition agencies generally appear to support the principles of respecting IPR and allowing licence restrictions which are less anticompetitive than a no licence benchmark, they seem to universally make an exception as regards restraints on licensee pricing. Inherent in a patent is the right to set the price of patented goods. It is difficult to see how consumers would gain from prohibiting restrictions on licensee pricing if this simply causes patent holders to refuse to license. Such a refusal could easily mean foregoing efficiencies of combining IPR with complementary resources owned by potential licensees.

Whether licensees are regarded as potential competitors or as standing in a vertical arrangement to an IPR holder, the roundtable illustrated a strong consensus that competition law should be used to prohibit pricing restrictions applied through IPR licences. Such restrictions would likely be viewed as being analogous to horizontal price fixing or resale price maintenance and be treated as *per se* illegal.

- *Patent pooling and cross-licensing is an area where competition law can and should be applied to restrict anticompetitive use of IPR among firms which are actual or potential competitors.*

Patent pooling is normally pro-competitive if it is strictly confined to sharing complementary patents. Competition agencies must be vigilant, however, against companies seeking to combine substitute technologies and thereby reduce horizontal competition. There is a particular danger that this could happen in the context of settling patent litigation.

Even where pooled technology clearly combines complementary rather than substitute technology, there is good reason for vigilance on the part of competition agencies as regards treatment accorded to non-members and as concerns how technology improvements will be treated. Patent pools could amount to collective boycotts which significantly reduce the competitive power of existing or future competitors. Consumers also stand to lose if the patent pools require such generous sharing of any technological improvements that the incentive to make improvements is significantly reduced. This is especially regrettable where improvements could unleash the kind of "creative destruction" that Schumpeter thought was so important to long term economic growth.

A rule of reason approach seems eminently suitable to reviewing the effects of patent pooling.

- *Tying and full-line forcing based on IPR is another difficult area calling for sensitive, rule of reason application of competition laws.*

Roundtable discussion noted several cases where member countries had taken action to stop patent holders from linking the sale of patented products to the purchase of goods whose patent protection had lapsed. This was treated as a means of leveraging or extending what legislators had intended to grant as an incentive to innovate. Normal competition law, applied under a rule of reason standard, seems entirely adequate for distinguishing between "pro" and anticompetitive tying in cases where the requisite market power is conferred through IPR.

- *Grantbacks are a particularly good example of how licensors seek to protect themselves against the possibility that licensing will foster the emergence and growth of future competitors, but a hard line approach to grantbacks could do more harm than good if it leads to inefficient refusals to license.*

There is a danger that competition agencies, concerned about encouraging greater horizontal competition, could be too quick to take action against grantbacks. Once again there is wisdom in considering what might happen if patent holders react to a hard line against grantbacks by simply refusing to grant licenses. As with other refusals to license, there could be a few such cases where competition authorities might justifiably apply an essential facilities doctrine and press for a compulsory license. In general, however, this would pose too great a risk in terms of reducing incentives to innovate. A better approach appears to have been adopted by those competition agencies which permit grantbacks as long as these stop short of giving the original licensor an assignment or exclusive license. Thus bounded, grantbacks can still insure the original licensor against being displaced from the market while leaving licensees a significant incentive to innovate.

- *Patents and copyrights can be used as the foundation for international price discrimination having significant effects on consumers in certain countries. The global welfare effects of such practices can be positive, however, and where they are not, the origin of the problem may lie elsewhere than in the use of IPR.*

With reference to patents, the roundtable considered how IPR based price discrimination has been undermined by the application of the exhaustion principle. The parallel imports protected by this principle can benefit consumers in the short run but might lead to reduced future innovation. This is especially problematic if the exhaustion principle is extended to cover parallel imports from countries having low or zero patent protection for certain goods, e.g. pharmaceuticals. The solution to this problem appears to lie outside the scope of competition law.

In the area of copyright (e.g. books and music), it was argued that the ability of licensed copyright holders to block parallel imports leads to higher prices in some markets. Others argued, however, that restrictions on parallel imports, as with any other import barrier, should not automatically lead to price differences. Such differences should materialise only when there are also significant differences in competitive conditions or in underlying demand.

NOTE

1. It is worth noting that in the jurisdiction which has apparently given birth to the innovation market concept, its use is considerably circumscribed through the application of two important thresholds. First, it is only employed where the effects of the investigated conduct or merger cannot be fully assessed by looking at the technology licensing and product markets. Second, this approach is confined to cases where the capability to engage in the relevant research and development (R & D) can be associated with specialised assets or characteristics of particular firms, i.e. core R & D competencies. In addition there is a type of 'safe harbour' which applies if there are a sufficient number of firms having the same capability and incentives to undertake certain R & D.

SYNTHÈSE

Si l'on examine les débats de la table ronde, le document de référence et les documents établis par les membres des groupes spéciaux et les délégués, les principaux points qui se dégagent sont les suivants :

- *Bien qu'ils aient en commun d'importants objectifs, les droits de propriété intellectuelle (DPI) et les politiques de la concurrence ne sont pas purement complémentaires et il peut être difficile de gérer l'interface entre les deux.*

Au plus haut niveau de l'analyse, les DPI et les politiques de la concurrence sont complémentaires parce qu'ils visent les uns et les autres à favoriser le progrès technique dans l'intérêt final des consommateurs. Les entreprises innoveront davantage si elles sont protégées, ne serait-ce qu'en partie, contre les "profiteurs". Elles innoveront sans doute davantage aussi si elles sont exposées à une vive concurrence. Le problème est que l'utilisation des DPI, même tout à fait légale, peut restreindre la concurrence, du moins dans le cours terme, ce qui oblige à choisir entre les avantages d'une intensification de la concurrence et ceux d'une innovation plus poussée. Cet arbitrage n'est sans doute pas du ressort de l'Office de la propriété intellectuelle, et il est, par essence, difficile pour les organismes chargés de la concurrence. Ce problème pourrait être aggravé dans le cas où les organismes chargés de la concurrence auraient une vision strictement à court terme de la concurrence. Ces derniers adoptent toutefois, de plus en plus, une approche dynamique, en particulier dans les industries de haute technologie où les DPI peuvent jouer un rôle très important dans le processus concurrentiel.

Les risques d'incompatibilité entre les DPI et la politique de la concurrence seront réduits si les organismes chargés de la concurrence sont empêchés, par la loi ou par l'administration, de chercher à ajuster la protection des DPI, c'est-à-dire s'ils ne cherchent pas à réduire les effets de ce qu'ils considèrent comme une protection douteuse des brevets ou à rétrécir le champ de ce qu'ils considèrent comme des brevets de trop grande portée.

Même si les organismes responsables de la concurrence s'abstiennent d'ajuster explicitement la protection des brevets, par exemple au moyen de licences obligatoires, il n'en reste pas moins nécessaire de faire des choix difficiles du point de vue de l'efficience. Il subsiste une multitude de problèmes qui pourraient se poser lorsque des entreprises utilisent les DPI d'une manière anticoncurrentielle, allant au-delà de ce qui était envisagé dans les droits eux-mêmes. Le défi, dans ces cas-là, consiste à limiter les effets anticoncurrentiels tout en respectant l'existence des DPI et les objectifs publics que ces droits visent à promouvoir.

- *La protection des DPI dans certains secteurs (notamment la biotechnologie) et dans certains pays peut être si étendue qu'elle entrave en fait l'innovation. Même si cela est vrai, toutefois, les organismes chargés de la concurrence ont des raisons valables de rejeter des mesures correctives directes, encore qu'ils devraient s'efforcer de défendre la concurrence de sorte que les offices de la propriété intellectuelle soient conscients des effets anticoncurrentiels de brevets ayant une portée excessive.*

S'il est vrai que des brevets de plus grande portée se traduisent généralement par des avantages plus grands pour les innovateurs primaires, ils tendent en même temps à accroître les coûts et les incertitudes pour les innovateurs secondaires. Les études empiriques ont donné des résultats non concluants concernant l'effet net de la portée des brevets sur les deux types d'innovation réunis. Cela pourrait encourager les services de la concurrence à prendre des mesures en vue d'atténuer les effets anticoncurrentiels de ce qu'ils pourraient considérer comme des brevets excessivement larges. Malheureusement, cette intervention *ex post* des organismes chargés de la concurrence tendrait à réduire l'innovation en accentuant l'incertitude au sujet des possibles avantages à attendre. Par ailleurs, les organismes chargés de la concurrence procèdent déjà, dans une certaine mesure, à un ajustement automatique, par le biais de la corrélation positive entre l'étendue d'un brevet et la probabilité de constater que le détenteur d'un DPI jouit d'une position dominante. Dans de nombreux pays, ce constat est une condition nécessaire pour que l'organisme chargé de la concurrence puisse prendre des mesures à l'encontre d'une restriction de la concurrence, liée notamment à un DPI.

Ni les organismes chargés de la concurrence ni les offices de la propriété intellectuelle n'ont les connaissances nécessaires pour déterminer l'étendue optimale d'un brevet, mais les seconds semblent mieux placés que les premiers pour choisir entre des incitations en faveur de l'innovation primaire ou en faveur de l'innovation secondaire. Cependant, les organismes chargés de la concurrence possèdent un avantage comparatif en matière de détermination et d'évaluation des effets anticoncurrentiels que peuvent avoir des brevets excessivement larges. Les organismes chargés de la concurrence devraient veiller à ce que les décisions des offices de la propriété intellectuelle au sujet de l'étendue des brevets soient prises en parfaite connaissance de leurs possibles effets anticoncurrentiels.

- *Les organismes chargés de la concurrence devraient non seulement reconnaître la légitimité et la nature potentiellement proconcurrentielle des DPI malgré de possibles restrictions à court terme de la concurrence, mais aussi les particularités des DPI, qui exigent une approche "sur mesure" des affaires relatives à ces droits.*

La raison la plus évidente pour laquelle il faut une approche "sur mesure" dans les affaires relatives aux DPI est que, dans de nombreux pays, la législation relative à la concurrence prévoit des exemptions ou des exceptions afin de ne pas annuler les droits exclusifs explicitement accordés par la législation relative aux brevets, au savoir-faire et aux droits d'auteur. Même en l'absence de ces contraintes juridiques, les organismes chargés de la concurrence devraient faire preuve de prudence en matière de limitation de l'utilisation des DPI, en raison des effets potentiellement proconcurrentiels de l'innovation. Comme dans le cas des fusions, c'est un domaine dans lequel les autorités chargées de la concurrence sont obligées de faire des choix difficiles dont les conséquences futures sont incertaines.

Les organismes chargés de la concurrence devraient garder présentes à l'esprit certaines particularités des DPI :

1. bien que leur établissement soit très coûteux, les DPI peuvent s'appliquer à un coût marginal très peu élevé, ce qui revient à dire qu'un prix supérieur au coût marginal n'est pas le signe d'un pouvoir de marché ;

2. les DPI peuvent être facilement détournés de leur usage par une reproduction ou une utilisation illégitime, si bien que les détenteurs cherchent à se protéger par des moyens qui pourraient, à la limite, restreindre la concurrence ; et

3. les DPI doivent souvent être utilisés conjointement avec d'autres DPI, et les accords nécessaires pour cela devraient être analysés au regard des normes de la politique de

concurrence appliquées aux accords verticaux qui sont généralement plus libérales que celles appliquées aux accords horizontaux.

La table ronde a révélé un soutien général, quoique non sans nuance, aux trois principes suivants :

1. *il ne faut pas partir du principe qu'un droit de propriété intellectuelle crée ou renforce un pouvoir de marché ;*

2. *la politique de la concurrence doit reconnaître et respecter les droits fondamentaux établis par la législation relative à la propriété intellectuelle ;*

3. *une restriction à l'octroi d'une licence ne doit pas être interdite par la législation relative à la concurrence si elle conduit à une situation qui est moins anticoncurrentielle qu'elle ne l'aurait été en l'absence totale de licence (c'est-à-dire que les organismes chargés de la concurrence ne devraient pas supposer implicitement que, si la restriction était interdite, la licence serait quand même accordée). Lorsqu'une restriction à l'octroi d'une licence ne satisfait pas à ce critère, elle doit néanmoins être autorisée par la législation relative à la concurrence si elle a des effets effectifs ou potentiels suffisants du point de vue de l'efficience.*

Personne ne s'est opposé au premier principe et un grand nombre de Membres ont déclaré l'approuver. Le soutien au troisième principe a été moins net. Même avant que les participants à la table ronde n'en viennent à examiner des cas particuliers, il est apparu que le deuxième principe était celui qui demandait le plus de précisions et de nuances.

La plupart des autorités chargées de la concurrence tentent d'établir une séparation entre l'existence d'un DPI (définition ou droits inhérents) et l'utilisation d'un DPI, en particulier par le biais d'accords de licence avec d'autres entreprises. On considère parfois que ces derniers étendent ou accroissent les avantages que les législateurs veulent accorder par voie de brevet ou de protection des droits d'auteur, c'est-à-dire la protection nécessaire pour stimuler l'innovation. On comprendra mieux en examinant les domaines où les organismes chargés de la concurrence semblent le plus disposés à prendre des mesures contre l'utilisation anticoncurrentielle des DPI :

1. utilisation des DPI dans le but de créer ou de coordonner une entente ;

2. utilisation des DPI en vue de créer un avantage hors du marché où l'innovation a lieu ;

3. interdiction de l'utilisation d'une technologie autorisée par une licence ou demande de paiement de redevances pour une durée supérieure à la durée d'un brevet ; et

4. interdiction pour le détenteur d'une licence de contester la validité d'un brevet.

- *Bien qu'il puisse exister des cas où la législation relative à l'abus de position dominante devrait s'appliquer aux DPI et où les entreprises devraient être obligées d'octroyer une licence pour leur technologie ou de réduire les redevances qu'elles font payer, ces mesures comportent un coût potentiel élevé dans la mesure où elles réduisent les incitations à innover et elles devraient être utilisées parcimonieusement.*

Dans les pays où la fixation de prix élevés pourrait constituer un abus de position dominante, le prix fixé par le titulaire d'un brevet et le niveau de redevances qu'il choisit pourraient probablement être

ajustés en baisse s'il détient une position dominante. Le problème résiderait toutefois dans l'identification de ce qui constitue un prix abusif. Le coût marginal ne représenterait pas une référence appropriée dans le cas des DPI, surtout si un organisme chargé de la concurrence reconnaît la nécessité d'assurer un rendement suffisant des investissements dans le domaine de l'innovation. Il n'est pas surprenant que les autorités chargées de la concurrence paraissent réticentes à exiger des licences obligatoires ou des redevances moins élevées de la part des détenteurs de DPI qui sont considérés comme ayant une position dominante.

Le plus souvent, un abus de position dominante peut conduire à des mesures de restriction des DPI lorsque le refus du titulaire d'un brevet d'accorder une licence ou le niveau excessif des redevances qu'il fait payer restreignent abusivement le développement de la concurrence. D'aucuns préconisent l'application de la doctrine des facilités essentielles aux DPI. Une fois encore, il est difficile de voir comment les organismes de la concurrence pourront prendre des mesures dans ces cas-là sans s'attaquer directement à l'exclusivité qui est inhérente aux DPI.

Le cas où l'intervention d'un organisme chargé de la concurrence serait peut-être la plus justifiée est celui où une entreprise cherche à monopoliser la technologie en obtenant des brevets non pas seulement sur les procédés et les produits qu'elle a l'intention d'utiliser et de vendre, mais sur toute une variété de procédés et produits concurrents qu'elle a l'intention de ne pas utiliser. Ce cas s'est produit manifestement au cours de premières années de la photocopie, lors que le principal producteur a acquis un "portefeuille de brevets" qui a rendu difficile l'innovation dans ce secteur. L'affaire a été réglée par l'entreprise pionnière, qui a essentiellement accédé au système de licences obligatoires.

A travers l'examen des fusions Boeing/McDonnell Douglas et Ciba-Geigy/Sandoz, la table ronde a montré que les licences obligatoires pouvaient aussi jouer un rôle de premier plan dans les approbations de fusion. Cet aspect semble toutefois être moins controversé car il n'y a pas de droit d'association des DPI qui soit inhérent au DPI.

- *L'analyse du "marché de l'innovation" utilisée dans l'affaire de la fusion Ciba-Geigy/Sandoz pourrait renforcer notablement l'interaction entre la politique de la concurrence et les DPI mais cette pratique n'est guère répandue parmi les organismes chargés de la concurrence.*

La fusion Ciba-Geigy/Sandoz a soulevé la question de savoir s'il faut prendre des mesures contre les menaces qui pèsent sur la concurrence avant même qu'une technologie ou un procédé/produit spécifique soit clairement en vue. Cette fusion a réuni deux entreprises parmi les quelques entités capables de développer commercialement une gamme étendue de produits de thérapie génique et elle a menacé de réduire sensiblement la concurrence en matière d'innovation dans ce domaine. L'entreprise fusionnée serait moins incitée à se lancer dans la course à l'innovation dans le domaine de la thérapie génique qu'elle ne l'était avant la fusion. Par ailleurs, la fusion a affaibli les incitations pour les autres entreprises à entrer dans un domaine où elles n'auraient dans l'avenir qu'une source de DPI au lieu de deux, et un seul acheteur potentiel pour la technologie mise au point. En conséquence, l'autorité chargée de la concurrence ne s'est abstenue d'interdire la fusion qu'après que les parties furent tombées d'accord sur certaines conditions de licence obligatoire.

Les débats de la table ronde ont montré clairement que l'analyse de la concurrence potentielle, telle qu'elle est appliquée, par exemple, dans les fusions de conglomérats, peut être un substitut imparfait de l'analyse du marché de l'innovation. Le principal avantage du concept de marché de l'innovation réside dans le fait qu'il est centré sur une contrainte effective et non hypothétique sur la concurrence, plus facile à comprendre.[1]

- *Les restrictions imposées par les donneurs de licences aux décisions des détenteurs de licences en matière de prix de la technologie brevetée ne produisent généralement pas d'effets anticoncurrentiels plus importants qu'ils n'auraient été en l'absence totale de licences. Les pays pourraient par conséquent souhaiter réfléchir de nouveau à leur opposition à ces restrictions.*

Bien que les organismes chargés de la concurrence semblent généralement favorables aux principes de respect des DPI et d'autorisation des restrictions liées aux licences qui sont moins anticoncurrentielles que l'absence de licences, ils paraissent faire tous une exception en ce qui concerne les restrictions aux décisions de prix des détenteurs de licences. Le droit de fixer le prix des produits brevetés est inhérent au brevet. On voit mal comment les consommateurs gagneraient à ce que l'on interdise les restrictions en matière de fixation des prix par les détenteurs de licences si cela ne fait qu'amener les détenteurs de brevets à refuser les licences. Ce refus pourrait facilement faire perdre l'efficience liée à l'association des DPI avec les ressources complémentaires que possèdent les détenteurs potentiels de licences.

S'agissant de savoir si les détenteurs de licences sont considérés comme des concurrents potentiels ou comme liés par un accord vertical à un titulaire de DPI, la table ronde a fait apparaître un fort consensus selon lequel la législation relative à la concurrence doit servir à interdire les restrictions en matière de fixation des prix qui sont appliquées par le biais des licences de DPI. Ces restrictions seraient sans doute considérées comme analogues à une fixation de prix horizontale ou à un système de prix de revente imposés et elles seraient considérées comme illégales en soi.

- *La mise en commun des brevets et les licences croisées sont un domaine dans lequel la législation en matière de concurrence peut et devrait s'appliquer afin de restreindre l'utilisation anticoncurrentielle des DPI parmi les entreprises qui sont des concurrents effectifs ou potentiels.*

La mise en commun des brevets est normalement favorable à la concurrence si elle se limite strictement au partage de brevets complémentaires. Les organismes chargés de la concurrence doivent être vigilants, toutefois, à l'égard des entreprises qui cherchent à associer des technologies de substitution et réduisent ainsi la concurrence horizontale. Cela risque de se produire, en particulier, dans le contexte du règlement des litiges en matière de brevets.

Même lorsque la mise en commun de technologies revient à l'évidence à associer des technologies complémentaires et non des technologies de substitution, il y a de bonnes raisons pour que les organismes chargés de la concurrence soient vigilants en ce qui concerne le traitement accordé aux non-membres et le traitement accordé au progrès technologique. La mise en commun des brevets pourrait aboutir à des boycotts collectifs, qui réduiraient notablement le pouvoir concurrentiel de concurrents existants ou futurs. Les consommateurs seraient aussi perdants si les mises en commun de brevets exigeaient un partage du progrès technologique tel que l'incitation à innover soit sensiblement affaiblie. C'est particulièrement regrettable lorsque des améliorations technologiques pourraient déclencher le type de "destruction créatrice" que Schumpeter estimait si importante pour la croissance économique à long terme.

Une approche par la règle de raison paraît tout à fait appropriée pour examiner les effets de la mise en commun des brevets.

- *Les ventes liées et l'obligation d'acheter toute la gamme de produits basées sur les DPI sont un autre domaine difficile qui demande l'application judicieuse des lois relatives à la concurrence selon la règle de raison.*

Les débats de la table ronde ont permis de noter plusieurs cas dans lesquels les pays Membres avaient pris des mesures pour empêcher les détenteurs de brevets de lier la vente de produits brevetés à l'achat de produits dont le brevet était arrivé à expiration. Cela a été considéré comme un moyen de faire agir ou d'étendre ce que les législateurs entendaient offrir comme une incitation à innover. La législation ordinaire en matière de concurrence, appliquée selon la règle de raison, paraît tout à fait appropriée pour distinguer entre les ventes liées ayant des effets proconcurrentiels et anticoncurrentiels dans les cas où le pouvoir de marché est conféré par un DPI.

- *Les rétrocessions illustrent parfaitement la façon dont les donneurs de licences cherchent à se protéger contre le risque que l'octroi d'une licence ne favorise l'apparition et le développement de futurs concurrents, mais une approche rigide envers des rétrocessions pourrait faire plus de mal que de bien si elle conduit à des refus inefficients de licence.*

Les organismes chargés de la concurrence, soucieux d'encourager une plus grande concurrence horizontale, risquent de prendre trop vite des mesures contre les rétrocessions. Une fois encore, il est sage de réfléchir à ce qui pourrait arriver si les détenteurs de brevets réagissent à une prise de position dure contre les rétrocessions en refusant purement et simplement de délivrer des licences. Comme dans le cas des autres refus de licence, il pourrait arriver des cas où les autorités chargées de la concurrence appliquent à juste titre la doctrine des facilités essentielles et fassent pression en faveur de licences obligatoires. En général, toutefois, cela risquerait trop d'affaiblir les incitations à innover. Une meilleure approche semble avoir été adoptée par les organismes qui autorisent les rétrocessions dans la mesure où ces dernières ne donnent pas au donneur initial une cession ou une licence exclusive. Ainsi consolidées, les rétrocessions peuvent garantir le donneur de licence initial contre le risque de se trouver exclu du marché tout en laissant aux titulaires de licences une forte incitation à innover.

- *Les brevets et les droits d'auteur peuvent servir de fondement à une discrimination internationale par les prix qui aura des effets importants sur les consommateurs dans certains pays. Les effets globaux de ces pratiques sur le bien-être peuvent être positifs, cependant, et lorsque ce n'est pas le cas, l'origine du problème peut résider ailleurs que dans l'utilisation des DPI.*

S'agissant des brevets, les participants à la table ronde ont examiné la façon dont la discrimination par les prix fondées sur les DPI a été sapée par l'application du principe d'extinction. Les importations parallèles protégées par ce principe peuvent profiter aux consommateurs dans le court terme mais freiner l'innovation future. Cela pose particulièrement problème si le principe d'extinction est étendu aux importations parallèles en provenance de pays dont certains produits, tels que les produits pharmaceutiques par exemple, ne sont pas protégés par des brevets ou le sont peu. La solution à ce problème semble résider hors du champ d'application de la législation relative à la concurrence.

Dans le domaine des droits d'auteur (livres et musique, par exemple), on a fait valoir que la capacité des détenteurs de droits d'auteurs de bloquer les importations parallèles se traduit par des prix plus élevés sur certains marchés. D'autres ont indiqué, toutefois, que les restrictions aux importations parallèles, comme n'importe quel autre obstacle à l'importation, ne devraient pas automatiquement conduire à des différences de prix. Ces différences ne devraient se matérialiser que lorsqu'il y a aussi des différences sensibles dans les conditions concurrentielles ou dans la demande sous-jacente.

NOTES

1. Il est à noter que dans le pays qui a apparemment donné naissance au concept de marché de l'innovation, l'utilisation de ce concept est très limitée par l'application de deux seuils importants. Premièrement, il n'est utilisé que lorsque les effets de la pratique ou de la fusion faisant l'objet d'une enquête ne peuvent pas être pleinement évalués par l'examen des licences de technologie et des marchés de produits. Deuxièmement, cette méthode est limitée aux cas où la capacité de se lancer dans des activités de recherche et développement (R&D) peut être associée à des actifs spécialisés ou à des caractéristiques d'entreprises particulières, à savoir les compétences en matière de R&D. Il y a en outre un genre de "safe harbour" qui s'applique s'il y a un nombre suffisant d'entreprises qui ont la même capacité et les mêmes incitations à se lancer dans un certain type de R&D.

BACKGROUND NOTE

by Willard K. Tom[*]

I. Introduction

Over the past few years, a number of OECD member countries have had occasion to re-examine the relationship between competition policy and intellectual property. In February 1989, the Japanese Fair Trade Commission issued Guidelines for the Regulation of Unfair Trade Practices with Respect to Patent and Know-How Licensing Agreements (hereinafter "Japanese Guidelines").[1] In April 1995, the United States competition authorities issued their Antitrust Guidelines for the Licensing of Intellectual Property (hereinafter "US Guidelines").[2] In January 1996, the European Commission adopted Commission Regulation No. 240/96 (hereinafter "Technology Transfer Regulation"), which superseded the two block exemptions covering patent licensing and know-how licensing.[3] And in May 1996, the Government of Canada co-sponsored a symposium on competition policy and intellectual property, as a first step in a policy review of the subject.[4]

The high level of interest in the subject reflects an increasing appreciation of the crucial role that innovation plays in the health of an economy and the welfare of the citizens that participate in that economy. With no exaggeration, it has been said that:

> An antitrust policy that reduced prices by 5 percent today at the expense of reducing by 1 percent the annual rate at which innovation lowers the costs of production would be a calamity. In the long run a continuous rate of change, compounded, swamps static losses.[5]

The role of intellectual property rights ("IPRs") in providing incentives for such innovation has long been recognised, and has been re-emphasised in recent policy reviews. The Technology Transfer Regulation was animated by a desire "to encourage the dissemination of technical knowledge in the Community and to promote the manufacture of technically more sophisticated products."[6] Similarly, the Japanese Guidelines note that:

> The legal framework to protect intellectual property rights such as patent has a procompetitive effect by giving stimulation to research and development for entrepreneurs, and could work as a promoter to introduce a new market or new technology.[7]

And the US Guidelines declare:

> The intellectual property laws provide incentives for innovation and its dissemination and commercialisation by establishing enforceable property rights for the creators of new and useful products, more efficient processes, and original works of expression. In the absence of

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> intellectual property rights, imitators could more rapidly exploit the efforts of innovators and investors without compensation.[8]

At the same time, competition can be an important spur to innovation. While the economic literature is mixed as to the broad question of whether monopoly or competition is more conducive to innovation as a general matter,[9] there is no shortage of specific situations in which competition has served as a spur to innovation or restraints of competition have served as an impediment, and the practical experiences of business people confirm that common-sense observation.[10] The performance of the telecommunications industry before and after the break-up of AT&T comes to mind.[11]

II. Conflict Between IPRs and Competition Laws?

The importance of both sets of policies for encouraging innovation would not attract such attention, much less cause the convening of a roundtable to address them together, were it not for the fact that the two policies are often seen to be in conflict. In the United States, for example, the Supreme Court's approach for many years was epitomised by its declaration that "[s]ince patents are privileges restrictive of a free economy, the rights which Congress has attached to them must be strictly construed..."[12] Since the purpose of the antitrust laws was to prevent monopolies and constrain the exercise of monopoly power, whereas "[t]he very object of the [patent] laws is monopoly,"[13] it was thought that the two bodies of law were inherently in conflict.

Beyond that broad and superficial statement of the conflict, however, it is not easy to discern precisely where the conflict lies. Outside the realm of IPRs, competition policies seem no more vigorous about breaking up monopolies that result from "superior skill, foresight, and industry"[14] than within that realm. Undoubtedly, this is because competition authorities recognise that the prospect of being able to earn monopoly rents is a considerable spur to investment and innovation. "The successful competitor, having been urged to compete, must not be turned upon when he wins."[15] Nor do competition authorities seem to be particularly more or less aggressive about attacking contract provisions such as exclusive dealing or structural changes such as mergers in one realm or the other. To the extent there has been a perceived conflict, however, it seems to stem from four principal areas of uncertainty: (a) the extent to which competition policy is about short-run allocative efficiency or long-run dynamic efficiency, (b) whether market power should be inferred from the existence of an IPR, (c) certain distinctive economic characteristics of IPRs, and (d) whether a particular contract, license, or merger should be regarded as horizontal or vertical.

A. Short-run vs. Long-run

Gallini and Trebilcock of the University of Toronto see a source and a partial resolution of the conflict in the distinction between the short and long run. As they put it:

> [T]he previous "short-run" view of competition authorities has been replaced by a longer-run view, which acknowledges that technological progress contributes at least as much to social welfare as does the elimination of allocative inefficiencies from non-competitive prices. There is, therefore, a growing willingness to allow restrictions on competition today in order to promote competition in new products and processes tomorrow."[16]

Such a trade-off is implicit, for example, in the US Guidelines' acknowledgement of the purpose of IPRs. In a purely static sense, once a piece of intellectual property exists, rapid imitation would lead to more competition and falling prices. The US Guidelines recognise that such a situation would be undesirable:

> In the absence of intellectual property rights, imitators could more rapidly exploit the efforts of innovators and investors without compensation. Rapid imitation would reduce the commercial value of innovation and erode incentives to invest, ultimately to the detriment of consumers. [17]

It does not appear, however, that competition authorities would accept uncritically every argument that a particular transaction that they view as anticompetitive in the short run is nonetheless justified because of its long-run effects. For example, outside the intellectual property area, the US authorities revised their Horizontal Merger Guidelines to broaden and clarify the ability to consider the efficiency benefits of a merger in assessing a transaction, but offered a cautionary note:

> The result of this analysis over the short term will determine the Agency's enforcement decision in most cases. The Agency also will consider the effects of cognisable efficiencies with no short-term, direct effect on prices in the relevant market. Delayed benefits from efficiencies (due to delay in the achievement of, or the realisation of consumer benefits from, the efficiencies) will be given less weight because they are less proximate and more difficult to predict. [18]

B. Whether Market Power Should Be Inferred from the Existence of an IPR

Another source of conflict in the relationship between competition policy and intellectual property has been the tendency to treat intellectual property as conferring market power and therefore as antithetical to some degree to competition policy. In the United States, for example, courts often refer to the rights conferred by a patent as a "monopoly" or a "patent monopoly."[19] This tendency seems to be ebbing, however. The European Court of Justice has made clear that the possession of an IPR does not itself confer a dominant position.[20] And in the United States, although there has been no definitive judicial ruling, the competition authorities have clearly stated that they "do not presume that intellectual property creates market power in the antitrust context."[21] Instead, as with other forms of property, competition authorities now focus on whether and to what extent there are close substitutes that might constrain the ability of an intellectual property owner to exercise market power. [22]

C. Distinctive Economic Characteristics of IPRs

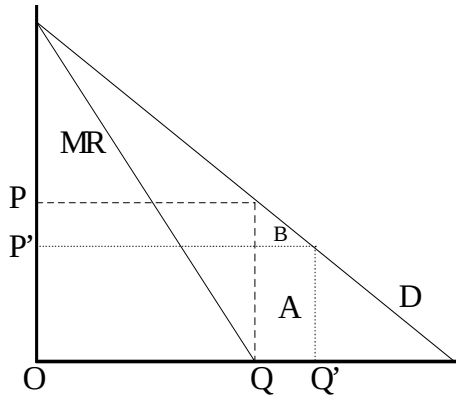
It is in the nature of intellectual property that the fixed costs of producing it tend to be quite high—expensive research facilities, valuable scientific and engineering time, the cost of supporting many unfruitful research projects in hopes of scoring a major success—whereas the marginal costs are virtually zero, because it is nearly costless to copy and use an idea, once discovered. If innovation is to be profitable, therefore, price must remain above marginal cost.

It is also in the nature of intellectual property that it can easily be misappropriated. A factory owner can keep others from coming in and attempting to use his factory and equipment, not only by calling the police and demanding enforcement of the laws against trespass, but also by putting padlocks on the factory door and installing other security systems. And in any event, he will surely know when any

such attempt is being made. In contrast, a copyright owner may only know that his software is being misappropriated when sales start falling precipitously despite the continued popularity of the program.

Each of these distinctive characteristics of IPRs—low marginal costs and misappropriability—has implications for the types of restraints that an IPR owner may justifiably want to impose.

High fixed costs and near-zero marginal costs of intellectual property mean that charging different prices to different users may well be output-enhancing and efficient. In the diagram below, a firm that has market power but must charge the same prices to all users will charge price P and sell quantity Q. If, on the other hand, it is able to sell to an additional group of customers at a lower price, P', without lowering its price to the original group of customers, output will expand to Q'. The firm will be better off by the amount represented in the area marked A, and consumers will be better off by the amount represented in the area marked B.



Tying can be a way of achieving the same effect in such situations. Consider a patented machine used with a complementary input that varies with usage—for example, a new type of medical imaging machine that records its results on a special type of x-ray film. Perhaps the development costs were enormous, so that the company would have to charge a very high price if it had to set a uniform price. Medical centers in densely populated urban areas, with a high patient volume, might be expected to place a higher value on the machine than would rural hospitals that used it only rarely. Thus, if the seller of the machine is allowed to require that buyers use the machine only with film supplied by the seller, the seller may be able to maximise the return on its patent by charging a low price for the machine and a high price for the film. That might mean not only higher profits for the patent holder, but also prices low enough that the rural hospital could afford to buy the machine.

Exclusive territories combined with a ban on parallel imports may have a similar effect where, because of differences of wealth, taste, or degree of competition encountered, a licensor would not be able to charge the same price in a particular territory that it is able to sustain elsewhere. If the licensor is forbidden to license with such restrictions, the result may be simply to raise the royalty rate above the level that the territory is able to sustain, resulting in that territory being deprived of the benefits of the licensed product.

The ease of misappropriation of IPRs is another factor that explains the prevalence of certain licensing practices. A licensor may impose exclusive dealing on a licensee, for example, because if a licensee sells products purportedly embodying other technology, it might be difficult to know whether or not it is surreptitiously making use of the licensor's technology.

D. The Distinction Between Horizontal and Vertical

IPR licensing is usually a way of bringing together complementary inputs such as manufacturing facilities, distribution arrangements, workforces, and other complementary or blocking intellectual property. Transactions involving complementary inputs are essentially vertical in nature; this may be so even if the licensor and licensee are otherwise competitors in manufacturing products covered by the IPR. Sometimes, competition authorities or courts have condemned arrangements that would have facilitated the transfer of complementary inputs because they misperceived the relationship as horizontal. Such misperceptions may have reinforced perceptions that competition policy and intellectual property were fundamentally in conflict.

IPR licensing can nonetheless have a significant horizontal element. Consider, for example, the manufacturers of the only two products that compete effectively against each other. The two manufacturers rely on different technologies, and it is virtually certain that they do not infringe each other's patents. Nonetheless, they sue each other for infringement, and quickly enter into settlement talks, the result of which is a patent pool with the exclusive power to license all the patents both to the pool members and to outsiders. Coincidentally, the royalty rate set by the pool is equal to the joint profit-maximising price. Such a "licensing arrangement" is indistinguishable from a cartel.

The US Guidelines explicitly deal with the issue of distinguishing horizontal and vertical relationships by stating: "the Agencies ordinarily will treat a relationship between a licensor and its licensees, or between licensees, as horizontal when they would have been actual or likely potential competitors in a relevant market in the absence of the license." The Technology Transfer Regulation does not explicitly confront the issue, but implicitly deals with it in an analogous way in various parts of the Regulation. For example, the black list excludes licenses from the benefits of the Regulation where "the parties were already competing manufacturers before the grant of the licence and one of them is restricted . . . as to the customers he may serve . . ." (Article 3(4)). Although these two standards would produce different results where a manufacturer of a product makes such a sweeping breakthrough in a product improvement that there would no longer be any competition absent a license, they would reach the same result in most other situations. The Japanese Guidelines allude only briefly to the possible importance of the horizontal/vertical distinction. With respect to restrictions which may or may not be considered unfair trade practices, the Guidelines state: "The determination whether restrictions fall under unfair trade practices will be made, in addition to the requirements stipulated in each paragraph, after the positions of licensor and licensee in a relevant market . . . are examined as a whole."[23]

III. Breadth of IPRs and Effects on Innovation and Competition

Gallini and Trebilcock propose, as one of their principles for competition treatment of intellectual property, that "[t]he exclusive rights stated in the patent law should be respected by competition law."[24] Does this mean that IPRs should simply be taken as given—treated as a "black box" of unknown contents—by competition authorities?

US competition authorities have generally adhered to the Gallini/Trebilcock prescription. In limited circumstances, however, those authorities have rejected the notion that they are not permitted to peer into the "black box." They have involved themselves in questions both of whether IPRs were obtained contrary to intellectual property law and of what the contours of that intellectual property law should be in the first instance. The latter, however, has been confined to "competition advocacy"

efforts—lending their expertise to legislatures and other government agencies—and has not been treated as relevant to enforcement decisions.

The issue of IPRs obtained contrary to intellectual property law comes up, *inter alia*, when an illegitimately-obtained IPR confers monopoly power. In *Walker Process*,[25] a 1965 US Supreme Court case cited with approval in the US Guidelines, the Court held that fraud on the Patent Office can be an unlawful act of monopolisation where the other elements, such as possession of monopoly power, are met.[26] The issue also comes up in challenges to pooling and cross-licensing. The US Guidelines cite the *Singer*[27] case for the proposition that settlement of infringement litigation by cross-licensing IPRs can be challenged if it eliminates competition among horizontal competitors.[28] Such a challenge would typically have to show that the relationship among the pool members was horizontal. In other words, the antitrust challenge would, in effect, have to resolve the patent issues that were the subject of the infringement litigation. In the infringement litigation, each party typically is contending that the other was infringing, and that the other could not lawfully be in the market without a license. If that contention were true, the IPRs would stand in a blocking, and therefore vertical, position. For *Singer* to apply, the parties would have to be in a horizontal position: at least two pool members must have been in a position to compete without obtaining a license for the same IPRs being used by the other.

The issue of what the contours of intellectual property law should be in the first instance has come up in the form of testimony by competition officials before the US Congress[29] and in comments to the US Patent and Trademark Office.[30] These interventions have been justified on the ground that:

> Intellectual property law and antitrust law share the common goal of "encouraging innovation, industry and competition." Thus, when properly applied, the two bodies of law complement and reinforce each other's purposes. Conversely, inappropriate application of either can undermine the purpose of both. If antitrust enforcement unnecessarily prevents intellectual property owners from profiting from invention, this interference also may compromise the goals of antitrust laws. And inappropriate or overbroad grants of intellectual property rights may interfere with the competition that often drives innovation.[31]

Three distinct but related issues often go under the terms "breadth" or "scope": (a) how easy it is to obtain the IPR in the first instance, (b) the breadth as such, i.e., how completely the IPR covers the field as opposed to allowing other competing ways of accomplishing the same objective or the same way of accomplishing other objectives, and (c) the duration of the IPR. Any particular resolution of each of these issues, in turn, can affect innovation in two conflicting ways: (i) it can increase or decrease the expected rewards to an innovator and thereby affect the incentive to undertake the innovation, and (ii) it can increase or decrease the difficulty, cost, and risk of innovation by making it more or less likely that someone else will later assert that the innovation infringes a prior IPR. The tension between these two effects is sometimes described as a trade-off between subsequent (or secondary) innovators and primary innovators, but this is something of an oversimplification. A firm that is about to undertake pioneering research still has to consider the risk that it will later turn out that some aspect of its research and development will infringe an IPR of some other firm, so that a patent system in which very broad patents are too easily obtained and enforced can inhibit pioneering research as well, particularly if it is difficult to identify the existence of such patents. Conversely, of course, secondary innovators also have an interest in reaping a reward for their contributions.

Although managing the trade-offs among these possible outcomes is clearly an important task of public policy, and there has been a vast economics literature about various aspects of these issues,[32] the involvement of competition authorities in this policy dialogue is at only a beginning stage. So far, the

statements of competition authorities on these subjects has tended to be either highly situation-specific[33] or inconclusive.[34]

IV. Enforcement Issues

There is a long list of licensing practices and other practices related to intellectual property that have come under scrutiny by competition authorities. For expositional convenience, this paper divides such conduct into three groups: (a) horizontal effects, (b) vertical effects, and (c) other issues. The categorisation is somewhat arbitrary, in that many licensing practices have both horizontal and vertical aspects, and in that the horizontal/ vertical distinction is more significant under the US Guidelines approach than under other approaches such as the Technology Transfer Regulation, but it will serve to simplify the discussion.

A. Horizontal Effects

1. Pooling and Cross-Licensing

Pooling and cross-licensing arrangements occur where two or more owners of different IPRs license their respective IPRs to each other. In a pooling arrangement, they typically do so by assigning or exclusively licensing their IPRs to a separately administered entity, which thereafter controls the licensing of the portfolio and its individual items to those who contributed the IPRs and, in many cases, to third parties. The terms of such arrangements may vary. The pool members may have the use of the IPRs royalty-free or at a positive price; they may split the proceeds according to various formulae; there may be different voting structures or veto rights. As indicated above, a critical issue in evaluating the competitive significance of such arrangements is whether the arrangement is horizontal or vertical.

If, for example, two IPR owners control blocking patents (a vertical relationship), they ought to be encouraged to combine their IPRs by licensing each other or forming a pool. Without such an arrangement, neither could use the technology, and society would be worse off.

On the other hand, if neither IPR owner needs the other in order to compete at maximum efficiency (including as to creation of "next-generation" products), then what is the legitimate purpose of the arrangement? In such a circumstance, the arrangement likely serves only to fix prices or divide markets. For example, if manufacturers X and Y form a pool, and the pool licenses X to use the technology only in North and South America and Y to use the technology only in Europe and Asia, the effect would be to set each of them up as monopolists in their respective territory, even though, without the pool, each could have competed world-wide. Similarly, if X and Y license form the pool at a very high per-use royalty, such an arrangement could ensure that their marginal costs will be so high that each will be forced to price at the joint monopoly profit-maximising level.

More complex situations arise when the arrangement is partly vertical and partly horizontal. What if X and Y would have been able to compete with each other, but their products would not have been quite as good? Should a trivial improvement entitle parties that otherwise would be competitors to form a highly restrictive pool that fixes prices at the joint monopoly profit-maximising level? Conversely, should the mere possibility that the parties could have produced *some* product, even though greatly inferior, prevent them from forming a more efficient pooling arrangement? Or — recognising that a wide variety of arrangements go under the name "pooling" — should competition authorities seek a middle

ground, perhaps requiring some degree of proportionality between the restraint and the legitimate end to be achieved?

One form of proportionality would be to require that the parties adopt the least restrictive alternative necessary to achieve the efficiency benefit. In the example above, if the arrangement is partly horizontal, X and Y might be forbidden to use a per-use royalty because of the effect of such a royalty is to raise marginal costs and to force each party to price closer to the joint monopoly profit-maximising level. Or, if no cross-license is needed to produce current-generation products, but future product development is likely to lead to infringement, the parties might be limited to cross-licensing for R&D and for future products rather than being allowed to reduce competition currently.

The US Guidelines adopt a version of this approach, stating:

> The existence of practical and significantly less restrictive alternatives is relevant to a determination of whether a restraint is reasonably necessary. If it is clear that the parties could have achieved similar efficiencies by means that are significantly less restrictive, then the Agencies will not give weight to the parties' efficiency claim. In making this assessment, however, the Agencies will not engage in a search for a theoretically least restrictive alternative that is not realistic in the practical prospective business situation faced by the parties. [35]

The Technology Transfer Regulation takes a much more tolerant position on pooling arrangements. Although it states at a couple of points that pooling arrangements raise different issues that cannot be dealt with in a single regulation,[36] it later goes on to provide that the regulation shall nevertheless apply to such arrangements provided that the parties are not subject to any territorial restriction within the common market.[37]

2. Exclusive Territories

Under the US Guidelines, exclusive territories are another restraint whose competitive effect depends on whether the relationship between licensor and licensee is horizontal or vertical. Where the arrangement is vertical, territorial restrictions are treated very leniently. As the Guidelines observe:

> Field-of-use, territorial, and other limitations on intellectual property licenses may serve procompetitive ends by allowing the licensor to exploit its property as efficiently and effectively as possible. These various forms of exclusivity can be used to give a licensee an incentive to invest in the commercialisation and distribution of products embodying the licensed intellectual property and to develop additional applications for the licensed property. The restrictions may do so, for example, by protecting the licensee against free-riding on the licensee's investments by other licensees or by the licensor. They may also increase the licensor's incentive to license, for example, by protecting the licensor from competition in the licensor's own technology in a market niche that it prefers to keep to itself.[38]

> In contrast, the rare horizontal case is treated quite harshly. Example 7 of the Guidelines describes a situation in which the parties to a licensing arrangement are all horizontal competitors in the production of a product before they enter into the license, and the licensed technology for producing the product does not represent any improvement over their own technology. They enter into a licensing arrangement that carves up the territories in which they can sell the product, whether or not the product is made using their own technology or the

licensed technology. As a result of the arrangement, the parties no longer compete with each other, because they each have assigned territories. The Guidelines treat the arrangement as a horizontal market division, and therefore per se unlawful.

The Technology Transfer Regulation would reach a similar result through a somewhat different approach in the hypothetical posed by Example 7 of the US Guidelines. Article 1 of the Regulation exempts from Article 85(1) of the Treaty of Rome territorially restrictive IPR licenses involving only two parties. However, Article 3 of the Regulation, the so-called "black list," makes Article 1 inapplicable to territorial restrictions that apply to *competing* products[39] rather than to the licensed products. (Article 3(2).) Thus, in the hypothetical in question, the license falls within the black list because the territorial restriction applies not only to products made with the licensed technology, but also to products made with competing technologies.

3. Grantbacks

The Technology Transfer Regulation provides simple and straightforward rules with respect to grantbacks. A licensor can require the licensee to license back to the licensor improvements to the licensed technology that may be developed by the licensee (article 2(4)), provided that: the licensee is free to use the improvements itself (*id.)*; the licensee is free to grant licenses to others, so long as that would not disclose the licensor's trade secrets (*id.)*; the licensor agrees to license its own improvements to the licensee (*id.)*; and the licensee is not required to assign the improvement to the licensor (article 3(6)) .

The US Guidelines approach, by contrast, depends on factors other than the simple terms of the grantback itself: anticompetitive effects are not seen to be likely unless (1) the licensor and licensee would otherwise have been rivals in research and development, and (2) the licensor has market power in a technology or innovation market.[40] (US Guidelines § 5.6.) If the licensor and licensee would not have been rivals in R&D, then there is no competition for the grantback to discourage. If the licensor has no market power in a technology or innovation market (or more accurately, any market, including a goods market, that is an important input into the process of producing the innovation), then the grantback cannot be effective in discouraging innovation, because either the licensee or some third party will be able to produce an equivalent innovation through some other means. Even where rivalry and market power are present, they can be outweighed by procompetitive benefits from the grantback. (*Id.)* Thus, the US Guidelines approach appears to be more tolerant of grantback arrangements than is the Technology Transfer Regulation.

4. Horizontal Acquisitions

Outright acquisitions of IPRs or of companies owning IPRs can have effects similar to acquisitions of other kinds of assets. For example, if there are only two competing products in a market, and each is controlled by a patent, the acquisition of one patent by the holder of the other would create a monopoly. The US Guidelines explicitly defer to the 1992 Horizontal Merger Guidelines for competition analysis of such situations, and do not otherwise discuss the issue except to observe that exclusive licenses can have the same effect as an acquisition where they completely transfer all rights to an IPR, and in that case should be analysed as an acquisition. (§ 5.7.) The Technology Transfer Regulation also does not cover acquisitions of IPRs, except where an assignment of an IPR leaves the risk associated with exploitation with the assignor (e.g., where the amount the assignee pays the assignor depends on the sales or profits realised by the assignee on the patented products). (Article 6(2).)

Nonetheless, the reference to analysing exclusive licenses as acquisitions in the US Guidelines appears not to be merely hypothetical, because the US competition authorities brought an actual case—settled by consent decree—closely paralleling the hypothetical example of this point (Example 11) in the Guidelines. In *United States v. S.C. Johnson & Sons*,[41] Miles, Inc., a US subsidiary of Bayer A.G., developed a new line of household insecticides containing a potent new active ingredient, cyfluthrin, developed and patented by Bayer. After Miles had substantially completed its preparations to enter the market, however, Bayer cancelled the project. Instead it agreed to sell the product research and packaging design, and to license cyfluthrin on a de facto exclusive basis, to S.C. Johnson, the leading manufacturer of household insecticides in the United States. The result was to ensure Johnson's continued dominance of the highly concentrated household insecticides market. The Justice Department challenged the arrangement, and obtained a consent decree that, among other things, enjoined the parties from entering into exclusive licenses between them unless approved by the Department and required Bayer to license cyfluthrin, under reasonable terms and conditions, to any person that requests such a license.

B. Vertical Effects

1. Exclusive Dealing — Non-Compete

Exclusive dealing, in US parlance, arises when a license prevents or restrains the licensee from licensing, selling, distributing, or using competing technologies. In European parlance, it is generally referred to as a "non-competition" clause. It is distinct from an "exclusive license" arrangement, in which the *licensor* agrees not to license any other licensees in the territory. An exclusive dealing/non-compete arrangement can have both anticompetitive and procompetitive effects. Depending on factors such as the market power of the party imposing it, the degree of foreclosure, the duration of the arrangement, and the minimum efficient scale of the operations requiring the foreclosed input or outlet, exclusive dealing can have the effect of denying rivals sufficient outlets for exploiting their technologies and thus be anticompetitive. On the other hand, the US Guidelines argue that such arrangements can be procompetitive by "encourag[ing] the licensee to develop and market the licensed technology or specialised applications of that technology. For example, a licensing arrangement that prevents the licensee from dealing in other technologies may encourage the licensee to develop and market the licensed technology or specialised applications of that technology." (§ 4.1.2.) The US Guidelines undertake to identify and evaluate the specific anticompetitive effects and to balance them against the procompetitive effects under the rule of reason. (§ 5.4.)

The Technology Transfer Regulation, by contrast, sets out clear rules applicable in all circumstances (unless withdrawn under Article 7): a licensor may require a licensee to use best endeavours to manufacture and market the licensed product (article 2(17)), may reserve the right to make the license non-exclusive if the licensee competes (article 2(18)), and may reserve the right to cease licensing improvements if the licensee competes (article 2(18)), but may not otherwise prevent the licensee from manufacturing, selling, etc. a competing product (Article 3(2)).

2. "Reach-through Royalties" (Royalties Based on Total Sales)

Royalties based on total sales of a product regardless of whether it is made using the licensed technology may be an efficient way of avoiding the difficulty of determining whether or not a final product incorporates the licensed technology. On the other hand, such royalties may have effects akin to

an exclusive dealing agreement. That is, the downstream manufacturer, which must pay for the use of the licensed technology for all units of its downstream product, is given a disincentive to use a competing technology in only a portion of its products (which it might otherwise want to do, for example, to differentiate those products or to maintain a second source of supply). It is put essentially to an all-or-nothing choice, and if the licensor is sufficiently dominant, the choice of the dominant licensor may be the only viable one.

Neither the US Guidelines nor the Technology Transfer Regulation explicitly addresses the lawfulness of royalties based on total sales. Both, however, contain language that could be viewed as reserving the right to challenge a particular arrangement as an anticompetitive instance of exclusive dealing. The US Guidelines state:

> Exclusivity may be achieved by an explicit exclusive dealing term in the license or by other provisions such as compensation terms or other economic incentives. Such restraints may anticompetitively foreclose access to, or increase competitors' costs of obtaining, important inputs, or facilitate co-ordination to raise price or reduce output, but they also may have procompetitive effects.

US Guidelines, § 4.1.2. The Technology Transfer Regulation states: "[T]he setting of rates of royalty so as to achieve one of the restrictions listed in Article 3 renders the agreement ineligible for the block exemption." Recital 21.

Both the US Department of Justice and the European Commision have challenged such an arrangement, in both instances in a challenge to Microsoft's licensing practices.[42] Microsoft used per processor licenses, which charged computer manufacturers ("original equipment manufacturers, or "OEMs") for every computer they shipped, whether or not MS-DOS, some other operating system, or no operating system was shipped with it. That made it harder for competing vendors of operating systems, because an OEM, and therefore the ultimate consumer, would have to pay twice, once to Microsoft and once to the competitor. In other words, the per processor license functioned as a penalty for dealing with any other vendor in addition to Microsoft— *i.e.*, it was a form of exclusive dealing arrangement. The competitive effect of an exclusive dealing arrangement depends, among other things, on the market power of the party imposing it, the degree of foreclosure, and the duration of the arrangement.[43] In this case, Microsoft was a highly dominant firm, and the contracts often locked up OEMs for five years or more, well beyond the product life cycle of most PC operating system products. In some cases, the contracts left OEMs with unused balances on their minimum quantity commitments to purchase MS-DOS, balances that Microsoft often allowed to be used if the contract was extended, but that were forfeited if the OEM did not extend the contract. This gave the OEM a strong incentive to continue its arrangement with Microsoft even after the initial end of the contract, thereby stretching out the effective length of the arrangement even further. Under those circumstances, both competition authorities undertook a challenge, the US charging an act of monopolisation and the EC asserting an abuse of dominant position.

3. Tying Arrangements

Both the Technology Transfer Regulation and the US Guidelines take a relatively benign view of tying arrangements. The Technology Transfer Regulation does not bar such arrangements, but subjects them to the opposition procedure. (Article 4(2).) The US Guidelines, despite the nominally per se unlawful status of tying arrangements under US court decisions, adopts what amounts to a rule of reason approach for the exercise of the competition authorities' prosecutorial discretion. (US Guidelines § 5.3.)

Nonetheless, the US competition authorities have made clear in recent years that they will prosecute tying arrangements under some circumstances, principally where they raise barriers to entry. In *United States v. Microsoft*,[44] for example, the settlement the Department obtained with Microsoft enjoins both the challenged practices and other practices to which Microsoft could turn to achieve the same effect, such as lump-sum royalties and tying arrangements.[45] As the Competitive Impact Statement points out, without a ban on tying arrangements (especially "tie-out" arrangements that condition a sale of a product on the buyer's promise not to purchase the product of a competitor), Microsoft could achieve the same effect as an exclusive dealing arrangement by licensing its operating system software to OEMs only on the condition that the OEM not license, sell, or distribute competing operating system software.[46]

4. Vertical Acquisitions

Vertical acquisitions have the potential for most of the same effects—both pro- and anticompetitive—of vertical restraints. Among other things, they have the potential in some circumstances to create market power by raising rivals' costs. The US Federal Trade Commission has challenged a number of mergers on this theory. One such case was the *Silicon Graphics* matter.[47] Silicon Graphics is the dominant supplier of entertainment graphics workstations, and it proposed to acquire Alias and Wavefront, two of the three leading producers of entertainment graphics software. The FTC challenged the acquisition, and the case was settled by a consent decree that focused on the vertical aspects of the merger—and specifically on the potential for exclusion. The FTC saw potential foreclosure effects both at the hardware and software level. Software prices could be raised to the competing hardware producers under a standard "raising rivals' costs" argument, by which the unintegrated software producers after the merger would be so few that they could raise prices to unintegrated hardware producers. That, in turn, would make entry at the hardware level riskier and more costly. At the same time, the potential unavailability of Silicon Graphics as a platform for competing software would make entry at the software level riskier and more costly. Together, these effects would have allowed Silicon Graphics to raise the price of the final product to consumers.

In cases involving allegations of foreclosure or "raising rivals' costs," it can be difficult to distinguish harmful behaviour from behaviour that is harmless or even beneficial. In particular, the merger or restraint, in order to do harm, must do more than simply rearrange vertical relationships. In the *Silicon Graphics* example, if all that happened was that hardware manufacturers that formerly used Alias and Wavefront turned to other software producers, and software producers that formerly wrote for the Silicon Graphics workstation instead began producing software for other hardware manufacturers, nothing significant would have taken place. For there to be harm to competition, there must be a coherent explanation of why competition or entry would become more costly or more risky as a result of the merger or restraint.

C. Other Enforcement Issues

1. Compulsory Licensing

It is often suggested that to compel a party to license its legitimately-obtained intellectual property is inconsistent with the very nature of that property, inasmuch as the essence of an IPR is the power to exclude others. A weaker version of that claim is that the refusal to license an IPR cannot be an abuse of dominant position (in the EU) or an act of monopolisation (in the US).

Such an assertion was clearly rejected in the EU by the *Magill* case.[48] In that case, three British or Irish television broadcasters—Radio Telefis Eireann (RTE), British Broadcasting Corp. (BBC), and Independent Television Publications Ltd (ITP) each licensed advance information about their programming schedules to newspapers, but only for publication one day at a time, or two days on weekends. The broadcasters published their own individual weekly schedules. They refused to license Magill, an Irish publisher that wished to license the program information to publish a weekly schedule that would contain information on all of the broadcasters. Magill claimed that this constituted an abuse of dominant position under Article 86. The European Commission agreed, and was affirmed both by the Court of First Instance and the European Court of Justice:

a) the European Court of Justice observed that "refusal to grant a license, even if it is the act of an undertaking holding a dominant position, cannot in itself constitute abuse of a dominant position"[49]

b) Nonetheless, it held that "exercise of an exclusive right by the proprietor may, in exceptional circumstances, involve abusive conduct."[50] It found such exceptional circumstances because the broadcasters' refusal to license had prevented the appearance of a new product, which the broadcasters did not offer, for which there was a potential consumer demand, and for which there was no actual or potential substitute. Moreover, it found no justification for such refusal, and it found that the broadcasters had reserved to themselves the market for weekly television guides by excluding all competition on that market.[51]

Some United States courts have held that a patentee's refusal to either use or license a patent cannot form the basis for an antitrust claim.[52] A number of exceptions to that general rule have arisen, however.

a) In the United States, it is generally accepted that compulsory licensing may be used as a remedy to restore competitive conditions that have been harmed by conduct other than the bare refusal to license IPRs. Such a remedy has been used in the case of horizontal mergers, 53 patents acquired by inequitable conduct, 54 and market power acquired when a patent conferred control over an industry-wide standard that was adopted only because the patentee had failed to disclose the existence of the patent despite an explicit request to disclose such IPRs. 55

b) A court in the United States has stated that a refusal to supply intangible property can be the basis for application of the "essential facility doctrine," under which a monopolist that controls a facility essential to compete in a market can be required to make that facility available to competitors on non-discriminatory terms if it is feasible to do so. [56]

c) Another United States court has held that while a patent owner cannot be held liable under the essential facility doctrine, a copyright owner is not entitled to the same immunity.[57] Nonetheless, the court held that the copyright owner's desire to be the exclusive user of the copyright was presumptively a legitimate justification for a refusal to license, although the presumption could be rebutted.[58]

Compulsory licensing requires that the competition authorities regulate the terms of the license, since otherwise the licensing could be on terms so onerous that they amount to a refusal to license. This is

not always an intractable problem. Where the entire value of the IPR flows from a wrongdoing, as in the case of fraud on the patent office, it is easy to set the price at zero.[59] Where the objective is to put the right to practice the IPR in the hands of a single licensee, as in the case of a horizontal merger that is to be remedied by licensing another firm that will be a strong competitor, it is often possible to avoid regulation by allowing the licensor to find the licensee itself and negotiate terms, setting up an implicit auction among the potential licensees. In other situations, however, it may be difficult to achieve the right balance between remedying the competitive harm and leaving intact legitimate rewards for innovation.

2. IPRs of Dubious Validity

a. IPRs Procured Through Fraud or Inequitable Conduct

Under US law, enforcement of an IPR procured through fraud on the patent office can be an act of monopolisation or attempted monopolisation if monopoly power or a dangerous probability of achieving it is also established.[60] Enforcement of an IPR procured through "inequitable conduct"—conduct that falls short of fraud but that shows less than complete candor and fair dealing with the patent office—can be an "unfair method of competition" that can be barred prospectively by the Federal Trade Commission.[61]

One might legitimately ask why competition authorities should concern themselves with whether an IPR is valid or not. After all, expertise on the question of validity would be expected to reside at the patent office, which issued the patent in the first place. On the other hand, uncovering fraud is a type of undertaking more akin to the law enforcement activities of competition authorities, which are adept at rooting through masses of documents and deposing witnesses to get at the truth, than it is to the more technical and scientific endeavours of processing applications at a patent office. In addition, it is a resource-intensive undertaking, best reserved for instances in which substantial market power has been obtained or threatened, rather than being a routine activity of the patent office. Finally, the underlying evidence needed to establish a claim of this kind is likely to overlap substantially with the evidence relevant to other issues of unquestioned competition policy concern, such as whether the relationship between parties to a patent pool is horizontal or vertical. (For example, the relationship may be vertical if one of the parties legitimately possesses a blocking patent, but not if that patent is invalid.)

b. Two-Level Entry Issues

An interesting suggestion about a possible effect of combining through merger patents of uncertain validity was made at the Canadian symposium referred to in paragraph 1:

> [S]uppose, prior to the merger, that both the technology claimed by A's patents and the technology claimed by B's patents are required to produce a commercially marketable product. But each set of patents are also associated with a certain probability that either the other patent owner or a third party will be able to invent around the patent or have the necessary claims declared invalid. Thus, even without acquisition, pooling, or cross-licensing, the two parties are potentially horizontal competitors, and there is some possibility that a third party will be able to enter by obtaining a license from one and inventing around or challenging the patent claims of the other. The prices for licenses will reflect the perceived probabilities. After the acquisition or pooling, the probability of competition is greatly reduced. A potential entrant will have to invent around or declare invalid a much greater array of patents. This is potentially anticompetitive in

the same way that a two-level entry problem is anticompetitive under § 4.21 of the 1984 Merger Guidelines.[62]

The authors recognise that application of such a theory would have to be limited by considerations such as the degree to which the transaction increases the need for multiple-level entry, the extent to which such entry is more difficult than single-level entry, and the degree to which the affected markets are susceptible to monopolisation or collusion.

3. Innovation Markets

In rapidly changing, high-tech industries, the most important dimension of competition is often not the price of existing goods and services, but the price and, more importantly, the quality, of goods and services that may come into being in the future. For example, computer manufacturers may compete to supply more powerful machines, with faster processors and greater memory. Drug companies may compete to develop new products and treatments for specific diseases. Communications firms may seek to provide new and innovative multiple media products to households. Defence firms may compete to produce military aircraft with greater ability to elude radar.

The US Guidelines describe two ways of analysing innovation effects: "as a separate competitive effect in relevant goods or technology markets, or as a competitive effect in a separate innovation market."[63] There has been considerable debate about the innovation market concept,[64] some of it revolving around whether the effects in question can be analysed equally well under the potential competition doctrine—with perhaps less risk of misunderstanding.[65]

The FTC has had a number of cases in which the potential competition doctrine, with a few adjustments, could be used to model the effects and would reach similar results as analysing the transaction's current effects in an innovation market. In *Glaxo plc*,[66] for example, Glaxo, the acquiring firm, sold an existing product for the treatment of migraine attacks that was approved by the FDA in injectable form only. Both Glaxo and Wellcome, the acquired firm, had products in the FDA approval process that would treat migraine with an oral dosage. Hardly any other companies were involved in research and development for such drugs, and barriers to entry were high. The FTC challenged that aspect of the acquisition because it would have eliminated both the competition to develop those drugs and the competition between those drugs once developed and approved. The result was a consent order allowing the transaction as a whole to go through but restoring the competition in that class of drugs. Similarly, in *American Home Products*,[67] the FTC alleged that the acquisition of American Cyanamid by American Home Products would lessen competition in a number of markets. Both firms, along with one other firm, had active research and development programs for a rotavirus vaccine. Both merging parties had products at an advanced stage of the FDA's approval process. The merger eliminated the likelihood that at the end of the FDA approval process, the two products would compete with each other. Moreover, the merger gave American Home Products the ability and the incentive to close the American Cyanamid development effort, decreasing the likelihood that two products would exist at all. *Upjohn Co.*[68] and *Hoechst*[69] presented similar sets of facts.

In each of these cases, the approval process established by the Food, Drug, and Cosmetics Act[70] created a clear measure of the timing and likelihood of market entry for a particular drug. No new drug can be sold in the U. S. without FDA approval, and the process is highly visible and time-consuming. And the process itself often gives the FTC an indication of the competitive significance of a particular drug. If FDA trials place substantial doubt on the safety or efficacy of a particular drug, the FTC will

discount that drug's likely impact. Similarly, the closer a drug is to final approval, the more assured the FTC will be in its assessment of the competitive significance of the drug. In such cases, where the product parameters are clear and the potential competitors can be identified with precision, one could expand the potential competition doctrine to deal with potential entry into *future* goods markets and thereby capture the price effects of competition among the future products. One might want to make further adjustments in order to capture innovation *effects* in those markets (i.e., the elimination of the competition to develop the drugs, not just the competition between the drugs once developed and approved), but one would not need the concept of innovation *markets*.

This approach of focusing on the effect on competition in the sale of the drug, rather than the R&D competition to produce the drug, is the approach taken by the European Commission in some of the pharmaceutical mergers that were investigated on both sides of the Atlantic. In its 1996 report on the US/EC antitrust co-operation agreement, the Commission describes the differences in approach as follows:

> In Glaxo/Wellcome . . . [b]oth Glaxo and Wellcome had similar anti-migraine treatments at an advanced stage of development and it was considered that the time and cost involved for a competitor in reaching the same stage of development were such that it was essential to maintain both products in competition with each other. The approaches taken by the European Commission and the FTC to resolve this problem were different; the FTC considered a horizontal market for R&D for anti-migraine drugs on its own, while the Commission looked at the spill-over effects of R&D in the market for the sales of medicines. The Commission decision therefore provided for the merged company to license one of the two anti-migraine treatments in development and so retain a potential competitor, while the FTC required full divestiture of Wellcome's R&D for this anti-migraine treatment.[71]

Cases involving competition to produce the next generation product, where the contours of that product are not completely clear, are harder to analyse without the innovation market concept. The FTC dealt with such a situation in *Sensormatic*,[72] in which the Commission alleged a loss of competition for research and development of a next generation of electronic article surveillance (EAS) systems for retail stores. Both Sensormatic and the firm from which the assets were to be acquired, Knogo, manufactured current generation EAS systems. Current EAS systems involve electronic labels attached by retailers; next-generation EAS product would allow manufacturers to attach the marker before shipping to retailers. There were only a few companies capable of doing research on this next-generation product. Thus, what was being eliminated was not simply the competition between two products some years hence, but the very incentive to conduct the research that might result in a product. It may be that only one of the two research paths would succeed, so one could not say with assurance that future goods market competition was being eliminated. The current effect on research and development, in contrast, seems much clearer.

The Department of Justice faced a similar situation in its challenge to the proposed acquisition of General Motors' Allison Division by ZF Friedrichshafen, which would have combined the two companies' bus and truck automatic transmission businesses. The two firms competed in certain narrow product and geographic markets, and one could have made a case based on the impact of the relatively small number of consumers in those markets. Such a case, however, would have missed the big picture, and might have resulted in a different remedy. As expressed in its complaint, the Department's principal concern was that the combined firm would have controlled most of the assets, world-wide, necessary for innovation in heavy duty truck and bus automatic transmissions.[73] In this industry, the ability to carry out R&D activities was closely associated with the possession of specialised production

assets. Innovation required constant feedback between innovative ideas and production experience. Only these two firms possessed the necessary productive capacity. The history of the industry revealed a pattern of the two companies constantly leapfrogging each other with product improvements. Thus, innovation would have been stifled by the merger. Consumers would have been affected even in the geographic markets in which the two companies did not compete directly, because having adopted a new technology or created a new product for use in the markets in which the companies *did* compete, the companies would normally implement the change world-wide. The Department's complaint alleged an anticompetitive effect, not just in the specific goods markets that had been the subject of direct sales competition in the past, but in a market for innovation.[74]

The US Guidelines emphasise that the innovation market concept will only be used when "the capabilities to engage in the relevant research and development can be associated with specialised assets or characteristics of specific firms."[75]

4. Standards-Setting and Networks

"Network effects" refer to the fact that networks and standards typically become more useful the more users there are. The usual example is the telephone network, where the value to a user is zero if there is only one user but grows with the number of people who can be reached through that network. Such network effects can be thought as a form of economies of scale, but on the demand side rather than in production.

In the computer industry, the network effects often flow from the fact that the more people are using a particular standard or interface, the more attractive it is for vendors of complementary products to develop new products around that standard or interface. An operating system becomes more attractive the more people there are who use that operating system, because more applications program developers develop applications based on that operating system, and those applications in turn are what users want.

Control over those standards and interfaces can be a source of market power, just as being the only firm in a position to capture available economies of scale in production can be a source of market power. It has been suggested that competition authorities should therefore have a preference for standards that are open to all at little or no cost, as opposed to standards that are either completely closed or subject to high license fees. It is not clear, however, whether such a remedy would do more good or harm. Companies compete to gain control over standards by having better products. If they knew they would have to open up the standard to all competitors, the incentive to innovate might be diminished. Proprietary standards also tend to be developed and to get to market more quickly because of the time it takes a formal standard-setting process to secure agreement on a standard. The "least-common-denominator" characteristic of an open standard may also tend to produce standards that are not at the forefront of technological developments.

So far, therefore, competition authorities seem to have limited themselves to challenging abusive practices, such as obtaining control over standards in unfair ways.[76]

5. Vertical Price Restrictions

Competition authorities in the United States, the European Union, and Japan have all expressed a substantial degree of hostility toward licensing provisions that restrict the price at which the licensee may sell the licensed products. The US Guidelines state that "the Agencies will enforce the per se rule against resale price maintenance in the intellectual property context." (§ 5.2.) The Technology Transfer Regulation states that "Article 1 and Article 2(2) shall not apply where . . . one party is restricted in the determination of prices, components of prices or discounts for the licensed products." (Article 3(1).) And the Japanese Guidelines list "[r]estricting resale prices of patented goods in Japan" as conduct that is "highly likely to fall under unfair trade practices." (Part 1.3.(1).)

The US approach is perhaps the least hostile of the three, in three respects. First, the Guidelines limit per se treatment to cases in which the restraint cannot "be expected to contribute to an efficiency-enhancing integration of economic activity." (§ 5.2, citing § 3.4 as a source of limiting principles.) Second, it acknowledges US Supreme Court precedent that an owner of a product patent may condition a license to manufacture the product on the fixing of the *first* sale price of the patented product. (§ 5.2 n. 33, citing *United States v. General Electric Co.*, 272 US 476 (1926) .) Finally, the US authorities have signalled their tolerance of vertical agreements fixing the *maximum* prices of products by filing an amicus brief in a case now pending in the US Supreme Court that will consider whether such maximum resale price fixing should no longer be treated under the *per se* rule.[77]

6. "Safety Zones"

One of the innovations of the US Guidelines was the introduction of a "safety zone" for licensing arrangements where "(1) the restraint is not facially anticompetitive[78] and (2) the licensor and its licensees collectively account for no more than twenty percent of each relevant market significantly affected by the restraint." (§ 4.3.) The goal was "to provide some degree of certainty and thus to encourage" licensing. (*Id.*)

The degree to which the safety zone has accomplished that goal is unclear. At hearings recently held by the US FTC, a well-known antitrust lawyer who regularly counsels clients on R&D joint ventures testified:

> The IP Guidelines work well both because they embrace an economically sensible analytical approach and because they do not attempt to do too much. They provide a sound framework for analysing one important form of collaboration — intellectual property licensing — but do not attempt to superimpose a single bright line standard on all forms of collaboration. The one area in which the Guidelines attempt to provide a bright line standard is the one area in which they unambiguously fail. This is the antitrust safety zone for transactions in which the parties collectively account for no more than 20 percent of each relevant market significantly affected by the restraint. The safety zone fails both because a 20 percent rule does not offer any protection that the law currently fails to accord, . . . and because the Guidelines take away the safe harbour if the parties at any time exceed the 20 percent share limit, even if this occurs years after the ink has dried on their agreement. My guess is that this is the fate that will await most bright line standards in enforcement guidelines. The legitimate need to preserve enforcement discretion usually produces standards that are conservative to the point of irrelevance.[79]

V. Conclusion

The foregoing is intended to be a stimulus for debate, not an advocacy of particular views. The issues posed by competition policy toward arrangements involving intellectual property are both important and complex, and undoubtedly will be the subject of continuing thought and discussion

NOTES

1. Reprinted as an annex to the Japanese submission contained in these Proceedings. The JTFC, in April 1993, also published *Antimonopoly Act Guidelines Concerning Joint Research and Development.*

2. US Department of Justice and Federal Trade Commission, *Antitrust Guidelines for the Licensing of Intellectual Property* (Apr. 6, 1995), *reprinted in* 4 Trade Reg. Rep. (CCH) ¶ 13,132 - reprinted as an annex to the United States FTC and DOJ submissions contained in these Proceedings.

3. Commission Regulation (EC) No. 240/96 of 31 January 1996 on the Application of Article 85(3) of the Treaty to Certain Categories of Technology Transfer Agreements.

4. Held in Aylmer, Quebec, May 12-13, 1996. Papers and proceedings of the symposium are to be published in Nancy Gallini & Rob Anderson, eds., Competition Policy, Intellectual Property Rights, and International Economic Integration (Industry Canada 1997) (hereinafter "*Canadian Symposium*").

5. Frank H. Easterbrook, *Ignorance and Antitrust*, in Antitrust, Innovation, & Competitiveness 82, 122-23 (Thomas M. Jorde & David J. Teece, eds. 1992); *accord* F.M. Scherer & David Ross, Industrial Market Structure and Economic Performance 613 (3d ed. 1990).

6. Technology Transfer Regulation, Recital 3.

7. Japanese Guidelines, Preamble ¶ 3.

8. *US Guidelines*, § 1.0.

9. *Compare, e.g.*, Joseph A. Schumpeter, Capitalism, Socialism, and Democracy 81-106 (1942) (arguing that monopoly encourages innovation because, among other things, a monopolist is better able to appropriate the value of its innovations) *with* Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Innovation*, in Essays in the Theory of Risk-Bearing 144 (1976) (showing that under some conditions, a monopolist may have less incentive to innovate than a firm in a competitive market, because the monopolist that brings out a new or superior product may simply cannibalize its own markets—i.e., draw sales away from products on which it is already earning a monopoly profit) *and* Michael E. Porter, The Competitive Advantage of Nations (1990) (firms that face strong competition in their home markets tend to become more effective competitors abroad). *See generally* Wesley M. Cohen & Richard C. Levin, *Empirical Studies of Innovation and Market Structure*, in 2 Handbook of Industrial Organization 1059 (Richard Schmalensee & Robert D. Willig, eds. 1989) (surveying literature and discussing why it is mixed and difficult to interpret); Jonathan B. Baker, *Fringe Firms and Incentives to Innovate*, 63 Antitrust L.J. 621, 639-41 (same); Richard J. Gilbert & Steven C. Sunshine, *Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets*, 63 Antitrust L.J. 569, 579-80 (1995) (same).

10. For example, the United States Federal Trade Commission conducted a set of hearings at which the relationship between competition and innovation was discussed. The staff report summarizing those hearings observes: "Business participants who addressed this issue were emphatic that competition is a primary incentive for innovation, and that continuous innovation is critical for success in increasingly global markets." 1 FTC Staff Report, Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace ch. 6, p. 12-13 (1996) [hereinafter "*US FTC Hearings Report*"]).

11. At the US FTC's Global Competition Hearings in 1995, an AT&T representative described the break-up as "one of the most successful remedies in antitrust history," and noted that "innovation has burgeoned" as a

result of the decree. Federal Trade Commission Global and Innovation-Based Competition Hearings [hereinafter "*US FTC Hearings*"] (prepared statement of Mark Rosenblum at 11, 14) (quoted in 1 *US FTC Hearings Report* ch. 6, p. 13. At an earlier set of hearings before the Judiciary Committee of the US House of Representatives, a representative of a leading manufacturer of fiber-optic cable described the travails of trying to interest the pre-breakup AT&T in purchasing such cable in lieu of its existing (and technologically inferior) copper wire. Testimony of Timothy J. Regan, Division Vice President and Director of Public Policy, Corning, Inc., before the House Judiciary Committee, May 9, 1995.

12. *United States v. Masonite Corp.*, 316 US 265, 280 (1942).

13. *E. Bement & Sons v. National Harrow Co.*, 186 US 70, 91 (1902).

14. *United States v. Aluminum Co. of America*, 148 F.2d 416, 430 (2d Cir. 1945).

15. *Id.*; *see also Berkey Photo Inc. v. Eastman Kodak Co.*, 603 F.2d 263 (2d Cir. 1979), *cert. denied*, 444 US 1093 (1980).

16. Professors Nancy Gallini and Michael Trebilcock, "Intellectual Property Rights and Competition Policy: A Framework for Analysis of Economic and Legal issues" - Included in these Proceedings.

17. US Guidelines, § 1.0.

18. US Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, § 4 n.37 (rev. April 8, 1997).

19. *See, e.g., United States v. Univis Lens Co.*, 316 US 243, 250 (1942) ("[a patent grants] to the inventor a limited monopoly, the exercise of which will enable him to secure the financial rewards for his invention"); *Int'l Wood Processors v. Power Dry, Inc.*, 792 F.2d 416, 426 (4th Cir. 1986) (noting that courts often refer to the patent holder's rights "as either a limited monopoly or a patent monopoly").

20. *E.g., Deutche Gramophon GmbH v. Metro-SB-Grossmarkte GmbH* (78/80) 8 June 1971, [1971]ECR 487, [1971] CMLR 631, CMR ¶ 8106.

21. US Guidelines § 2.0.

22. *E.g.*, US Guidelines § 2.2; *Deutsche Gramophon*; *Radio Telefis Eireann (RTE) & Anor v. Commission of the European Communities* (C-241/91P & C-242/91P) 6 April 1995, ¶ 47 [1995]1 CEC 400, 452.

23. Japanese Guidelines, Part 1(2).

24. Gallini & Trebilcock, *supra* note 16, at 39.

25. *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 US 172 (1965).

26. See discussion at ¶ 54, *infra*.

27. *United States v. Singer Manufacturing Co.*, 374 US 174 (1963).

28. US Guidelines § 5.5.

29. *See* Statement of Richard J. Gilbert submitted to the Subcommittee on Patents, Copyrights & Trademarks, Senate Judiciary Committee, concerning the Patent Term and Publication Reform Act of 1994, S. 1854 (March 9, 1994) (hereinafter "*Gilbert Statement*").

30. Comment of the Staff of the Federal Trade Commission, Dkt. No. 9505 31 44-5144-01 (hereinafter "*FTC Comments on PTO Guidelines*").

31. *Id.* at 1-2 (footnotes omitted).

32. *E.g.*, *US FTC Hearings Report, supra* note 10, at chs. 1, 6-9 (summarizing literature).

33. *Gilbert Statement, supra* note 29, at 2-4 (commenting on problem of "submarine patents"); *FTC Comments on PTO Guidelines, supra* note 30 at 3-4 (commenting on difficulty of identifying prior art in software).

34. *US FTC Hearings Report, supra* note 10, at ch. 8 p. 2 (refraining from recommending any specific actions but concluding that the issues warrant further scrutiny by the FTC).

35. US Guidelines § 4.2.

36. *Technology Transfer Regulation,* Article 5(1) & Recital 8.

37. Article 5(2).

38. US Guidelines § 2.3.

39. "Competing products" is defined to mean "products which, in view of their characteristics, price and intended use, are considered by users to be interchangeable or substitutable for the licensed products. Technology Transfer Regulation Art. 10 (17).

40. "Technology markets" in US Guidelines parlance consist of the intellectual property of interest (e.g., the licensed technology) and its close substitutes—that is, the technologies or goods that are close enough substitutes significantly to constrain the exercise of market power with respect to the intellectual property of interest. (US Guidelines § 3.2.2.) "Innovation markets" consist of the research and development to produce new intellectual property. (US Guidelines § 3.2.3.)

41. Civ. No. 94-C-50249, filed Aug. 4, 1994.

42. *United States v. Microsoft Corp.*, 1995-2 Trade Cas. (CCH) ¶ 71,096 (consent decree); *see also* 59 Fed. Reg. 42,845 (Aug. 19, 1994) (competitive impact statement); *EC Commission Opens Investigation of Microsoft's Commercial Conduct*, 65 Antitrust and Trade Reg. Rep. (BNA) No. 1632, 405 (Sept. 23, 1993); *Bingaman Briefs Seminar on International Fronts*, 67 Antitrust and Trade Reg. Rep. (BNA) No. 1687, 543 (Nov. 3, 1994) (discussing Commission's and DOJ's settlement with Microsoft).

43. *See* 1 ABA Antitrust Section, Antitrust Law Developments 214-25 (4th ed. 1997). A refinement that may not be fully reflected in the case law is that these factors are relevant because they cast light on whether the arrangements reduce rivals' ability to constrain prices and thereby augment defendant's market power.

44. 1995-2 Trade Cas. (CCH) ¶ 71,096 (consent decree); *see also* 59 Fed. Reg. 42,845 (Aug. 19, 1994) (competitive impact statement).

45. *Microsoft*, 1995-2 Trade Cas. ¶ 71,096 at 75,244-46 (D.D.C. 1995) (part IV of consent order).

46. 59 Fed. Reg. 42,845 at 42,852 (August 19, 1994).

47. Dkt. C-3626 (Nov. 14, 1995), 5 Trade Reg. Rep. (CCH) ¶ 23,838.

48. The Commission decision is at O.J. Eur. Comm. (No. 78/43) (1989). The Court of First Instance affirmed in three parallel decisions: *Radio Telefis Eireann v. Commission of the European Communities* (T-69/89*)* 10 July 1991 [1991] CMLR 586, [1991]2 CEC 114; *British Broadcasting Corp. v. Commission of the European Communities* (T-70/89*)* 10 July 1991 [1991] CMLR 669, [1991]2 CEC 147; and *Independent Television Publications Ltd. v. Commission of the European Communities* (T-76/89*)* 10 July 1991 [1991] CMLR 745, [1991]2 CEC 174. RTE and ITP took appeals, and their defeats were affirmed in *Radio Telefis Eireann (RTE) & Anor v. Commission of the European Communities* (C-241/91P & C-242/91P) 6 April 1995 [1995]1 CEC 400.

49. (C-241/91P & C-242/91P) ¶ 49, 1995 1 CEC at 452.

50. *Id.* ¶ 50, [1995]1 CEC at 452.

51. *Id.* ¶¶ 52-56, [1995]1 CEC at 453.

52. *E.g.*, *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 US 405, 426-30 (1908).

53. *E.g.*, *Glaxo plc*, Docket No. C-3586 (June 14, 1995); *American Home Products*, Docket No. C-3557 (Feb. 14, 1994).

54. *American Cyanamid*, 72 F.T.C. 623, 684-85 (1967), *aff'd sub. nom. Charles Pfizer & Co.*, 401 F.2d 574 (6th Cir. 1968), *cert. denied*, 394 US 920 (1969).

55. *Dell Computer Corp.*, 5 Trade Reg. Rep. (CCH) ¶ 24,054 (May 20, 1996) (final acceptance of consent order).

56. *Bellsouth Advertising & Publishing Corp. v. Donnelley Information Publishing*, 719 F. Supp. 1551, 1556 (S.D. Fla. 1988), *aff'd*, 933 F.2d 952 (11th Cir. 1991).

57. *Data General Corp. v. Grumman Systems Support Corp.*, 36 F.3d 1147, 1184-87 (1st Cir. 1994).

58. *Id.*

59. *But see American Cyanamid*, 72 F.T.C. 623, 684-85 (1967), *aff'd sub. nom. Charles Pfizer & Co.*, 401 F.2d 574 (6th Cir. 1968), *cert. denied*, 394 US 920 (1969).

60 . *E.g.*, *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 US 172 (1965).

61. *See American Cyanamid.*, 72 F.T.C. at 684-85.

62. Willard K. Tom & Joshua A. Newberg, *US Enforcement Approaches to the Antitrust/Intellectual Property Interface*, in *Canadian Symposium, supra* note 4 (footnote omitted).

63. *Guidelines* § 3.2.3.

64. *See*, *e.g.*, Commissioner Roscoe B. Starek, III, Innovation Markets in Merger Review Analysis: The FTC Perspective, Address Before the Florida Bar (Feb. 23, 1996); Gilbert &Sunshine, *supra* note 9, at 569 (1995); *Symposium: A Critical Appraisal of the "Innovation Market" Approach*, 64 Antitrust L.J. 1 (1995).

65. *See* 1 FTC Staff, Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace ch. 7 (1996); Richard T. Rapp, *The Misapplication of the Innovation Market Approach to Merger Analysis*, 64 Antitrust L.J. 19, 37-46 (1995).

66. 5 Trade Reg. Rep. (CCH) ¶ 23,784 (June 14, 1995).

67. 5 Trade Reg. Rep. (CCH) ¶ 23,712 (February 14, 1995), *reopened and modified*, 5 Trade Reg. Rep. (CCH) ¶ 23,966 (January 16, 1996).

68. 5 Trade Reg. Rep. (CCH) ¶ 23,914 (February 8, 1996).

69. *Hoechst AG*, 5 Trade Reg. Rep. (CCH) ¶ 23,895 (December 5, 1995).

70. Food, Drug & Cosmetic Act § 505, 21 USC. § 355 (1988 & 1993 Supp.).

71. *Commission report to the Council and the European Parliament on the application of the Agreement between the European Communities and the Government of the United States of America regarding the application of their competition laws*, COM(96)479final, 8 October 1996, ¶ 4.21, available at http://europa.-eu.int/en/-comm/dg04/lawenten/en/com479.htm.

72. *Sensormatic Elecs Corp.*, 5 Trade Reg. Rep. (CCH) ¶ 23,742 (December 5, 1995).

73. *United States v. General Motors Corp*, Civ. No. 93-530 (D. Del. filed Nov. 16, 1993), *summarized at* 6 Trade Reg. Rep. (CCH) ¶ 45,093 (Case 4027).

74. *Id.*, Complaint ¶¶ 35-45.

75. *Guidelines*, § 3.2.3.

76. *Dell Computer Corp.*, 5 Trade Reg. Rep. (CCH) ¶ 24,054 (May 20, 1996) (final acceptance of consent order) (company failed to disclose existence of patents despite standards-setting organization's requirement that participants do so).

77. *State Oil Co. v. Khan*, No. 96-871, *cert. granted*, 117 S. Ct. 941 (Feb. 18, 1997).

78. "Facially anticompetitive" refers to restraints that normally warrant per se treatment, as well as other restraints of a kind that would always or almost always tend to reduce output or increase prices. *See US Guidelines* § 3.4.

79. *Contemporary Antitrust Analysis of Joint Ventures: Why It Makes Sense to Stay the Course*, Testimony of Joseph Kattan at the Federal Trade Commission's Hearings on Joint Venture Project (Washington, DC, June 5, 1997).

NOTE DE RÉFÉRENCE

par Willard K. Tom[*]

I. Introduction

Au cours de ces dernières années, un certain nombre de pays membres de l'OCDE ont réexaminé les relations entre la politique de concurrence et la propriété industrielle. En février 1989, la Commission japonaise pour la loyauté des pratiques en matière commerciale a publié *des* Directives pour la réglementation des pratiques commerciales déloyales en matière d'accord de licence, de brevets et de savoir-faire (mentionnées ci-après comme "Directives japonaises")[1]. En avril 1995, les autorités américaines compétentes en matière de concurrence ont diffusé leurs Directives antitrust pour les licences de propriété intellectuelle (mentionnées ci-après comme "Directives américaines")[2]. En janvier 1996, la Commission européenne a adopté le règlement de la Commission n° 240/96 (mentionné ci-après comme "règlement sur les transferts de technologie"), qui a remplacé les deux exemptions globales intéressant les licences de brevets et les licences de savoir-faire[3]. En mai 1996, le gouvernement canadien a co-parrainé un symposium sur la politique de concurrence et la propriété intellectuelle qui constituait une première étape dans le réexamen des politiques en la matière[4].

Le vif intérêt accordé à ce sujet est le signe d'une compréhension croissante du rôle crucial que l'innovation joue pour la santé de l'économie et le bien-être des citoyens. On a dit, sans exagération, que :

> Une politique antitrust qui réduirait les prix de 5 pour cent aujourd'hui, mais abaisserait en contrepartie de 1 pour cent le taux annuel auquel l'innovation diminue les coûts de production, serait désastreuse. Dans le long terme, si le taux d'innovation se maintient, son effet cumulé est bien supérieur aux pertes statiques[5].

On reconnaît depuis longtemps le rôle que jouent les droits de propriété intellectuelle ("DPI") comme stimulant de l'innovation, et les réexamens récents des politiques en ce domaine ont insisté sur ce rôle. L'objectif du règlement sur les transferts de technologie était "d'encourager la diffusion des connaissances techniques dans la Communauté et de promouvoir la fabrication de produits techniquement améliorés[6]". De façon similaire, les Directives japonaises relèvent que :

> Le cadre juridique qui protège les droits de propriété intellectuelle, tels que les brevets, est favorable à la concurrence en ce qu'il stimule la recherche et le développement des entrepreneurs, et peut contribuer au lancement d'un nouveau marché ou d'une nouvelle technologie[7].

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Quant aux Directives américaines, elles déclarent :

> Les lois qui protègent la propriété intellectuelle constituent des incitations à l'innovation ainsi qu'à sa diffusion et à sa commercialisation en conférant des droits de propriété, que la justice fait respecter, aux créateurs de produits nouveaux et utiles, et aux inventeurs de nouvelles techniques plus efficaces et de modes d'expression originaux. En l'absence de droits de propriété intellectuelle, les plagiaires seraient en mesure d'exploiter rapidement les efforts de ceux qui innovent et investissent, et cela sans compensation[8].

En outre, la concurrence peut être un important facteur d'innovation. Certes, la doctrine économique est partagée sur le point de savoir qui, du monopole ou de la concurrence, favorise le plus l'innovation, de manière générale[9]; mais l'on peut citer nombre de situations spécifiques dans lesquelles la concurrence a stimulé l'innovation ou dans lesquelles les freins à la concurrence l'ont gênée, et les expériences concrètes des chefs d'entreprise confirment cette observation de bon sens[10]. On pense, par exemple, aux performances comparées de l'industrie des télécommunications avant et après l'éclatement de ATT[11].

II. Peut-il y avoir conflit entre les DPI et les lois sur la concurrence ?

L'importance que revêtent ces deux politiques pour l'encouragement de l'innovation ne serait pas l'objet d'une telle attention, et serait encore moins susceptible de justifier une table ronde pour les aborder de concert, si l'on ne les considérait pas fréquemment comme contradictoires. Aux Etats-Unis, par exemple, la position de la Cour suprême, durant de nombreuses années, a été illustrée par la déclaration suivante: "Etant donné que les brevets sont des privilèges qui restreignent le libre jeu de l'économie de marché, les droits que leur confère le Congrès doivent être interprétés strictement[12] Comme l'objectif des lois antitrust était d'empêcher la formation de monopoles et de limiter l'exercice du pouvoir de monopole, alors que "l'objet même des lois sur les brevets est l'établissement d'un monopole[13]", on pensait que ces deux constructions juridiques étaient en opposition inhérente.

Mais, une fois que la nature du conflit a été ainsi énoncée de façon large et superficielle, il n'est pas aisé de discerner précisément en quoi il consiste. En dehors du domaine des DPI, les politiques de concurrence ne semblent guère chercher à attaquer plus vigoureusement les monopoles qui résultent "d'une supériorité de talent, de lucidité et de travail"[14] que ce n'est le cas dans ledit domaine. C'est sans nul doute parce que les autorités compétentes en matière de concurrence reconnaissent que la perspective d'acquérir une rente de monopole constitue un stimulant très fort pour l'investissement et l'innovation. "Celui qui, après avoir été poussé à la compétition, en sort vainqueur, ne doit pas être pénalisé quand il gagne[15]" De même, les instances compétentes en matière de concurrence ne paraissent ni plus ni moins agressives à l'égard de dispositions contractuelles tels que l'exclusivité de distribution ou de changements structurels comme les fusions, dans l'un ou l'autre domaine. Toutefois, dans la mesure où l'on perçoit l'existence d'un conflit, il semble résulter de quatre incertitudes principales : (a) la politique de concurrence s'attache-t-elle à l'allocation efficace des facteurs dans le court terme ou à la dynamique d'efficience à long terme ? (b) doit-on déduire de l'existence d'un DPI qu'il existe une emprise sur le marché ? (c) la troisième incertitude est relative à certaines caractéristiques distinctives des DPI sur le plan économique, et (d) la quatrième consiste à savoir si un contrat particulier, une licence ou une fusion doivent être considérés comme horizontaux ou verticaux.

A. L'arbitrage entre court terme et long terme

Gallini et Trebilcock, de l'Université de Toronto, considèrent la distinction entre court et long terme à la fois comme une source du conflit et comme un moyen de le résoudre partiellement. Comme ils le disent :

> Alors que les autorités responsables de la concurrence mettaient auparavant l'accent sur le "court terme", ils ont maintenant une conception à plus long terme, qui reconnaît que le progrès technique contribue au moins autant au bien-être social que l'élimination des défauts d'affectation des facteurs résultant de l'existence de prix non concurrentiels. Par conséquent, on est de plus en plus disposé à tolérer des freins à la concurrence d'aujourd'hui afin de promouvoir une concurrence future sur les nouveaux produits et les nouvelles techniques[16].

Par exemple, la manière dont les Directives américaines reconnaissent l'objectif des DPI, rend compte d'un tel arbitrage. De manière purement statique, dès qu'existe un élément de propriété intellectuelle, une imitation rapide conduirait à une concurrence accrue et à une chute des prix. Les Directives américaines admettent qu'une situation de ce type serait indésirable :

> En l'absence de droits de propriété intellectuelle, les plagiaires pourraient rapidement exploiter sans compensation les efforts de ceux qui innovent et investissent. Une imitation à bref délai réduirait la valeur commerciale de l'innovation et atténuerait les incitations à investir, ce qui, en définitive, pénaliserait les consommateurs[17].

Cependant, cela ne signifie pas que les autorités protégeant la concurrence accepteraient sans réserve, à chaque fois, l'argument selon lequel une transaction particulière, qu'elles considèrent comme anticoncurrentielle à court terme, est néanmoins justifiée en raison de ses effets à long terme. Par exemple, en dehors du domaine de la propriété intellectuelle, les autorités américaines ont révisé leurs Directives sur les fusions horizontales, afin d'élargir et de clarifier le pouvoir dont elles disposent d'apprécier les avantages en termes d'efficience d'une fusion quand elles examinent une transaction, mais elles ont émis une réserve :

> Dans la plupart des cas, le résultat de cette analyse à court terme déterminera la décision des autorités en matière d'application de la loi. Les autorités prendront également en considération les incidences des efficiences perceptibles qui n'ont pas d'effet direct, à court terme, sur les prix du marché en question. On donnera moins de poids aux avantages à attendre ultérieurement des efficiences (en raison du délai nécessaire pour que ces efficiences jouent ou pour que les avantages qu'en tirent les consommateurs se réalisent) parce qu'ils sont moins directs et plus difficiles à prévoir[18].

B. La question de savoir si l'existence d'un DPI crée un pouvoir de marché

Une autre source de relations conflictuelles entre la politique de concurrence et la propriété intellectuelle a été la tendance à traiter cette dernière comme si elle conférait une emprise sur le marché et, par conséquent, allait, dans une certaine mesure, à l'encontre de la politique de concurrence. Au Etats-Unis, par exemple, les tribunaux qualifient souvent les droits conférés par un brevet de "monopole" ou de "monopole de brevet"[19]. Toutefois, cette tendance semble être sur le déclin. La Cour européenne de Justice a statué que la possession d'un DPI ne conférait pas, par elle-même, une position dominante[20]. Aux Etats-Unis, bien qu'il n'y ait pas encore eu de décision de justice à caractère définitif, les autorités compétentes

en matière de concurrence ont clairement déclaré qu'elles "ne présumaient pas que la propriété intellectuelle créait un pouvoir de marché dans un contexte antitrust"[21]. Au lieu de cela, et comme c'est le cas pour d'autres formes de propriété, ces autorités s'attachent maintenant à déterminer s'il existe, et dans quelle mesure, de proches substituts qui pourraient limiter la capacité du détenteur de propriété intellectuelle à exercer une emprise sur le marché[22].

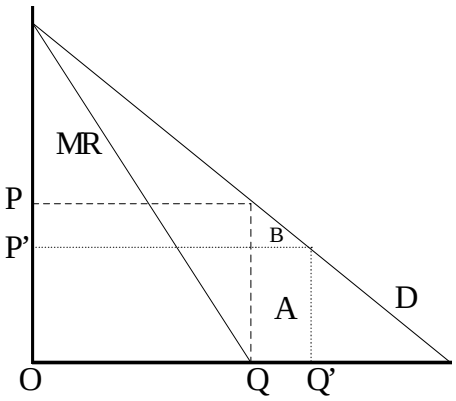
C. Les caractéristiques économiques distinctives des DPI

Il est inhérent à la propriété intellectuelle que sa production entraîne des coûts fixes qui tendent à être très élevés — par exemple des équipements de recherche coûteux, un temps de travail scientifique et d'ingénieur fortement valorisé, la charge du financement de nombreux projets de recherche infructueux conduits avec l'espoir de réaliser un succès majeur — alors que les coûts marginaux sont pratiquement nuls, parce qu'il ne coûte à peu près rien de copier et d'utiliser une idée une fois qu'elle a été découverte. Par conséquent, pour que l'innovation soit rentable, le prix doit rester supérieur au coût marginal.

En outre, la nature de la propriété intellectuelle fait qu'elle peut facilement être détournée. Le propriétaire d'une usine peut empêcher les tiers d'entrer et d'essayer d'utiliser son établissement et son équipement, non seulement en appelant la police et en exigeant l'application de la loi interdisant d'entrer dans une propriété privée, mais également en plaçant un antivol sur la porte de l'usine ou en installant d'autres systèmes de sécurité. De plus, en tout état de cause, il saura certainement si une tentative d'effraction a eu lieu. En revanche, le propriétaire de droits d'auteur saura que son software a été détourné uniquement quand les ventes commenceront à fléchir fortement malgré la popularité constante du programme.

Chacune de ces caractéristiques distinctives des DPI — leurs faibles coûts marginaux et la facilité de les détourner — a des implications pour le type de restrictions qu'un propriétaire de DPI peut, à bon droit, vouloir imposer.

Du fait des coûts fixes élevés et des coûts marginaux presque nuls qui caractérisent la propriété intellectuelle, il peut fort bien s'avérer favorable à la production et efficace de facturer des prix différents à différents utilisateurs. Sur le graphique en bas, une firme qui détient un pouvoir de marché mais doit facturer le même prix à tous les utilisateurs, tarifera au prix P et vendra la quantité Q. Si, en revanche, elle est en mesure de vendre à un groupe de nouveaux clients à prix plus bas, P', sans abaisser le prix acquitté par le premier groupe de clients, la production s'accroîtra jusqu'au point Q'. La firme bénéficiera d'un avantage figuré dans la zone A et les consommateurs seront bénéficiaires à hauteur du montant représenté dans la zone B.



Dans de telles situations, on peut parvenir au même résultat en liant l'acheteur. Prenons le cas d'une machine brevetée fonctionnant avec un intrant qui varie en fonction de l'usage — par exemple une nouvelle sorte de machine d'imagerie médicale qui enregistre ses résultats sur un type particulier de films à rayons X. Il est possible que les coûts de développement aient été très élevés, de telle sorte que la société devra facturer un prix très élevé si elle est dans l'obligation de tarifer à un niveau uniforme. Les centres médicaux, localisés dans des zones urbaines fortement peuplées et recevant un grand nombre de patients, sont susceptibles d'accorder à cette machine une valeur plus élevée que ne le feront les hôpitaux ruraux, qui ne pourront l'utiliser qu'en de rares occasions. Ainsi, si le vendeur de la machine est autorisé à exiger des acheteurs qu'ils ne l'utilisent qu'avec un film fourni par lui, il sera en mesure de maximiser le rendement de son brevet en facturant un prix bas pour la machine et un prix élevé pour le film. Cela peut se traduire non seulement par des bénéfices plus élevés pour le propriétaire du brevet, mais aussi par un niveau de prix suffisamment bas pour que l'hôpital rural puisse se permettre d'acheter la machine.

Les exclusivités territoriales, allant de pair avec une interdiction des importations parallèles, peuvent avoir un effet similaire dans les cas où, en raison de différences de niveau de vie, de goût, ou d'intensité de la compétition, un donneur de licence ne serait pas en mesure de tarifer sur un secteur particulier le prix qu'il peut pratiquer ailleurs. Si l'on interdit aux donneurs de licences de les concéder avec des restrictions de ce type, le résultat risque d'être simplement une hausse du taux de la redevance au-dessus du niveau que le territoire en question peut supporter, de telle sorte que ce territoire sera privé des avantages du produit licencié.

L'aisance avec laquelle on peut détourner les DPI est aussi un facteur qui explique la fréquence de certaines pratiques en matière de licence. Par exemple, un donneur de licence peut imposer à un licencié l'exclusivité au motif que, si un licencié écoule des produits incorporant à dessein d'autres technologies, il peut être difficile de déterminer si oui ou non il utilise subrepticement la technologie du donneur de licence.

D. La distinction entre horizontal et vertical

Licencier des DPI est généralement un moyen de mettre en commun des intrants complémentaires, tels que des sites industriels, des accords de distribution, des mains-d'oeuvre, et d'autres éléments de propriété intellectuelle, complémentaires ou bloquants. Les transactions mettant en jeu des intrants complémentaires sont de nature essentiellement verticale. Cela peut être le cas, même si le donneur de licence et le licencié sont par ailleurs concurrents pour des produits manufacturés couverts par les DPI. Il est arrivé que les autorités responsables en matière de concurrence, ou les tribunaux, condamnent des accords qui auraient facilité le transfert d'intrants complémentaires, parce qu'ils percevaient, à tort, la relation comme horizontale. Il est possible que de telles interprétations erronées aient renforcé l'idée selon laquelle la politique de concurrence et la propriété intellectuelle sont fondamentalement incompatibles.

Néanmoins, licencier des DPI peut comporter un élément horizontal significatif. Prenons l'exemple des industriels fabriquant seulement deux produits qui se concurrencent effectivement. Les deux industriels recourent à des technologies différentes et il est à peu près certain qu'ils ne se livrent pas à la contrefaçon de leurs brevets respectifs. Pourtant, ils se poursuivent réciproquement pour contrefaçon et parviennent rapidement à un accord, dont le résultat est la mise en commun des brevets, avec compétence exclusive pour licencier tous brevets, à la fois à la communauté de brevets et aux tiers. En outre, le taux de

redevance fixé par la communauté de brevets est égal au prix permettant de maximiser les bénéfices des deux parties. Un tel "accord de licence" ne peut être distingué d'une entente.

Les Directives américaines traitent explicitement du problème de la distinction entre relations horizontales et verticales de la façon suivante : "Les autorités compétentes considéreront, en temps normal, une relation entre un donneur de licence et ses licenciés, ou entre licenciés, comme horizontale, dans le cas où ils auraient pu être des concurrents potentiels véritables ou probables sur le marché dont il s'agit, en l'absence d'une licence." Le règlement sur les transferts de technologie ne traite pas directement la question, mais l'aborde de façon implicite, par analogie, à différentes reprises. Ainsi, la liste noire prive les licences des avantages du règlement dans les cas où "les parties étaient déjà des fabricants concurrents avant la concession de la licence et où l'une d'elles est soumise à des limitations quant à la clientèle qu'elle peut desservir...". (Article 3†(4)). Certes, ces deux approches auraient des résultats différents dans l'hypothèse où le fabricant d'un produit réaliserait un perfectionnement tellement remarquable que la concurrence disparaîtrait en l'absence d'une licence, mais elles atteindraient le même résultat dans la plupart des autres cas. Les Directives japonaises ne font qu'une brève allusion à l'importance possible d'une distinction entre horizontal et vertical. S'agissant des restrictions que l'on peut ou non considérer comme des pratiques commerciales déloyales, on lit dans ces Directives que : "L'on déterminera si les restrictions tombent sous le coup des pratiques commerciales déloyales après avoir examiné, outre les obligations stipulées dans chaque paragraphe, la situation d'ensemble du donneur de licence et du licencié sur le marché concerné[23]."

III. L'étendue des DPI et ses effets sur l'innovation et la concurrence

L'un des principes posés par Gallini et Trebilcock pour le traitement de la concurrence en matière de propriété intellectuelle est que "l'exclusivité des droits établie par la loi sur les brevets doit être respectée par la législation sur la concurrence[24]". Faut-il en inférer que les autorités chargées de protéger la concurrence doivent simplement considérer les DPI comme une donnée de fait, c'est-à-dire comme une "boîte noire" au contenu inconnu ?

Les instances américaines compétentes en matière de concurrence ont, en général, adhéré à la recommandation de Gallini et Trebilcock. Toutefois, dans un nombre limité de cas, ces mêmes autorités ont écarté l'idée qu'il ne leur serait pas permis d'examiner le contenu de la "boîte noire". Elles ont pris position tout d'abord sur la question de savoir si les DPI avaient été obtenus en contravention avec la loi sur la propriété intellectuelle et, ensuite, elles ont cherché à délimiter les contours de cette loi, considérant ce point comme un préalable. Sur cette deuxième question, toutefois, leur action n'a pas débordé le cadre du rôle de "défense de la concurrence" — qui consiste à mettre leur expertise à la disposition des assemblées parlementaires et d'autres instances de l'Etat — et elle n'a pas été considérée comme devant servir de base à des décisions d'application de la loi.

La question des DPI obtenus en contravention avec la loi sur la propriété intellectuelle se pose, entre autres, quand un DPI obtenu illégitimement confère un pouvoir de monopole. Dans l'affaire *Walker Process*[25], qui a donné lieu à un arrêt de la Cour suprême de 1965 que les Directives américaines citent en l'approuvant, la Cour a décidé qu'une fraude à l'encontre de l'Office des brevets pouvait constituer un acte illégal de monopolisation quand les autres éléments, tels que la détention d'un pouvoir de monopole, était présents[26]. On rencontre également ce problème dans des affaires de contestation de mise en commun et de licences croisées. Les Directives américaines font état de l'affaire *Singer*[27], en arguant que le règlement d'un procès en contrefaçon par la concession de licences croisées de DPI peut être contesté s'il élimine la concurrence horizontale[28]. Dans le cadre d'une telle action de contestation, il faudrait normalement

démontrer que la relation entre les membres de la communauté était horizontale. En d'autres termes, l'action antitrust devrait en fait résoudre les problèmes de brevet qui faisaient l'objet des poursuites pour contrefaçon. Dans ce type de poursuites, chacune des parties prétend habituellement que l'autre se livrait à la contrefaçon et n'avait pas le droit d'opérer sur le marché sans une licence. Si cette affirmation se révélait exacte, les DPI occuperaient une position de blocage, c'est-à-dire une position verticale. Pour que *Singer* s'applique, les parties devraient être en position horizontale : au moins deux membres de la communauté doivent s'être trouvés en mesure de participer à la concurrence sans avoir obtenu une licence pour les DPI également utilisés par l'autre.

La question de ce que devraient être les concours de la loi sur la propriété intellectuelle s'est posée à l'occasion d'une audition de hauts fonctionnaires responsables de la protection de la concurrence devant le Congrès américain[29] et de commentaires de l'Office américain des brevets et des marques[30]. On a justifié ces interventions au motif que :

> La loi sur la propriété intellectuelle et la loi antitrust ont pour objectif commun "d'encourager l'innovation, l'activité et la concurrence". Ainsi, quand elles sont appliquées comme il convient, les deux législations se complètent et soutiennent leurs objectifs mutuels. A l'inverse, une application inappropriée de l'une d'entre elles peut nuire à la finalité des deux. Si l'application des lois antitrust empêche, sans nécessité, les détenteurs de propriété intellectuelle de bénéficier de leur invention, cette interférence risque également de compromettre les objectifs de la législation antitrust. En outre, l'octroi de droits de propriété intellectuelle, s'il est inapproprié ou trop large, est susceptible de gêner la concurrence qui, souvent, est le moteur de l'innovation[31].

L'utilisation fréquente des termes "étendue" ou "portée" renvoie à trois problèmes distincts, mais reliés entre eux : (a) tout d'abord, dans quelle mesure est-il facile d'obtenir des DPI ? (b) quelle est leur étendue en tant que telle ? c'est-à-dire les DPI assurent-ils une couverture complète, par comparaison à l'utilisation d'autres moyens concurrents pour obtenir le même objectif ou au même moyen d'accomplir d'autres objectifs ? et (c) quelle est la durée des DPI ? La réponse apportée à chacune de ses questions, quelle qu'elle soit, influencera ensuite l'innovation de deux manières opposées : (i) elle pourra soit accroître, soit réduire les avantages qu'attend un innovateur et, par conséquent, jouer sur l'incitation à entreprendre l'innovation et (ii) elle pourra augmenter ou diminuer la difficulté, le coût et le risque de l'innovation, en rendant plus ou moins probable qu'un autre intéressé prétende ultérieurement que l'innovation enfreint un DPI existant auparavant. La tension entre ces deux effets est quelquefois qualifiée d'arbitrage entre les innovateurs subséquents (ou secondaires) et les innovateurs primaires, mais il s'agit là d'une simplification quelque peu excessive. Une entreprise qui est sur le point de lancer des travaux de recherche dans de nouveaux domaines doit encore prendre en compte le risque qu'ultérieurement certains aspects de son travail de recherche développement s'avèrent enfreindre les DPI d'une autre firme ; il en résulte qu'un système permettant d'obtenir trop facilement des brevets de portée très large et d'en assurer le respect peut également avoir pour effet d'inhiber la recherche nouvelle, particulièrement s'il est difficile de connaître l'existence de tels brevets. A l'inverse, il va de soi que les innovateurs secondaires sont également intéressés à bénéficier des retombées de leurs propres contributions.

Si la gestion des arbitrages entre ces différents résultats possibles constitue clairement une mission importante du pouvoir politique — et il existe de nombreuses études économiques traitant des différents aspects de ces problèmes[32] — les autorités chargées de la concurrence commencent seulement à participer à la discussion des politiques envisageables. Jusqu'à présent, les déclarations qu'elles ont faites sur ces sujets ont eu tendance à être soit très ponctuelles[33], soit vagues[34].

IV. Les problèmes d'application de la loi

La liste est longue des pratiques en matière de licence et autres usances touchant à la propriété intellectuelle sur lesquelles se sont penchées les autorités responsables en matière de concurrence. Pour les besoins de l'exposé, la présente étude distingue trois catégories : (a) les effets horizontaux, (b) les effets verticaux et (c) les autres problèmes. Cette division est quelque peu arbitraire dans la mesure où bien des pratiques concernant les licences ont des aspects à la fois horizontaux et verticaux, la distinction horizontale-verticale étant elle-même plus significative dans la conception qui guide les Directives américaines que dans d'autres approches, telles que celles du règlement sur les transferts de technologie ; néanmoins, elle permettra de simplifier l'analyse.

A. Les effets horizontaux

1. La mise en commun et les licences croisées

Il y a accord de mise en commun et de licences croisées quand deux propriétaires, ou plus, de différents DPI se concèdent leurs DPI respectifs. Dans un accord de mise en commun, ils le font généralement en cédant leurs DPI à une entité administrativement distincte, ou en lui accordant une licence exclusive ; ensuite, cette entité contrôle la concession de licences sur le portefeuille et ses composants individuels à ceux qui ont contribué aux DPI et, dans bien des cas, à des tiers. Les conditions prévues par des accords de ce type peuvent varier. Les membres de la communauté peuvent bénéficier de l'usage des DPI en franchise de redevance ou à un prix positif ; les montants obtenus peuvent être divisés selon différentes formules ; l'attribution des droits de vote ou de veto peut également différer. Comme indiqué ci-dessus, il est essentiel, pour apprécier l'incidence sur la concurrence de tels accords, de savoir s'ils ont un caractère horizontal ou vertical.

Si, par exemple, deux propriétaires de DPI ont le contrôle de brevets bloquants (cas d'une relation verticale), il convient absolument de les encourager à fusionner leurs DPI en se concédant licence réciproquement ou en recourant à la mise en commun. En l'absence d'un arrangement de cette nature, aucun d'entre eux ne pourrait utiliser la technologie et la société dans son ensemble serait pénalisée.

Si, en revanche, aucun des deux propriétaires de DPI n'a besoin de l'autre pour concourir avec une efficience maximum (y compris en ce qui concerne la création de produits de la "nouvelle génération"), quel est alors l'objectif légitime d'un accord ? Dans une telle hypothèse, il est probable que la seule raison de se rapprocher sera l'intention de fixer les prix ou de se répartir les marchés. Par exemple, au cas où les fabricants X ou Y décident une mise en commun et où, dans ce cadre, X se voit attribuer la licence pour utiliser la technologie seulement en Amérique du nord et du sud, alors que Y aura le droit de l'utiliser seulement en Europe et en Asie, l'effet sera de placer chacun d'entre eux en position de monopole sur leur territoire respectif, alors que, en l'absence de la mise en commun, tous deux auraient pu participer à la concurrence à l'échelle mondiale. De même, si X et Y concèdent,à partir de l'entité commune, des licences assorties d'une redevance d'usage très élevée, il en résultera que leurs coûts marginaux seront si élevés que chacune des parties contractantes sera obligée de tarifer au niveau de prix maximisant les bénéfices pour un monopole conjoint.

Des situations plus complexes se font jour quand l'accord est en partie vertical et en partie horizontal. Que se passerait-il si X et Y avaient été en position de se faire concurrence, mais avec des produits de qualité quelque peu inférieure ? Une amélioration modeste justifie-t-elle que des parties qui, autrement, auraient été en compétition, recourent à une mise en commun très restrictive qui fixe les prix à

un niveau de maximisation du bénéfice pour un monopole conjoint ? En sens inverse, la seule éventualité que les parties auraient pu fabriquer un produit *quelconque*, même sensiblement inférieur, devrait-elle les empêcher de passer un accord plus efficace de mise en commun ? Enfin, ayant à l'esprit que l'expression "mise en commun", englobe une large gamme d'accords, les autorités responsables de la concurrence doivent-elles rechercher une voie moyenne, ce qui les conduirait peut-être à exiger un certain degré de proportionnalité entre la restriction imposée et l'objectif légitime que l'on veut atteindre ?

Pour assurer la proportionnalité, on pourrait, par exemple, exiger des parties qu'elles adoptent la solution la moins restrictive nécessaire pour atteindre les avantages en termes d'efficience. Dans l'exemple ci-dessus, si l'accord est en partie horizontal, on pourra interdire à X et Y de recourir à une redevance pour usage, car son effet serait d'augmenter les coûts marginaux et d'obliger chaque partie à tarifer à un niveau proche de la maximisation des bénéfices pour un monopole conjoint. Ou encore, si des licences croisées ne s'imposent pas pour fabriquer les produits de la génération actuelle, mais si la préparation des produits futurs est susceptible de conduire à des contrefaçons, les parties pourraient se voir reconnaître le droit de recourir aux licences croisées seulement pour la recherche développement et pour les futurs produits, au lieu d'être autorisées à réduire la concurrence actuellement.

Les Directives américaines adoptent l'une des formes possibles de cette conception, en stipulant que :

> Pour déterminer si une restriction est raisonnablement nécessaire, l'existence d'une solution de rechange pratique et sensiblement moins contraignante est digne d'intérêt. S'il est clair que les parties auraient pu atteindre une efficience similaire par des moyens nettement moins restrictifs, les instances compétentes ne reconnaîtront pas le bien-fondé de l'argument d'efficience qu'elles font valoir. Toutefois, en portant cette appréciation, les autorités compétentes ne s'engageront pas dans la recherche d'une solution de substitution, théoriquement moins restrictive, qui ne présenterait pas un caractère réaliste, au vu des perspectives pratiques d'activité économique auxquelles sont confrontées les parties[35].

Le règlement sur les transferts de technologie adopte une position plus tolérante sur la question des accords de mise en commun. Bien que ce règlement affirme, dans certaines de ses dispositions, que de tels accords posent différents problèmes qui ne peuvent être traités dans le cadre d'un seul texte réglementaire[36], il n'en poursuit pas moins en stipulant qu'il doit s'appliquer à de tels accords pourvu que les parties ne soient pas l'objet de restrictions territoriales quelconques au sein du Marché commun[37].

2. Les exclusivités territoriales

Selon les Directives américaines, les exclusivités territoriales sont, elles aussi, une restriction dont les effets sur la concurrence dépendent du point de savoir si la relation entre le donneur de licence et le licencié est horizontale ou verticale. Quand l'accord est vertical, ces restrictions sont traitées avec beaucoup d'indulgence. Comme l'observent les Directives :

> Les restrictions de domaine d'utilisation, les restrictions territoriales et autres limitations s'exerçant sur les licences de propriété intellectuelle peuvent servir des objectifs favorables à la concurrence, en permettant au donneur de licence d'exploiter son bien aussi efficacement et effectivement que possible. On peut utiliser ces diverses formes d'exclusivité pour inciter un licencié à investir dans la commercialisation et la distribution de produits incorporant la propriété intellectuelle sous licence et à mettre au point des applications supplémentaires de cette propriété.

Les restrictions peuvent avoir cet effet si, par exemple, elles protègent l'investissement du licencié à l'égard d'autres licenciés ou de donneurs de licences, qui voudraient en "profiter". Elles peuvent également augmenter l'incitation du donneur de licences à licencier, par exemple en le protégeant de la concurrence sur sa propre technologie dans un créneau du marché dont il préfère garder le contrôle[38].

En revanche, les rares affaires d'accords horizontaux sont traitées avec beaucoup de sévérité. L'exemple 7, cité par les Directives, décrit une situation dans laquelle toutes les parties à un accord de licence sont des concurrents horizontaux dans la fabrication d'un produit avant l'accord de licence, et où la technologie sous licence pour la fabrication du produit ne représente aucune amélioration par rapport à leur propre technologie. Ils concluent un accord de licence qui délimite les zones dans lesquelles ils pourront vendre le produit, que celui-ci soit ou non fabriqué en utilisant leur propre technologie ou celle qui est sous licence. Le résultat de l'accord est que les parties ne se concurrencent plus, car chacune d'entre elle se voit assigner un territoire. Les Directives considèrent ce type d'accord comme un découpage horizontal du marché, qui est donc automatiquement illégal.

Le règlement sur les transferts de technologie atteindrait un résultat similaire par des voies quelque peu différentes, dans le cas de figure cité dans l'exemple 7 des Directives américaines. L'Article 1 du règlement exempte de l'Article 85(1) du Traité de Rome, les licences de DPI prévoyant une restriction territoriale quand elles n'impliquent que deux parties. Toutefois, l'Article 3 du règlement, ce que l'on appelle la "liste noire", stipule que l'Article 1 ne s'applique pas aux restrictions territoriales concernant les produits[39] *concurrents* et non les produits licenciés (Article 3(2)). Ainsi, dans le cas de figure en question, la licence tombe sous le coup de la liste noire, parce que la restriction territoriale touche non seulement les produits fabriqués avec la technologie licenciée, mais aussi les produits faits avec des technologies concurrentes.

3. Les rétrocessions

Le règlement sur les transferts de technologie prévoit des règles simples et d'application claire en ce qui concerne les rétrocessions. Un donneur de licence peut exiger du licencié qu'il lui re-licencie les perfectionnements qu'il aura pu apporter à la technologie sous licence (Article 2(4)), à condition que : le licencié soit lui-même libre d'utiliser ces perfectionnements *(id.)* ; que le licencié ait toute latitude pour concéder des licences à des tiers, tant qu'il n'en résulte pas une divulgation du savoir-faire secret du donneur de licence *(id.)* ; que le donneur de licence accepte d'accorder une licence sur ses propres perfectionnements au licencié *(id.)* ; et, enfin, que le licencié ne soit pas tenu de céder ses droits sur le perfectionnement apporté au donneur de licence (Article 3(6)).

En revanche, l'approche adoptée par les Directives américaines dépend de facteurs autres que les simples termes de la rétrocession elle-même : on considère comme improbable l'existence d'effets anticoncurrentiels, sauf si (1) en l'absence de la rétrocession, le donneur de licences et le licencié s'étaient trouvés en situation de rivalitÈ en matière de recherche développement et (2) sauf si le donneur de licence a un pouvoir de marché dans un marché de technologie ou d'innovation[40]. (Directives américaines § 5.6). Dans l'hypothèse où le donneur de licence et le licencié n'auraient pas été rivaux en recherche développement, la rétrocession n'a aucune concurrence à décourager. Si le donneur de licence n'a pas d'emprise sur un marché de technologie ou d'innovation (ou plus exactement sur tout marché, y compris un marché de biens, qui concoure, de façon importante, au processus conduisant à l'innovation), la rétrocession ne peut alors décourager effectivement l'innovation, car, soit le licencié, soit un tiers seront

capables de produire une innovation équivalente par quelque autre moyen. Même s'il y a rivalité et pouvoir de marché, ces deux facteurs peuvent être plus que compensés par les avantages qu'apporte la rétrocession à la concurrence *(id.)*. Ainsi, la conception adoptée par les Directives américaines apparaît plus tolérante vis-à-vis des accords de rétrocession que le règlement sur les transferts de technologie.

4. Les acquisitions horizontales

Les achats fermes de DPI, ou de sociétés possédant des DPI, peuvent exercer des effets comparables aux acquisitions d'autre type d'actifs. Par exemple, s'il n'existe sur un marché que deux produits concurrents, et si chacun est contrôlé par un brevet, l'acquisition d'un brevet par le propriétaire de l'autre créera un monopole. Les Directives américaines renvoient explicitement aux Directives de 1992 sur les fusions horizontales pour l'analyse de telles situations sous l'angle de la concurrence, et ne discutent pas plus en profondeur le sujet, si ce n'est pour observer que des licences d'exclusivité peuvent avoir la même incidence qu'une acquisition quand il y a transfert complet de tous les droits à un DPI et que ce cas doit être analysé comme une acquisition (§ 5.7). En outre, le règlement sur les transferts de technologie ne couvre pas les acquisitions de DPI, sauf quand la cession d'un DPI laisse le risque d'exploitation au cédant (par exemple quand le montant payé par le cessionnaire au cédant dépend des ventes ou des bénéfices qu'il réalise sur les produits brevetés) (Article 6(2)).

Néanmoins, quand les Directives américaines envisagent d'analyser les licences d'exclusivité comme des acquisitions, elles ne formulent pas une simple hypothèse, car les autorités américaines chargées de la concurrence ont effectivement traité une affaire — réglée à l'amiable — très proche du cas théorique cité dans les Directives (exemple 11). Dans l'affaire United States contre S.C. Johnson and Sons[41], la société Miles, une filiale américaine de Bayer AG, avait mis au point une nouvelle série d'insecticides ménagers contenant un nouvel ingrédient actif puissant, la cyfluthrine, conçu et breveté par Bayer. Cependant, quand Miles eut mené à bien ses préparatifs pour aborder le marché, Bayer abandonna le projet. Bayer préféra vendre le produit, avec sa recherche et la conception du conditionnement, et concéder une licence pour la cyfluthrine, sur une base d'exclusivité de facto, à S.C. Johnson, le principal fabricant d'insecticides ménagers aux Etats-Unis. Le résultat fut de garantir à Johnson qu'il continuerait à dominer le marché fortement concentré des insecticides ménagers. Le ministère de la Justice contesta l'accord et obtint un règlement amiable qui, entre autres, fit obligation aux parties de ne pas s'accorder de licences exclusives, sauf avec l'approbation du Ministère, et contraignit Bayer à licencier la cyfluthrine, à des conditions raisonnables, à toute personne qui en ferait la demande.

B. Les effets verticaux

1. Exclusivité et non concurrence

Il y a exclusivité au sens américain, quand une licence empêche le licencié de licencier, vendre, distribuer ou utiliser les technologies concurrentes, ou limite sa possibilité de le faire. La terminologie européenne fait généralement état d'une clause de "non concurrence". Cette dernière se distingue d'un accord de "licence exclusive", dans lequel le *donneur de licence* convient de ne licencier personne d'autre dans le territoire donné. Un accord d'exclusivité/non concurrence peut avoir des effets à la fois défavorables et favorables à la concurrence. En fonction de facteurs tel que le pouvoir de marché de la partie qui impose l'accord, le degré de fermeture du marché, la durée de l'accord et l'échelle d'efficience minimum des infrastructures exigées pour la fermeture de la production ou des débouchés, l'exclusivité peut avoir pour effet d'interdire à des rivaux des débouchés suffisants pour exploiter leur technologie ; en

ce sens, elle peut être contraire à la concurrence. D'un autre côté, les Directives américaines soutiennent que de tels accords peuvent être favorables à la concurrence en "encourageant le licencié à développer et à mettre sur le marché la technologie sous licence ou des applications spécialisées de cette technologie. Par exemple, un accord de licence qui empêche le licencié de recourir à d'autres technologies peut l'encourager à développer et à commercialiser la technologie licenciée ou des applications spécialisées de celle-ci" (§ 4.1.2). Les Directives américaines s'engagent à rechercher et à peser les incidences anticoncurrentielles spécifiques et à les mettre en balance avec les effets favorables à la concurrence, et cela en vertu de la règle de raison (§ 5.4).

En revanche, le règlement sur les transferts de technologie énonce des règles claires applicables en toutes circonstances (sauf si elles sont écartées en vertu de l'Article 7) : un donneur de licence peut exiger d'un licencié qu'il fasse de son mieux pour fabriquer et commercialiser le produit sous licence (Article 2(17)) ; il peut se réserver le droit de rendre la licence non exclusive si le licencié fait concurrence (Article 2(18)) ; il peut se réserver le droit de cesser de lui concéder des perfectionnements si le licencié lui fait concurrence (Article 2(18)) ; mais il ne peut, par d'autres moyens, empêcher le licencié de fabriquer, vendre, etc., un produit concurrent (Article 3(2)).

2. Les redevances basées sur les ventes totales (redevances "directes")

Calculer les redevances sur la base des ventes totales d'un produit, sans prendre en compte s'il a été ou non fabriqué en utilisant la technologie sous licence, peut être un moyen commode d'éviter d'avoir à déterminer si oui ou non le produit fini incorpore la technologie en question. En revanche, de telles redevances risquent d'avoir des effets semblables à ceux d'un accord d'exclusivité. En effet, le fabricant d'aval, qui doit payer pour l'usage de la technologie licenciée au titre de toutes les unités de son produit en aval, se voit ainsi dissuadé de recourir à une technologie concurrente, ne serait-ce que pour une fraction de sa production (ce qu'autrement il pourrait vouloir faire, par exemple pour différencier ses produits ou pour conserver une deuxième source d'approvisionnement). Cela revient essentiellement à choisir tout ou rien et, si le donneur de licence est en position de force, son choix peut être le seul viable.

Ni les Directives américaines, ni le règlement sur les transferts de technologie ne se prononcent explicitement sur le caractère légal des redevances basées sur les ventes totales. En revanche, on peut, en interprétant ces deux textes, arriver à la conclusion qu'ils réservent le droit de contester un accord spécifique qui constituerait un exemple d'exclusivité anticoncurrentielle. Les Directives américaines stipulent que :

> L'exclusivité peut découler d'une clause explicite figurant dans la licence ou autres dispositions, telles que des conditions d'indemnisation ou d'autres incitations économiques. De telles restrictions risquent d'interdire, de façon anticoncurrentielle, l'accès à d'importants intrants, ou de rendre l'obtention de ces intrants plus chère pour les concurrents ; elles risquent également de faciliter la coordination entre participants désireux d'augmenter les prix ou de réduire la production ; mais elles peuvent aussi avoir des effets favorables à la concurrence. (Directives américaines § 4.1.2).

Le règlement sur les transferts de technologie énonce que : "La fixation de taux de redevance ayant pour but de réaliser une des restrictions visées à l'Article 3 exclut l'accord du bénéfice de l'exemption." (§ 21)

Tant le ministère américain de la Justice que la Commission européenne ont contesté un arrangement de ce type et, dans les deux cas, ils visaient les pratiques en matière de licence de Microsoft[42].

Microsoft utilisait des licences par processeur au terme desquelles les fabricants d'ordinateurs (fabricants d'équipements d'origine ou "FEO") le rémunéraient pour chaque ordinateur qu'il livrait, que cet ordinateur contienne ou non un système opératoire et que celui-ci soit ou non un système Microsoft (MS-DOS). Cela plaçait les autres vendeurs de systèmes opératoires dans une situation difficile, puisqu'un FEO et, par conséquent, le consommateur final, devaient payer deux fois, la première à Microsoft et la seconde au concurrent. En d'autres termes, la licence par processeur fonctionnait comme une pénalité frappant toute transaction avec un autre vendeur que Microsoft — c'est-à-dire qu'elle était une forme d'accord d'exclusivité. L'incidence sur la concurrence d'un accord d'exclusivité, dépend, entre autres facteurs, du pouvoir de marché de la partie qui l'impose, du degré de fermeture du marché et de la durée de cet accord[43]. En l'occurrence, Microsoft était une société en position fortement dominante et les contrats engageaient souvent les FEO pour cinq ans au plus, ce qui est bien supérieur au cycle de vie de la plupart des systèmes opératoires des PC. Dans certains cas, les FEO, qui, aux termes de leur contrat, devaient acheter des quantités minimum de MS-DOS, se trouvaient avec des marges inutilisées, marges que Microsoft leur permettait souvent de mobiliser si le contrat était prolongé, mais dont elles perdaient le bénéfice dans le cas contraire. Dès lors, les FEO étaient fortement incités à prolonger leurs accords avec Microsoft même au-delà de la durée initiale du contrat, de telle sorte que la durée effective de l'accord était encore allongée. Face à cette situation, les deux autorités responsables de la concurrence ont engagé une action, les autorités américaines qualifiant cette pratique de monopolisation et la CEE faisant état d'un abus de position dominante.

3. Les accords de ventes liées

Tant le règlement sur les transferts de technologie que les Directives américaines traitent avec une certaine mansuétude les accords de vente liées. Le premier n'interdit pas de tels accords, mais les soumet à la procédure d'opposition (Article 4(2)). En dépit du caractère en principe automatiquement illégal de ce type d'accord au regard de la jurisprudence, les Directives américaines adoptent une approche qui s'apparente à la règle de raison, s'agissant de l'exercice du pouvoir de poursuivre dont disposent les autorités responsables de la concurrence (Directives américaines § 5.3).

Néanmoins, au cours des années récentes, ces autorités ont clairement fait savoir que, dans certaines circonstances, elles contesteraient les accords de vente liées, en particulier quand ces derniers élèvent des barrières à l'entrée sur le marché. Dans l'affaire *United States* contre *Microsoft*[44], par exemple, le règlement auquel le ministère de la Justice est parvenu avec *Microsoft*, interdit à la fois les pratiques qui faisaient l'objet du litige et d'autres auxquelles *Microsoft* pourrait recourir dans le même but, telles que des redevances forfaitaires et des accords de ventes liées[45]. Comme le dit la déclaration sur l'incidence en matière de concurrence, en l'absence d'une prohibition des accords de ventes liées (en particulier ceux de ceux de ces accords qui font dépendre la vente d'un produit de la promesse de l'acheteur de ne pas acquérir le produit d'un concurrent) *Microsoft* pourrait parvenir au même résultat qu'avec un accord d'exclusivité en licenciant le software de ses systèmes opératoires aux FEO, à la condition que ces derniers ne licencient pas, ne vendent pas, ni ne distribuent le software concurrent[46].

4. Les acquisitions verticales

Les acquisitions verticales sont susceptibles d'avoir les mêmes effets, à la fois favorables et défavorables à la concurrence, que les restrictions verticales. Entre autres choses, elles peuvent créer dans certaines circonstances un pouvoir de marché, en faisant augmenter les coûts supportés par les rivaux. La Commission fédérale du commerce des Etats–Unis a contesté un certain nombre de fusions en se basant

sur cette idée. On peut citer, à cet égard, l'affaire *Silicon Graphics*[47]. Silicon Graphics, principal fournisseur de stations de travail pour jeux représentés graphiquement, avait proposé d'acquérir Alias et Wavefront, deux des trois principaux producteurs de software pour ces jeux. La Commission fédérale a contesté l'opération et l'affaire a fait l'objet d'un règlement amiable, centré sur les aspects verticaux de la fusion, et en particulier sur son potentiel d'exclusion. La Commission fédérale a détecté un possible effet de fermeture du marché tant au niveau du software que du hardware. Il y avait un risque que l'on impose une augmentation des prix du software aux producteurs concurrents de hardware, en vertu de l'argumentation habituelle sur la "hausse des coûts imposée aux rivaux", à savoir qu'après la fusion les producteurs de software non intégrés seraient si peu nombreux qu'ils pourraient relever les tarifs pour les producteurs de hardware non intégrés. Par suite, l'entrée sur le marché au stade du hardware deviendrait plus risquée et plus coûteuse. En même temps, le risque que Silicon Graphics ne puisse constituer une plate-forme pour software concurrent rendrait l'entrée au stade du software également plus risquée et coûteuse. Ces effets conjugués auraient permis à Silicon Graphics d'augmenter le prix du produit final pour les consommateurs.

Dans les affaires où l'on allègue une fermeture du marché ou une "hausse des coûts imposée aux rivaux", il peut s'avérer difficile de distinguer un comportement pernicieux d'un autre qui ne l'est pas, et peut même être bénéfique. Il faut en particulier que la fusion, ou la restriction, pour développer des effets négatifs, aille plus loin qu'une simple réorganisation des relations verticales. Dans l'exemple de *Silicon Graphics,* si le seul résultat avait été que les fabricants de hardware qui, auparavant, recouraient à Alias et Wavefront, s'étaient tournés vers d'autres producteurs de software, et que les producteurs de software qui écrivaient antérieurement pour les stations de travail de Silicon Graphics, aient commencé, au lieu de cela, à produire pour d'autres fabricants de hardware, rien d'important ne se serait passé. Pour qu'il y ait une infraction à la concurrence, on doit expliquer de façon cohérente pourquoi la concurrence ou l'entrée sur le marché deviendraient plus coûteuses ou plus risquées à la suite de la fusion ou de la restriction.

C. Les autres problèmes d'application de la loi

1. Les licences obligatoires

On dit souvent que forcer une partie à donner sous licence une propriété intellectuelle obtenue légitimement va à l'encontre de la nature même de cette propriété, dans la mesure où l'essence d'un DPI est le pouvoir d'exclure les autres. La même idée peut être exprimée de façon plus nuancée, en disant que le refus de licencier un DPI ne peut être considéré comme un abus de position dominante (dans l'Union européenne) ou comme un acte de monopolisation (aux Etats–Unis).

Dans l'Union européenne, cette idée a été clairement rejetée dans l'affaire Magill[48]. Dans ce cas, trois sociétés de télévision britanniques ou irlandaises — Radios Telefis Eireann (RTE), British Broadcasting Corp. (BBC) et Independent Television Publications Ltd (ITP) — ont toutes donné licence à des journaux pour annoncer à l'avance des informations sur leurs programmes, mais sous condition de publication un jour à la fois, ou deux jours pendant les week–ends. Les sociétés de télévision publiaient leurs propres programmes hebdomadaires individuels. Elles ont refusé d'accorder une licence à Magill, un éditeur irlandais qui souhaitait l'obtenir pour cette information, afin de produire un programme hebdomadaire couvrant l'ensemble des trois sociétés de télévision. Magill a fait valoir que cela constituait un abus de position dominante au sens de l'Article 86. La Commission européenne a été de cet avis et elle a reçu le soutien à la fois du tribunal en première instance et de la Cour européenne de justice :

a) la Cour européenne de justice a observé que "le refus d'accorder une licence, même de la part d'une entreprise détenant une position dominante, ne peut en soi constituer un abus de position dominante.[49]" ;

b) néanmoins, elle a statué que : "L'exercice d'un droit exclusif par le détenteur de ce droit, peut, dans des circonstances exceptionnelles, donner lieu à une conduite abusive[50]." Elle a estimé qu'en la matière les circonstances exceptionnelles étaient réunies, car le refus des sociétés de télévision de donner licence avait empêché l'apparition d'un nouveau produit, que les sociétés en question n'offraient pas, pour lequel il existait une demande potentielle des consommateurs et pas de substitut effectif ou potentiel. En outre, elle n'a pas trouvé de justification pour ce refus et a estimé que les sociétés de télévision s'étaient réservé le marché pour les guides hebdomadaires de leur programme en excluant toute concurrence sur ce marché[51].

Certains tribunaux américains ont statué que le refus d'un breveté d'utiliser ou de licencier un brevet ne pouvait être retenu comme argument à l'appui d'une action antitrust[52]. Toutefois, cette règle générale a souffert un certain nombres d'exceptions :

a) aux Etats–Unis, on admet généralement que la pratique des licences obligatoires peut être utilisée pour restaurer les conditions de concurrence qui ont été compromises par une conduite autre que le simple refus de licencier des DPI. On a eu recours à cette solution dans le cas de fusions horizontales[53], de brevets acquis par des moyens anormaux[54] et de l'établissement d'un pouvoir de marché, quand un brevet a conféré le contrôle sur une norme applicable à l'ensemble d'un secteur qui n'a été adoptée que parce que le breveté n'avait pas révélé l'existence du brevet, malgré une requête explicite de faire connaître l'existence de tels DPI[55] ;

b) aux termes d'un arrêt d'un tribunal américain, le refus de fournir une propriété intangible peut servir de base à l'application "de la doctrine de la facilité essentielle", en vertu de laquelle le détenteur d'un monopole qui contrôle un moyen essentiel à l'exercice de la concurrence sur un marché peut être obligé de mettre ce moyen à la disposition des concurrents dans des conditions non discriminatoires, si cela est faisable[56] ;

c) un autre tribunal américain a statué que, si la responsabilité d'un propriétaire de brevet ne peut être engagée dans le cadre de la doctrine de la facilité essentielle, le propriétaire de droits d'auteur ne bénéficie pas de la même immunité[57]. Néanmoins, selon ce tribunal, il y aurait présomption que le souhait d'un propriétaire de droits d'auteur d'en être l'utilisateur exclusif constitue une justification légitime pour un refus de donner licence, bien que cette présomption puisse être réfutée[58].

L'obligation de licencier exige que les autorités responsables en matière de concurrence interviennent sur les conditions de la licence, pour éviter que celles-ci soient si onéreuses qu'elles équivalent à un refus de licencier. Ce n'est pas toujours un problème insurmontable. Quand quelqu'un bénéficie entièrement d'un DPI à la suite d'une action répréhensible, comme c'est le cas en matière de fraude à l'égard de l'Office des brevets, il est aisé de fixé le prix à zéro[59]. Quand l'objectif est de donner le droit de pratiquer le DPI à un seul licencié, comme dans le cas d'une fusion horizontale à laquelle on veut remédier en licenciant une autre firme qui pourra constituer un concurrent solide, on peut souvent éviter l'intervention des autorités en permettant au donneur de licence de trouver lui–même le licencié et de négocier avec lui, ce qui revient à pratiquer implicitement une adjudication entre les licenciés potentiels.

Toutefois, dans d'autres situations, il peut s'avérer difficile de trouver l'équilibre approprié entre le redressement des atteintes portées à la concurrence et la préservation des avantages légitimes tirés de l'innovation.

2. Les DPI de validité douteuse

a. L'obtention de DPI par la fraude ou par un comportement déloyal

En vertu de la loi américaine, la mise en oeuvre d'un DPI que l'on s'est procuré par voie de fraude à l'égard de l'Office des brevets peut constituer un acte ou une tentative de monopolisation, si l'on a également établi qu'il y a pouvoir de monopole ou que l'on peut s'inquiéter de la probabilité de constitution d'un tel pouvoir[60]. La mise en application d'un DPI obtenu par le biais d'une "conduite déloyale" — c'est–à–dire d'une conduite qui, sans pouvoir être qualifiée de fraude, n'en montre pas moins l'absence d'une sincérité totale et de loyauté dans les relations avec l'office des brevets — peut être considérée comme une "méthode déloyale de concurrence", à laquelle la Commission fédérale du commerce est susceptible de s'opposer[61].

On est en droit de se demander s'il incombe aux autorités chargées du respect de la concurrence de vérifier la validité ou non d'un DPI. Après tout, on peut s'attendre à ce que l'expertise en la matière soit l'apanage de l'office des brevets, puisque c'est bien lui, au départ, qui a délivré le brevet. D'un autre côté, la détection de la fraude est plus proche des activités de mise en oeuvre de la loi ressortissant aux autorités responsables de la concurrence, qui ont l'habitude de manipuler des masses de documents et de faire déposer des témoins pour trouver la vérité, que ne le sont les tâches plus techniques et scientifiques relatives au traitement des demandes dont est chargé un office de brevets. En outre, il est préférable de réserver une tâche comme celle-ci, qui nécessite des ressources importantes, à des cas dans lesquels il y a obtention, ou menace d'obtention, d'un pouvoir de marché substantiel, plutôt que d'en faire une activité de routine d'un office de brevets. Enfin, les preuves que l'on doit rassembler à l'appui d'une action de ce type font sans doute largement double emploi avec celles concernant d'autres problèmes qui sont incontestablement du domaine de la politique de concurrence, tels que le point de savoir si la relation existant entre des parties à une mise en commun de brevets est horizontale ou verticale. (Par exemple, la relation peut être verticale détient légitimement un brevet bloquant, mais pas si ce brevet n'est pas valable.)

b. Les problèmes de l'entrée à deux niveaux

Une suggestion intéressante a été faite sur l'incidence possible d'une conjonction de brevets de validité incertaine par le biais d'une fusion ; il y est fait allusion au § 1 du Symposium canadien :

> Supposons qu'avant la fusion on ait besoin de la technologie revendiquée par les brevets A's et de celle revendiquée par les brevets B's pour fabriquer un produit commercialisable sur le marché. Mais, à chaque ensemble de brevets est associée une certaine probabilité que, soit l'autre propriétaire de brevet, soit un tiers pourra tourner le brevet par une invention ou trouver les arguments nécessaires pour le faire déclarer non valable. Ainsi, même en l'absence d'acquisition, de mise en commun ou de licences croisées, les deux parties sont des concurrents horizontaux potentiels et la possibilité existe qu'un tiers puisse accéder au marché en obtenant une licence de l'un d'entre eux et en tournant le brevet par une invention ou en contestant les prétentions de l'autre sur le brevet. Les prix des licences refléteront l'évolution que les intéressés considèrent comme

probable. Après acquisition ou mise en commun, la probabilité d'existence de la concurrence se trouve largement réduite. Un candidat potentiel à l'entrée sur le marché devra tourner le brevet par invention ou déclarer non valable une gamme beaucoup plus large de brevets. Cette situation est virtuellement anticoncurrentielle, de la même manière que le problème de l'entrée à deux niveaux est considéré comme défavorable à la concurrence en vertu du paragraphe 4.21 des Directives de 1984 sur les fusions[62].

Les auteurs reconnaissent que l'application d'une telle théorie devra trouver ses limites dans les considérations suivantes : à quel degré la transaction augmente-t-elle la nécessité d'une entrée à niveaux multiples ? Dans quelle mesure celle–ci est-elle plus difficile qu'une entrée à niveau unique ? Jusqu'à quel point les marchés affectés sont-ils susceptibles de monopolisation ou de collusion ?

3. Les marchés d'innovation

Dans des secteurs de haute technologie, à évolution rapide, la dimension la plus importante de la concurrence n'est pas, dans bien des cas, le prix des biens et services existants, mais le prix, et plus encore la qualité, des biens et services qui vont apparaître dans le futur. Par exemple, pour les fabricants d'ordinateurs, il est probable que la concurrence porte sur la fourniture de machines plus puissantes avec des processeurs plus rapides et une mémoire plus performante. En ce qui concerne les sociétés pharmaceutiques, la concurrence devrait concerner la mise au point de nouveaux produits et traitements pour des maladies spécifiques. Dans le secteur de la communication, les entreprises s'efforceront sans doute d'offrir aux ménages de nouveaux produits multimédias. Les entreprises engagées dans le secteur de la défense se concurrenceront pour produire des avions militaires capables, plus qu'aujourd'hui, d'échapper aux radars.

On trouve, dans les Directives américaines, deux manières d'analyser les effets de l'innovation : "Soit pour leur incidence distincte sur les marchés de biens et de technologie concernée, soit pour leur impact sur un marché séparé de l'innovation[63]." On a beaucoup débattu du concept de marché de l'innovation[64] en se demandant, par exemple, si les effets en question se prêtent aussi bien à l'analyse dans le cadre de la doctrine de la concurrence potentielle, avec peut–être un moindre risque d'incompréhension[65].

La Commission fédérale du commerce a traité un certain nombre de cas pour lesquels la doctrine de la compétition potentielle pourrait, avec quelques adaptations, être utilisée pour modéliser les effets, ce qui donnerait des résultats similaires à une analyse des effets courants de la transaction dans un marché d'innovation. Dans l'affaire *Glaxo plc*[66], par exemple, Glaxo, qui était l'acquéreur, commercialisait un produit existant pour le traitement de la migraine, qui avait été approuvé par les instances fédérales compétentes (Federal Drug Administration–FDA), mais seulement sous forme injectable. Glaxo et Wellcome, la firme qui était l'objet de l'acquisition, avaient soumis à l'approbation de la FDA des produits pour traiter la migraine par voie orale. Très peu d'autres sociétés étaient engagées dans la recherche développement pour de tels médicaments et les barrières à l'entrée sur le marché étaient très élevées. La Commission fédérale du commerce a contesté l'acquisition sous cet angle, parce qu'elle aurait entraîné l'élimination de la concurrence pour mettre au point ces produits et aussi de la concurrence entre ces produits, une fois mis au point et approuvés. L'affaire s'est conclue par un règlement amiable, qui a autorisé la réalisation de la transaction dans son ensemble, tout en rétablissant la concurrence pour cette catégorie de médicaments. De manière similaire, dans l'affaire American Home Products[67], la FTC a fait valoir que l'acquisition de American Cyanamid par American Home Products affaiblirait la concurrence sur un certain nombre de marchés. Les deux entreprises, ainsi qu'une troisième, avaient des programmes

actifs de recherche développement pour un vaccin rotavirus. Un certain nombre de produits fabriqués par les deux parties engagées dans la fusion se trouvaient à un stade avancé du processus d'approbation de la FDA. La fusion écartait la possibilité qu'au terme de ce processus les deux produits puissent se faire concurrence. En outre, la fusion donnait à American Home Products à la fois la capacité et une incitation à arrêter l'effort de développement de American Cyanamid, rendant ainsi moins probable que les deux médicaments verraient tout simplement le jour. Les affaires Upjohn Co[68]et Hoechst[69] présentaient des faits analogues.

Dans chacun de ces cas, le processus d'approbation établi par la loi sur les cosmétiques, les médicaments et l'alimentation[70] permettait de se faire une bonne idée du délai nécessaire à l'entrée sur le marché d'un médicament particulier et au degré de probabilité de cette entrée. On ne peut pas vendre aux Etats–Unis un nouveau médicament sans l'accord de la FDA et la procédure est à la fois tout à fait claire et demande du temps. En outre, elle donne souvent à la Commission fédérale du commerce une indication de l'incidence d'un médicament particulier sur la concurrence. Si les test de la FDA mettent sérieusement en doute la sûreté ou l'efficacité d'un produit spécifique, la Commission fédérale du commerce lui donnera peu de chances d'avoir un impact. De même, plus un médicament sera proche de l'approbation finale, plus la Commission fédérale du commerce sera sûre du jugement qu'elle porte sur l'incidence de ce produit pour la concurrence. Dans les cas où les paramètres du produit sont clairs et où les concurrents potentiels peuvent être identifiés avec précision, on peut étendre la doctrine de la concurrence potentielle au problème de l'entrée possible sur les *futurs* marchés de biens et, du même coup, appréhender les effets en termes de prix de la compétition entre les futurs produits. Certains voudront procéder à des ajustements supplémentaires afin d'apprécier les *effets* d'innovation sur ces marchés (c'est-à-dire l'élimination de la concurrence pour mettre au point des produits et non pas seulement de la concurrence entre les produits, une fois mis au point et approuvés) mais on n'a pas besoin, pour cela, de recourir au concept de *marchés* d’innovation.

La méthode qui consiste à se concentrer sur l'effet, pour la concurrence, de la vente d'un médicament, plutôt que sur la concurrence en matière de recherche développement pour produire ce médicament, est celle qu'a adoptée la Commission européenne à l'occasion de certaines des fusions dans le secteur pharmaceutique qui faisaient l'objet d'enquêtes des deux côtés de l'Atlantique. Dans son rapport de 1996 sur l'accord de coopération antitrust entre les Etats–Unis et la Communauté européenne, la Commission décrit les différences de conception de la façon suivante :

> Dans l'affaire *Glaxo Wellcome*... les traitements contre la migraine de Glaxo et de Wellcome étaient analogues et avaient atteint un stade de développement avancé, et il a été estimé que le temps et les coûts qui seraient nécessaires à un concurrent pour atteindre le même stade étaient tels qu'il était essentiel que les deux produits continuent d'être en concurrence. La Commission européenne et la FTC ont adopté une approche différente pour résoudre ce problème : la FTC a considéré un marché horizontal de recherche et de développement de médicaments contre la migraine en tant que tel, alors que la Commission a examiné les effets de la recherche et du développement sur le marché de la vente de médicaments. C'est pourquoi la décision de la Commission a obligé l'entreprise résultant de la concentration à accorder une licence pour l'un des deux traitements contre la migraine en cours de développement, maintenant ainsi un concurrent potentiel, alors que la FTC a exigé que Wellcome mette un terme à toute activité de recherche et de développement relative à ce traitement contre la migraine[71].

Il est plus difficile d’analyser les affaires mettant en jeu la concurrence pour fabriquer le produit de la nouvelle génération, dans lesquelles les contours de ce produit ne sont pas complètement clairs, sans recourir au concept de marché d’innovation. La Commission fédérale du commerce a traité une affaire de

ce type, Sensormatic[72], et elle a allégué l'existence d'un amenuisement de la concurrence en matière de recherche développement de la nouvelle génération de systèmes de surveillance électronique (EAS) pour les magasins à succursales multiples. Sensormatic et l'entreprise dont il devait acquérir les actifs, Knogo, fabriquaient des systèmes EAS de la génération actuelle. Ces systèmes comportent des labels électroniques fixés par les commerçants ; les EAS de la prochaine génération permettront aux fabricants de fixer le marqueur avant expédition aux commerçants. Il n'existait que quelques sociétés capables de conduire la recherche sur cette nouvelle génération de produits. Ainsi, ce n'était pas seulement la concurrence entre deux produits disponibles d'ici à quelques années qui était éliminée, mais l'incitation même à engager les travaux de recherche qui pourraient déboucher sur un produit. Peut-être l'un seulement des deux itinéraires empruntés par la recherche aurait-il abouti, aussi on ne peut affirmer avec assurance que la concurrence sur le marché des biens futurs était éliminée. En revanche, l'incidence actuelle sur la recherche et le développement paraît beaucoup plus claire.

Le ministère de la Justice s'est trouvé confronté à une situation similaire quand il a contesté l'offre d'acquisition d'une division de General Motors' Allison par ZF Friedrichshafen, opération qui aurait fusionné les activités de transmission automatique pour autobus et camions des deux sociétés. Ces deux firmes se livraient à la concurrence sur certains marchés géographiquement limités et pour une gamme étroite de produits, et l'on aurait pu arguer de l'incidence de ce projet sur le nombre relativement faible de consommateurs existant sur ces marchés. Toutefois, une telle démarche serait passée à côté de l'essentiel et aurait pu aboutir à une solution différente pour remédier au problème créé. Comme mentionné dans sa plainte, le principal souci du ministère était que la firme résultant de la fusion aurait contrôlé la plus grande partie des actifs, à l'échelle mondiale, qui sont nécessaires à l'innovation dans le domaine des transmissions automatiques pour les autobus et les poids lourds[73]. Dans ce secteur, la capacité de mener à bien les activités de recherche développement était étroitement liée à la possession d'actifs productifs spécialisés. Le processus de l'innovation exigeait un aller et retour permanent entre les idées nouvelles et les expérimentations au niveau de la production. Ces deux entreprises étaient les seules à détenir la capacité productive nécessaire. L'histoire du secteur avait été caractérisée par une course à l'amélioration des produits où chacune des deux sociétés prenait, à tour de rôle, l'avantage sur l'autre. Ainsi la fusion aurait paralysé l'innovation. Les consommateurs auraient été affectés même dans les zones géographiques où les deux sociétés ne se faisaient pas directement concurrence, parce que celles-ci, après avoir adopté une nouvelle technologie ou créé un produit nouveau à l'usage des marchés où elles se faisaient *effectivement* concurrence, auraient normalement appliqué ce changement à l'échelle mondiale. La plainte du ministère se fondait sur un effet anticoncurrentiel, pas seulement sur les marchés de biens spécifiques ayant été l'objet d'une concurrence directe sur les ventes dans le passé, mais aussi sur un marché de l'innovation[74].

Les Directives américaines insistent sur le fait que le concept de marché de l'innovation sera seulement utilisé quand "les capacités à s'engager dans l'activité de recherche développement concernée pourront être liées à l'existence d'actifs spécialisés ou de caractéristiques propres à des firmes spécifiques[75]".

4. La fixation de normes et les réseaux

L'expression "effets de réseau" fait référence au fait que réseaux et normes deviennent normalement d'autant plus utiles que le nombre de leurs utilisateurs est élevé. L'exemple habituellement cité est celui du réseau de téléphone, dont la valeur est nulle pour un utilisateur unique, mais augmente en fonction du nombre de gens qui peuvent être joints grâce à lui. Les effets de réseau peuvent être considérés comme une forme d'économie d'échelle, concernant la demande et non la production.

Dans le secteur de l'informatique, les effets de réseau résultent souvent du fait que plus une norme particulière ou une interface sont utilisées, plus il est intéressant pour les vendeurs de produits complémentaires d'en mettre au point de nouveaux à partir de cette norme ou de cette interface. Un système opératoire devient d'autant plus attrayant que le nombre de ceux qui y recourent est élevé, car plus les spécialistes des programmes développent d'applications basées sur ce système et plus les utilisateurs se tournent vers ces applications.

La maîtrise de ces normes et interfaces peut être une source de pouvoir de marché, de la même façon qu'être la seule firme en situation de réaliser les économies d'échelle disponibles en matière de production peut donner un tel pouvoir. On a donc suggéré que les autorités responsables de la concurrence donnent la préférence à des normes qui sont ouvertes à tous, à un coût faible ou nul, par opposition à d'autres qui sont complètement fermées ou sujettes à des redevances de licence élevées. Toutefois, on peut se demander si un tel remède ferait plus de bien que de mal. Pour acquérir la maîtrise de normes, les sociétés se font concurrence dans l'amélioration de la qualité des produits. Si elles savaient devoir donner l'accès à la norme à tous leurs concurrents, l'incitation à innover risquerait d'être réduite. Des normes d'appropriation tendent aussi à apparaître et à accéder au marché plus rapidement, en raison du délai nécessaire pour qu'une procédure formelle de fixation des normes en assure l'autorisation. En outre, "le plus petit commun dénominateur", qui caractérise une norme ouverte, est susceptible de produire des normes qui ne sont pas à la pointe des avancées technologiques.

En conséquence, les autorités responsables de la concurrence semblent s'être limitées jusqu'à présent à contester des pratiques abusives, telle que l'obtention déloyale d'une maîtrise des normes [76].

5. Les restrictions verticales sur les prix

Aux Etats-Unis, dans l'Union européenne et au Japon, les autorités chargées de faire respecter la concurrence ont toutes montré une franche hostilité vis-à-vis des dispositions des licences qui restreignent le prix auquel le licencié peut vendre les produits licenciés. Les Directives américaines stipulent que "les instances responsables appliqueront la règle d'illicéïté automatique contre les prix de revente imposés dans le contexte de la propriété intellectuelle" (§ 5.2). Le règlement sur les transferts de technologie stipule que "l'Article 1 et l'Article 2(2)) ne s'appliquent pas lorsque l'une des parties est soumise à des limitations quant à la fixation des prix, d'éléments de prix ou des remises pour les produits sous licence" (Article 3(1)). Quant aux Directives japonaises, elles qualifient "les restrictions appliquées aux prix des reventes de produits brevetés au Japon" de conduite "fortement susceptible de tomber sous le coup des pratiques commerciales déloyales" (partie 1.3.(1)).

La conception américaine est peut-être la plus souple des trois, et cela sur trois points. 1°) Les Directives limitent l'application de la règle d'illicéïté automatique aux affaires dans lesquelles la restriction ne peut "être susceptible de contribuer à une intégration de l'activité économique la rendant plus efficace" (§ 5.2, citant § 3.4 comme source des principes de limitation). 2°) Les Directives reprennent à leur compte la jurisprudence de la Cour suprême américaine, selon laquelle le propriétaire d'un brevet peut conditionner l'octroi d'une licence pour fabriquer le produit breveté à la fixation du prix de la *première* vente (§ 5.2 n° 33, citant United States contre General Electric *Co.,* 272 US 476 (1926)). 3°) Les autorités américaines ont indiqué leur tolérance à l'égard des accords verticaux fixant les prix *maximum* des produits en déposant un mémoire à titre d'*amicus curiae* dans une affaire actuellement examinée par la Cour suprême, qui décidera si la fixation d'un prix de revente maximum doit cesser d'être traitée par application de la règle d'illicéïté automatique [77].

6. "Les zones de sécurité"

L'une des innovations des Directives américaines a été l'introduction d'une "zone de sécurité" pour les accords de licence, dans les cas où "(1) la restriction n'est pas, en apparence, anticoncurrentielle[78] et (2) où le donneur de licence et son licencié ne représentent pas ensemble plus de 20 pour cent de chaque marché concerné affecté notablement par cette restriction" (§ 4.3). L'objectif était de "donner un certain degré de garantie et ainsi d'encourager" l'octroi de licences. (Id.).

Il est difficile d'apprécier dans quelle mesure la zone de sécurité a atteint son but. Dans des auditions récentes auprès de la Commission fédérale du commerce, un juriste bien connu, spécialisé dans les affaires antitrust et qui conseille régulièrement des clients en matière d'entreprises conjointe pour la recherche et le développement, a témoigné de la façon suivante :

> Les Directives en matière de propriété intellectuelle fonctionnent bien, à la fois parce qu'elles s'inspirent d'une conception économiquement sensée et parce qu'elles ne sont pas trop ambitieuses. Elles fournissent un cadre approprié pour l'analyse d'une forme importante de collaboration — la licence de propriété intellectuelle — mais ne tentent pas de superposer à toutes les formes de collaboration une norme unique clairement limitative. Le seul domaine dans lequel les Directives s'essaient à établir une norme de ce type est justement celui dans lequel elles échouent incontestablement. Il s'agit de la zone de sécurité antitrust pour les transactions dans lesquelles les parties ne représentent pas, ensemble, plus de 20 pour cent de chacun des marchés concernés affectés notablement par la restriction. La zone de sécurité échoue à la fois parce que la règle des 20 pour cent n'offre aucune protection qui ne soit déjà accordée par la loi actuelle... et parce que les Directives font disparaître la garantie si, à un moment quelconque, les parties dépassent la limite d'une part de marché de 20 pour cent, même si cela se produit vingt ans après la passation de leur accord. Je pense que c'est le destin promis à la plupart des normes clairement limitatives prévues par des directives d'application de la loi. Le souci légitime de préserver un pouvoir discrétionnaire en cette matière aboutit habituellement à édicter des normes qui sont conservatrices au point d'être à côté de la plaque[79].

V. Conclusion

Les développements qui précèdent ont pour but de stimuler le débat, et non de soutenir telle ou telle opinion particulière. Les problèmes posés par la politique de concurrence vis-à-vis d'accords impliquant la propriété intellectuelle sont à la fois importants et complexes, et seront sans nul doute l'objet de nouvelles réflexions et discussions.

NOTES

1. Réimprimé comme annexe à la soumission japonaise contenue dans ces travaux. En avril 1993, la commission japonaise pour la loyauté des pratiques commerciales a également publié *Antimonopoly Act Guidelines Concerning Joint Research and Developpement (Directives associées à la loi antimonopole à propos de la recherche et du développement*).

2. Ministère américain de la Justice et Commission fédérale du commerce : *Antitrust Guidelines for the Licensing of Intellectual Property* (6 avril 1995), *réimprimé dans* 4 Trade Reg. Rep. (CCH) § 13 132 - réimprimé comme annexe aux soumissions des Etats Unis de la FTC et de la DOJ contenues dans ces travaux.

3. Règlement CE n° 240/96 de la Commission, du 31 janvier 1996, concernant l'application de l'Article 85(3) du Traité à certaines catégories d'accords sur les transferts de technologie.

4. Le Symposium a eu lieu à Aylmer, au Québec, les 12 et 13 mai 1996. Les études présentées et les actes du Symposium seront publiés dans un ouvrage de Nancy Gallini & Rob Anderson, politique de concurrence, droits de propriete intellectuelle et integration economique internationale (Industry Canada 1997). Ci-après on fera référence au *"Symposium canadien"*.

5. Citation de Frank H. Easterbrook dans, *Ignorance and antitrust*, extrait de l'ouvrage antitrust, innovation and competitiveness 82, 122-23 (Thomas M. Jorde & David J. Teece, 1992) ; *voir aussi* F.M. Scherer & David Ross, Industrial Market Structure and Economic Performance 613 (3e éd. 1990).

6. Règlement sur les transferts de technologie, § 3.

7. Préembule des Directives japonaises, § 3.

8. *Directives américaines*, § 1.0.

9. On peut, par exemple, comparer Joseph a. Schumpeter, Capitalism, Socialism, and Democracy 81-106, (1942) (qui soutient qu'une situation de monopole encourage l'innovation parce que, entre autres choses, le détenteur d'un monopole est mieux à même de s'approprier la valeur de ses innovations) *avec* Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Innovation, dans* Essays in the Theory of Risk-Bearing 144 (1976) (qui montre que, dans certaines conditions, un détenteur de monopole peut être moins incité à innover qu'une entreprise placée sur un marché concurrentiel, parce que le premier, en introduisant un produit nouveau ou supérieur, risque tout simplement de cannibaliser son propre marché — c'est-à-dire de faire baisser les ventes de produits sur lesquels ils gagnent déjà un bénéfice de monopole) ; *voir aussi* Michael E. Porter, The Competitive Advantage of Nations (1990) (les entreprises qui sont confrontées à une forte concurrence sur leur marché national, tendent à être des concurrents plus efficaces à l'étranger). Sur un plan plus général, *voir W*esley M. Cohen & Richard C. Levin, *Empirical Studies of Innovation and Market Structure*, dans 2 Handbook of Industrial Organization (Manuel d'organisation industrielle) 1059 (Richard Schmalensee et Robert D. Willig, 1989), cet ouvrage analysant les études économiques relatives au sujet et expliquant pourquoi ces études aboutissent à des conclusions différentes et sont difficiles à interpréter. Egalement Jonathan B. Baker ; *Fringe Firms and Incentives to Innovate*, 63 Antitrust L.J. 621, 639-41 (idem) ; Richard J. Gilbert & Steven C. Sunshine, *Incorporating Dynamic*

Efficiency Concerns in Merger Analysis : The Use of Innovation Markets, 63 Antitrust L.J. 569, 579-80 (1995) (idem).

10. Par exemple, la Commission fédérale du commerce des Etats-Unis a tenu une série d'auditions au cours desquelles on a traité de la concurrence et de l'innovation. Le rapport établi par les services de la FTC, à la suite de ces auditions, relève que : "Les participants venant des milieux d'affaires qui ont abordé ce problème ont insisté sur le fait que la concurrence est une incitation essentielle pour l'innovation et que le succès, sur des marchés de plus en plus internationalisés, dépend beaucoup d'un afflux continu d'innovations." Rapport de la FTC, Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace (Prévoir le 21ème siècle : La Politique de Concurrence sur les Nouveaux Marchés Globalisés de Haute Technologie) ch. 6, p. 12-13 (1996) (mentionné ci-après sous le titre *"Rapport des auditions de la Commission fédérale du commerce des Etats-Unis").*

11. Lors des auditions tenues en 1995 par la Commission fédérale du commerce sur le thème de la concurrence en économie globalisée, un représentant de AT&T a dit que la scission était "l'un des remèdes les plus efficaces de l'histoire des affaires antitrusts". Il a noté que "l'innovation avait connu un grand essor" à la suite de cette décision (déclaration de Mark Rosenblum dans 11, 14, citée dans une audition auprès de la Commission fédérale du commerce ch. 6, p. 13). Lors de précédentes auditions, devant la Commission judiciaire de la Chambre des représentants, un représentant d'un très important fabricant de câbles de fibres optiques avait fait remarquer à quel point il était difficile d'essayer, avant la scission, d'intéresser AT&T à l'achat d'un tel câble au lieu du matériel existant (des fils de cuivre technologiquement inférieurs). Témoignage de Timothy J. Regan, vice-président et directeur de la communication de Corning Inc., devant la Commission judiciaire de la Chambre, 9 mai 1995.

12. *United Stages* c. *Masonite Corp.,* 316 U.S. 265, 280 (1942).

13. *E. Bement & Sons* c. *National Harrow Co,* 186 U.S. 70, 91 (1902).

14. *United States* c. *Aluminum Co. of America,* 148 F. 2d 416, 430 (2e Cir. 1945).

15. *Id., ; voir également Berkey Photo Inc.* c. *Eastman Kokak Co.,* 603 F. 2d 263 (2e Cir. 1979), cert. rejetée, 444 US 1093 (1980).

16. Nancy T. Gallini & Michael Trebilcock, *Intellectual Property Rights and Competition Policy* : *An Overview of the Legal & Economic Issues, (les droits de propriété intellectuelle et la politique de concurrence : réflexion générale sur les problèmes juridiques et économiques),* manuscript, 2, publication prévue dans *Symposium canadien.*

17. Les Directives américaines, § 1,0.

18. Ministère américain de la Justice et Commission fédérale du commerce, Directives sur les fusions horizontales, § 4 n° 37 (rev. 8 avril 1997).

19. Voir, par exemple, Etats-Unis c. Univis Lens Co. 316 US 243, 250 (1942) ("un brevet donne à l'inventeur un monopole limité, dont l'exercice lui permettra de s'assurer les avantages financiers associés à son invention") ; *Int'l Wood Processors* c. *Power Dry Inc.,* 792 F.2e 416, 426 (4e Cir. 1986) (notant que les tribunaux se réfèrent souvent au droit du détenteur de brevet comme à "un monopole limité ou à un monopole de brevet")

20. Par exemple, *Deutche Gramophon GmbH* c. *Metro-SB-Grossmarkte GmbH* (78/80) 8 juin 1971, (1971) ECR 487 (1971) CMLR 631, CMR § 8106.

21. Directives américaines § 2.0.

22. Par exemple, Directives américaines § 2.2 ; *Deutsche Gramophon, Radio Telefis Eireann (RTE) & Anor* c. *Commission des communautés européennes* (C-241/91P & C-242/91P) 6 avril 1995, § 47 (1995) 1 CEC 400, 452.

23. Directives japonaises partie 1(2).

24. Gallini & Trebilcock, voir ci-dessus notes 16, 39.

25. *Walker Process Equipment, Inc.* c. *Food Machinery & Chemical Corp.*, 382 US 172 (1965).

26. Voir commentaires à § 54 ci-dessous.

27. *United States* c. *Singer Manufacturing Co.*, 374 US 174 (1963).

28. Directives américaines § 5.5.

29. Voir la déclaration de Richard J. Gilbert à la sous-commission sur les brevets, les droits d'auteurs et les marques de fabriques de la Commission judiciaire du Sénat, à propos de la loi sur la réforme de la publication et des conditions des brevets de 1994, S. 1854, 9 mars 1994 (mentionnée ci-après comme *"la déclaration Gilbert").*

30. Commentaires des services de la Commission fédérale du commerce, Dkt. n° 9505 31 44-5144-01 (mentionnés ci-après comme *"les commentaires de la Commission fédérale du commerce sur les Directives de l'Office des marques et brevets concernant les brevets").*

31. Id. à § 1-2 (notes en bas de pages omises).

32. Voir, par exemple, rapport sur les auditions auprès de la Commission fédérale du commerce des Etats-Unis, ci-dessus, note 10, ch. 1, 6-9 (qui résume les études économiques sur ce sujet).

33. Voir la *déclaration Gilbert,* ci-dessus, note 29, § 2-4 (qui commente le problème des "brevets sous-marins"), ainsi que les commentaires de la Commission fédérale du commerce sur les directives de l'Office des marques et brevets (*PTO Guidelines),* ci-dessus, note 30 § 3-4 (qui commente la difficulté, en matière de software, d'identifier l'état des techniques antérieurement au brevet).

34. Rapport sur les auditions auprès de la Commission fédérale du commerce, ci-dessus note 10, ch. 8 page2, (qui s'abstient de recommander toute action spécifique, mais conclut que les problèmes justifient un examen supplémentaire par la Commission).

35. Directives américaines § 4.2.

36. Règlement sur les transferts de technologie, Article 5(1) et § 8.

37. Article 5(2).

38. Directives américaines § 2.3.

39. Par "produits concurrents" on veut dire "des produits qui, bien que compte tenu de leurs caractéristiques, de leur prix et de l'usage auxquels ils sont destinés, sont considérés par les utilisateurs comme interchangeables ou substituables avec les produits sous licence", Article 10(17) du règlement sur les transferts de technologie.

40. Dans la terminologie des Directives américaines, l'expression "marchés de technologie" vise la propriété intellectuelle intéressée (par exemple la technologie sous licence) et ses substituts proches — c'est-à-dire les technologies et les biens qui sont des substituts suffisamment proches pour exercer une contrainte significative sur le pouvoir de marché, s'agissant de la propriété intellectuelle intéressée (Directives américaines § 3.2.2). Les "marchés d'innovation" sont la recherche et le développement permettant de produire la nouvelle propriété intellectuelle. (Directives américaines § 3.2.3.)

41. Civ. n° 94-C-50249, 4 août 1994.

42. *United States* c. *Microsoft Corp.* 1995-2 Trade Cas. (CCH) § 71 096 (règlement amiable) ; voir également 59 Fed Reg. 42,845 (19 août 1994) (déclaration sur l'incidence en matière de concurrence) ; *la Commission européenne ouvre une enquête sur la conduite en matière commerciale de Microsoft*, 65 Antitrust and Trade Reg. rep. (BNA) n° 1632, 405, 23 septembre 1993 ; *Bingaman Briefs Seminar on Internationl Fronts*, 67 Antitrust and Trade Reg. Rep (BNA) n° 1687, 543 (3 novembre 1994) (commentant le règlement intervenu entre Microsoft, d'une part, la Commission et le ministère de la Justice, d'autre part).

43. Voir 1 ABA Antitrust Section, Antitrust Law Developments 214-25 (4e éd. 1997). Une subtilité, qui n'apparaît peut-être pas pleinement dans le texte de l'arrêt, est que ces facteurs doivent être pris en considération, parce qu'ils permettent de voir si les accords réduisent la capacité des firmes rivales à fixer les prix et, par conséquent, augmentent le pouvoir de marché du défendeur.

44. 1995-2 Trade Cas. (CCH) § 71,096 (règlement amiable) ; voir également 59 Fed Reg. 42,845, 19 août 1994 (déclaration sur l'incidence sur la concurrence).

45. *Microsoft*, 1995-2 Trade Cas. § 71,096 à 75,244-46 (D.D.C. 1995) (partie IV de l'ordonnance de règlement amiable).

46. 59 Fed. Reg. 42,845 à 42,852, 19 août 1994.

47. Dkt. C-3626, 14 novembre 1995, 5 Trade Reg. Rep. (CCH) § 23,838).

48. La décision de la Commission figure au Journal officiel des Communautés européennes (n° 78/43) (1989). Le Tribunal de première instance a confirmé, dans trois décisions parallèles : *Radio Telefis Eireann* c. *Commission des Communautés européennes* (affaire T-69/89), 10 juillet 1991 (1991) CMLR 586 (1991) 2 CEC 114 ; *British Broadcasting Corp.* c. *Commission des Communautés européennes* (affaire T-70/89), 10 juillet 1991 (1991) CMLR 669, (1991) 2 CEC 147 ; and *Independent Television Publications Ltd.* c. *Commission des Communautés européennes* (affaire T-76/89), 10 juillet 1991 (1991) CMLR 745, (1991) 2 CEC 174. RTE et Itp ont fait appel mais cette action n'a pas abouti. L'arrêt a été confirmé dans *Radio Telefis Eireann (RTE) & Anor* c. *Commission des Communautés européennes* (C-241/91P & C-242/91P) 6 avril 1995 (1995) 1 CEC 400.

49. (C-242/91P & C-242/91P) § 49, (1995) 1 CEC § 452.

50. Id. § 50, (1995) 1 CEC au § 452.

51. Id. §§ 52-56, (1995) 1 CEC au § 453.

52. *Par exemple, Continental Paper Bag Co.* c. *Eastern Paper Bag Co.*, 210 US 405, 426-30 (1908).

53. *Par exemple, Glaxo plc*. Docket n° C-3586 (14 juin 1995) ; *American Home Products*, Docket n° C-3557 (14 février 1994).

54. *Par exemple, Glaxo plc.* Docket n° C-3586 (14 juin 1995) ; *American Home Products,* Docket n° C-3557 (14 février 1994).

55. *Dell Computer Corp.,* 5 Trade Reg. Rep. (CCH) § 24,054 (20 mai 1996) (acceptation finale de l'ordonnance de règlement amiable).

56. *Bellsouth Advertising & Publishing Corp.* c. *Donnelley Information Publishing,* 719 F. Supp. 1551, 1556 (S.D. Fla. 1988), *aff' d,* 933 F. 2e 952 (11e Cir. 1991).

57. *Data General Corp.* c. *Grumman Systems Support Corp.,* 36 F3d 1147, 1184-87 (1er Cir. 1994).

58. *Id*

59. Mais voir *American Cyanamid,* 72 F.TC. 623, 684-85 (1967), *aff'd sub. nom. Charles Pfizer & Co.,* 401 F. 2d 574 (6e Cir. 1968), *cert. rejetée,* 395 US 920 (1969).

60. *Par exemple, Walker Process Equipment, Inc.* c. *Food Machinery & Chemical Corp.,* 382 US 172 (1965).

61. *Voir American Cyanamid.,* 72 F.T.C. à 684-85.

62. Willard K. Tom & Joshua A. Newberg, *US Enforcement Approaches to the Antitrust/Intellectual Property Interface,* dans Symposium Canadien, ci-dessus note 4 (note en bas de page omise).

63. *Directives* § 3.2.3.

64. Voir, par exemple, Commissioner Roscoe B. Starek, III, Innovation Markets in Merger Review Analysis (les marchés d'innovation dans l'analyse des fusions) : The FTC Perspective, Address Before the Florida Bar (discours devant le barreau de Floride) (23 février 1996) ; Gilbert & Sunshine, ci-dessus note n° 9, à 569 (1995). *Symposium : A Critical Appraisal of the "Innovation Market" Approach,* 64 Antitrust L.J. 1 (1995).

65. Voir étude des services de la Commission fédérale du commerce, Anticipating the 21st Century : Competition Policy in the New High-Tech, Global Marketplace ch. 7 (1996) ; Richard T. Rapp, *The Misapplication of the Innovation Market Approach to Merger Analysis,* 64 Antitrust L.J. 19, 37-46 (1995).

66. 5 Trade Reg. Rep. (CCH) § 23,784 (14 juin 1995).

67. 5 Trade Reg. Rep. (CCH) § 23,712 (14 juin 1995), *réexaminé et modifié dans* 5 Trade Reg. Rep. (CCH) § 23,966 (16 janvier 1996).

68. 5 Trade Reg. Rep. (CCH) § 23,914 (8 février 1996).

69. *Hoechst AG,* 5 Trade Reg. Rep. (CCH) § 23,895 (5 décembre 1995).

70. Food, Drug & Cosmetic Act § 505, 21 USC. § 355 (1988 & 1993 Supp.).

71. *Rapport de la Commission au Conseil et au Parlement européens sur la mise en oeuvre de l'accord entre les Communautés européennes et le gouvernement des Etats-Unis d'Amérique., concernant l'application de leurs règles de concurrence,* COM (96) 479 final, 8 octobre 1996, § 4.2.1, disponible sur le n° Internet : at http:/europa.eu.in/en/-comm/dg04/lawenten/en/com479.htm.

72. *Sensormatic Elecs Corps.* 5 Trade Reg. Rep. (CCH) § 23,742 (5 décembre 1995).

73. *United States* c. *General Motors Corp.,* Civ. n° 93-530 (D. Del. filed 16 novembre 1993), *résumé à* 6 Trade Reg. Rep. (CCH) § 45,093 (affaire 4027).

74. *Id.,* Plainte § 35-45.

75. *Directives,* § 3.2.3.

76. *Dell Computer Corp.,* 5 Trade Reg. Rep. (CCH) § 24,054 (20 mai 1996) (acceptation finale d'un règlement par consentement) (la société n'avait pas révélé l'existence de brevets, malgré l'obligation imposée par l'organisation fixant les normes).

77. *State Oil Co.,* c. *Khan,* n° 96-781, *cert. accordée,* 117 S. Ct. 941 (18 février 1997).

78. L'expression "en apparence anticoncurrentiel" se réfère à des restrictions qui, normalement, justifient l'application de la règle d'illicéité automatique, de même qu'à d'autres restrictions d'un type qui tendrait toujours ou presque toujours à réduire la production ou à augmenter les prix. *Voir Directives américaines § 3.4.*

79. *Contemporary Antitrust Analysis of Joint Ventures: Why It Makes Sense to Stay the Course,* témoignage de Joseph Kattan lors des auditions auprès de la Commission fédérale du commerce à propos du projet de co-entreprise (Washington, DC, 5 juin 1997).

AUSTRALIA

Section 1: The Breadth of Intellectual Property Rights and their Interface with Competition Law and Policy

1. Competition Policy and Intellectual and Industrial Property

Intellectual and industrial property rights (IPRs) have a pervasive influence on the economy. Few markets are unaffected by such rights. Copyright, patents, designs, circuit layout and plant variety rights are provided to overcome problems of market failure. The potential for 'free riding' on inventions and creative activity, whereby assets are used without payment and transactions bypass the market process, could result in insufficient remuneration to those investing in such intellectual and industrial capital and a misallocation of resources. If the social return from additional investment exceeds the private return, investment is likely to be sub-optimal. Similarly, trademarks prevent free riding on investments in product promotion and reputation, conveying information about the products to which they attach, so that consumers are able to make more informed choices. To correct for these market failures, property rights are granted in intellectual and industrial property.

While this rationale for IPRs has been part of economic orthodoxy for many years, it has not been held universally. Some have argued that little, if any, additional investment in intellectual property is generated by IPRs[1]. Certainly there is no consensus concerning how much additional creative and inventive activity is induced by IPRs which would not otherwise occur. The outline of issues to be covered by the roundtable draws attention to some potentially negative effects on innovation, particularly secondary innovation,[2] from extensive patent rights and the possibility of pre-emptive patents.[3] It is not clear that more extensive IPRs will necessarily result in more creative and inventive activity, nor that this is necessarily an efficient use of society's resources, which have an opportunity cost. Further, in correcting for the market failure associated with free riding, other market failures may be created or exacerbated.

Intellectual and industrial property often has 'public good' characteristics, that is there are often no opportunity costs associated with its use or consumption. Songs and novels can be sung or read by an infinite number of people at one time and they do not 'wear out' over time, only their physical carriers are subject to such limitations. Similarly the use of a particular drug formulation by one pharmaceutical manufacturer does not prevent its use by another, either simultaneously or subsequently. Hence the marginal cost of a particular user is zero. In the absence of IPRs this is the price paid for copying. The granting of IPRs, by facilitating exclusion and pricing above the marginal cost of the physical carrier, tends to restrict access and use of these assets below their optimal level. Indeed they could have the perverse effect of encouraging excessive production of new IP, e.g. songs and books, while existing ones are under utilised. However, marginal cost pricing would not deliver any return to the investors in intellectual and industrial property and thus may restrict the range of goods and services available over time. It should also be pointed out that intellectual and industrial property is not necessarily (or purely) a public good. For example, the value attached to a particular design of clothing may be inversely related to the number of people wearing such clothes. Similarly trademarks are not generally public goods. Consumers often place a high value on the status and limited availability of goods carrying particular brand labels.

The ability of IPR owners to charge above marginal cost derives from the exclusivity/'monopoly' which they are granted. This is not necessarily a monopoly in an antitrust sense, but it does limit competition to some degree. The effect on competition depends on the *nature* and *extent* of IPRs granted and the extent to which close substitutes are, or are likely to be, available. For example, patent rights provide *exclusive rights* over ideas, whereas copyright only provides protection against *copying* particular *expressions* of ideas; copyright does not provide protection against independent creation of an identical expression, or different expression of the same ideas. In this regard, patents are likely to have a much greater impact on competition than copyright. For example, it is likely to be much more difficult, and require considerably more sunk costs, to produce a substitute pharmaceutical product without breaching existing patent rights than it would be to produce substitute cookery books without breaching copyright. Of course it is the extensive sunk cost requirement associated with invention and innovation which also justifies the extent of patent rights as a necessary incentive. Over time this may be pro-competitive in a dynamic sense. Other relevant issues are the life of IPRs, disclosure requirements, e.g. patents, and compulsory licensing requirements, e.g. musical works.

The nature of the competition problems arising from IPRs include excessive prices, price discrimination and raising barriers to entry in both the immediate and downstream markets, through licensing arrangements, brand loyalty, pre-emptive patenting and restrictions on access. Particular problems arise when network externalities are involved, as for example in computer software.

While an individual IPR may have several substitutes and not pose competition problems, the aggregation of IPRs may create market power. This is particularly likely to occur in a country such as Australia, where the original IPRs are located overseas and ownership may be dispersed, but a single company acquires the licenses to (manufacture and) distribute a range of competing products in Australia. Another area of concern regarding the aggregation of IPRs occurs where rights are collectively administered. The operation of copyright collecting societies has been the focus of antitrust attention in the US, UK and EC as well as Australia.[4]

A balance needs to be drawn which will promote the achievement of economic efficiency, taking account of all market failures, including issues of both free riding and competition. The *extent* of rights granted in legislation should be determined on the basis of maximising the net benefit from the prevention of free riding and provision of incentives to invest in IP compared to the costs from reduced competition as well as the administrative and compliance costs of the law. This will generally not mean that more protection is always better. Firstly, more protection may not always promote more investment. Secondly, more investment is not always better. Resources invested in new IP have an opportunity cost. If the private returns from such investment exceed the social returns, because IPRs restrict competition and allow rights owners to charge excessive prices, then investment is likely to be excessive, such that the opportunity cost exceeds the social return, and resource allocation will be impaired.

Unfortunately IPRs are often not determined on this basis. Even where IPRs are provided under economic (rather than moral) regimes, the economic interests promoted often tend to be those of IPR owners rather than the public at large. The benefits from greater protection accrue to a relatively small group of owners who have an incentive to organise and lobby government, as opposed to the dispersed benefits from greater competition.

While core IPRs have not been the subject of substantial debate relating to the costs and benefits for competition and innovation, a number of policy debates have arisen in Australia in recent years, or are ongoing, as regards the extent of those rights and where the boundary should be drawn.

2. Motor Vehicle Spare Parts

The Australian Law Reform Commission (ALRC) undertook a three year inquiry into the Designs Act.[5] A number of issues arose during that inquiry regarding the nature of rights (exclusive vs anti-copying) and the innovation threshold, but one of the most hotly debated issues, both before, during and since has been the issue of protecting spare parts. The same issue has been debated in the US, the UK and the EC, in relation to both policy and the application of competition law.

The question which has arisen is whether the market for spare parts is a separate market from the market for original equipment. If consumers consider the relative price of spare parts (as well as the frequency of breakdown etc.) when buying the original equipment, then the two should properly be considered part of the same market; the price of spare parts would not reflect the exercise of any more market power than the manufacturer possessed as a supplier of original equipment, since to do so would adversely affect sales of the latter. However, to the extent that consumers do not make fully informed purchasing decisions (reflecting the high cost of acquiring the information), the price of spare parts may reflect the exercise of a much higher degree of market power in the 'derivative market' for spare parts for that particular brand of original equipment. To the extent that the spare parts are not interchangeable with those used for other brands, and if independent suppliers are not able to enter the market, the manufacturer may have an effective monopoly over the supply of those spare parts. While motor vehicle spare parts have been the major focus of attention in relation to designs, the issue is relevant to other products, some of which have been the focus of antitrust cases, e.g. photocopiers[6] and cash registers[7].

Two types of problems may arise from the provision of design protection for spare parts - high prices for parts, and restricted competition for the repair and servicing of original equipment. The policy question arises as to the extent of the problems which arise when rights are granted versus the extent of any dampening of the incentive for innovation which the removal of rights may induce.

The ALRC proposed a regime under which spare parts would be protected except where competition objections were raised and sustained by the Australian Competition and Consumer Commission (ACCC), which would be required to evaluate those problems and balance them against any public benefits arising from protection. Protection would only be sustained where there was a net public benefit to be gained. The government is currently considering its response to the ALRC report.

3. Publishers and Journalists

The Australian Parliament is currently considering the Copyright Amendment Bill 1997. One element of this Bill concerns a shift in the location of copyright ownership in the work of employed journalists from those journalists to their publishers.[8] While the extent of copyright will not change, the proposed change in its location still raises competition issues.

Currently competition concerns may arise in relation to the collective exercise of rights by journalists. With the shift of rights to publishers different competition concerns may arise. Problems may arise in relation to access, or the terms and conditions of access, to newspapers and periodicals for the production of value added media monitoring services. In order to provide a comprehensive product, such downstream service providers need to have access to the full range of publications. Of course access problems could potentially arise where the copyright is owned by journalists, particularly where rights are collectively administered, but particular problems arise when the copyright is owned by publishers who also participate in downstream markets in competition with those seeking access. Where monitoring services can still obtain access to hard copy from journalists, even the production of a comprehensive hard

copy service requires the use of electronic transmission to collate and distribute clippings around the country. Furthermore, veto powers for publishers contained in the Bill could require that access be obtained from both journalists and publishers.

Another competition problem could also arise where copyright resides with publishers who are also involved in the production of value added monitoring services. In order to provide a comprehensive service, each publisher would need access to other publishers rights. This could potentially have spillover effects on competition and co-ordination in both upstream and downstream markets.

4. Parallel Imports

The former Prices Surveillance Authority (PSA)[9] raised the question of restrictions over parallel imports in its inquiries into books, records, computer software and farm chemicals.[10] The PSA took the view that copyright and patent protection in the sphere of reproduction could be justified on the basis of 'free rider' problems, but not in the sphere of distribution of articles legally marketed. While it is necessary to restrict imports of pirate and counterfeit goods in order to make reproduction rights effective, it is not necessary to restrict 'parallel imports' of goods legally marketed overseas with the copyright or patent owners permission.

Owing to a lack of effective price competition between Australian rights owners, the importation provisions, through preventing international arbitrage, have allowed price discrimination between different national markets. Australia, as a small and isolated market, has been the loser in this discrimination. For many years Australian consumers have paid significantly higher prices for books, records, computer software and some farm chemicals than their peers in Europe and North America. These high prices have been reflected in both high costs (e.g. inefficient multiple distribution of books and rivalrous advertising of records) and in excessive profits.

Exclusive dealing may be justified to prevent free riding on investments in distribution and marketing, and in some instances price discrimination can be justified as a 'second best' solution to declining unit costs, but these are not characteristics which are either unique to, or universally associated with, products covered by IPRs. They reflect market failures of a different type, which will occur in some markets subject to IPRs but not in others. Hence, it is inappropriate to provide blanket statutory exclusive importation rights for all intellectual and industrial property regardless of the particular market context.

As a result of the PSA reports and reports by the Copyright Law Review Committee (CLRC)[11], the Government has considered and implemented various changes to the Copyright Act. In 1991, amendments were made to the parallel import provisions, as they relate to books, which focused on improving the availability of titles. A review of the provisions three years later revealed that new titles were generally available more quickly and there had also been some benefits for prices of best sellers and in the efficiency of distribution systems, but that significant price discrepancies remained.[12] By meeting the availability requirements of the Copyright Act, copyright holders have largely retained control over parallel imports and have therefore been able to maintain prices.

The previous government initially adopted a proposal to open the record market to parallel imports for recordings of non-Australian artists, but subsequently dropped this proposal. The current government is considering its response to the recommendations in relation to both records, computer software and farm chemicals.

The CLRC report also drew attention to an overlap between the Copyright Act and the Trade Marks Act, whereby the Australian owners or licensees of trademarked goods were able to claim copyright in brand labels and thereby gain protection against parallel imports which is not necessarily available under the Trade Marks Act. The CLRC proposed that this overlap be removed from the Copyright Act and that proposal is currently being considered by Parliament as part of the Copyright Amendment Bill. The proposal has attracted outraged submissions from importers claiming that such provisions allow them to protect the health, safety and reputation of their products. The Copyright Act would seem to be a particularly blunt instrument to attack this problem, which is neither universally associated with, nor restricted to, goods which are covered by trademarks. Parallel imports have been legitimately marketed in their country of origin and importers and retailers supplying these goods are subject to the same consumer protection and other relevant legislation as the licensed importer. Rather, the protection against parallel imports has served to support excessive prices and prevented legitimate competitive importers offering consumers a better deal.

Importation rights were also addressed by the ALRC in its report on the Designs Act.[13] It recommended that parallel imports should continue to be permitted.

Parallel imports are also permitted under the Circuit Layouts Act and this provides an example of the effects of allowing, or not allowing, such restrictions, namely video games used in amusement centre. Following the 1992 Full Court decision in *Avel v Wells*[14], parallel imports of video games under the Circuit Layouts Act enabled a competitive market for amusement centres to flourish. Avel was the exclusive distributor of the most significant video games used in amusement centres and also a major operator of such centres. Parallel imports allowed Avel's downstream competitors to gain access to these games on competitive terms and conditions. However, the 1996 decision in *Galaxy v Sega*[15], recently affirmed by the Full Court[16], has made video games subject to the Copyright Act rather than the Circuit Layouts Act, and hence to restrictions on parallel imports. The ACCC has received complaints from the operators of independent amusement centres that they are no longer able to gain access to 'must have' games on reasonable terms and conditions which allow them to compete in the downstream market.

5. The Interaction of IPRs and Competition Law

The preceding sections have considered the policy issues of the appropriate *extent* of IPRs in order to maximise economic welfare, trading off effects on innovation and competition. However, a second question arises as to the extent to which competition law should impinge on the *use* of rights once granted. As previously mentioned, while one particular IPR may not convey significant market power, the aggregation of a number of rights may do so. Similarly, particular conduct by a rights owner without market power may have no effect on competition, while the same or similar conduct by a rights holder with market power may have a substantial effect on competition.

Section 51(3) of the Trade Practices Act (the Act) currently provides a limited exemption from Part IV of the Act for the owners of IPRs. The exemption does not cover s 46 or s 48 and it is limited to conditions of licences and assignments[17] insofar as they 'relate to' the IPR. The effect of the exemption is open to debate and has not been the subject of extensive litigation. In 1991 the Commission produced a Background Paper on the subject, which has been included as section two of this paper. Restrictions on licensees' ability to trade in competitors' products, price fixing between suppliers of competing goods protected by IPRs, refusal to supply for one of the prohibited purposes in s 46 by a rights holder with a substantial degree of market power, or an assignment of rights resulting in a substantial lessening of competition[18] might all breach the Act. Furthermore, the exemption is limited to existing rights and does not extend to an agreement to assign future rights, e.g. 'grant back' provisions. However, price and output

restrictions imposed on licensees and the enforcement of importation rights would seem to 'relate to' the IPRs and hence would be covered by the exceptions in s 51(3).

There has been no significant litigation in Australia involving IPRs since the Commission's Background Paper was published. Importation rights and possible breaches of ss 45, 46 and 47 of the Act were at the centre of *Broderbund Software Inc & Anor v Computermate Products (Aust) Pty Ltd & Ors*[19], but the Court found that Broderbund was not exceeding its rights under the *Copyright Act* and Computermate failed to establish the requisite degree of market power or effect on competition to breach the Act.

The exemption by s 51(3) was considered by the National Competition Policy Review (The Hilmer Review).[20] As part of its submission, the Trade Practices Commission[21] recommended the removal of s 51(3). It was argued that the use of IPRs should be subject to the same competition rules as any other property, and that arguments regarding offsetting public benefits, such as correcting for market failures or increased efficiencies, could be considered under the authorisation and notification provisions of the Act. [22]

In August 1993 the Hilmer Report was completed. The Committee concluded that the general conduct rules of a national competition policy should, in principle, apply to all business activity in Australia. Exemptions for any particular conduct should only be permitted when a clear public benefit has been demonstrated through an appropriate and transparent process. In relation to the specific exemption for intellectual property matters, the Committee "saw force in arguments to reform the current arrangements, including the possible removal of the current exemption" but concluded that there should be a separate review by appropriate experts.[23]

The Competition Principles Agreement, signed by the various State, Territory and Commonwealth Governments requires, amongst other things, all parties to review legislation that restricts competition.[24] The 'guiding principle' of the review is that legislation should not restrict competition unless it can be demonstrated that the benefits to the community outweigh the costs, and that the objectives of the legislation can only be achieved by restricting competition. In accordance with the Competition Principles Agreement, the Commonwealth Government issued its legislative review schedule in June 1996. A review of the exemptions in s 51(3) of the Act is due to commence in 1997-98 and a general review of intellectual and industrial property legislation is due to commence in 1998-99.

In addition to the inter-governmental agreements, the Commonwealth, in June 1995, enacted the *Competition Policy Reform Act 1995* (CPRA)[25]. The CPRA is intended to "usher in a new era in national competition policy"[26] by creating an "integrated and complete approach to national competition policy, which balances economic efficiency and broader elements of public policy...".[27] The CPRA resulted in substantial legal and policy changes including the addition of Part IIIA to the Act. The new Part establishes a legal regime to facilitate access to services provided by certain facilities of national significance.[28] "Service" is expressly defined to exclude "the use of intellectual property ... except to the extent that it is an integral but subsidiary part of the service".[29] The intellectual property exemption arose due to concerns that Part IIIA might override copyright, patent and other intellectual and industrial property laws. The section is intended to permit a limited use of intellectual property (e.g. manuals or instructions) which are necessary for access.[30]

As a result of this exception, issues relating to access to intellectual and industrial property must be dealt with on a case by case basis under s 46 of the Act. As discussed in the second paper, this requires that issues of market power, use of that market power vs use of IPRs, and whether its use was for a proscribed purpose are addressed. While the ACCC considers these tests would not be insurmountable in

appropriate circumstances, they would certainly be open to extensive legal and economic debate and there have not been any successful cases to date.

Recently the ACCC has dealt with two matters relating to access to databases, which raise questions about both the *extent* of rights and the *use* of rights. A draft treaty on the protection of databases was prepared for consideration by the World Intellectual Property Organisation (WIPO) conference in December 1996. Current international conventions (Berne and TRIPS) give databases some protection where a database is 'original', a term which has been given different interpretations in different countries. The draft database treaty met with considerable controversy because it proposed to grant protection to databases without the 'originality' requirement. Reichman and Samuelson conclude that "the proliferation of poorly conceived, hybrid intellectual property rights has cumulatively begun to undermine the competitive ethos on which market economies depend, and the current database proposals represent the most recent (and perhaps the most extreme) instance of this trend" and "the current database schemes represent a low point in the history of intellectual property law".[31] The proposal was held over for consideration at a further meeting planned for September 1997. Currently, in line with the general scheme of copyright, Australian law provides protection for particular compilations of databases but not for the data itself. However, it is not always straightforward to make this distinction and it may be impossible to access the data without copying a particular compilation. The *Magill* case in the European Court of Justice[32], which has attracted considerable international attention, while acknowledging that copyright subsisted in the weekly program listings of television stations found that they had a monopoly over the information used to compile those listings and that their refusal to grant a licence was an abuse of a dominant position in breach of Article 86 of the EC Treaty. Two matters investigated by the ACCC are similarly concerned with access to monopoly sources of information or data underlying meteorological forecasts and telephone directories.

In December 1995 the ACCC commenced legal proceedings against the Commonwealth Bureau of Meteorology (BoM) alleging that it had taken advantage of its market power to prevent competition in the market for specialised meteorological services. In particular, it was alleged that BoM had refused to provide basic meteorological information to the Meteorological Service of New Zealand Limited (MetService). The ACCC asserted that the refusal to supply direct access to MetService and the provision of specialised services on a non-commercial basis was done to disadvantage a potential rival in contravention of s 46 of the Act. In May 1997, following Court sponsored mediation, a settlement was reached which both parties believe promotes the public interest. By providing a means of direct access for an Australian registered subsidiary of MetService and establishing an access policy and model licence agreement, the settlement negotiated facilitates competition in the market for specialised meteorological services, at the same time recognising the benefit in maintaining the free international exchange of information and the provision of consistent and comprehensive weather and forecasts to the public through the media.

In February 1997, Telstra gave legally enforceable undertakings to the ACCC to ensure access for third parties to the data it collects for inclusion in its business telephone directories. As part of Telstra's current licence as a general telecommunications carrier, it collects, maintains and verifies Telstra business and Government customer names, addresses and telephone numbers (and also some occupational information) on a database. Telstra will now give interested third parties access to that business data for a cost not exceeding $0.18 per entry, a job execution charge for the initial supply and a supply fee for each subsequent supply. This level of charges, agreed to by Telstra, are significantly lower than those which the carrier was first proposing, and are more consistent with overseas experience. The ACCC considered that Telstra risked breaching s 46 of the Act by refusing to supply the data on reasonable terms to a number of participants in the market. There has been no Australian decision about whether copyright covers telephone directories, but Telstra has a case pending against a producer of CD ROM directories in

which such copyright is claimed. Hence, it has been suggested that the undertakings could legally compel Telstra to licence its copyright.[33]

6. Authorisation and the Operation of Collective Licensing

A unique feature of Australian (and New Zealand) competition law is the authorisation and notification provisions.[34] These provisions allow the ACCC, and the Australian Competition Tribunal on review, to exempt conduct from the Act where it can be justified on public benefit grounds. While not defined in the Act, public benefit has principally, but not exclusively, been recognised in relation to efficiencies, both allocative (e.g. correcting free rider effects), cost (e.g. economies of scale) and dynamic (e.g. innovation) efficiencies. These provisions are particularly useful at the interface of competition law and IPRs, where a case by case evaluation of the appropriate degree of competition (with benefits for all types of efficiencies) or restrictions on competition to maximise net public benefit would seem appropriate.

The number of IP matters considered by the ACCC under these provisions has been limited, probably because of actual or perceived exemptions under s 51(3). However, the Commission has recently considered an application for authorisation and a notification relating to the collective licensing of musical works for broadcasting and public performance by the Australasian Performing Right Association (APRA).[35] This was the third matter relating to a collective licensing scheme which the Commission had considered under these provisions. In the APRA matter the Commission took the view that there were both costs and benefits associated with the collective licensing of musical works. On the benefit side there were considerable efficiencies to be gained in the administration and enforcement of copyrights for both owners and users and the 'blanket licence' offered by APRA provided a new product which was particularly useful for users with unpredictable requirements e.g. shops and restaurants. On the cost side, APRA essentially enjoyed a monopoly over performing rights, since members had to assign all current and future works to APRA, which replaced potential competition between composers. This has the effect of inflating prices and restricting access to works while encouraging excessive production of new works. Some users, particularly those with planned and predictable requirements for musical works, e.g. broadcasters, would benefit from direct dealing with composers. The Commission considered that a better balance could be struck between the costs and benefits of the scheme if it allowed for such direct dealing and blanket licence fees were appropriately adjusted.

7. Summary and Conclusions

The interface between competition law and policy and IPRs is an important and often neglected subject. Too often the extent of IPRs is determined by the interests of owners, rather than the public at large. This paper has drawn attention to a number of specific issues which have arisen in this context in Australia in recent years and some of the conflicting costs and benefits of IPRs for competition and economic efficiency.

Section 2: Enforcement Issues & the Exercise of Market Power

1. Introduction

The second part of this paper is constituted by the former Trade Practices Commission Background Paper on the application of the Trade Practices Act to Intellectual Property (dated July 1991). Although the paper is now over six years old, the issues and concepts that are discussed in the paper are still very relevant to a discussion of intellectual property issues today.

Included in the 1991 paper is an examination of the following topics:

- the economic policies underlying the exclusive rights granted by the various intellectual property regimes and their relationship to competition policies embodied in the Trade Practices Act;

- the scope of section 51(3) of the Act which exempts certain conduct from infringing various sections of the TPA;

- the application of section 46 in relation to intellectual property;

- the types of conduct undertaken to maintain intellectual property rights which may contravene the Trade Practices Act;

- the effect on competition caused by import and export bans, particularly in the context of closer economic relations between Australia and New Zealand.

While the concepts discussed in this paper are still highly relevant, there are however, a number of important changes that have taken place over the past six years that are worth mentioning briefly here:

- ACCC - The Trade Practices Commission and Prices Surveillance Authority merged in November 1995 to form the Australian Competition & Consumer Commission;

- Mergers Test - Until 21 January 1993, section 50 of the TPA prohibited mergers and acquisitions which were likely to result in dominance of a market. Mergers effected on or after that date are prohibited if they have the effect or likely effect of substantially lessening competition in a market;

- Competition Policy Reform Act - A number of changes were made to the TPA following the 'Hilmer' Report and consequent enactment of the *Competition Policy Reform Act 1995*. These changes include the following:

  -- introduction of Part IIIA into the TPA which establishes a legal regime to facilitate access to services provided by certain facilities of national significance;

  -- the jurisdiction of the TPA was extended to cover unincorporated businesses as well as State and Territory government business activities;

  -- resale price maintenance on services is now prohibited;

-- resale price maintenance on goods or services became authorisable;

-- price agreements on goods became authorisable;

-- the prohibition against anti-competitive price discrimination (under s 49 of the TPA) was repealed; and

-- third line forcing became notifiable.

- Plant Varieties Act - The Plant Varieties Act 1987 was amended by the Plant Variety Rights Act 1987 which was then later replaced by the Plant Breeder's Rights Act 1994;

- Trade Marks Act - The Trade Marks Act 1955 was replaced with the Trade Marks Act 1994 which was later repealed and replaced with the Trade Marks Act 1995 which is still current. The 1995 Act makes specific provision for the ACCC to have a role in the approval of Certification Trade Marks. The Commission's function involves assessing and approving schemes for the use of Certification Trade Marks, including:

  (i) determining whether an applicant for such a Trade Mark (or any approved certifiers) has sufficient expertise to ensure that its certification rules are complied with. For example, that goods or services bearing the certification trademark will comply with the qualities and standards for which the mark stands; and

  (ii) examining the rules to ensure they are not in themselves anticompetitive or misleading or deceptive. (It is a matter for the Registrar of Trade Marks to determine if any misuse of a Trade Mark is misleading or deceptive).

- Patents Act - The *Patents Act 1990* was amended in 1994 to increase the standard patent term from sixteen to twenty years;

- Relevant Cases - As discussed in the previous section, there has been no significant Australian litigation involving IPRs since the Commission's Background Paper was published. While importation rights and possible breaches of ss 45, 46 and 47 of the Act were at the centre of *Broderbund Software Inc & Anor v Computermate Products (Aust) Pty Ltd & Ors*, the Court found that Broderbund was not exceeding its rights under the Copyright Act and Computermate failed to establish the requisite degree of market power or effect on competition to breach the TPA.

Trade Practices Commission

Background Paper on the Application of the Trade Practices Act to Intellectual Property

(Published July 1991)

Foreword

The application of the Trade Practices Act to intellectual property rights

Patents, copyright, registered designs, trademarks and confidential information give a corporation power which may be used to damage competition in markets.

This paper examines the relationship between these intellectual property rights and the Trade Practices Act 1974 — the Act which seeks to promote competition in the economy.

A number of sections of the Act potentially may impinge on the usage of intellectual property rights — e.g. sections 45 (arrangements restricting dealings or affecting competition), 46 (misuse of market power), 47 (exclusive dealing), 49 (price discrimination). In addition the ownership of intellectual property rights might be a matter for consideration when determining whether a merger or acquisition might breach section 50 of the Act.

The Trade Practices Act specifically prohibits a corporation which has a substantial degree of power in a market from taking advantage of that power for the purpose of eliminating, damaging or restricting existing or potential competitors.

Market power enables a corporation to persistently behave differently from the behaviour which would be required of a corporation facing similar cost and demand conditions in a competitive market.

Most participants in a market possess some degree of market power but the Act is concerned only with those corporations whose market power is substantial. The Trade Practices Commission adopts the approach that the market power of the corporation in question must be considerable and should be seen relative to the market power of other participants in the market.

The types of conduct which are likely to attract examination under section 46 include predatory pricing; exclusive dealing arrangements and requirements contracts; withdrawal of, and refusal to, supply; inducing price discrimination; loyalty rebates; tie-ins; certain ‘lease-only’ policies; the raising of rivals’ costs and the strategic creation of entry barriers; denial of access to essential facilities; refusal to deal/price or supply squeezes by vertically integrated corporations.

Intellectual property rights, such as patents, copyright or registered designs, have the potential to provide a corporation with the means to achieve one or other of these ends.

In all cases, however, conduct would only be caught if it was engaged in by a corporation taking advantage of its substantial degree of market power for a proscribed purpose.

This paper aims to provide guidance to the business community and the professions on the boundary the Trade Practices Act sets for conduct taken to maintain or further intellectual property rights.

1. Introduction

1.1 This paper considers the relationship between intellectual property rights and provisions of the Trade Practices Act regulating anti-competitive conduct. Its purpose is to provide guidance to the business community and the professions on the boundary of permissible conduct established by the Trade Practices Act to maintain intellectual property rights.

1.2 The paper examines:

- the economic policies underlying the exclusive rights granted by the various intellectual property regimes and their relationship to competition policies embodied in the Trade Practices Act;
- the scope of section 51(3) of the Act which exempts certain conduct from infringing sections 45, 47, 49 and 50;
- the application of section 46 in relation to intellectual property;
- the types of conduct undertaken to maintain intellectual property rights which may contravene the Trade Practices Act having regard to both sections 51(3) and 46;
- the effect on competition caused by import and export bans, particularly in the context of closer economic relations between Australia and New Zealand.

1.3 It is possible for corporations to exploit intellectual property rights in a manner contrary to the requirements of the Act. There have been very few decisions of Australian Courts under the Trade Practices Act on action undertaken on intellectual property rights. Nevertheless, there are many overseas examples from Europe and America which indicate that the potential for anti-competitive conduct exists. [36]

Action taken on intellectual property rights which may have an anti-competitive effect may be loosely divided into the following categories:

- legal actions taken to enforce intellectual property rights (as opposed to rights arising by contract);
- the acquisition of intellectual property either by the creation of new rights (by satisfying the requirements of the relevant intellectual property regime) or by the acquisition of existing rights;
- refusal to grant licences of intellectual property or to disclose confidential information;
- imposing restrictive terms in a licence or assignment of intellectual property, refusing to license intellectual property because the proposed licensee would not accept such restrictive terms or enforcing by legal action such restrictive terms.

This paper discusses the extent to which corporations may engage in such conduct without contravening the Act. The above list is not an exhaustive list of the circumstances in which intellectual property will be relevant to a trade practices inquiry. As noted in previous publications of the Trade Practices Commission, intellectual property may raise barriers to entry to a market and therefore be a relevant factor in determining whether certain conduct has an anti-competitive effect.[37] This paper confines its attention to the specific instances of the exercise of intellectual property rights mentioned above.

1.4 Agreements relating to intellectual property arise in a variety of commercial contexts. These include manufacturing licences, distribution agreements, franchise agreements, industrial joint ventures and sponsorships and promotional agreements. The effect such agreements may have on competition will vary widely. It is not possible to address all the different issues which may arise from such agreements in this paper. Rather, it is proposed to focus on the application of the Trade Practices Act to general categories of conduct based on the exercise of intellectual property rights which may have an anti-competitive effect.

2. Intellectual property and competition policies

Intellectual property rights

2.1 In this paper, the expression 'intellectual property rights' will be used to cover the full range of rights recognised at law (whether created by statute or at common law) which grant some form of exclusivity over the manufacture, use or sale of a product, process, label or packaging.[38] As such, it encompasses the following:

- patents (including plant varieties);
- copyright (including circuit layouts);
- registered designs;
- registered and unregistered trademarks (including a product's 'get up');
- confidential information (including know-how and trade secrets).

2.2 The nature of the rights granted under the above intellectual property regimes varies considerably. In this section it is proposed to outline generally the nature of each of the regimes and the policies underlying the grant of the rights.

Patents (including plant varieties)

2.3 A patent is a monopoly right granted by statute to inventions.[39] The invention may be either a product (e.g. a machine or drug) or a process of manufacture. The rights granted by a patent are the exclusive right to make, use, exercise and vend the invention in Australia during the term of the patent (essentially 16 years).[40] Patent protection is obtained through the registration of a specification describing the invention. New plant varieties are similarly protected for a term of 20 years by the *Plant Varieties Act 1987 (Cth)*. This Act gives the owner exclusive rights to produce and sell the plant and reproduction material of the plant of the variety which is registered. The exclusive rights granted to both a patentee and an owner of a plant variety are personal property and may therefore be dealt with by assignment, licence and devolution by operation of law.[41]

2.4 There are at least four reasons traditionally advanced for the grant of these limited monopoly rights:

- to reward the labour and skill that an inventor, author or designer has contributed to society by virtue of the invention;
- to provide an incentive to persons to engage in inventive activities from which society may benefit and to commercialise the results of those activities in trade;
- to promote disclosure of inventions in order to advance further research and development by others and thereby benefit society;
- to protect a person's natural rights in their intellectual property.

The essential policy behind the grant of the rights, to provide an incentive to engage in inventive activities and to commercialise the results, is of particular importance in defining the relationship between the exercise of such exclusive rights and competition policy and is discussed further below.[42]

Copyright

2.5 Copyright is the statutory protection given to a literary, musical, artistic or dramatic work and certain other subject matters such as sound recordings, cinematograph films, television broadcasts, sound broadcasts and published editions of works 'subject matter other than works'.[43] Computer software is also incorporated under the definition of 'literary works' in the Copyright Act. Furthermore, the layouts of certain integrated circuits are now protected under the *Circuit Layouts Act 1989 (Cth).* The exclusive rights granted under that Act are similar in nature to those granted under the Copyright Act. There is no requirement of registration to obtain copyright protection in Australia. The copyright exists simply by virtue of the originality[44] of the subject matter (i.e. that it was produced by the author's labour and skill and not copied from elsewhere), coupled with certain 'connecting factors' relating to the nationality of the author and the place of first publication. Copyright gives to the author an exclusive right to reproduce, publish, perform, broadcast and adapt the particular work.[45] These exclusive rights continue for the life of the author plus a further 50 years. As for patents, these rights are personal property and may therefore be dealt with accordingly.[46]

2.6 The policy underlying the Copyright Act is similar to that underlying the Patents Act; however, the exclusive rights granted are less extensive. Two differences should be noted. First, copyright only prevents copying,[47] the copyright owner cannot prevent a second person from exploiting an identical work if that work originates independently from the second person.[48] Secondly, copyright protects the form of an author's expression but not the author's ideas; the copyright owner cannot prevent a second person from making use of the ideas, facts or opinions which exist in the work, but may only prevent the unauthorised reproduction of the form in which those ideas, facts or opinions are expressed in the work.[49] This lower level of protection (as compared to the patent regime) reflects the lack of any substantive formal requirement (or quality) to obtain protection.[50]

Designs

2.7 Design protection is granted over the visual appearance of an article, being a feature of either shape or configuration (i.e. 3 dimensions) or pattern or ornamentation (i.e. 2 dimensions), but does not include a method or principle of construction.[51] Similar to patent protection, design rights are obtained through the registration of a representation of the article to which the design is applied. Design registration gives the owner the exclusive right to apply the design to the registered articles.[52] Design registration is granted for an initial term of one year, and the registration may be extended for further terms so that the total term is 16 years.[53] As with other forms of statutory intellectual property, design rights are personal property.[54]

2.8 The policy underlying design protection is similar to patent protection. Under the Designs Act, the appearance of an article is recognised as a valuable element of the article's commercial success, and correspondingly an element the originality of which may be promoted and protected.

Registered and unregistered trademarks

2.9 A trademark is a word or symbol (or a combination of these) used to distinguish the goods or services of a person from the goods or services of others in the course of trade.[55] To obtain statutory trademark protection, a representation of the mark must satisfy the criteria established by the *Trade Marks*

Act 1955 (Cth). A mark is then registered for the particular goods or services on which, or in relation to which, the mark is used or intended to be used. On registration, a trademark gives the owner the exclusive right to use the trademark in relation to the goods or services for which it is registered.[56] A trademark has an initial life of seven years; thereafter it can be renewed for successive periods of 14 years and essentially has an indefinite duration.[57] Unregistered trademarks are also protected by the common law action of passing off and by section 52 of the Trade Practices Act (and equivalent provisions of the Fair Trading Acts of the States and the Northern Territory).[58] These laws protect not only words or symbols used as trademarks, but also a product's packaging or 'get up'. Both registered and unregistered trademarks have the attributes of personal property in that they can be assigned, licensed and may devolve by operation of law. This is subject, though, to certain restrictions contained in the Trade Marks Act to prevent confusion arising in the use of a mark and to prevent 'trafficking' in marks (i.e. the sale of registered marks where they are not in use).[59]

2.10 The primary function of a trademark is to identify the source or origin of goods or services to which it is applied. This identification is beneficial for two reasons. First, the trader benefits as the mark identifies the trader's goods in the market and consequently enables goodwill or reputation to attach to those goods. Secondly and correspondingly, the trademark is beneficial to the purchasing public: it provides a guarantee to consumers of the source (and therefore indicates the quality) of the goods they wish to purchase.[60]

Confidential information (including trade secrets)

2.11 Confidential information disclosed by one person to another may be protected by contract or by the equitable action known as 'breach of confidence'.[61] In recent times confidential information protected by these actions has come to be regarded as a new category of intellectual property. The information protected by the action includes not only expertise or know-how which is applied in commerce, but also personal and governmental secrets.[62] Most importantly for commerce, however, is the application of the action to industrial or trade secrets (more commonly described as 'know-how'). Although the action is based in equity (the courts impose an obligation of confidence in circumstances in which a person's conscience is bound), the effect of the protection gives the information a proprietary character. In particular, confidential information can be licensed, sold and may devolve by operation of law, or upon bankruptcy and by testamentary provision.[63] The protection afforded by the action is more limited than under the statutory intellectual property regimes. It is dependent on the existence of an obligation of confidence. Consequently, a person who independently discovers a trade secret is free to use that secret.[64] A third party who receives the information through no breach of confidence by any person will also, generally, be free to use the information. It is also permissible to discover a secret by reverse engineering (i.e. disassembling a product to discover its mechanism and the invention it embodies).[65] Furthermore, the right of action generally ceases when the information becomes publicly known.[66] There is therefore no 'monopoly' in the information.

2.12 The policy underlying the action for breach of confidence is that persons are entitled to keep information developed by them confidential and may restrain others from using or disclosing that information when either that other has undertaken not to do so or when the circumstances are such that it would be against conscience to allow that other to do so. The basis of the action is therefore twofold: first, it is based on notions of fairness and commercial morality and sets certain limits on the ability of a person to use information developed by a competitor; secondly, it guards against improper appropriation of the result of research and development, thereby fostering development.[67]

2.13 In summary, the various intellectual property regimes grant some form of exclusive right to either:

- manufacture a product;
- use a process or other information in the manufacture of a product;

- reproduce by copying[68] a written, artistic, musical or other work;
- use a name, label or other packaging in connection with a product to identify or distinguish the source of a product.

Furthermore, the rights are either personal property or have many of the attributes of property in that they can be assigned, licensed and may devolve by operation of law (e.g. by succession or upon bankruptcy).

Balancing the policies

2.14 The prohibitions contained in Part IV of the Trade Practices Act stem from the assumption that free competition in a market will result in the most efficient allocation of resources in that market.[69] The economic model of perfect competition postulates that in a perfectly competitive market firms will respond most efficiently to market signals and produce the goods and services wanted by society. As a result of competitive pressure on price and profits, firms are assumed to produce at the lowest cost thereby maximising their efficiency. Competitive pressures also create an incentive to carry out research and development and to innovate with the aim of improving efficiency and introducing new products. On the basis of this economic theory, the Trade Practices Act prohibits certain conduct which may be detrimental to competition in a market.

2.15 It has been recognised, though, that competition may not always create an incentive to innovate and develop new methods of manufacture and products. Indeed, intense competition coupled with the free availability of information concerning a rival's process or product, may create a disincentive to expenditure on innovation and new developments. The potential market for the new method or product may be quickly lost to other competitors, and the cost of development may not be recovered. Competitors may 'free ride' on another's research and produce at a cost which does not reflect the costs of development. By rewarding those producers who innovate to produce new products or improve efficiency, intellectual property rights are a tool to overcome the disincentives to innovation which may result from free competition. Consequently, each of the intellectual property regimes may be justified on the basis that they promote economic development. In the case of patents, designs, copyright and confidential information, the rights provide an additional incentive to engage in research or creative activities. With patents and designs, there is the added public benefit of disclosure of the results of the research which leads to wider dissemination of learning. In the case of trademarks, the rights promote certainty in trade and commerce and assist in the proper functioning of the market.

2.16 A number of criticisms of the economic impact of intellectual property have been made.[70] First, the owner of an intellectual property right for a product is able to prevent or restrict another person in the production or sale of a competing product which infringes the owner's rights. Such a result necessarily has an economic impact (although this may be slight) and may lead to reduced quantity of supply and raised prices. Secondly, the grant of intellectual property rights may in fact discourage research and development; the owner of the rights may be released from competitive pressures to improve the product; others may be deterred from seeking to create an improvement to the product, as a licence under the original intellectual property right may be required in any event. Thirdly, an aggregation of rights (particularly patents) in the one field may lead to a concentration of market power. Such a concentration may substantially raise barriers to entry in the relevant market.

2.17 The following replies may be made to the above criticisms:

- whilst conferring limited 'monopolies' in respect of a particular invention, design, work or trademark, intellectual property rights do not fully insulate a producer from competition. Indeed, the grant of exclusive rights under the various intellectual property regimes generally has only a limited effect on competition. In relation to patents and designs, it is the specific

invention or visual appearance of the product for which exclusive rights are granted; for copyright, it is merely the form of expression of a work which is protected; for a trademark only the brand name or product 'get up' is protected; and know-how is only protected in circumstances involving a contractual or equitable obligation of secrecy. Where the market is competitive, all firms have an opportunity to innovate;

- it would be rare for the grant of intellectual property rights to bring the activities of competitors to a standstill. Competitive market pressures should require firms to continue to innovate, notwithstanding that other firms may have intellectual property rights;
- although concentration of intellectual property rights may raise a difficult barrier to entry, the converse is also true: intellectual property rights may enable a newcomer to enter a mature or concentrated industry and offer strong competition to existing firms.

2.18 It is difficult to assess whether the operation of intellectual property rights in an economy has a net beneficial effect on economic development. Recent studies conducted in Australia on the subject have been inconclusive.[71] Nevertheless the policies underlying the Trade Practices Act and those underlying the intellectual property regimes are to a large extent complementary. The former seeks to foster competition as a tool to increase the efficiency and innovation of firms; the latter provides 'profit opportunities' as an incentive for innovation (and in the case of trademarks, information of the source of goods to ensure that the market functions efficiently in signalling demand). Whilst some conflict arises in the short term because competitive conduct is restricted by the exclusive rights granted, the objective of granting the exclusive rights is to foster innovation and therefore competition in the longer term.[72]

2.19 Both the United States and European competition law authorities have had considerable experience in assessing the benefits and detriment's of various forms of conduct taken in furtherance of intellectual property rights, particularly in relation to restrictive terms and conditions of licences of intellectual property rights.[73] A number of decisions from the United States and Europe are cited in this paper.[74] The response of these competition law authorities to such restrictive terms demonstrates that a balance must be achieved on the following issues.

2.20 On the one hand:

- the grant of a licence of intellectual property may have a positive effect on competition and benefit the economy: it may result in an increased quantity of production, spread of distribution and consequently choice for the consumer. It may also lead to the dissemination of know-how and production skills, assisting in the development of new products. At the expiry of the term of the intellectual property right, the licensee will usually be in a far superior position to compete with its licensor than if no licence had been granted. Certain restrictions in licences may be acceptable (in order to encourage the licensing of new technology) if the alternative is that no licence would be granted;[75]
- a licence of intellectual property permits a firm to engage in a commercial activity which would otherwise be closed to it, or which would be open at the cost of recreating or developing the intellectual property which creates the barrier to entry. Consequently, in many cases terms contained in intellectual property licences do not lessen competition or deter or prevent the licensee from competing with his licensor any more than would be the case in the absence of the licence. The licence terms determine the scope of the grant and are not restrictions at all.

2.21 On the other hand:

- whether a licence term can be considered as restrictive of competition will depend on whether the comparison is with the licensee's position if no licence is granted, or with the

licensee's position if an unrestricted licence is granted. In the absence of a general requirement to compel an intellectual property owner to grant a licence (as to which see paragraphs 5.9–5.13), however, any comparison with the latter would seem to be artificial and inconsistent with the intellectual property owner's rights. The correct comparison would seem to be with what the licensee would do if the licensor were not permitted to license restrictively.[76] If the licence would not be granted but for the 'restrictions', it would seem that the benefit of the grant of the licence would have to be balanced against the anti-competitive effect of the restrictions to determine whether competition in a market had been substantially lessened;

- there is generally little justification for a corporation to impose a condition in a licence which affects or is likely to affect competition in a market separate from the market for the product protected by the intellectual property right;
- a person who accepts a licence from another corporation might, in the absence of the licence, have been a competitor of the corporation. Apart from any restrictive terms contained in the licence, the licence itself may reduce competition between the corporation and the licensee.

2.22 The issues discussed above will be used as a basis for the analysis in chapter 5 which considers the compatibility of certain conduct taken pursuant to intellectual property rights with the Trade Practices Act. The development of a consistent theory defining the interface between intellectual property and the Trade Practices Act is constrained by section 51, which exempts certain conduct relating to intellectual property from infringing the Trade Practices Act (other than in respect of sections 46 and 48). Section 51 will be considered in the next chapter.

Authorisation

2.23 Part VII of the Trade Practices Act empowers the Commission to authorise agreements which would otherwise infringe certain provisions of Part IV. Most importantly for present purposes, the Commission is empowered to authorise agreements which have the purpose or would or might have the effect of substantially lessening competition within the meaning of sections 45 or 47.

2.24 The Commission may grant an authorisation if it is satisfied that in all circumstances the agreement would be likely to result in a benefit to the public which outweighs the detriment to the public from any lessening of competition resulting from the agreement. The assessment of the economic impact of restrictive conditions in licences of intellectual property raises difficult issues. However, the authorisation procedure enables parties to the licence to discuss with the Commission the benefits which they perceive are likely to result from the licence.

2.25 The Commission's powers under Part VII to grant authorisations are limited in three important ways:

- first, the Commission may only authorise an agreement before it is entered into;
- secondly, agreements which fix prices between competitors within the meaning of section 45A cannot be authorised;
- thirdly, conduct which contravenes section 46 cannot be authorised, although section 46 will not be contravened where a corporation engages in conduct which does not infringe sections 45, 47 or 50 by reason of an authorisation in force in respect of those sections.

3. Section 51

Introduction

3.1 To some extent the Trade Practices Act takes account of intellectual property rights and seeks to establish an interface between those rights and conduct prohibited under the Act. This is done by providing a limited exemption (contained in section 51) for specific action taken in furtherance of intellectual property rights. In this chapter, the following issues will be considered:

- the terms of section 51;
- the limitations of the exemption provided by section 51;
- the meaning of the expression 'relates to'.

The application of section 51 to specific licence conditions and other conduct taken in furtherance of intellectual property rights is considered in chapter 5.

3.2 Section 51(1) provides that 'in determining whether a contravention of a provision of [Part IV] has been committed, regard shall not be had to any act or thing that is, or is of a kind, specifically authorised or approved by or by regulations under an Act other than an Act relating to patents, trademarks, designs or copyrights'. It is therefore clear that anti-competitive conduct permitted under intellectual property legislation is not exempt from the Trade Practices Act.[77]

3.3 Section 51(3) qualifies this: it provides an exception to the prohibitions contained in Part IV (other than for sections 46 and 48) for certain terms contained in licences of statutory intellectual property rights. The full text of section 51(3) is as follows:

A contravention of a provision of this Part other than section 46 or section 48 shall not be taken to have been committed by reason of:

(a) the imposing of, or giving effect to, a condition of:

i) a licence granted by the proprietor, licensee or owner of a patent, of a registered design, of a copyright or of EL rights within the meaning of the *Circuit Layouts Act 1989*[78] or by a person who has applied for a patent or for the registration of a design; or

ii) an assignment of a patent, of a registered design, of a copyright or of EL rights within the meaning of the *Circuit Layouts Act 1989* or of the right to apply for a patent or for the registration of a design,

to the extent that the condition relates to —

iii) the invention to which the patent or application for a patent relates or articles made by the use of that invention;

iv) goods in respect of which the design is, or is proposed to be, registered and to which it is applied;

v) the work or other subject matter in which the copyright subsists; or

vi) the eligible layout in which the EL rights subsist;

(b) the inclusion in a contract, arrangement or understanding authorising the use of a certification trademark of a provision in accordance with rules applicable under Part XI of the *Trade Marks Act 1955*, or the giving effect to such provision; or

(c) the inclusion in a contract, arrangement or understanding between:

i) the registered proprietor of a trademark other than a certification trademark; and

ii) a person registered as a registered user of that trademark under Part IX of the *Trade Marks Act 1955* or a person authorised by the contract to use the trademark subject to his becoming registered as such a registered user,

of a provision to the extent that it relates to the kinds, qualities or standards of goods bearing the mark that may be produced or supplied, or the giving effect to the provision to that extent.

Limitations of the exemption

3.4 Section 51(3) by no means provides a comprehensive exemption to anti-competitive conduct taken in reliance on intellectual property rights. The provision has many limitations which should be noted.

3.5 First, legal actions brought to enforce intellectual property rights (as opposed to enforcing rights arising by contract) may contravene the Trade Practices Act. This follows from section 51(1) which specifically excludes statutes relating to patents, trademarks, designs and copyrights from its exemption.

3.6 Secondly, sections 46 and 48 are excluded from the exemption contained in section 51(3). It may therefore be assumed that Parliament intended that the permissible range of actions which may be taken to further intellectual property rights should be limited in certain ways. In relation to section 46, corporations which take advantage of a substantial degree of market power for one of the proscribed purposes in section 46 will not be entitled to claim protection under an intellectual property right. Section 46 is considered further in chapter 5 of this paper. In relation to section 48, the exercise of the exclusive rights granted by intellectual property regimes in respect of price restrictions is to be limited to the first sale of the product. In other words, whilst the intellectual property owner is free to maximise its profits and obtain its return through the first sale of the particular product, competition at the next level of the distribution chain may not be limited by the imposition of minimum price restrictions.

3.7 Thirdly, the refusal to grant a licence of intellectual property or disclose confidential information is not exempted by section 51(3). Such conduct is considered further in chapter 5.

3.8 Fourthly, whilst conditions contained in an assignment of a patent, design or copyright are given limited exemptions, the actual assignment is not; such an assignment may contravene section 50 if it results in a corporation gaining or substantially increasing dominant market power.

3.9 Fifthly, the exemption does not apply to non-statutory intellectual property such as unregistered trademarks, logos and other 'get up' protected by the actions of passing off or section 52 of the Trade Practices Act and confidential information;[79] nor, surprisingly, does it apply to plant varieties protected by the Plant Varieties Act.

3.10 Sixthly, the exemption does not extend to licences and assignments of future intellectual property, although it does extend to patent and design applications.

3.11 Seventhly, conditions in licences and assignments of a patent, design and copyright are exempted only to the extent to which they relate to the subject matter of the licence: the invention to which the patent relates or articles made by the use of that invention; goods to which a design is applied; the work or other subject matter in which the copyright subsists or the eligible layout in which the EL rights subsist.[80]

Throughout this section the expression 'the subject matter of the licence' will be used to refer to the invention, article, goods, works and eligible layout described above.

3.12 Eighthly, the exemption in relation to conditions contained in licences and assignments of trademarks is limited in the following ways:

- the conditions exempted are only those which relate to the kinds, qualities or standards of goods bearing the mark; consequently service marks are not included;
- the exemption only applies to registered user agreements or licence agreements which are granted subject to the licensee becoming registered as a user: consequently, licences granted by a person who has the right to apply for a trademark are not exempted; nor are assignments exempted.

'Relates to'

3.13 Most importantly, section 51(3) only exempts restrictive conditions contained in licences and assignments of statutory intellectual property to the extent that such terms and conditions relate to the subject matter of the intellectual property. The use of the expression 'relates to' creates considerable uncertainty in the application of section 51(3). Certain licence terms will clearly relate to the subject matter of the licence. For example, a licence term which defines the qualities of the licensed product must relate to that product. More difficult, though, is whether a territorial restraint relates to the product. It certainly relates to the area in which a product is to be sold, but is that the same thing as relating to the product? A third category is perhaps more straightforward: a provision imposing full or third line forcing relates to a product entirely separate from the licensed product.

3.14 The only reported decision in which a court has considered section 51(3), *Transfield Pty Ltd v Arlo International Limited*,[81] does not provide a great deal of assistance. In that case, the High Court was asked to consider the enforceability of an exclusive sub-licence to make, use, exercise and vend the Arlo pole, a type of electricity pole for electricity transmission lines. The clause of the licence in dispute stated:

> The licensee covenants during the period of the ... licence at all times to use its best endeavours in and towards the design, fabrication, installation and selling of the Arlo PTL pole ... and to energetically promote and develop the greatest possible market for the Arlo PTL pole.

3.15 It was alleged by the licensor (Arlo) that the licensee (Transfield) had breached this covenant. Transfield had tendered to the Electricity Commission of NSW for the manufacture of a transmission line. When the Commission expressed doubts as to the suitability of the Arlo pole, Transfield suggested using a pole of its own design. The Commission awarded the contract to Transfield. As a result of the use of Transfield's pole, the potential market for the Arlo pole in Australia was severely limited.

3.16 The Court found that the clause did not contravene section 45 of the Trade Practices Act, although its reasoning was brief and differed between the majority. In general, the Court found that section 51(3) applied. On a superficial level it is true that the clause related to the subject matter of the

licence (i.e. the Arlo PTL Pole). More importantly, though, the condition limited the licensee's freedom to manufacture, promote and sell competing poles.[82]

3.17 Mason J (as he then was) discussed the interface between the exercise of intellectual property rights and the Trade Practices Act. His Honour stated that:

> In bridging the different policies of the Patents Act and the Trade Practices Act, sub-section 51(3) recognises that a patentee is justly entitled to impose conditions on the granting of a licence or assignment of a patent in order to protect the patentee's legal monopoly. ... sub-section 51(3) determines the scope of restrictions the patentee may properly impose on the use of the patent. Conditions which seek to gain advantages collateral to the patent are not covered by sub-section 51(3).[83]

3.18 On the facts of the case, Mason J was satisfied that the relevant restriction did not prohibit the use by Transfield of other poles but merely required Transfield to use all its efforts and skill towards the design, fabrication, installation and selling of the Arlo pole to the extent that it was reasonable to do so in the circumstances.

3.19 The statement by Mason J quoted above is a helpful statement of policy in establishing the interface between intellectual property rights and the Trade Practices Act. Unfortunately, in assessing whether a specific licence condition contravenes the Trade Practices Act, a different conclusion may be reached depending on whether one asks if the condition relates to the subject matter of the licence, or whether the condition gives the licensor an advantage collateral to his intellectual property rights. In the discussion in chapter 5, guidance will be taken from the statement of policy given by Mason J; if there is doubt whether a condition relates to the subject matter of the licence, the purpose and scope of the exclusive rights granted by the specific intellectual property regime will be considered to determine whether a collateral advantage has been achieved by the condition.

4. Section 46 and Intellectual Property

Introduction

4.1 As seen earlier (at paragraph 3.6), section 46 is specifically omitted from the limited exemption provided by section 51(3) to the exercise of intellectual property rights. Section 46 provides that a corporation which has a substantial degree of power in a market shall not take advantage of that power for the purpose of:

(a) eliminating or damaging a competitor in that or any other market;

(b) preventing entry to that or any other market; or

(c) deterring or preventing competitive conduct in that or any other market.

4.2 The Commission has published a background paper (titled *Misuse of market power*) describing the scope and operation of section 46. That paper concluded that to establish a breach of section 46, it is necessary to show:

- first, that the corporation has a substantial degree of power in a market; and
- secondly, that the corporation took advantage of that power for one of the anti-competitive purposes set out at (a), (b) or (c) above.

4.3 Conduct undertaken pursuant to intellectual property rights may be undertaken for one of the proscribed purposes. In the case of legal actions taken to enforce intellectual property rights, the purpose may be to eliminate or damage a competitor in that market. In the case of restrictive conditions contained in licences of intellectual property, the purpose of imposing the condition may be to prevent or deter the licensee from engaging in competitive conduct in a particular market. Certain restrictions may be aimed at damaging a third party who would otherwise supply or be supplied by the licensee.

4.4 Conduct which damages competitors is not of itself contrary to section 46. Indeed, the High Court in *Queensland Wire Industries Pty Ltd v BHP Ltd*[84] noted that competitive conduct by its very nature will lead to competitors being damaged.[85] To contravene section 46 a corporation must take advantage of its market power for the proscribed purposes.

4.5 In examining the interface between section 46 and intellectual property rights in this chapter, it is proposed to consider the impact intellectual property has in relation to:

- determining whether a corporation has a substantial degree of market power;
- whether in exercising intellectual property rights a corporation may be taking advantage of its market power.

The following chapter will then consider examples of conduct which may contravene section 46.

Substantial degree of market power

4.6 In its earlier background paper, the Trade Practices Commission outlined its views on the meaning of the expression 'substantial degree of market power'. The Commission's commentary analysing the issues relevant in determining whether a corporation has a substantial degree of market power is applicable to all products, regardless of whether the product is protected by intellectual property rights. In particular, to determine the degree of power a corporation has in a market, one must first define the relevant market for the purposes of section 46. The existence of intellectual property rights enjoyed by a corporation is irrelevant to this market definition. The market is defined by the area of close competition between different sources of particular products and their substitutes.

4.7 It is important to note in particular that an intellectual property right does not define a particular market. It may be that on occasions a new development will be so advanced as to establish a new market as that concept is applied under the Trade Practices Act. However, such examples will be rare. In the majority of cases, intellectual property rights protect a new development in an established market. Competition will continue from existing products.

4.8 The existence of intellectual property rights for a product is independently a relevant factor in assessing whether a corporation has a substantial degree of market power; in particular, the existence of intellectual property rights is an important element in assessing the barriers to entry to a market.[86]

4.9 Just as the nature of the rights granted by intellectual property statutes varies, so too does the height of the barriers to entry created by the intellectual property. A patented process may constitute such an improvement or advance that competitors will be forced to discover an alternative technological means to achieve the same or similar result in order to compete successfully. In advanced technologies, the cost involved may limit the number of potentially competitive corporations engaging in such research. As a patent nears the end of its term the cost of research necessary to discover an alternative may not be justified and competitors may instead wait for the expiry of the patent. The risk of new entry during this period may therefore lessen.

4.10 Barriers to entry created by trademark rights will vary according to the prominence of the particular mark. Well established brand names will often create a significant barrier to entry given their hold over consumers' choice. For less well established brand names, the only barrier will usually be the cost of formulating a new brand or image for the product. It is recognised, though, that on occasions such costs will constitute a significant proportion of the cost of a product.

4.11 The following factors are particularly relevant in determining whether intellectual property rights have created significant barriers to entry in a particular market:

- the cost of producing a substitutable product which does not infringe the product covered by the intellectual property rights (or has a reasonable likelihood of not infringing sufficient to overcome the risk of challenge). If the owner of the intellectual property rights has a large market share and extensive intellectual property rights covering the relevant field, the cost of inventing and developing a substitutable product may be too high for there to be a likelihood of new entrants in the market;
- the lead time involved in entering the market by inventing and developing a substitutable product. Again, the sunk costs of research and development over a long period may mean there is little likelihood of new competitors entering the market;
- the degree of technological advancement involved in the product protected by intellectual property rights. If an advancement is great, it may be less likely for competitors to invent substitutes in the short term. It is also recognised, though, that significant advancements may open up new fields for development of which competitors can take advantage;
- structural rigidity's which have been created in the market by reason of the new technology. For example, consumers who have invested significant sums in office equipment based on a particular technological standard may not be interested in new products based on a different standard. It is also possible for governmental or regulatory standards to be based on a feature or characteristic of one trader's product. If such a feature or characteristic is protected by intellectual property rights, compliance with the regulatory standard may require a potential competitor to infringe that trader's rights if he is to compete. The rights may then deter competitive activity in that market.

Taking advantage of market power

4.12 The construction by the High Court of the expression 'taking advantage' as used in section 46 is discussed in the Trade Practices Commission's earlier background paper. Three important points arise from that discussion:

- there is no moral or pejorative test involved: the conduct need not be reprehensible or otherwise hostile;
- the fact that action is taken pursuant to a contractual or other legal right does not determine whether the corporation has taken advantage of its market power; and
- in the context of a market with a dominant corporation, it is appropriate to consider whether the conduct was made possible only by the absence of competitive conditions in the market.

4.13 These points are highly relevant in the context of conduct undertaken pursuing an intellectual property right. As referred to at paragraph 1.3, there are four principal categories of conduct which may be undertaken pursuing intellectual property rights:

- enforcement actions;
- acquisition of intellectual property rights;
- refusal to license; and
- licence terms or conditions.

4.14 Dawson J in the *Queensland Wire* case affirmed that all such conduct is open to examination for compliance with section 46:

> Nor is it helpful to categorise conduct, as has been done, by determining whether it is the exercise of some contractual or other right ... The fact that action is taken pursuant to the terms of a contract has no necessary bearing upon whether it is an exercise of market power in contravention of section 46.[87]

4.15 In determining whether a corporation has taken advantage of its market power, it is important to consider whether the corporation is free to engage in the proscribed conduct due to the absence of the constraints a competitive market would impose. Certainly the ability of a corporation to impose a restrictive condition in a licence of intellectual property can be traced to its statutory monopoly. However, the demand for a licence of intellectual property (and therefore the power to impose restrictive terms on a licensee) arises out of a demand for the relevant product: a statutory monopoly alone does not establish this demand.

4.16 Despite the High Court's invitation, it would be unusual for a corporation to infringe section 46 merely through an enforcement action (in contrast to imposing or enforcing a term of a licence or assignment of intellectual property). The right to take action to enforce intellectual property rarely depends on market power: such action is generally open to corporations whether they face great or little competitive constraints.

4.17 The Federal Court decision of *Warman International & ors v Envirotech Australia Pty Ltd & ors*[88] is consistent with this view. In that case, Warman held a substantial degree of market power in the market for slurry pumps and replacement parts for its pumps in Australia. Envirotech, through another company (EMA), supplied spare parts for Warman pumps. Evidence showed that a director of EMA and a former employee of one of the Warman companies had made use of Warman manuals and drawings of Warman spare parts to assist EMA in its supply of spare parts for Warman pumps.

4.18 In defence of an action taken by Warman under section 52 of the Trade Practices Act, Envirotech had submitted that the action was precluded by reason of section 46 as it was an action for a proscribed purpose, namely to eliminate or substantially damage a competitor. In an application for an interlocutory injunction and final orders Wilcox J dismissing the section 46 claim, said:

> ... but in these proceedings it [Warman] does not seek to take advantage of that [market] power. Rather it seeks to take advantage of rights which it claims in respect of particular documents ... The rights, and Warman's position in this Court, would be exactly the same if it held only 10 per cent of the market; indeed, even if it ceased altogether to manufacture pump parts ... To exercise in good faith an extraneous legal right, though the effect may be to lessen or even eliminate competition, is to take advantage of that right, not of market power.[89]

As discussed in the Commission's earlier background paper, it may not always be correct to state that 'the extraneous use of a legal right ... is to take advantage of that right, not of market power'. Nevertheless, it is considered that Wilcox J correctly interpreted section 46 by questioning whether the action was

dependent on the plaintiff corporation's market power. If not, the plaintiff could not be said to be taking advantage of its market power.

4.19 The statement of Wilcox J quoted above leaves open the possibility that actions which are not brought 'in good faith' may be open to challenge under section 46. This would be likely to be so if the plaintiff corporation has a dominant position in a market, the plaintiff threatens action without proper consideration of the merit of the claim and disregarding the likelihood of success and the defendant is forced to settle the claim or withdraw from the market. In such circumstances, the plaintiff corporation's success could be attributed to its market power, and not to its 'legal rights'. Examples of these situations are found in American and European decisions.[90]

4.20 It is recognised that the mere coincidence of a corporation having a substantial degree of market power and the corporation engaging in the potentially anti-competitive conduct described above does not establish that the corporation *took advantage* of its market power. In particular, many licence terms which may be restrictive in nature are sometimes willingly agreed by a licensee and are not imposed by the corporation by virtue of its market power.

4.21 In determining whether the corporation has taken advantage of its market power in these circumstances, the strength of the bargaining positions of the corporation and the licensee will be a relevant factor. In particular, regard may be had to:

- the availability to the licensee of alternative products or methods of manufacture;
- the economic importance of the licence to the licensor and the licensee. Is the process or product discrete, or is it part of a larger dependent operation?

Prohibited conduct

4.22 As discussed earlier (at paragraph 4.3), the imposition of certain terms and conditions upon licensees and assignees of intellectual property may involve a contravention of section 46. In particular, the terms of the licence may either prevent the licensee from entering a particular market or deter or prevent the licensee from engaging in competitive conduct in a particular market. Certain licence terms (particularly those involving exclusive dealing) may eliminate or substantially damage a competitor of the licensor. The next chapter outlines various types of conduct which may be detrimental to competition, and considers whether any provisions of Part IV of the Act, including section 46, is contravened by the conduct.

5. Examples of conduct which may have an anti-competitive effect

5.1 This chapter describes various types of conduct engaged in pursuant to intellectual property rights which may contravene the Trade Practices Act. The categories of conduct described at paragraph 1.3 will be adopted as a structure for this chapter. These categories are:

- legal actions taken to enforce intellectual property rights;
- the acquisition of intellectual property rights;
- the refusal to license intellectual property or to disclose confidential information; and
- the imposition of a restrictive term in a licence or assignment of intellectual property.

5.2 Each of these categories will be discussed with a view to assessing their impact on competition, whether they fall within the terms of section 51 and whether they may in any event contravene section 46.

Enforcement actions and settlement

5.3 As seen in chapter 2, intellectual property rights grant some form of exclusivity in relation to the production or sale of a product or use of a brand or logo. The enforcement of these rights prevents other competitors producing or selling a similar product, or using a similar logo. This has an economic impact by restricting freedom of trade and commerce, although the impact may be insignificant.

5.4 The only provision of Part IV which may be infringed by an enforcement action is section 46. As discussed at paragraph 4.16 and following paragraphs, enforcement actions will not usually contravene section 46 for the reason that a corporation will generally have no need of market power to bring the action. However, given the expense arising from defending such legal actions, it is conceivable that a corporation may commence proceedings based on intellectual property rights for the purpose of intimidating a competitor, without regard to the merits of the action or the likelihood of its success. Where the plaintiff corporation has a substantial degree of market power, it may be open to find a contravention of section 46 in these circumstances.[91]

5.5 Settlement of infringement actions may also have anti-competitive effects. Whilst recognising that settlement of such proceedings will often reduce costs of the parties and perhaps result in both parties being licensed to use the particular intellectual property right, there may also be hidden costs: the action, if pursued, might have invalidated the intellectual property, enabling other persons to utilise the protected idea or product.[92] Furthermore, agreements arrived at in settlement of infringement proceedings may also contain restrictive terms which lessen competition.[93] Such restrictive terms are examined below at paragraphs 5.14 and following paragraphs.

Acquiring intellectual property rights

5.6 Intellectual property rights may be acquired by a corporation as new rights by satisfying the requirements of the relevant intellectual property regime or through the purchase of existing rights from another person.

5.7 In the former case, the only provision of the Trade Practices Act which may be contravened is section 46. Although the grant of new rights may restrict competition to some extent, the purpose for undertaking the endeavour which leads to the grant is generally pro-competitive. Consequently, research and development leading to a new grant of intellectual property rights will not contravene section 46. As discussed in the Trade Practices Commission's earlier background paper and in earlier sections of this paper, the aim of competition policy is to foster efficiency and innovation to the benefit of consumers. Usually, the purpose of research and development is also competitive, and any lessening of competition by virtue of the grant of intellectual property rights is only an accepted consequence of the competitive conduct. Such conduct falls within the category of acceptable competitive conduct noted by Mason CJ and Wilson J in *Queensland Wire*.[94] It may be otherwise, though, if intellectual property rights were sought for the purpose of excluding competitors from an area of a market. This can be more readily inferred where the corporation acquiring the intellectual property right has no intention of exploiting the right. Furthermore, the use (including non-use) which is then made of the intellectual property rights must be consistent with the Trade Practices Act.

5.8 The purchase of existing intellectual property rights from another person will also generally not have an anti-competitive effect: the acquisition merely involves the transfer from one corporation to another of certain exclusive rights. The position would be otherwise if the acquisition resulted in the amalgamation of exclusive rights in the hands of one person giving that person far greater power to exclude competitors from a particular market. If the acquisition results in a corporation acquiring dominant market power or substantially increasing dominant market power, the acquisition will contravene section 50.

Refusal to license

5.9 If certain intellectual property rights limit the extent to which a person is able to compete in a market, the refusal to license those rights may have an anti-competitive effect. Similarly a refusal to disclose confidential information relating to a product may also inhibit competition. Many businesses are engaged solely in servicing another person's product or in providing additional products or facilities to be used in conjunction with another person's product. If the manufacturer of the product refuses to disclose information enabling competitors to supply spare parts, or in the case of computer equipment, to interface components which provide additional facilities, competition in these dependent or subsidiary industries may be restricted.[95] The only provision which may be infringed by a refusal to license is section 46.

5.10 A corporation with a substantial degree of market power ought not be under a general duty to license intellectual property rights or to disclose confidential information to its existing competitors or to potential new entrants. This was explained in the United States case, *Berkey Photo Inc v Eastman Kodak Co*[96] where the Court observed in relation to disclosure of confidential information:

> It is the possibility of success in the market place, attributable to superior performance, that provides the incentives on which the proper functioning of our competitive economy rests. If a firm that has engaged in the risks and expenses of research and development were required in all circumstances to share with its rivals the benefits of those endeavours, this incentive would very likely be vitiated. Withholding from others advance knowledge of one's new products, therefore, ordinarily constitutes valid competitive conduct. Because, as we have already indicated, a monopolist is permitted and indeed encouraged by Section 2[97] to compete aggressively on the merits, any success that it may achieve through 'the process of invention and innovation' is clearly tolerated by the anti-trust laws.

5.11 As stated in the Trade Practices Commission's earlier background paper *Misuse of market power*, it is implicit in the grant of the exclusive rights associated with intellectual property that the owner is free to utilise the results of this innovation alone or to license others to exploit them. The position may be otherwise, though, if the decision to refuse to licence was for the reason that the proposed licensee would not accept licence terms which were unjustifiably restrictive of competition. In these circumstances, it may be open to find that the licensor is only able to refuse to license the intellectual property rights owing to the absence of competitive conditions in the relevant market.[98]

5.12 In addition, associations which are formed with the purpose of exploiting copyright or other intellectual property rights of their members have the potential to infringe section 46. In particular, as many copyright associations have a virtual monopoly in certain markets, their refusal to license others may constitute a breach of section 46.[99]

5.13 In some circumstances mandatory requirements of a governmental or other body may oblige corporations to adopt standards, features or characteristics in their product which belong to another corporation in order to continue to trade in a particular market. If the standard has been adopted by the governmental or other body by reason of the intellectual property owner's market power, a refusal to license may contravene section 46. It is recognised, though, that such circumstances will be unusual.[100]

Licence terms and conditions

5.14 In a licence or assignment of intellectual property rights it is possible for an owner to restrict the extent to which the licensee is able to compete with the owner, or with other licensees. It is also possible

for the owner to restrict competitive supply by third parties to the licensee. Provisions which substantially lessen competition may infringe section 45 or section 47 of the Act (unless exempted by section 51(3)); those which are imposed for the purpose of deterring or preventing a person from engaging in competitive conduct in a market or damaging a competitor in a market may infringe section 46. The forms in which such restrictions can appear are varied; however, the following types of restrictions may be regarded as typical:

- exclusive licence grant;
- territorial restraints;
- price restrictions;
- quota restrictions;
- quality requirements;
- minimum royalty/quantity requirements;
- post termination restrictions;
- sub-licensing restrictions;
- grant back provisions;
- no challenge clauses;
- non-competition clauses;
- full or third line forcing;
- leveraging.

Each of these conditions is discussed below.

Exclusive grant

5.15 An owner of intellectual property rights may grant an exclusive or sole licence to the licensee over the whole or a part of the licensed territory. The term 'exclusive' is usually defined to mean that the licensor will neither license any other person to exercise the intellectual property rights nor itself exercise those rights in the specified licensed territory. The term 'sole' is usually defined to mean the former restriction only; in other words, the licensor may itself exercise the rights in the licensed territory. Such restrictions are particularly common if the owner of the rights is a research based company which has no manufacturing capability and exploits the products of its research through licensing. The restrictions are also common if the owner has a manufacturing base in one territory but not in another and seeks a licensee to exploit the product in that other territory. The acceptance of such a restriction by a licensor prevents the grant of further licences and thereby limits the number of competitors in respect of the licensed product. It is therefore possible for such a restriction to contravene section 45. As the grant of a licence of intellectual property is a supply of services within the meaning of the Trade Practices Act, a restriction imposed on the licensor with respect to the grant of other licences may also contravene section 47. [101]

5.16 Restrictions accepted by a licensor in relation to the grant of further licences in a particular territory may be considered to relate to goods which may be produced by the licensor or other potential licensees, and not to the subject matter of the licence in which the restriction is found. Nevertheless, it is felt that there is sufficient association with the protection of the licensee's product and therefore the subject matter of the licence to bring such clauses within section 51(3). Furthermore, such restrictions do not extend the scope of the intellectual property rights and therefore no collateral advantage is obtained.

5.17 Although the acceptance by a licensor of a restriction not to grant further licences limits the number of persons able to produce the licensed product, such restrictions are unlikely to contravene section 46. Generally, the purpose of accepting such restrictions will be unrelated to deterring others from entering a market, but rather to provide a necessary protection and therefore incentive to a licensee. This is particularly so where the product is new, or is new to the specific territory of the licence. Establishing a

manufacturing capability for a new product often involves significant capital outlays and correspondingly significant commercial risk; the exclusivity provides protection to the licensee to undertake such risks. It is also noted that such restrictions do not extend the scope of the exclusive rights granted. In many respects the grant of an exclusive licence is similar to an assignment or transfer of the rights. The owner has transferred the exclusive rights of exploitation of the product to the licensee.

5.18 This view is consistent with the approach of the European Court of Justice. In *Nungesser v Commission*,[102] the Court decided that an exclusive licence of plant breeder's rights over certain varieties of maize seed was compatible with Article 85(1) of the Treaty of Rome. The Court reasoned that: '... an undertaking ... which was not certain that it would not encounter competition from other licensees for the territory granted to it, or from the owner of the right himself, might be deterred from accepting the risk of cultivating and marketing the product; such a result would be damaging to the dissemination of a new technology and would prejudice competition in the Community between the new product and similar existing products.'[103]

5.19 Different considerations may arise where the licensee (rather than the licensor) has a substantial degree of market power in the market for the licensed product. The effect on competition by the grant of an exclusive licence in these circumstances is likely to be far greater. However, it is unlikely that section 46 would be contravened in these circumstances as the licensee could not be said to be taking advantage of its market power in acquiring the licence. The possibility is noted though, that the taking of an exclusive licence in such circumstances may contravene section 50.[104]

Territorial restraints

5.20 A licence may be limited to a specific geographical territory: the most usual restriction is that the licensee may sell the product made under the licence only in that territory. By confining the exercise of the licence in this way, the owner of the intellectual property rights is able to protect either his own sales, or those of his other licensees, against competition from the licensee. Consequently, a territorial restraint may contravene section 45.[105]

5.21 In the case of patents, designs, copyright and EL rights, it is likely that such restrictions are within section 51(3): a restriction on the areas in which a licensed product may be sold is likely to relate to the licensed product. In particular, such restrictions would seem to be consistent with and not collateral to the rights granted by the above-mentioned intellectual property regimes. The ability to divide the exclusive rights over a given territory is not collateral to the primary exclusive rights. Section 51(3) would be unlikely to apply to a trademark licence containing such a restriction, as the restriction does not relate to the kinds, qualities or standards of goods bearing the mark. However, as explained in the next paragraph, such a restriction is unlikely to lessen competition substantially.

5.22 Territorial restraints will infringe section 45 only if they substantially lessen competition, and section 46 if they have the purpose of damaging or deterring a competitor. In any event it is unlikely that such a restriction would be found to contravene either sections 45 or 46. Generally, intellectual property grants exclusive rights to exploit the subject matter of the right across a certain geographical area. In the case of the statutory rights, the area will be Australia; in the case of unregistered trademarks, it will be the area in which the owner has a reputation for the trademark. Consequently, a term of a licence limiting the exercise of the licence to a part of that geographical area does not extend the intellectual property owner's exclusive rights. Such a term merely establishes the scope of the licence. The purpose of the licence, therefore, will usually be to permit the licensee to compete in respect of the licensed product in a specific territory. It would not usually be correct to suggest that the purpose of the licence was to deter competition, because the licensee could not have produced the licensed product in the absence of the licence. Furthermore, territorial restrictions are generally consistent with the exclusive rights granted to the intellectual property owner. As was said by the court in *US v Crown Zellerbach Corporation*:

> Territorial licences, without more, are a reasonable means for the patentee to secure the reward granted to him. Like other restrictions upon the patentee, geographical limits may be imposed to protect the patentee's profits derived from his own exercise of patent rights. [106]

For this reason it is considered that territorial restraints do not contravene sections 45 or 46. [107]

5.23 Different considerations may arise, though, where the rights being licensed have arisen through cross-licensing arrangements or through settlement of infringement proceedings. A number of different circumstances may arise.

5.24 A corporation manufacturing under a patent may require a licence under an improvement patent held by another person in order to manufacture an improved product. The parties may agree to grant each other a licence under their respective patents. The licences may be restricted to specific geographical areas so that the parties will not compete. Section 51(3) does not expressly distinguish between restrictive terms contained in a single licence of intellectual property and those contained in a cross-licence. Where two licences are granted, there is nothing to suggest that section 51(3) should not apply fully to them both. If a territorial restraint is permitted in a single licence under section 51(3), the same result should follow for a cross-licence.

5.25 Furthermore, territorial restrictions in these circumstances will also be unlikely to infringe section 46. As discussed above at paragraph 5.22, if no licence is granted the parties will not be able to compete in respect of the improved product in any event. Consequently, the market benefits from permitting such licences, as it enables an improved product to be sold.[108] Generally, it would be unusual for the purpose of the licence to be to deter competition.

5.26 However, certain cross-licensing arrangements may contravene section 46. For example, a corporation should not extend the duration of its patent under a cross-licensing arrangement (unless justified by the existence of other intellectual property rights such as confidential information). In the illustration given above, the owner of the improvement patent should be released from any restrictions contained in the licence of the original patent upon the expiry of that patent. Furthermore, a cross-licence may infringe section 46 where one of the licences is not, in fact, required by one of the parties; in those circumstances the arrangement is no more than a market sharing agreement where one of the parties would have been free to compete in the whole of the territory in the absence of the licence.

5.27 Similarly, agreements arrived at in settlement of infringement proceedings involving intellectual property rights may be challenged where the agreement appears to have a market sharing effect. On occasions, corporations having a substantial degree of power in a market may threaten infringement proceedings where there is no reasonable basis for an action. As the costs involved in defending an infringement action are high, a smaller corporation may seek to settle the proceedings notwithstanding its belief that its action does not infringe the other corporation's rights. A settlement agreement reached between the parties may state that certain restrictive terms are in accordance with the agreed scope of each of the party's intellectual property rights. Where this is not the case and is merely an attempt to divide the market or otherwise restrict competition by the plaintiff corporation, the Commission may seek to invoke section 46 to challenge the agreement.[109]

Price restrictions

5.28 A corporation may license the manufacture of a particular product under its intellectual property on the condition that the licensee does not charge less than a minimum price for the licensed product. Such a restriction limits the extent to which a licensee may compete with the owner of the rights with respect to price. In particular, the purpose of the restriction is to ensure that the licensor's profit is not

undermined by having to compete with its licensee who sells the licensed product at a lower price. The condition will also restrict the extent to which the licensee is able to compete with other competitors.

5.29 A restriction relating to the price at which a licensed product may be sold is likely to relate to the licensed product and therefore be exempted under section 51(3) from infringing section 45. An important aspect of the exclusive rights granted to the intellectual property owner is the ability to derive a profit from the price at which the product is sold. It is consistent with such rights to permit the owner to restrict the extent to which the licensee can affect the market price for the licensed product. A price restriction in a trademark licence will not be covered by section 51(3), but as discussed in the following paragraph, such a restriction may not contravene the Trade Practices Act in any event.

5.30 It is arguable that price restrictions in intellectual property licences may not infringe Section 46. In one sense, the immediate purpose of the restriction is to prevent the licensee from competing in respect of price with the licensor. However in the context of the licence as a whole, the purpose is not to deter competition because:

- without the licence the licensee would be unable to compete in any event;
- the owner's monopoly is not extended by the term;
- to disallow such terms may discourage licensing of intellectual property and therefore reduce the supply of the licensed product.

5.31 A similar conclusion was reached by the United States Supreme Court in *US v General Electric Company*.[110] In that case, an owner of a patent was permitted to license the right to manufacture and sell the patented article on the condition the licensee charged a certain amount for the article. Justice Taft explained the decision by reference to the 'valuable element' of the exclusive right of the patentee to acquire profit from the price at which the article is sold. The price at which a licensee sells will affect the patentee's price. The patentee can therefore state a minimum price to the licensee to ensure his ability to sell at a price which gives him his desired profit (the 'GE Doctrine').

5.32 It is recognised that the issue is not free from doubt. In particular, the status of the GE Doctrine in American anti-trust law is uncertain.[111] Furthermore, price restrictions are not generally permissible under European Competition Law.[112] Nevertheless, there seems to be good arguments for accepting that the overall purpose or effect of a licence containing a price restriction is not to deter competition.

5.33 There are circumstances, though, when such conditions may contravene section 46. In particular, the points raised above arguing that licences containing price restrictions are not granted for the purpose of deterring competition are only applicable to price restrictions in respect of the licensed product, i.e. the product protected by the intellectual property right. An illustration is given by the decision in *US v General Electric Company* (the 'Carbaloy Case').[113] There it was decided that a price restriction could only be applied to patented articles. If, for example, the patent covered a machine, a price stipulation could not be made in relation to articles made by the use of that machine.[114]

5.34 It is noted that the grant of a licence subject to a condition that the licensee will not sell the licensed product beneath a specified minimum price will not contravene section 48 as there is no supply of goods between the owner of the right and the licensee (although the position would be different in the case of a distribution agreement coupled with a licence to import or sell). Section 48 will be contravened though if the licence contains a term that the licensee will procure that any purchaser of the licensed product from the licensee will not sell below the specified price. The licensee would contravene section 48 by imposing the restriction on its purchaser. In such circumstances, the licensor may have procured or induced the contravention and consequently be liable for the contravention pursuant to section 76.

5.35 Price restrictions in a cross-licensing arrangement present similar difficulties to those discussed under territorial restraints. For similar reasons, such restrictions will not necessarily contravene section

46.[115] Although such restrictions will prevent the parties competing in respect of the improved product on the basis of price, no competition would have ordinarily occurred in the absence of the restrictions. Consequently, it is unlikely that the purpose of the restricted licence is to deter competition. However, this conclusion is subject to the same reservations as discussed above, namely:

- the duration of either of the intellectual property rights should not be extended by the arrangement;
- each of the parties must require a licence in order to manufacture the improved product.

Quota restrictions

5.36 As an alternative to imposing a price restriction, a licence may restrict the number of licensed products which may be manufactured or sold by the licensee. This has a similar effect to a price restriction as a restriction on supply will usually force a licensee to maintain higher prices as efficiencies in production and distribution will not be obtainable. Quota restrictions therefore enable the owner of the intellectual property to maintain its profits by the price at which the particular goods are sold.

5.37 A restriction on the number of licensed products which may be sold is also likely to relate to the licensed product and fall within the exemption in section 51(3). Quota restrictions in trademark licences, though, would not be exempted. However, for the reasons given in relation to price restrictions, it is considered that quota restrictions do not substantially lessen competition with section 45.

5.38 The competitive effect of and application of section 46 to price restrictions discussed in the preceding paragraphs also applies to quota restrictions. The grant of a licence will lead to an increase in the supply of the licensed product which benefits consumers. Any restriction on the volume of supply imposed on the licensor by the owner of the rights must be seen in that context: the licence as a whole enables the licensee to enter the market and compete, even though the licensee's ability to supply is limited.[116]

Quality requirements

5.39 It is common for licences of intellectual property to contain terms and conditions relating to the quality of or specifications for the licensed product. The purpose of such provisions is generally to ensure that the intellectual property owner's reputation is not damaged by a licensee producing an inferior product. It is questionable whether such restrictions have any anti-competitive effect. It is noted though, that such terms may prevent a licensee from producing a product which varies from the intellectual property owner's product by being, for example, less expensive and thereby removing the possibilities of competition between the two products. In any event, it is clear that quality requirements relate to the licensed product and are exempted by section 51(3). This is also true of trademark licences.

5.40 Quality requirements are unlikely to contravene section 46. It is consistent with an intellectual property owner's exclusive rights for quality requirements or specifications to be inserted into intellectual property licences. An intellectual property owner has a legitimate interest in maintaining the goodwill in its product through quality controls. This will not generally be the case, though, if the intellectual property owner seeks to tie either its own or a third party's products to ensure quality control.[117] Full and third line forcing provisions are discussed below.

Minimum royalty/quantity requirements

5.41 Often an intellectual property owner will require its licensee to produce a minimum quantity of the licensed product or to pay a minimum royalty for the licence. Again, it is arguable whether such provisions can be regarded in any sense as anti-competitive (although it is noted that such provisions may prevent a licensee from selling at a low price).

5.42 In the case of patents, designs, copyright and EL rights, a requirement for the licensee to sell a minimum quantity of the licensed products is likely to relate to the product and be exempted by section.

51(3). A requirement to pay the licensor a minimum royalty is to the same effect and should therefore also be included in the exemption. This exemption would not apply to trademarks, though, as the requirement does not relate to the kinds, qualities or standards of the goods bearing the mark.

5.43 Regardless of the application of section 51(3), though, such requirements are generally pro-competitive, as they encourage the licensee to concentrate on the promotion and sale of the licensed product. Furthermore, section 46 will not be infringed by such provisions: the intellectual property owner's purpose is to maximise its profits through such provisions and not to restrict or deter competition.[118]

Post termination restrictions

5.44 Commonly intellectual property licences contain a condition that the licensee will cease to exercise the rights licensed or use any confidential information disclosed on termination of the licence. It is consistent with the exclusive rights granted that an intellectual property owner be entitled to continue to exercise and enforce the exclusive rights following the termination of any licence of those rights. The termination of the licence ought not affect such rights. However, competition may be restricted if an intellectual property owner were to extend the duration of the exclusive rights through a licensing arrangement. In particular, competition may be restricted through such conduct in the following two circumstances:

- pursuant to a licence, a licensee agrees not to exercise the rights licensed after termination of the licence for a term which exceeds the duration of the exclusive rights at law or in a geographical area in which the rights are not held by the licensor;
- the term of the licence itself extends beyond the duration of the exclusive rights at law. [119]

5.45 Post-termination restrictions relate to the manufacture, use or sale of a licensed product after termination of the licence and would therefore be exempted by section 51(3). This would not be the case, though, for trademark licences. Nevertheless, a post termination restraint which merely reflected the scope of the intellectual property right licensed could not lessen competition for the purposes of section 45.

5.46 Section 51(3) would not be applicable though, if the restriction extended beyond the duration of the term of the intellectual property rights, or the geographical area in which those rights exist, as the sale of products in those circumstances has no relationship to the intellectual property rights. The condition would gain for the owner additional or collateral rights. In these circumstances, section 45 would be contravened if competition were substantially lessened. [120]

5.47 Post termination restraints in licences which are limited to the duration and extent of the owners exclusive rights could not contravene section 46 as no competition could take place in the absence of the licence. However, it is possible for section 46 to be infringed if the extent or duration of the restriction is greater than that granted by law. [121]

Sub-licence restrictions

5.48 It is common for an owner of intellectual property rights to restrict the grant of sub-licences by the licensee. Such a restriction would rarely if ever restrict competition. Although further competitors will be restricted from exercising the rights granted, no competition would exist at all if it were not for the grant of the licence.

5.49 A restriction on the licensee's freedom to grant sub-licences restricts the further exploitation of the intellectual property right by the licensee. It is difficult to apply the words of section 51(3) to cover such terms. As outlined earlier, the exemption extends to terms which relate to the subject matter of the licence, but not to the intellectual property right itself. Section 51(3) would only apply if it could be said that a restriction on sub-licensing also related to the further exploitation of the licensed product. It is clear that section 51(3) would not apply to trademark licences containing such a term.

5.50 In any event, such restrictions will not contravene the Trade Practices Act. Just as an intellectual property owner is permitted to refuse to grant a licence, the owner is also free to determine the number of licences granted and the identity of its licensees. Such freedoms are entirely consistent with the policies underlying the intellectual property regimes, and could not be considered to lessen or deter competition. Competition will be deterred by the rights themselves, not the restriction on sub-licensing. The purpose of imposing the restriction is to specify the scope of the licence and ought not be considered as deterring competition in contravention of section 46.

Grant back (or licence back) provisions

5.51 Through the exploitation of a licence, a licensee may make further discoveries or inventions, or develop its own reputation in a logo or name associated with the product. The owner of the right licensed may wish to benefit from these discoveries or the reputation gained and require the licensee to license or assign the rights back to the owner. A 'licence back' of such discoveries or reputation would usually be pro-competitive, as it enables more people to utilise the discovery or name and therefore to compete (although a licence back may have the effect of discouraging the licensee from engaging in further research and development).[122] A requirement, though, that the licensee assign the discovery or reputation back to the owner of the rights licensed, or grant an exclusive licence back, may have an anti-competitive effect as it prevents the licensee from utilising the discovery or reputation.[123] Furthermore, there would be an even greater disincentive to future research and development.

5.52 Conditions which license or assign back to the licensor new intellectual property which may be developed by the licensee during the course of the licence do not relate to the original subject matter of the licence. Such conditions would therefore be outside section 51(3). As noted earlier, non-exclusive licence back provisions are likely to be pro-competitive in any event, whilst exclusive licence back provisions are likely to have an anti-competitive effect. Section 45 may be contravened where the exclusive grant back provision substantially lessened competition. Of course, exclusive grant back provisions are unlikely to have an anti-competitive effect where the licensor has contracted the services of the licensee to develop improvements to the intellectual property.

5.53 An obligation on a licensee to grant to the licensor a non-exclusive licence over improvements or developments to the licensed product will be unlikely to contravene section 46; as explained above such provisions promote the dissemination of information leading to new products. Where the grant back is in the nature of an exclusive licence or an assignment of such improvements or developments, section 46 may be contravened. Such a provision may act detrimentally to the creation of a market for new products as they may deter the licensee from engaging in research and development. Furthermore, an exclusive

grant back provision may enable a corporation to increase its market power without the need to expend more to advance the invention.

No challenge provisions

5.54 A licence of intellectual property rights might impose an obligation on the licensee not to challenge the rights licensed. Such a clause may have an anti-competitive effect because it prevents the licensee from removing an obstacle to the unrestricted manufacture or sale of a particular product, a right which is open to other traders. Consequently, such conditions may contravene section 45.

5.55 Conditions prohibiting a licensee from challenging the owner's intellectual property rights do not relate to the subject matter of the licence. Furthermore, they give an owner a collateral advantage by entrenching the owner's statutory rights by contract. They are therefore outside section 51(3). Furthermore, such provisions may contravene section 46: the purpose of the provisions will usually be to create exclusive rights by contract which may not exist at law and thereby prevent or deter competition. [124]

5.56 It is recognised, however, that an owner of intellectual property should not be required to continue to license the exclusive rights in the face of a legal challenge to those rights by its licensee. In those circumstances it would seem to be permissible for an intellectual property owner to terminate the licence in accordance with its terms without contravening section 46, provided that unduly burdensome terms are not attached to the termination. [125]

Non-competition clause

5.57 A non-competition clause may take various forms, but in essence it prevents a licensee from producing or selling products which compete with the products licensed to it. This restricts the licensee's freedom to trade in other products thereby reducing competition (although competition may in some cases be increased by requiring a licensee to concentrate on the particular product licensed). Section 45 may be contravened by such a condition. [126] In addition, a restriction on the resupply of goods acquired from a competitor of the licensor may contravene section 47.

5.58 Section 51(3) will generally not apply to a non-competition clause as it prohibits the licensee from manufacturing or selling a product which competes with the licensed product; consequently, the clause does not relate to the licensed product but to competing products. More difficult, though, are clauses which require the licensee to use its best endeavours in manufacturing or selling the licensed product. Provided such clauses do not prohibit the manufacture or sale of competing products, it seems from the High Court's consideration of the issue in *Transfield Pty Ltd v Arlo International Ltd* [127] that the clause would be likely to fall within section 51(3).

5.59 Section 46 is likely to be contravened by such provisions when imposed by a corporation with a substantial degree of market power. Such a clause may prevent or deter competitors of the intellectual property owner from entering or competing in the relevant market. This is particularly so if the number of licensees constrained in this way account for significant market share. It is recognised though, that a corporation has a legitimate interest in requiring its licensee diligently to exploit the licensed product. In *Transfield Pty Ltd v Arlo International Ltd* the High Court of Australia concluded that a clause of a patent licence requiring the licensee to use its best endeavours to design, promote and sell the licensed product did not infringe section 45. [128]

5.60 Guidance of the compatibility of such 'best endeavours' clauses with section 46 is difficult to establish from the Transfield case; in particular the case was not concerned with section 46 and did not involve a corporation with a substantial degree of market power granting a number of such licences and

consequently foreclosing licensing opportunities to competitors. Nevertheless, until a firm authority is established by judicial precedent, it appears that 'best endeavours' clauses are unlikely to contravene section 46 provided that neither the legal effect (i.e. the interpretation of the clause in the context of the licence) nor the practical effect (i.e. the number of licensees bound to the clause) is to foreclose competition in the relevant market.[129]

Full or third line forcing

5.61 A corporation may seek through an intellectual property licence to require its licensee to obtain goods and services not protected by the intellectual property right either from the corporation itself or from another third party. Such provisions have an anti-competitive effect in preventing third parties who manufacture or sell products which compete with the tied product from competing, and may therefore contravene section 45.[130] Such a restriction may also contravene section 47. Furthermore, section 51(3) is inapplicable as conditions requiring a licensee to accept other goods or services in addition to the licence do not relate to the licensed product. The *Patents Act 1990* also contains provisions restricting the ability of a patentee to engage in full line forcing.[131]

5.62 In engaging in full or third line forcing, a corporation uses its market power in one market to acquire power in another market. By tying a product, the corporation may eliminate or substantially damage a competitor in the market for the tied product, prevent entry to the market for the tied product or deter a business from engaging in competitive conduct in the market for the tied product.

5.63 In the Trade Practices Commission's earlier background paper *Misuse of market power*, Professor Sullivan was quoted as saying:

> The greatest effect of tying comes, of course, in those situations where the seller's market power in the tying product is great and uses of it in association with the tied product constitute major parts of the market for the tied product. *Motion Picture Patents* serves as an example. The patentee makes a projector so far superior to others that no movie theatre can be commercially successful without one. The patentee also makes movies, and ties the purchase or rental of his projector to the purchase of his films exclusively. What starts as a patent monopoly of the business of making and selling projectors becomes a monopoly of the business of making and selling movies, because competing sellers are successfully foreclosed by the tie.[132]

5.64 It is recognised that on occasions it is arguable that such tying requirements are imposed for the purposes of quality control or safety or similar reasons and not for the purpose of restricting competition. Where this can be objectively established, such provisions are unlikely to contravene section 46 as their purpose is not to prevent or deter competition.[133] However, strong evidence will usually be required to establish that a condition requiring a licensee to acquire goods solely from the intellectual property owner is necessary for the purposes of quality control. In this regard the determination of the Trade Practices Commission in *Nashua Australia Pty Ltd*[134] (where such a claim was rejected) is noted. Conditions which require licensees to obtain approval for their source of certain essential goods, where the requirement is coupled with objective specifications for satisfying the intellectual property owner's concerns, will be unlikely to infringe section 46.

Leveraging

5.65 In granting a licence of intellectual property rights, a corporation may seek to license rights for which the owner has no protection at law. For example, the owner may 'bundle' products protected by a patent and products which are not; the licence may extend to territories in which no rights exist; the licence may also be granted in respect of a number of different rights and continue until the longest lasting

right expires. The owner may refuse to grant a licence at all unless the licensee accepts an obligation to pay royalties on products or accepts other restrictions which are not protected by or relevant to the intellectual property rights. A licensee may be forced to accept such a 'composite' licence in order to gain a licence over the products or in the territory in which the intellectual property exists. The extension of the licence in this way restricts the licensee's freedom to engage in competitive conduct in relation to the bundled products or the unprotected territories, and may therefore contravene section 45. Conditions 'bundling' products may also contravene section 47 in similar fashion to tying obligations discussed above.

5.66 Conditions which require a licensee to accept 'bundled goods' or pay a royalty on the manufacture and sale of products in territories not protected by the intellectual property rights do not relate to the subject matter of the licence and are therefore outside section 51(3).

5.67 Section 46 may also be contravened by such practices. In the case of 'bundling' additional products, such terms may act in similar fashion to the practice of tying which is discussed above.[135] Alternatively, the practice may merely be an attempt to prevent the licensee from competing freely with the owner in relation to such a product. In both cases, either the licensee or other parties who might otherwise supply the licensee are deterred from competing in the market for such products.

5.68 In the case of extending licences to territories in which the product is not protected, the potential to restrict competition is more theoretical than practical. In the case of the statutory monopolies, including a non-protected territory in an Australian licence would not usually affect competition in Australia; only competition in the foreign territory would be affected. The position may be otherwise in relation to unregistered trademarks where the reputation which has accrued to the owner is limited to a part only of Australia. However, the effect on competition by requiring a licensee to accept a licence for the whole of Australia in such circumstances is unlikely to be significant.

6. Imports, exports and closer economic relations

6.1 Barriers to importing and exporting created through intellectual property rights give rise to difficult questions under competition law. This chapter considers the extent to which the Trade Practices Act prevents the following:

a) actions by owners of Australian intellectual property to prevent the importation into Australia of products which infringe the owner's Australian rights but which have been manufactured or sold outside Australia without breach of any right of any person ('statutory import barriers');

b) a condition of a license granted for a territory outside Australia pursuant to intellectual property existing in that foreign territory which prohibits export from that territory to Australia ('contractual import barriers');

c) a condition of a licence granted under Australian intellectual property which prohibits export from Australia to other countries ('export barriers').

In the final part of the paper, import and export barriers will be considered in the context of Australian-New Zealand Closer Economic Relations.

Statutory import barriers

6.2 Each of the statutory intellectual property regimes in Australia expressly or implicitly protects the owner of the intellectual property against the importation into Australia of goods for commercial exploitation which would infringe the owner's rights if they had been manufactured in Australia. [136]

6.3 The intention of the prohibitions is clear: it prevents breach of the exclusive rights granted in Australia by manufacturing offshore and importing the product. The offshore manufacture may be in a country in which:

- no intellectual property rights exist for the product;
- the intellectual property rights are owned by a person who is independent of the owner of the Australian rights; or
- the offshore manufacture is itself unlawful.

In all of these cases the enforcement of the prohibition is compatible with competition law. It is entirely consistent that in order to promote innovation and development in the Australian economy (or in the case of trademarks certainty in commerce in Australia), an intellectual property owner should be protected from such imports.

6.4 Parallel importation, though, presents a more difficult analysis. Parallel importation is a term which describes the importation of a product from another country where the product has been lawfully placed on the market in that other country by the owner of the Australian intellectual property rights or with the owner's consent. A third party who lawfully purchases the product in the overseas territory (either from the owner of the Australian rights or from the owner's licensee for that territory) may seek to import the product into Australia but be faced by an infringement action by the owner of the Australian rights (or perhaps an exclusive licensee of those rights).

6.5 The right of a person holding Australian intellectual property to take action to prevent parallel importation is not clear under all of the intellectual property regimes. Indeed, the right to restrict parallel importation under copyright law has been reviewed on a number of occasions. It is proposed merely to summarise the present law:

(a) Patents: generally, the purchaser of a patented article is impliedly also granted a full licence to deal with the article anywhere in the world as if the article were not patented. However, this implied licence is subject to any restriction imposed by the patentee at the point of sale and which has been brought to the purchaser's attention. If, however, the imported goods have been manufactured overseas by a licensee who has not been given a licence under the Australian intellectual property, no licence to import into Australia will be implied. [137]

(b) Copyright: a purchaser of a work protected by copyright is not granted an implied licence under the copyright. Consequently, a copyright owner is able to prevent the parallel importation of the owner's work from one country to another. [138]

(c) Circuit Layouts: in contrast to copyright, the Circuit Layouts Act permits parallel importation. Section 24 provides that a person is free to commercially exploit in Australia a copy of an eligible layout or integrated circuit made in accordance with a layout which has been acquired as a result of commercial exploitation whether in Australia or elsewhere by or with the licence of the owner of the Australian EL rights.

(d) Designs: the importation into Australia of an article for which a registered design has been applied will infringe the Designs Act if the design was applied without the licence or authority of the owner of the design in Australia.[139] Infringing importation for designs is therefore more narrowly defined than for patents and copyrights, and generally an owner of a design who has sold or licensed another to manufacture and sell an article incorporating the design in an overseas territory is unable to prevent the importation of the article into Australia. The owner of the Australian design may of course prohibit imports to Australia by contract, but this would not appear to be a right granted by statute.

(e) Trademarks: the case law relating to trademark infringement by importation is continuing to develop.[140] Nevertheless, two principles emerge from the reported decisions:

- it will not be a trademark infringement to import a product into Australia where the trademark has been applied to the product overseas by the proprietor of the Australian trademark (or a licensee);[141]
- where the Australian or foreign trademarks are owned by different persons, the Australian owner may generally prevent importation unless the proprietor's corporate relationship is such as to imply consent to the use of the trademark by the other owner (and correspondingly, consent to the use by a third party purchaser of the goods).[142]

6.6 As can be seen, the circumstances in which the parallel importation of products into Australia can be prevented on the basis of intellectual property rights is not entirely clear. Nevertheless, where the right exists it will clearly be based on the relevant intellectual property statute. Consistent with the discussion of enforcement actions at paragraph 5.3 and following paragraphs, it is believed that a corporation will rarely infringe section 46 by enforcing such rights.

6.7 However, where the right to prevent importation is not granted by intellectual property law, but a corporation seeks to achieve similar protection through a contractual term, the possibility of infringing sections 45 and 46 arises.[143] This is discussed in the next section.

Contractual import bans

6.8 A corporation may seek to license the exploitation of certain foreign intellectual property subject to a condition that the relevant product is not exported from the foreign licensed territory to Australia. Such a condition has the effect of restricting Australian trade. Although the prohibition probably relates to the subject matter of the licence, it is not protected by section 51(3) as this section only protects terms and conditions contained in licences and assignments of Australian intellectual property.

6.9 In general, though, an export ban will not infringe either section 45 or 46 of the Trade Practices Act. In the case of section 45, two points may be noted:

- first, the contractual prohibition does not prevent a licensee from manufacturing in Australia or any other country in which relevant intellectual property rights do not exist (a prohibition on such manufacture may contravene section 45);
- secondly, without the licence the licensee would not be free to manufacture in the foreign territory. It is not restrictive of competition, therefore, to limit sales under the licence to that territory.

6.10 In the case of section 46, it is unlikely that the intellectual property owner would be considered to be taking advantage of its market power in Australia by imposing the contractual prohibition on exports

from the foreign territory. The position under section 46A where exports from New Zealand to Australia are prohibited is considered below.

6.11 It is also noted that the extra-territorial reach of the Trade Practices Act may often prevent action in these circumstances in any event. Under section 5(1) of the Act, action can be taken only against corporations engaged in prohibited conduct outside Australia if the corporation is a body corporate incorporated or carrying on business within Australia.[144] Again, the territorial scope of the Act in relation to trade with New Zealand will be considered below.

Export bans

6.12 A corporation may also seek to license the exploitation of certain Australian intellectual property subject to a condition that the product is not exported from Australia to another country. Such a prohibition may affect the profitability of the licensee, particularly its ability to achieve scale efficiencies, and consequently adversely affect trade and commerce in Australia. However, in most cases it would seem unlikely that competition in Australia would be substantially lessened by such a term, or that a competitor is hindered or deterred from competing.[145]

6.13 An export ban is distinguishable from the territorial restrictions discussed previously (paragraphs 5.20 to 5.27) as the condition extends beyond the jurisdiction of the licensed intellectual property. It is not merely a case of 'carving up' an existing monopoly, but restricting foreign trade.

6.14 It is likely, in any event, that section 51(3) would apply to exempt such a condition from infringing section 45 of the Trade Practices Act. Also, the licensor may be able to rely on the exemption contained in paragraph 51(2)(g) of the Act, provided the licence agreement is registered with the Trade Practices Commission as required.

Closer economic relations

6.15 The import and export restrictions described above may also be utilised to impede free trade between Australia and New Zealand. For example, goods protected by intellectual property rights placed on the market in one country may be prevented from being sold across the Tasman by the enforcement of reciprocal intellectual property rights in the other country. This may occur even if the goods are placed on the market in the first country with the consent (or under licence) of the owner of the intellectual property rights in the second country. Furthermore, a manufacturing licence granted for one country may contain a prohibition on the export of the manufactured goods into the other country.

6.16 In the above examples trade between Australia and New Zealand is restricted. Such restrictions are contrary to the objectives of the New Zealand Australia Closer Economic Relations Trade Agreement entered into by the New Zealand and Australian governments on 1 July 1983 (the 'CER Trade Agreement'). Article 1 states that one of the objectives of the CER Trade Agreement is to eliminate barriers to trade between Australia and New Zealand in a gradual and progressive manner.

6.17 In the establishment of the European Common Market under the Treaty of Rome, the European Community countries faced a similar problem in the creation of a single market. It was recognised at an early stage that intellectual property rights in each of the Member States of the European Community might be used to distort trade and divide markets. To overcome the problem, the European Court of Justice interpreted Articles 30 to 36 of the Treaty of Rome as operating to preclude a person from bringing an infringement action on the basis of an intellectual property right existing in one Member State to prevent the importation of a product which has been lawfully marketed in another Member State by that person or with his consent. This principle has been applied in numerous decisions of the European Court to cases involving patents, copyright and trademarks.[146]

6.18 Articles 30 and 36 of the Treaty of Rome are largely paralleled by Articles 5 and 18 of the CER Trade Agreement. Article 5 provides, *inter alia*, that quantitative import restrictions and tariff quotas on all goods originating in the territory of the other Member State shall be progressively liberalised and eliminated. Article 30 of the Treaty of Rome also prohibits 'measures having equivalent effect' to quantitative import restrictions. In the Centrafarm[147] decision the European Court reasoned that the intellectual property law upon which the infringement action was founded constituted such a measure within Article 30.

6.19 Article 18 of the CER Trade Agreement, similar to Article 36 of the Treaty of Rome, provides that the Trade Agreement shall not preclude the adoption by Member States of measures necessary to protect intellectual or industrial property rights, or to prevent unfair, deceptive or misleading practices (provided that such measures are not used as a means of arbitrary or unjustified discrimination or a disguised restriction on trade in the free trade area). In deciding that Article 36 of the Treaty of Rome was not applicable when the intellectual property owner had himself or by his consent placed the product on the market in another Member State, the European Court of Justice reasoned that Article 36 could only be invoked if the infringement action protected 'the specific subject matter' of the intellectual property.[148] The Court defined this as the exclusive right to manufacture and place a product on the market for the first time, either directly or through licensing the right. Once the product had been placed on the market in one Member State, the rights were 'exhausted' in all Member States.

6.20 The European jurisprudence in this area is of direct relevance to the development of the Australian-New Zealand free trade area. This is not to suggest that corporations are entitled to defend an intellectual property infringement action on the basis of Article 5 of the CER Trade Agreement. The Agreement is not part of Australian domestic law and is not actionable by individuals. The European developments are relevant though, in the ongoing process of harmonisation of Australian and New Zealand business laws under Article 12 of the Trade Agreement. In the interests of increased competition and free trade between Australia and New Zealand, reciprocal amendments could be made to the various intellectual property statutes to provide that the right to take action in one Member State to prevent importation of an infringing product will not apply where the product has been placed on the market of the other Member State by or with the consent of the intellectual property owner.

6.21 Indeed, it appears from the Report to Governments by the Steering Committee of Officials dated 30 June 1990 (pursuant to the Memorandum of Understanding on Harmonisation of Business Law signed by the Australian and New Zealand governments on 1 July 1988) that some consideration is being given to the impediments to trade caused by intellectual property rights. At para 10.04 (in discussing harmonisation of copyright laws) the Steering Committee states:

> Australian and New Zealand provisions dealing with parallel importation are for all practical purposes identical. Such differences as there are between the 2 sets of provisions would not, of themselves, constitute an impediment to trade. The provisions do, however, prevent the importation of non-pirate copies of copyright materials for trade without the copyright owner's permission. From this point of view, even though the laws on both sides of the Tasman are effectively in harmony, they are potentially a distinct impediment to trans-Tasman trade. By comparison, Articles 30 and 36 of the European Economic Community (EEC) Treaty and rules developed thereunder by the European Court of Justice permit non-infringing copies to be taken across borders for commerce within the EEC.

6.22 In relation to contractual restrictions, the difficulties in relation to the application of section 46 discussed in paragraph 6.10 above have been overcome to some extent by the introduction of section 46A regulating trans-Tasman trade. In brief, section 46A provides that a corporation which has a substantial degree of market power in a trans-Tasman market (either a New Zealand, Australian or both New Zealand and Australian market) cannot take advantage of that power for the purpose of:

(a) eliminating or substantially damaging a competitor;

(b) preventing the entry of a person; or

(c) deterring or preventing a person from engaging in competitive conduct

in an Australian market.

The extra-territorial reach of the Act has been extended through an amendment to section 5 so that action may additionally be brought under section 46A against corporations incorporated in New Zealand or carrying on business there.

6.23 As a result, it is possible that a provision of a licence of New Zealand intellectual property rights which prohibits export to Australia will contravene section 46A (where the owner of the New Zealand intellectual property rights does not hold parallel rights in Australia). This will only be so where the owner of the New Zealand rights has a substantial degree of market power in a trans-Tasman market (but particularly a New Zealand market) and takes advantage of its market power for the purpose of preventing the licensee from entering or engaging in competitive conduct in Australia. As noted at paragraph 6.9, though, in many cases such a prohibition will have only a limited effect on competition in Australia as it will not prevent the licensee from manufacturing in Australia.

6.24 Australian corporations also need to be aware that a reciprocal amendment has been made to the New Zealand *Commerce Act 1986*. Section 36A prohibits the use of a dominant position in a trans-Tasman market for the purpose of restricting entry, preventing or deterring competitive conduct or preventing or hindering the supply or acquisition of goods or services, in a New Zealand market.

6.25 In the context of Closer Economic Relations, it is interesting to note a significant divergence between New Zealand and Australian law in this area. Unlike Australian law, the New Zealand Commerce Act has always contained a provision that the enforcement of intellectual property rights does not amount to a misuse of a dominant position (a contravention of section 36 of the Commerce Act which is equivalent to section 46 of the Trade Practices Act). The wording of the former exception to section 36 had been criticised on the grounds that the extent of the exemption was unclear and may have extended too far. In 1990, section 36(2) was amended to provide that a person does not use a dominant position in a market place for any of the purposes specified in section 36 of the Commerce Act by reason only that the person seeks to enforce any statutory intellectual property right in New Zealand. Statutory intellectual property right is defined to mean a right, privilege or entitlement that is conferred or acknowledged as valid by or under:

(a) the Patents Act 1953; or

(b) the Designs Act 1953; or

(c) the Trade Marks Act 1953; or

(d) the Copyright Act 1962; or

(e) the Protected Plant Variety Rights Act 1987.

6.26 It would therefore appear that the mere enforcement of a statutory intellectual property right in New Zealand could never contravene section 36 of the Commerce Act. A similar exemption has also been made to section 36A (the section dealing with misuse of market power in a trans-Tasman market). In the context of a prohibition on export to Australia contained in licences of New Zealand intellectual property

rights, it is not entirely clear whether the imposition of a contractual restriction in the licence would fall within the exemption, as the restriction may be regarded as a right based in contract, and not a right that is conferred by one of the intellectual property statutes.

NOTES

1. R.M. Hurt and R.M. Schuchman (1966), "The Economic Rationale of Copyright", American Economic Review Papers and Proceedings, Vol. 56, pp.421-432; S. Breyer (1970), "The Uneasy Case for Copyright in Books, Photocopies and Computer Programs", Harvard Law Review, Vol.84, pp.281-351.

2 . J.H.Barton (1997), "Patents and Antitrust: A Rethinking in Light of Patent Breadth and Sequential Innovation", Antitrust Law Journal, Vol. 65, No. 2, pp. 449-466.

3. R. Gilbert (1981), "Patents, Sleeping Patents and Entry Deterrence", in Salop(ed.), Strategy, Predation and Antitrust Analysis.

4 . See, for example, United States v ASCAP, 1950-51 Trade Cas. (CCH) 62,595 (SDNY 1950) and BMI v CBS Inc 441 US 1, 5, 20 (1979); Re GEMA (No.1) [1971] JO 1971 L134/15 CMLR D35 and Re GEMA (No.2) [1972] JO 1972 L182/24 CMLR D115; Monopolies and Mergers Commission (1996), Performing Rights, HMSO London.

5. ALRC (1995), Designs, Report No. 74.

6 . Eastman Kodak v. Image Technical Services (1992), CCH Trade Cases 69, 839.

7. Hugin v. Commission of the European Communities (1978) 1 CMLR D19 and (1979) ECR 1869.

8. Not all rights are proposed to be shifted: journalists will retain rights over hard copy reproduction, although publishers will also have certain veto rights in this regard.

9. Now part of the ACCC.

10. Prices Surveillance Authority, Reports Nos. 24 & 25 (1989) Book Prices, 35 (1990) The Prices of Sound Recordings, 44 & 46 (1992) Prices of Computer Software and 49 (1993) Prices of Farm Chemicals.

11 . CLRC (1988), The Importation Provisions of the Copyright Act 1968, AGPS, Canberra.

12 . Prices Surveillance Authority (1995), Book Prices and Parallel Imports, Report No. 61.

13. ALRC, op.cit., pp 287-302.

14. Avel Pty Ltd v Wells (1992) 36 FCR 340.

15. Sega Enterprises Ltd & Anor v Galaxy Electronics Pty Ltd & Anor (1996) 761 FCA 1.

16. Galaxy Electronics Pty Ltd & Anor v Sega Enterprises Ltd & Anor (1997) 403 FCA.

17. In the case of trade marks, only the licensing of rights is covered by the exception.

18. Note that the test for acquisitions which breach the Act was changed from 'dominance' to 'substantial lessening of competition' in 1993.

19. Broderbund Software Inc & Anor v Computermate Products (Australia) Pty Limited & Ors (1992) ATPR 41-155.

20. National Competition Policy, Report by the Independent Committee of Inquiry (The Hilmer Report), August 1993, Australian Government Publishing Service, Canberra.

21. Now part of the ACCC.

22. Trade Practices Commission, Submission to the National Competition Policy Review, April 1993, p 138.

23. The Hilmer Report, p 151.

24. Competition Principles Agreement (1995) cl. 5. The Conduct Code Agreement sets out the processes for amendments to the competition laws of the Commonwealth, States and Territories.

25. Between June 1995 and July 1996, the States and Territories adopted application legislation.

26 . Competition Policy Reform Bill 1995, Senate Second Reading Speech, p 9.

27. Ibid.

28. Competition Policy Reform Act s 59.

29. Section 44B. The "supply of goods" and the "use of a production process" are also excluded from the definition of "service".

30. The Explanatory Memorandums prepared for the Senate and the House of Representatives refer to the definition of "service" but provide no explanation for the exclusion of intellectual property from the national access regime. The exemption was included in the Bill that was presented and read for the first time and does not appear to have been the subject of parliamentary debate (although the Government moved an amendment to omit "an intellectual property right" and substitute "intellectual property").

31 . J.H. Reichman and P. Samuelson (1997), "Intellectual Property Rights in Data?", Vanderbilt Law Review, Vol. 50:51, pp. 163-164.

32. Radio Telefis Eireann (RTE) & Anor v Commission of the European Communities (1995) 1 CEC 400.

33. Michael Gray and Debbie Ziegler (1997), "The Overlap Between Intellectual Property and Competition Law", in-depth, Freehill Hollingdale and Page, May.

34. Authorisation is available for all conduct other than s 46. Notification is available for conduct covered by s 47.

35. ACCC, Draft Determination: Applications for Authorisation and Notification, Australasian Performing Right Association Limited, October 1996.

36. In this paper, the expression 'corporation' is intended to include a person not being a corporation, to the extent that the Trade Practices Act applies to the conduct of such persons. In most cases, the expression 'corporation' will be favoured for ease of reference.

37. TPC's Background paper Misuse of market power page 18. (The TPC's guideline on s. 46 is reproduced as an appendix to this paper.)

38. The paper does not consider the issues raised by exclusive or restricted governmental licences and permits outside of the intellectual property field e.g. licences granted under the Telecommunications Act 1989

(Cth). However, many of the considerations raised in the paper may be relevant to conduct taken in furtherance of rights granted under such licences and permits.

39. Patents Act 1990 (Cth) and see generally Lahore, 'Intellectual Property in Australia'; Ricketson, 'The Law of Intellectual Property'.

40. Section 67 Patents Act.

41. Section 13 Patents Act; section 30 Plant Varieties Act.

42. See paragraphs 2.14 to 2.22.

43. Copyright Act 1968 (Cth) and see generally Lahore, ante n. 4; Ricketson, ante n. 4.

44. In the case of subject matter other than works, originality of the subject matter is not required. Copyright will subsist once the subject matter is 'made': sections 89-92 Copyright Act.

45. Sections 31, 85-88 Copyright Act.

46. Section 197 Copyright Act.

47. The exclusive rights granted to a copyright owner under the Copyright Act extend to various activities including public performance of the work, broadcasting the work and transmitting the work to subscribers to a diffusion service. Copying remains central to each of these activities; it is not an infringement of copyright to perform these activities in relation to any identical but originally created work.

48. Francis Day & Hunter Ltd v Bron [1963] 1 Ch 587.

49. Hollinrake v Truswell [1894] 3 Ch 420; Baker v Selden (1879) 101 US 99.

50. University of London Press Ltd v University Tutorial Press Ltd [1916] 2 Ch 601.

51. Designs Act 1906 (Cth) and see generally Lahore, ante n. 4; Ricketson, ante n. 4.

52. Section 25 Designs Act.

53. Section 27A Designs Act.

54. Section 25C Designs Act.

55. See generally Shanahan, 'Australian Law of Trade Marks and Passing Off' 2ed.; Ricketson, ante n. 4; and Lahore, ante n. 4.

56. Section 58 Trade Marks Act.

57. Section 55 Trade Marks Act.

58. See Fair Trading Act 1987 (NSW); Fair Trading Act 1989 (Qld); Fair Trading Act 1987 (SA); Fair Trading Act 1987 (WA); Fair Trading Act 1990 (Tas); Fair Trading Act 1987 (Vic), Consumer Affairs and Fair Trading Act 1990 (NT).

59. Section 82 Trade Marks Act.

60. Aristoc Ltd v Rysta Ltd (1945) 62 RPC 65 at 82.

61. See generally Ricketson, ante n. 4; Kearney, 'The Action for Breach of Confidence in Australia'; Gurry, 'Breach of Confidence'.

62. Argyll v Argyll [1965] 1 ALL ER 611; Commonwealth of Australia v John Fairfax & Son Ltd (1981) 55 ALJR 45.

63. See the discussion of Gummow J in Smith Kline & French Laboratories and others v Secretary to the Department of Community Services and Health (1990) 95 ALR 87 at pages 134-136.

64. Saltman Engineering Co Ltd v Campbell Engineering Co Ltd (1948) 65 RPC 203, 213.

65. Saltman Engineering Co Ltd, ante n. 29.

66. O. Mustad & Son v Dosen [1963] RPC 41.

67. See Gurry, 'Breach of Confidence' pages 7-12.

68. See note 12.

69. See Heydon, 'Trade Practices Law' chapter 1.

70. In America, see P. Areeda, 'Anti-trust Analysis' 2ed., chapter 4 at pages 423-429 and articles cited. In Australia, see Industrial Property Advisory Committee, 'Patents Innovation and Competition in Australia'.

71. See IPAC study, ante n. 35; N R Norman, 'The Economics of Patents' (Sept 1983) Les Nouvelles 193.

72. These issues are further discussed in the following: Ricketson, ante n. 4 at chapter 54; Goldsworthy, 'The Application of the Trade Practices Act to Restrictions in Patent, Know-how and Trade Mark Licensing Arrangements' (1977) Mon U L Rev 289; Gummow, 'Abuse of Monopoly: Industrial Property and Trade Practices Control' (1976) Syd LR 339; Lahore, 'Industrial Property and the Trade Practices Act' (1977) Monash University Trade Practices Lectures; Pengilley, 'Patents and Trade Practices — Competition Policies in Conflict' (1977) ABLR 172; O'Bryan, 'Interaction Between Intellectual Property and Sub-section 51(3) of the Trade Practices Act', paper delivered at the Trade Practices Workshop in Melbourne on 19 July 1987; Prof McCarthy, 'Intellectual Property and Trade Practices Policy: Co-existence or Conflict? The American Experience' (1985) 13 ABLR 198.

73. For America, see Areeda, ante n. 35 at chapter 4; Neale & Goyder, 'The Antitrust Laws of the USA'. For Europe, see Bellamy & Child, 'Common Market Law of Competition' 3ed., chapter 7.

74. Some care must be exercised in applying European competition law decisions in an Australian context, particularly in the area of territorial and import and export restrictions on the movement of goods. The interpretation of Articles 85 and 86 of the Treaty of Rome (being the principal competition law articles) are influenced by the general objectives of the Treaty (see Commercial Solvents v Commission [1974] ECR 233, 252). An important objective of the Treaty is the creation of a common market permitting the free movement of goods across national borders (as well as services, capital and labour); see Articles 2 and 3 of the Treaty.

75. Such an argument was partially accepted by the European Court of Justice in Nungesser v Commission [1982] ECR 2015. Such an approach is also evident in Recitals 11 and 12 of EC Regulation 2349/84 (patent licence block exemption). See also the remarks of P. McGrath, Assistant Attorney General Anti-

trust Division (US) in a speech entitled 'Patent Licensing: A Fresh Look at Anti-trust Principles in a Changing Economic Environment' 5 April 1984 (reprinted at 27 B.N.A.P.T.C. Tour 624):

... to the extent the anti-trust laws discourage a particular licensing practice, the patent owner may be forced to engage in some less desirable alternative, such as refusing to license the patent altogether. Not only would this decrease the efficiency with which the patent is exploited, but also would reduce the expected overall return to R. & D.

76. Cf Areeda, ante n. 35, paragraph 411. Such a conclusion explains many of the conflicting decisions from Europe and America. For example EC Regulation 2349/84 (patent licence block exemption) permits the grant of exclusive licences (Article 1), but not licences which limit either the licenser's or the licensee's output (Article 3(5)).

77. It is noted that section 51(1) does not exclude an Act relating to either circuit layouts or plant varieties (i.e. the Circuit Layouts Act or the Plant Varieties Act). Consequently, an action which is of a kind specifically authorised or approved by those Acts will be exempted from contravening Part IV of the Trade Practices Act. This would seem to extend at least to legal actions taken to prevent an infringement of the rights granted by those Acts, and probably to any refusal to license the rights. It is doubtful, though, whether the exemption would extend to restrictive terms contained in licences and assignments of such rights, particularly having regard to the narrow construction which has been placed on section 51(1) by the High Court. (See for example re: Ku-ring-gai co-operative Building Society (No. 12) Ltd (1978) 36 F.L.R. 134 at 152. To the extent that exemption is not provided to circuit layouts by section 51(1), the exemption in section 51(3) will be relevant.

78. 'EL rights' consist of the exclusive right to copy or exploit the layout (or plan) of an integrated circuit: section 17, Circuit Layouts Act.

79. Full Federal Court in ASX Operations Pty Ltd v Pont Data Australia Pty Ltd (1991) 13 ATPR 41-069.

80. S. Ricketson, at chapter 54 of his book 'The Law of Intellectual Property', highlights various inconsistencies in the language used in section 51(3). In particular, Ricketson notes that the distinction between the object of the particular intellectual property right (i.e. the invention, design, work or trade mark) and the physical embodiment of the same (i.e. the article resulting from the invention, the good to which the design is applied, the copy or reproduction of the work and the article to which the trade mark is applied) is not consistently adopted by the section. For example, section 51(3) refers to both inventions and articles made by the use of the invention, but only to goods to which the design is applied and not the design itself. Furthermore, section 51(3) refers to the work in which the copyrights subsists (being the first reproduction of the work in a material form), but not the rights comprised in the copyright, nor reproductions or copies of the work. Ricketson questions whether a licence term governing the size and colour of a design, or indeed any licence term governing reproductions of a copyright work, are exempted by section 51(3). He suggests that such terms do not relate to the 'good to which the design is applied' or the 'work in which the copyright subsists'. This literal construction of the section gives little flexibility to the expression 'relates to'. It is equally arguable that terms and conditions contained in a licence to reproduce a work in which copyright subsists may relate to the work. This is particularly so if the terms and conditions govern the form of the reproduction. This aspect of section 51(3) has not been the subject of judicial interpretation.

81. (1980) 144 CLR 83.

82. Mr Justice Stephen concluded that the Trade Practices Act did not apply in any event as it was not established that the clause would result in a substantial lessening of competition.

83. 144 CLR 83 at pages 102 and 103.

84. (1989) 63 ALJR 181; 83 ALR 577.

85. Mason C J and Wilson J noted: 'Competition by its very nature is deliberate and ruthless. Competitors jockey for sales, the more effective competitors injuring the less effective by taking sales away. Competitors must always try to 'injure' each other in this way ... these injuries are the inevitable consequence of the competition section 46 is designed to foster' 83 ALR 577 at 585.

86. Queensland Wire per Mason CJ and Wilson J at page 584; see also Arnotts Ltd v Trade Practices Commission 29 November 1990 at page 54.

87. 83 ALR 577 at page 593.

88. (1986) ATPR 40-714.

89. (1986) ATPR 40-714 at page 47,827.

90. See US v EI du Pont (Cellophane) 351 US 377 (1956); US v Besser Manufacturing Co 343 US 444 (1952); Kobe Inc v Dempsey Pump Co 198 F 2d 416 (1952); c.f. US v L.D. Caulk Co 126 F Supp 693 (1954); Lansing Bagnall v Buccaneer Lift Parts [1984] 1 CMLR 224. In Pitney Bowes v Francotyp — Postalia GmbH FSR [1991] 72, the English High Court considered this issue in a patent infringement action. The defendant raised a defence and counterclaim based on Article 86 of the Treaty of Rome (which prohibits the abuse of a dominant position) and the plaintiff took proceedings to have the defence and counterclaim struck out. The High Court concluded that the threatening proceedings for infringement of patents could not constitute an abuse of a dominant position. Even if the proceedings were threatened in bad faith, the Court concluded that this could only constitute a threat to commit a tort (malicious prosecution), but the threat was unrelated to any dominant position.

91. See the cases referred to in note 55.

92. See for example US v Singer Manufacturing Co 374 US 174 (1963) where a US and a Swiss firm settled a patent dispute for the purpose of deterring competition from Japanese producers.

93. The European Court of Justice and the European Commission have consistently affirmed the need to inquire whether terms and conditions in settlement agreements restrict competition. See for example Bayer AG and Hennecke GmbH v Sullhofer [1990] CMLR 182. See also n. 74.

94. Ante n. 49.

95. In British Leyland v Armstrong [1986] AC 577, the House of Lords held that British Leyland could not enforce its copyright in design drawings of car parts to prevent Armstrong from producing copies of those parts. However, the court did not rely on competition law principles in arriving at this conclusion, but rather developed a novel limitation to copyright. In proceedings against IBM, the EC Commission obtained undertakings from IBM to supply other manufacturers with sufficient interface information to the IBM System/370 to enable competitive products to be used with this system (reported in the EC Commission's Fourteenth Report on Competition Policy (1985)). It should be noted that the undertakings fell short of the disclosure of any information which IBM claimed to be intellectual property: the information disclosed related to 'product design'. A manufacturer's refusal to supply spare parts for cash registers to an independent repair company was found by the EC Commission to constitute an abuse of dominant position contrary to Article 86 of the Treaty of Rome: Hugin v Commission [1979] ECR 1869. See also Volvo A B v Erik Veng (UK) Ltd [1989] 4 CMLR 122.

96. F603 F 2d 263 (1979) at 287.

97. Section 2 of the Sherman Act 1890 (US) provides that: 'Every person who shall monopolise, or attempt to monopolise, or combine or conspire with any other person or persons, to monopolise any part of the trade or commerce among the Several States, or with foreign nations, shall be deemed guilty of a misdemeanour'.

98. The opposite conclusion was reached in Pitney Bowes v Francotyp — Postalia GmbH, ante n. 55.

99. This may be contrasted with the facts of APRA v Ceridale Pty Ltd (1991) ATPR 41-074. In that case APRA revoked a recorded and live music licence of a tavern and nightclub because the owners of the tavern and nightclub had failed to pay outstanding licence fees. Although APRA's power in the market for supplying the rights to perform such music amounted to dominance, the Full Federal Court had little difficulty in deciding that the revocation of the licence was not for the purpose of preventing competition. APRA's purpose was merely to ensure that amounts owing to it were paid. The court found that APRA was willing to grant a new licence provided its fees were paid. This issue was also briefly considered in Pitney Bowes v Francotyp — Postalia GmbH, ante n. 55.

100. These facts arose in the New Zealand copyright decision of Plix Products Ltd v Frank M Winstone (Merchants) Ltd 3 IPR 390. A similar problem may arise where a public authority stipulates as a condition of filling a public tender that a particular specification (which can only be satisfied by a single corporation, owing to the existence of intellectual property rights in that specification) must be met. Although a refusal by intellectual property owner to license the use of the specification to competitors will prevent the competitors from competing in the tender, it will be rare for section 46 to be infringed. Every competitor for the tender would usually have an opportunity to promote the benefits of its own products or services to the public authority: the formulation of the tender specifications will usually be arrived at by a conclusion as to the most competitive characteristics. Such a result therefore represents fair competition. This issue was also briefly considered in Pitney Bowes v Francotyp — Postalia, ante n. 55.

101. Section 45(6) prevents overlap between sections 45 and 47: it provides that section 45 will not be contravened by an agreement which contravenes section 47.

102. [1982] ECR 2015.

103. [1982] ECR 2015 at 2069. The Court of Justice in the Nungesser case distinguished 'open' exclusive licences (whereby the licenser covenants not to exploit the product itself nor license others to do so in the territory) with exclusive licences which guaranteed absolute territorial protection (whereby the licenser additionally covenants to impose export bans or like measures on its other licensees to ensure that each licensee confines its sales to its specified licensed territory). The Court of Justice found that whilst the former was compatible with Article 85(1), the latter was not. This conclusion is based on the underlying policy of the Treaty of Rome to promote the free movement of goods within the common market and various decisions of the EC Commission and the Court of Justice relating to parallel importing within the European Community. This analysis is not relevant to Australian competition law, except in so far as it effects trade between New Zealand and Australia. This aspect is considered in chapter 6 below.

104. Trade Practices Commission's Merger Guidelines.

105. Section 47 will not be contravened by a territorial restriction because the section does not apply to restrictions on the supply of goods manufactured by the licensee.

106. F141 F. Supp 118 (1956).

107. Although the decision of Nungesser v Commission decided that territorial restrictions contravened Article 85(1) of the Treaty of Rome, a limited but significant form of territorial restraint is permitted by Article 1 of EC Regulation 2349/84 (patent licence block exemption). See also recital 12 of that Regulation which expands upon the benefits of territorial restrictions.

108. An opposite conclusion has been reached in America — see National Harrow Company v Hench 83 F. 36 (1987) and Blount Manufacturing Company v Yale and Towne Manufacturing Company 166 F. 555 (1909). Also note that Article 5 of EC Regulation 2349/84 (patent licence block exemption) excludes cross-licence arrangements between competitors.

109. The European Commission has on a number of occasions had cause to challenge settlements of trade mark disputes, where the parties have agreed to delimit their respective trading territories: Sirdar/Phildar [1975] 1 CMLR D93; BAT v Commission [1985] ECR 363. Approval of the EC Commission was granted to a delimitation agreement in Penneys [1978] 2 CMLR 100.

110. F272 US 476 (1926).

111. See Areeda, ante n. 35 at page 450.

112. See Article 3 of EC Regulation 2349/84 (patent licence block exemption).

113. 80 F. Supp 989 (1948).

114. This may be contrasted with sub-paragraph 51(3)(a)(ii) of the Trade Practices Act which would seem to exempt such a condition from contravening section 45.

115. The United States Supreme Court reached a different conclusion in respect of price restrictions in cross-licence arrangements, without overruling the GE Doctrine: US v Line Material Co 333 US 287 (1948). An important consideration for the Court was that the 'stimulus to seek competitive inventions is reduced by the mutually advantageous price fixing arrangement ...'.

116. An example of a quota restriction is found in US v E.I. du Pont de Nemours & Co (Cellophane) 351 US 377 (1956) where in settling a patent infringement action du Pont entered a cross-licence arrangement. Under the arrangement the defendant agreed to a limitation on its sales of moisture proof cellophane to 20 per cent of the combined sales of the two companies. It is noted that Article 3 of EC Regulation 2349/84 does not permit quota restrictions.

117. In Windsurfing International v Commission [1986] CMLR 489, the licenser sought to impose an obligation that the licensed products be sold only in conjunction with other non-patented products, which were to be approved by the licenser. The Court of Justice decided that whilst obligations of this nature were permissible if required for reasons of quality, a vague obligation which gave total discretion to the licenser was anti-competitive.

118 . Such requirements are permitted under EC Regulation 2349/84 (patent licence block exemption).

119. Section 145 of the Patents Act 1990 (Cth) enables a licensee under a patent licence to terminate the licence on three months notice if at any time the licensed patents cease to be in force.

120. Post termination provisions which apply following expiry of the intellectual property rights contravene Article 85(1) of the Treaty of Rome: Ottung v Klee & Weilbach A/S [1990] CMLR 915.

121. See Article 2(4) of EC Regulation 2349/84 which permits such restrictions in respect of patents whilst the patent is still in force.

122. An obligation on parties to a licence to communicate experience and to license improvements to each other on a non-exclusive basis is permitted by Article 2(10) of EC Regulation 2349/84.

123. The EC Commission has found that exclusive grant back obligations infringe Article 85(1) of the Treaty of Rome: Raymond/Nagoya [1972] CMLR D45.

124. In finding that a no challenge clause contravened Article 85(1), the European Court of Justice stated that the public interest in the revocation of patents which ought not to have been granted required that licensees should not be deprived of the possibility of challenge: Vaessen/Moris [1979] 1 CMLR 511.

125. Such a conclusion accords with Article 3(1) of EC Regulation 2349/84.

126. Such clauses have been found to contravene Article 85(1) of the Treaty of Rome (re: the Eisele-INRA Agreement (Maize Seed Case) [1978] 3 CMLR 434) and may also contravene US anti-trust laws: see Areeda, ante n. 35 at page 448.

127. Ante n. 46.

128. See the earlier discussion at paragraphs 3.14 to 3.19.

129. See criticism by V Korah of the Maize Seed Case referred to at note 91: [1979] JBL 293.

130. In America, tying arrangements have been found to contravene the Clayton Act: Motion Picture Patents Co v Universal Film Manufacturing Co 243 US 502 (1917); IBM Corporation v USA 298 US 131 (1936); International Salt Company v US 332 US 392 (1947). Generally, tying obligations have not been permitted in Europe (Windsurfing International v Commission [1986] CMLR 489) unless they are indispensable for the exploitation of the rights licensed (Pronuptia de Paris v Schillgalis [1986] 1 CMLR 414 where a wedding dress franchise did not contravene Article 85(1) even though the franchisee was required to purchase 80 per cent of the franchised products from the franchisor. The Court of Justice found that it was impractical in the field of fashion goods to formulate objective quality specifications and the tying arrangement was therefore necessary for the protection of the goodwill of the franchise network.

131. Section 144 of the Patents Act 1990 (Cth) restricts the freedom of a patentee to impose such conditions in an assignment or licence of the patent. See also Tool Metal Manufacturing Co Ltd v Tungsten Electric Co Ltd (1955) 2 All ER 657.

132 L. Sullivan, 'Anti-trust' (1977) 446. For a discussion of the Chicago School debate concerning this reasoning, see S. Corones, 'Competition Law and Policy in Australia', chapter 6.

133. See Pronuptia de Paris, ante n. 95.

134 . (1974-1975) ATPR (Comm) page 8,720.

135. See the cases discussed at note 95.

136. Section 69 Patents Act — see also United Telephone Co v Sharples (1885) 2 RPC 28; British Thomson Houston Co Ltd v Charlesworth, Peebles & Co (1922) 39 RPC 399; Pfizer Corp v Minister of Health [1965] AC 512; Morton-Norwich Products Inc v Intercen Ltd [1976] FSR 513; sections 37 and 102 Copyright Act; section 30 Designs Act; section 62 Trade Marks Act — see also Dunlop Rubber Co Ltd v A A Booth & Co Ltd (1926) 43 RPC 139; W D & H O Wills (Australia) Ltd v Rothmans Ltd (1956) 94 CLR 182 at 188; Pioneer Kabushki Kaisha v Registrar of Trade Marks (1977) 137 CLR 670 at 685-7 (per Aickin J); Bailey v Boccaccio (1986) 6 IPR 279; Atari Inc v Fairstar (1983) 50 ALR 274; Fender Australia Pty Ltd v Beck (1989) 89 ALR 89; sections 19 and 24 Circuit Layouts Act.

137. Betts v Willmott (1871) LR 6 Ch App 239; National Phonograph v Menck (1911) 28 RPC 229; Manufactures de Glaces S.A. v Tilghman's Patent Sand Blast Co (1844) 24 Ch D 1; Incandescent Gas Light

Co. v Cantelo (1895) 12 RPC 263 at 264; BASF v Isler [1906] 1 Ch 605 at 610; 3M v Geerpres Europe [1973] FSR 133.

138. International Parcel Express Co Pty Ltd v Time-Life International (Netherlands) BV (1977) 138 CLR 534. Following an inquiry by the Prices Surveillance Authority into the book industry, amendments have been made to the Copyright Act by the Copyright Act Amendment Act 1990. In essence, books not 'first published' in Australia (which means not published within 30 days of publication in any other country) will lose the protection usually afforded against parallel importation. Furthermore, the Act also permits parallel importation to satisfy particular customer needs if the books are otherwise not available for sales. A similar inquiry has been conducted into the recorded music industry, but to date no legislative action has been taken following the recommendations of the PSA.

139. Section 30 Designs Act 1906 (Cth). See also Intellectual Property Advisory Committee Report on the provisions of the Designs Act 1906 relating to infringement by articles imported from abroad.

140. See most recently Fender Australia Pty Ltd v Beck (1989) 89 ALR 89.

141. Champagne Heidsieck v Buxton [1930] 1 Ch 330; W.D. & H.O. Wills v Rothmans (1956) 94 CLR 182; Revlon Inc v Cripps and Lee [1980] FSR 85; Fender Australia Pty Ltd, ante n. 101.

142. Ante n. 105.

143. As discussed in the context of territorial restrictions, a contractual export ban would not contravene section 47: see ante n. 70.

144. The extra-territorial reach is broader for conduct which contravenes sections 47 and 48, but these sections are not relevant to contractual bans on export to Australia.

145. Similar to contractual import bans, an export ban may infringe section 45 if it substantially lessens competition, but could not contravene section 47.

146. Centrafarm v Sterling Drug [1976] 1 CMLR 1; Merck v Stephar [1981] 3 CMLR 463; Pharmon v Hoechst [1985] 3 CMLR 775.

147. Ante n. 111.

148. Centrafarm decision, ante n. 111.

Appendix A

MISUSE OF MARKET POWER

Guideline on section 46 of the Trade Practices Act

The guideline presents the Trade Practices Commission's current views on how it will administer section 46 of the Trade Practices Act.
The guideline is supported by a detailed background paper prepared by the Commission which outlines the economic rationale for section 46 and discusses legal precedents relevant to the Commission's approach to the section.

The background paper, which is available from Commission offices, addresses some specific types of business conduct which may or may not be at risk of contravening section 46. It was prepared following a very important judgement, *Queensland Wire Industries v BHP* (the QWI case), where the High Court provided clear judicial interpretation of, and a practical approach to deciding, certain elements of section 46.

Both this guideline and the background paper are intended to give guidance on the application of section 46 and the Commission's approach to investigating section 46 complaints. However, they should not be seen as stating 'the law' on section 46. Any final interpretation will rest with the courts.

In those situations where there is some doubt whether specific conduct may or may not be caught by section 46, business is advised to seek legal advice or to raise the matter with the Commission.

Section 46

Section 46 of the Trade Practices Act says that a corporation which has a substantial degree of power in a market shall not take advantage of that power in relation to that market for the purpose of:

(a) eliminating or damaging a competitor in that or any other market;

(b) preventing entry to that or any other market; or

(c) deterring or preventing competitive conduct in that or any other market.

To prove a breach of the section, it is necessary to establish:

- first, that the corporation has a substantial degree of power in a market; and
- second, that the corporation took advantage of that power for one of the anticompetitive purposes set out at (a), (b) and (c) above.

Competitive conduct

Section 46 is not designed to stop competitive conduct by powerful corporations. This was made clear in the *QWI* case, where BHP was found to have misused its market power. There, two of the High Court judges said:

> Competition by its very nature is deliberate and ruthless. Competitors jockey for sales, the more effective competitors injuring the less effective by taking sales away. Competitors almost always try to injure each other in this way ... these injuries are the inevitable consequence of the competition section 46 is designed to foster.

What section 46 aims to stop is the misuse by a corporation of a substantial degree of market power to damage competitors or the competitive process.

The Commission, consistent with the High Court's view in the *QWI* case, sees section 46 as a competition provision, not a 'catch–all' for offensive behaviour by powerful corporations. In the Commission's view, in many instances where smaller businesses are damaged by larger corporations with whom they deal (for instance in disputes between commercial lessors and tenants, or between suppliers and dealers), the conduct will not be caught by section 46 because there is no anticompetitive purpose.

In its background paper the Commission also raises the issue of whether amending section 52A (unconscionable conduct) to cover commercial as well as consumer transactions might be an appropriate way to control inequitable or unconscionable business behaviour under the Trade Practices Act.

Regulatory reform and section 46

The Commission considers section 46 particularly important in the context of deregulation of sectors of the Australian economy — such as domestic aviation, shipping and the waterfront, telecommunications, financial services and rural marketing.

Corporations with entrenched market power will more effectively respond to a competitive environment if they are aware of section 46 and they types of conduct which could breach the section.

Establishing a likely breach of section 46

In assessing whether a corporation has engaged in conduct in breach of section 46 the Commission will, as a general rule, approach the task this way:

Step 1

Identify the product or products involved.

Step 2

Identify the geographic area in which the corporation supplies these products and the levels at which it operates, i.e. manufacturing, wholesaling, distributing, retailing, etc.

Steps 1 and 2 give a provisional market boundary which will then be expanded to take in those businesses found to exercise a competitive constraint on the corporation (see steps 3, 4 and 5).

Step 3

Identify the nature and the high of any barrier hindering potential competitors from entering the market in competition with the corporation, and hence the extent to which the corporation is constrained by the threat of entry by potential competitors.

Step 4

Identify the nature and extent of any constraints exerted on the corporation by existing competitors.

Step 5

Identify the extent to which the countervailing power of suppliers and purchasers represents a constraint upon the corporation's conduct.

Step 6

Assess the sources of the market power which the corporation is said to have taken advantage of.

Step 7

Assess whether the degree of market power held by the corporation in question is substantial.

Step 8

Examine whether there has been a taking advantage of market power, by asking whether the same conduct could have been profitably carried out if the corporation did not possess market power.

Step 9

Examine the purposes(s) of the corporation's conduct to establish if the corporation had an anticompetitive purpose. It may be possible to infer purpose from the conduct complained of.

Step 10

Assess the extent to which competition has been suppressed or destroyed by the conduct, and the degree of damage or potential damage suffered by consumers of the products.

Substantial degree of power in a market

Market power is the ability of a corporation to behave persistently in a manner different from the behaviour that a competitive market would enforce on a corporation facing otherwise similar cost and demand conditions. Consistent with this definition, sub–section 46(3) of the Act directs that, in

determining the degree of market power held by a corporation, regard needs to be paid to the extent to which that corporation is constrained by actual and potential competitors, suppliers and purchasers.

Most participants in the market possess some degree of market power, but the Act is only concerned with those corporations whose market power is substantial. The Commission adopts the approach that the market power of the corporation in question must be considerable, and should be seen relative to the market power of other participants in the market. The 'substantial degree of power in a market' threshold introduced in the 1986 amendments to the Act is lower than the substantial market control threshold which previously applied to section 46. The lower threshold was intended to extend the reach of the section to oligopolies and leading corporations in less concentrated markets.

'Taking advantage' of market power

In considering whether a corporation has taken advantage of its market power, the High Court in the *QWI* case made it clear that the phrase 'take advantage of' means 'use' rather than 'misuse'.

It is therefore unnecessary to establish impropriety to show that market power has been taken advantage of. It is, however, necessary to consider whether the corporation with substantial market power would have been able to profitably engage in the conduct if it did not possess market power.

Establishing purpose

Establishing an anticompetitive purpose (as set out at (a), (b) and (c) on page 1) is an essential element in establishing a misuse of market power. It is on this element that the likelihood of establishing a breach of section 46 most critically rests, in terms of relevant facts and evidence.

The Act specifies that where conduct is engaged in with more than one purpose in mind, it is sufficient if an anticompetitive purpose is one of several purposes, so long as it was a substantial purpose.

The Act also establishes that purpose can be inferred. Hence express statements of predatory purpose are not necessarily required to prove a contravention. Purpose may in some cases be inferred or established from conduct which is inconsistent with a corporation's normal business methods, or is without any good business justification.

Commission priorities in section 46 cases

The Commission in its approach to section 46 complaints and inquiries will be seeking to promote a competitive environment as a means of protecting and advancing the interests of consumers. Whether conduct is a misuse of market power is a question of fact and degree, but the Commission will take the following general considerations into account:

- whether the conduct adversely affects the competitive process in a market, in other words, whether it adversely affects the rivalry or competitive pressures that are essential for good performance;

- whether the conduct adversely affects consumers or users of the goods or services in terms of price, quality, availability, choice or convenience and whether it has impaired competition in an unnecessarily restrictive way;
- whether the conduct raises the costs of entry to a market or prevents or hinders potential competitors from entering the market or, having entered the market, from growing; or
- whether the conduct can be explained by a good business justification such as efficiency, or the desire to engage in genuine competitive rivalry.

These factors indicate that the Commission will, in all cases, attempt to measure and predict the effects or likely effects that the conduct will have in markets. However where competitors are excluded because of an efficient practice which will benefit consumers, such a practice is unlikely to be challenged.

Types of conduct which may or may not come within the scope of section 46

To assist business to understand how the concepts outlined above may operate in practice, the Commission, in its background paper, has attempted to provide in some detail examples of types of conduct which may or may not contravene section 46. However, such an exercise cannot present an exhaustive list of the types of conduct which may or may not have section 46 implications. In the background paper three broad categories of conduct are addressed, and these are summarised below.

Corporations which consider themselves to be in powerful positions in their respective markets are directed to the background paper, and advised to consider carefully any course of conduct or business strategy dealt with in categories (ii) and (iii) below. In appropriate cases where such conduct is contemplated it would be prudent to seek legal advice.

i) Conduct which does not generally restrict competition

Here the examples include:

- research and development leading to the introduction of a new product;
- refusal to license intellectual property rights or disclose confidential information.

ii) Conduct which may restrict competition

Under this broad heading conduct which may be restrictive of competition could include the following:

- refusal to deal because of selective distribution arrangements;
- vertical integration resulting in price or supply ‘squeeze’;
- intellectual property licensing arrangements;
- raising rivals’ costs and the strategic creation of entry barriers;
- denial or access to essential facilities;
- refusal to supply or allow reasonable access to spare parts, manual, etc.

In category *(ii)* conduct there may be both potentially pro–competitive and anticompetitive aspects. Each case brought to the Commission's attention must be closely assessed to see whether the necessary anticompetitive purpose can be established.

The Commission believes a court is unlikely to consider conduct in category (ii) to be in breach of section 46 if there is no direct evidence of anticompetitive purpose.

iii) Conduct which restricts competition

Such conduct or practices might include:

- predatory pricing;
- exclusive dealing arrangements and requirements contracts;
- withdrawal of supply to customers who deal with competitors;
- inducing price discrimination and loyalty rebates;
- tie–ins and similar practices;
- 'lease only' policies.

It is the Commission's view that examples of the conduct involved in category (iii) are possible or effective only if undertaken by firms that do not need to take into account their smaller rivals, and so could not be engaged in if the market were competitive.

The background paper discusses each of the practices listed in the above categories in more detail, giving relevant case law, and discussing how some of the practices have been traded by competition authorities in overseas jurisdictions.

The Commission welcomes inquiries from firms that wish to adopt — or are affected by — commercial conduct or strategies where some concern exists that the conduct or strategy may come up against section 46.

FRANCE

Introduction

Les autorités de concurrence ont toujours considéré que les restrictions concurrentielles pouvaient être justifiées par des contributions au progrès économique, notamment l'introduction de nouvelles technologies.

Ces considérations permettent aux droits de propriété intellectuelle de bénéficier d'un préjugé favorable car la nécessité d'une protection est évidente.

A titre d'exemple, les prérogatives conférées par le système du brevet incitent à la recherche qui elle même conduira à la création de marchés futurs donc à l'émergence de rapports concurrentiels.

Dès lors, les règles de concurrence ne peuvent en aucun cas remettre en cause l'existence même du droit exclusif mais elles interviennent afin d'en prohiber un exercice abusif.

En France, le Code de la propriété intellectuelle promulgué en 1992 regroupe, d'une part les droits attachés aux brevets et aux marques sous l'appellation de droit de la propriété industrielle, et d'autre part la propriété littéraire et artistique concernant les droits d'auteur et droits voisins ; cette distinction est importante car les règles de concurrence n'auront pas la même incidence selon que l'un ou l'autre de ces régimes sera impliqué.

Dès 1955, c'est à dire la date de leur institution en France, les autorités chargées de contrôler le respect des règles de concurrence ont considéré que ces dernières s'appliquaient sans restriction aux accords portant sur les droits de propriété intellectuelle.

Ainsi, l'Ordonnance n° 86-1243 du 1er décembre 1986 comporte des dispositions susceptibles de s'appliquer et l'existence des droits de propriété intellectuelle ne fait pas obstacle à l'interdiction des pratiques anticoncurrentielles.

I. Les pratiques concertées

Pour l'exploitation des droits de propriété intellectuelle, il est peu fréquent que des entreprises situées au même stade de la compétition économique soient amenées à se livrer à des pratiques concertées ; en revanche les ententes verticales entre les titulaires de ces droits et leurs licenciés font l'objet d'examen plus systématique.

Les accords de licence et de sous licence sont susceptibles de constituer des ententes restrictives de concurrence entre licenciés et sont de nature à porter préjudice aux entreprises tierces non licenciées.

Les règlements communautaires d'exemption et la jurisprudence, tant nationale que communautaire permettent d'identifier les principales clauses de ces accords qui sont incompatibles avec le droit de la concurrence.

A titre d'exemple, dans une décision du 1er février 1994, le Conseil de la concurrence a considéré que les clauses d'un contrat de coopération qui imposent au preneur une obligation d'approvisionnement exclusif auprès du concédant, en matériaux et produits nécessaires à la mise en œuvre du brevet sous licence, sont contraires aux règles qui proscrivent les pratiques anticoncurrentielles.

Le Conseil de la concurrence a estimé que :

> "ces clauses avaient un objet et une potentialité d'effet anticoncurrentiel en limitant, sans justification technique ou commerciale, la possibilité pour ces transformateurs de se fournir chez un concurrent"

et qu'étant donné l'importance de la part de marché occupée, la société ne pouvait soutenir que la concurrence sur ce marché ne risquait pas de se trouver affectée par les clauses litigieuses.

Le Conseil a considéré que ces exclusivités verrouillaient un marché déjà étroit en raison du faible nombre d'offreurs et des monopoles d'exploitation liés aux droits de propriété industrielle.

Pour les accords selon lesquels le titulaire du brevet concède à un concurrent la commercialisation du même produit breveté mais sous une autre marque, le Conseil considère qu'ils doivent faire l'objet d'un examen tendant à vérifier si :

> "les pratiques d'ententes constatées sont nécessairement inhérentes aux accords et aux avantages économiques que les brevets tendent à assurer, faute de quoi les limitations qu'elles apportent au libre jeu de la fixation des prix revêtiraient un caractère anticoncurrentiel... " (Conseil de la concurrence 7 mai 1992) .

Le breveté peut cependant empêcher ses licenciés de le concurrencer sur le marché du produit faisant l'objet du brevet s'il ne résulte pas de cette interdiction une réduction sensible de la concurrence sur le marché considéré.

La chambre commerciale de la Cour de cassation a admis dans un arrêt du 21 février 1995 que la clause d'exclusivité contenue dans un contrat de licence de brevet par lequel le licencié s'interdisait la fabrication et la diffusion de produits similaires - susceptibles de concurrencer le produit protégé - ne suffisait pas à restreindre le jeu de la concurrence sur le marché des produits concernés.

Les ententes illicites contenues dans des accords de cession de droits privatifs peuvent revêtir des formes variées mais il est possible d'opérer une classification des pratiques qui concernent, par exemple, les accords sur les prix, les discriminations, les restrictions d'accès...

1) Les accords sur les prix

Les accords qui ont pour effet l'augmentation des prix ou le maintien de ceux ci à un niveau élevé sont prohibés.

La Commission de la concurrence a jugé que l'attribution par une organisation professionnelle de producteurs d'une lettre-code aux disques du commerce constituait une atteinte indirecte aux règles de la concurrence car, en fonction du faible nombre de lettres-code utilisées, ceci aboutissait à une uniformisation artificielle des prix de vente.

De même, les relations du breveté avec ses licenciés ne peuvent donner lieu à une pratique de prix imposés généralement interdite par les textes régissant la concurrence.

On opère traditionnellement une distinction entre les deux périodes d'exploitation d'un brevet, selon que l'on se trouve dans la période de validité ou au-delà ; mais, même pendant sa période de validité, le brevet ne justifie pas les accords sur les prix entre les titulaires et ses licenciés.

A fortiori, est répréhensible le fait de faire persister les restrictions de concurrence après sa déchéance.

2) Les discriminations

Dans une décision du 8 décembre 1992, le Conseil de la concurrence a été amené à se prononcer sur l'éventuel caractère discriminatoire de l'élévation des redevances au fur et à mesure que la durée du brevet se réduit.

Dans cette affaire, une société gestionnaire de licences de brevets a proposé à une autre société, intervenant dans un secteur proche du champ couvert par les brevets, un contrat de licence afin d'éviter une action en contrefaçon.

Cette dernière a saisi le Conseil de la concurrence en estimant que les offres répétées de la première, majorant à chaque refus les éventuelles redevances à percevoir, étaient constitutives de pratiques anticoncurrentielles.

On pouvait penser qu'il y avait discrimination entre les premiers partenaires qui pouvaient obtenir des conditions financières intéressantes et les derniers appelés à verser des rémunérations plus élevées.

Le Conseil a toutefois considéré que cette augmentation était légitime, car si :

> "le coût de la licence se renchérit alors que les brevets arrivent au terme leur protection légale... ceci traduit la politique de licence menée... qui a privilégié les entreprises ayant initialement assumé les risques technologiques pour développer la carte à mémoire dans de nouveaux domaines d'application".

Les pratiques de prix discriminatoires sont aussi sanctionnées, le 4 juillet 1989, le Conseil de la concurrence saisi par une contestation de la société France-Loisirs portant sur le caractère inéquitable du taux de redevances exigé par une société d'auteurs a estimé que l'accord litigieux entre la société pour l'administration du droit de reproduction mécanique des auteurs, compositeurs et éditeurs (SDRM), qui est seule compétente pour donner une autorisation de reproduction, et le syndicat national de l'édition phonographique (SNEP), qui a pour objet de grouper et représenter les fabricants, producteurs et éditeurs de disques, créait une discrimination de traitement entre deux revendeurs, la société France-Loisirs et le Club Dial, entraînant une limitation de la capacité concurrentielle de la société plaignante.

La Cour de cassation, dans un arrêt du 5 novembre 1991, a confirmé la condamnation des pratiques discriminatoires résultant de l'entente en relevant que :

> "la SDRM et le SNEP soutenaient que la société France-Loisirs ne pouvait prétendre obtenir le même régime que le club Dial parce qu'elle ne remplissait pas les conditions fixées par l'accord qu'ils avaient établi, (la Cour) a constaté qu'au contraire ces deux exploitants intervenaient sur le marché, proposaient les mêmes objets à l'achat et utilisaient des procédés de vente voisins ; qu'il a retenu qu'ainsi ... la SDRM et le SNEP avaient fait subir à la société France-Loisirs un traitement discriminatoire né de cette entente".

3) Les pratiques peuvent également consister en des restrictions d'accès et des boycotts opposés par des titulaires de droits

II. Les abus de position dominante

Les autorités compétentes considèrent généralement que les droits de propriété industrielle n'impliquent pas pour autant l'existence d'une position dominante pour leur titulaire, au sens de l'article 86 du Traité de Rome ou des dispositions nationales.

Il est nécessaire d'établir une distinction entre la simple détention d'une position dominante, qui n'est pas concernée par les règles de concurrence, et l'exercice abusif qui peut en résulter.

Dans l'arrêt Volvo/Veng du 5 octobre 1988, la Cour de Justice des Communautés Européennes a précisé que la faculté d'empêcher les tiers de fabriquer et de vendre ou d'importer des produits incorporant un droit protégé, sans que le titulaire y ait consenti constitue la substance même du droit exclusif.

Mais, l'exercice de ce droit peut être limité par l'article 86 du Traité s'il donne lieu à certains comportements abusifs.

Dans un avis du 28 avril 1983, la Commission de la concurrence a estimé qu'un groupe pharmaceutique pouvait occuper une position dominante sur le marché d'un médicament même après que le brevet soit tombé dans le domaine public, elle a également considéré que les fortes baisses de prix réalisées sur la présentation du médicament concurrencé compensées par des augmentations sur un produit qui ne subissait pas la même concurrence, étaient de nature à favoriser à terme le maintien artificiel de prix élevés en restreignant l'accès de ce marché à de nouvelles entreprises.

Plus récemment, le Conseil de la concurrence dans une décision du 5 mai 1996, a sanctionné un comportement similaire.

Une société pharmaceutique, qui détenait un monopole sur un médicament via un brevet et qui commercialisait un autre produit tombé dans le domaine public, avait décidé, après une augmentation du produit breveté de subordonner l'octroi de remise sur celui-ci à l'achat du second produit non breveté.

Le Conseil de la concurrence a condamné la remise de couplage et a estimé :

> "qu'en détenant une position dominante sur un marché et en offrant une prime de fidélité à ceux de ces clients qui pouvaient être tentés de devenir également clients d'entreprises concurrentes

sur un autre marché, la société s'est rendue coupable de pratiques anticoncurrentielles prohibées par l'article 8 de l'Ordonnance du 1er décembre 1986."

Le 6 mai 1997, la Cour d'appel de Paris a confirmé cette décision en retenant que :

"cette pratique, consistant à accorder aux utilisateurs un avantage financier fictif qui ne correspondait pas à une réalité économique, ne visait qu'à entraver l'accès de concurrents au marché ... et à empêcher leur développement".

De plus, la Cour d'appel retient le caractère discriminatoire de la remise de couplage car les établissements qui achetaient le produit breveté sans acquérir celui tombé dans le domaine public ne pouvaient prétendre à une quelconque remise.

Certains faits constituent un abus de position dominante, même si l'entrave a affecté un marché autre que celui sur lequel la position dominante a été constatée.

En effet, la Cour d'appel considère que la société a abusé de sa position dominante sur un marché afin de limiter l'accès de nouveaux concurrents sur un autre marché et que les pratiques développées ont eu un objet et pu avoir un effet anticoncurrentiel prohibé.

Pour les détenteurs de droits exclusifs de propriété littéraire et artistique, l'abus de position dominante se différencie de l'abus du droit d'interdire la communication d'une œuvre au public.

L'abus ne résulte pas d'un refus injustifié de divulguer une œuvre mais de comportements ayant pour objet ou pour effet de porter atteinte à une ou plusieurs entreprises réellement ou potentiellement concurrentes. Donc :

"la protection de l'objet spécifique du droit d'auteur confère à son titulaire le droit de se réserver l'exclusivité de la reproduction de l'œuvre protégée, sous réserve d'un usage abusif comme, par exemple, le refus systématique et non justifié d'une cession, ce qui aboutit à une exclusion du marché". (Cour d'appel de Paris 10 février 1992)

La faculté d'interdire la divulgation est fréquemment recherchée par des entreprises détentrices de données publiques ou privées que certains souhaitent commercialiser.

Ce fut le cas dans l'affaire RTE/ITP, où des sociétés de télévision refusaient de céder des informations relatives à leurs programmes à un tiers désirant créer un hebdomadaire.

Bien que le refus de concéder une licence même s'il provient d'une entreprise en position dominante ne puisse constituer un abus de celle-ci, la décision prise dans cette affaire impose aux titulaires du droit l'obligation de fournir les informations.

La Cour de Justice des Communautés Européennes, le 6 avril 1995 a considéré que :

"le refus, par les requérantes, de fournir des informations brutes en invoquant les dispositions nationales sur le droit d'auteur a... fait obstacle à l'apparition d'un produit nouveau que les requérantes n'offraient pas et pour lequel existait une demande potentielle de la part des consommateurs, ce qui constitue un abus... ".

Un droit exclusif ne peut donc être utilisé pour s'assurer un monopole sur un marché dérivé à moins que cela ne soit justifié par les exigences propres au secteur dans lequel s'exerce ce droit.

En conclusion, le droit de la propriété intellectuelle génère en lui même des restrictions de concurrence indispensables à la création et à la protection des prérogatives du titulaire.

Cependant, ces prérogatives ne sauraient être soustraites totalement à l'application du droit de la concurrence qui, au-delà des exceptions admises, retrouve sa pleine applicabilité.

HUNGARY

By virtue of the Hungarian legal system, in relation to the particular intellectual property rights under protection the substance of core rights pertaining to the assignee is as follows:

a) Copyright. The author is entitled in connection with his/her work to rights pertaining to the person and to pecuniary rights. The author has the right to decide whether his/her work may be made public or not, whether h/she should be indicated on the work as being the author thereof and his/her quality of author be not disputed by nobody. Save the law rules otherwise, the author shall grant his/her consent to each and any exploitation of his/her work.. In consideration of the exploitation of his/her work the author is entitled to receive remuneration, save the law rules otherwise. (Act III of 1969);

b) Patent law. On the basis of patent protection the patentee has (within the framework of statutory rule) the exclusive right of exploiting his/her invention. This exclusive right of exploitation shall extend to the systematic making, using, importing and putting on the market of the subject matter of the invention within the framework of economic activity. (Act II of 1969);

c) Patent design for use. The claimant of the design patent - amid the frameworks of legal regulations - has exclusive right to utilise the design and to grant a licence to others for its utilisation. The exclusive right of utilisation extends to the commercial manufacture, use, import and distribution of the product according to design. (Act XXXVIII of 1991);

d) Protection relating to the topography of microelectronics semi-conductor products. The protected party - amid the frameworks of legal regulations - has exclusive right to utilise the topography and to grant a licence to others for its utilisation. Utilisation is multiplication of the topography through incorporation in semi-conductor products or other ways commercially, and the import and distribution of the topography or the semi-conductor product embodying it for commercial purposes. (Act XXXIX of 1991);

e) Industrial patent design. The claimant of the protection has within the framework of statutory law exclusive right of systematic making, using, importing and putting on the market of the industrial product according to patent design, or to grant the same right to others. (Act 28 of 1978);

f) Trademark protection. The claimant of the trademark has within the framework of statutory law exclusive right of using the trademark in relation to the goods as contained in the list of goods and granting permission to others for the same, respectively. (Act. XI. 1997);

g) Protection of know-how. The claimant is entitled to exploit in the framework of his/her economic activity intellectual works not under the competence of separate statutory law and the economic, technical, organisational knowledge and experience of persons of pecuniary value that are not yet in the public domain, for this reason not being qualified as confidential

and may grant permission for the same to others. Moreover, in the framework of protection the claimant may raise claims authoritative under civil law, and in this framework may demand that the person having misappropriated or using his/her achievements share with him/her the pecuniary results obtained. (Section 87 of the Civil Code);

As far as the level of protection is concerned, it can be established that, the above titles (with the exception of pecuniary rights connected with the protection of know-how) provide exclusive title for the claimant.

The claimant is free to decide at his/her discretion, in what manner and which framework will he/she exploit his/her right; and the only restriction is that this exploitation shall take place in the framework of current statutory law, i.e. it shall not infringe any other statutory law (e.g. provisions of environmental protection) nor the rights or lawful interest of third persons.

The legal system provides exclusive protection for the claimants of intellectual works with the purpose of materially and morally encouraging them to create works, to implement works, as well as publish knowledge serving as basis of invention. In our mind, this is the essential function of these rights.

From the fact itself, that by virtue of the protection of his/her work or knowledge somebody has a monopoly, it shall not ensue, that he/she shall enjoy economic dominance in this respect.

It does not ensue at all from a monopoly deriving from trade law protection rights, that the protected solution should be the only possible solution in the field in question, nor that the protected solution is in the same time economically more favourable, than any other solution or that it may in itself, economically more unfavourable conditions for anyone.

There is no such argument, on the basis of which the refusal of licence permission might be deemed an abuse of dominance in itself.

Looking at the same from the other side, there is no favourable argument either, that rights based on the legal protection of intellectual products are free from attacks based on competition law.

Like any rights, these rights can also be exercised abusively and amid conditions that emerge not from the substance and the nature of the rights, and during the exercise of the right the assignee may infringe the rights or legal interests of others or may strive for illicit benefit.

Against legal practice of abusive character deriving from the nature of the right in question, regulation pertaining to the particular intellectual work may provide protection (e.g. compulsory permission or reverse engineering).

Concerning the question what are the special circumstances that can turn the exercise of a legitimate right into abuse, we refer hereby to the below cases:

- the patentee grants a licence on condition that the licensee exclusively buys from the licensor certain products not related to the patent;

- the patentee grants a licence on condition that the buyer of the licence obliges that he/she shall pay a licence fee after the expiration of the protection period as well;

- the buyer of the licence obliges not to dispute the validity of the patent.

As it is revealed from the above cases the assignee makes dependent the authorisation of the licence upon conditions that are not inherent in the exclusive right, but are connected with the carrying out of the authorised activity and the exercise of the right, and by virtue of these terms he/she reserves himself/herself disproportionate unilateral advantages.

The exercise of the right can not be regarded necessary for the exercise of the function of the copyright, when during, the collective administration of copyright he/she collectively exercising the right refuses to conclude the application agreement (broadcasting agreement) with he/she who disputes the degree of the consideration for the claim of the former.

A conceptual element of the legal exercise of intellectual property of an absolute nature is, that the assignee may during the protection period freely decide due to his/her privileged situation concerning this purpose whether he/she will licence its use. This right is derived from the monopoly granted to him/her by virtue of the legal system, due to him/her regardless of whether he/she is a company having a dominant position or whether the product is a new one or is a competing product.

No pecuniary right of absolute structure is due the assignee of know-how, that is he/she may not take pursuant to his/her rights steps against someone who has realised the same solution independently of him/her.

In all cases a precondition of the granting of licence and being awarded the same shall be a freely concluded agreement between the parties in pursuance thereof.

Should there be a conflict between the current rights related to intellectual works and competition law, on the basis of the imperative of legal certainty the rules of competition law shall not affect the exercise of the rights pertaining to intellectual works. Provisions of competition law will be enforced when the exercise of rights pertaining to intellectual works is realised by abuse of law in a manner not compatible with the rules of competition.

Compulsory Licensing

In Hungary compulsory licensing can be ordered by administrative process.

The possibility of ordering a compulsory licence exists in relation to patent rights and copyright:

a) Current legislation dealing with compulsory licensing is as follows:

aa) default to exploit and invention;

ab) patent pending

ad.aa. if patentee has not exploited within 4 years reckoned from the day of taking out the patent, or if that is longer, within 3 years reckoned from the granting of the patent the invention, or did not make any relevant preparation for the same and did not granted permission of exploitation to others, and companies having their seats in the country

shall be granted compulsory licence at their request, save patentee presents justification for the default. (Section 21 of Act II of 1969);

ad.ab. if the patented invention can not be used without the violation of another patent (hereinafter: impeding patent) a compulsory licence shall be granted to the assignee (at his/her request) of the patent pending for the exploitation of the impeding patent with the necessary coverage, provided that the invention as of the patent pending technically constitutes a leap forward of considerable economic significance as compared to the invention covered by the impeding patent.

The assignee of the impeding patent (if his/her patent is granted compulsory licence, by virtue of paragraph (1)) may lay a claim to be granted permission under equitable terms for the exploitation of the invention as covered by the patent pending. (Section 22 of Act II of 1969).

The common provisions concerning compulsory licence are contained in Section 23 of Act II of 1969 as follows:

(1) Whoever applies for compulsory licence shall prove that conditions for granting the same are available; and

a) that the patentee was not disposed to voluntarily grant a permission for the exploitation of the invention even within a reasonable period of time, and further;

b) that he/she is able to exploit the invention in the necessary measure.

(2) The extension and duration of the compulsory licence (taking into consideration of the purpose of exploitation with this compulsory licensing) shall be established by the court; the compulsory licence may be ordered with or without limitation. the compulsory licence shall continue until the expiration of the period as set by the court (save for the case of renunciation or withdrawal), or until the termination of the patent protection. The compulsory licence shall not be exclusive. The compulsory licence shall be entered in the patent register.

(3) An appropriate fee is due to the patentee for the compulsory licence. in default of an agreement it shall be established by court. the fee shall express the economic value of the compulsory licence, and it shall be especially proportionate to the fee that the owner of the compulsory licence should have paint (with regard to the conditions of licence circulation developed in the technical field relating to the subject matter of the invention) on the basis of an exploitation agreement concluded with the patentee.

(4) The owner of the compulsory licence shall have equal rights with the patentee in relation to the maintenance of patent protection and the enforcement of the rights derived from the protection.

(5) The compulsory licence shall pass to the legal successor should the economic organisation being the owner of the compulsory licence cease to exist or should his/her organisational unit become separated.

The compulsory licence granted for the impeding patent shall only be transferred together with the patent pending. Otherwise, the compulsory licence can not be passed or transferred to others. The owner of the compulsory licence may not grant permission, the patentee shall have the right to request the modification or the withdrawal of the compulsory licence.

(7) The patentee may also request the modification or the withdrawal of the compulsory licence, if the conditions underlying the licensing have ceased and are not expected to remerge again. The modification or the withdrawal shall be ordered in such manner that it may not infringe with the rights of the owner of the compulsory licence.

b) Concerning copyright, Section 50/G of Act III of 1969 rules as follows:

(1) The consent of the author, the radio or television organisation and that of the one who transmits its own program by wire to members of the public shall be considered as given to the simultaneous transmission by wire of works broadcast or transmitted by wire in a program to the members of the public via an organisation, other than the original one, provided that the organisation carrying out the simultaneous transmission has paid to the Bureau for the Protection of Author's Rights the fee established with the approval of the minister of culture and education. prior to the establishment of the fee the opinion of the right owners' representative organisations shall be requested.

On the basis of the regulations as set forth under ad. 19. it can be established, that:

a) in relation of patenting

- in particular cases compulsory licensing may be authorised by court action according to the preconditions as established by law; and

- the law governs the question of rights due to the patentee in consideration of the compulsory licensing, and the possibility of the enforcement thereof by court action.

b) in the case of copyright, the law regulates the question of non voluntary licence, in relation of copyright should there be an absence of the technical possibility of individual authorisation.

No compulsory license may be awarded regarding trademarks, trade names and know-how. This would be contradictory to the individual character of all these rights. Both trademark and trade name cover individual characteristics, and business and trade secret belong to the personality of the legal entity in possession of them. The same applies to know-how, in consideration of the fact that its real value lies just in its being a secret.

ITALY

I. Relationships between competition policy and intellectual property rights

Competition policy and intellectual property laws are both founded on an intent to promote economic advance, technical progress and consumer welfare.

More specifically, intellectual property laws pursue the following goals: rewarding innovators for their creative efforts; disseminating innovations; promoting a more competitive environment through the development of new products or productive processes.

Antitrust laws seek to prevent certain behaviours that may restrict competition to the detriment of consumer welfare. In a long-run view, consumer welfare depends also on the availability of new products and on increased quality of existing goods.

Thus both competition policy and intellectual property rights are complementary means of promoting innovation, technical progress and economic growth to the benefit of consumers and of the whole economy.

However these common goals are pursued by different instruments: the exclusive legal right to the exploitation of an invention for a limited period of time in the case of the intellectual property laws and the removing of impediments to the efficient functioning of markets in the case of competition policy.

A balance between these two different instruments, only apparently in conflict, has to be found in order to ensure that both policies can play their complementary role in providing sufficient incentives for innovation and economic growth.

For the purpose of antitrust analysis, two preliminary issues should be considered: first, intellectual property should be regarded as comparable to any other form of property; second, the possession of an intellectual property right does not necessarily confer market power upon its owner.

Regarding to the first aspect, intellectual property is a particular form of property because of the intangible nature of the object protected by the law. In particular, the owner of a tangible good can benefit from the disposal of the good and getting the advantages from its direct use or from its sale to third parties. On the other hand, due to the extreme ease of misappropriation that characterises any intangible good, the owner of an intellectual property right could not take advantage, in the absence of a specific law protecting his rights, of all the benefits deriving from his creative efforts. If innovators were not granted the exclusive legal right to the economic exploitation of their work, imitation could be expected to occur, reducing the returns to the innovator and the incentive to innovate.

Concerning the relationship between intellectual property and market power, it is generally recognised that the mere possession of an intellectual property right does not necessarily guarantee the possibility to exercise market power. In this respect, there is a clear difference between the ability to exclude others recognised to the owner of an intellectual property right and the notion of market power, intended as the ability to fix and maintain prices above the competitive level for a significant period of

time. Market power depends on demand and supply substitutabilities. The position of exclusivity granted to an intellectual property owner does not preclude the existence of actual or potential substitutes to prevent the exercise of market power.

Even where the ownership of intellectual property rights creates market power, this situation is not detrimental by itself to competition, if this is the result of a superior skill and foresight.

In some circumstances, however, the exercise of an intellectual property right could amount to an instrument to pursue anti-competitive strategies. This could happen, for example, when market power is used to restrict competition between technologies that are economic substitutes or to exclude new technologies from the market. In these cases, the key question is to establish when the exercise of an intellectual property right ceases to be legitimate and becomes anti-competitive. In this regard, the assessment of market power stemming from the possession of an intellectual property right is not different from that applied in other contexts.

II. The activity of the Italian Competition Authority in the field of Intellectual Property Rights

So far, the Italian Competition Authority pronounced on only one case involving an intellectual property licensing agreement.

The proceeding, which was completed in October 1996, related to two agreements concluded between the Panini Spa company and the Associazione Italiana Calciatori (AIC), the trade association of the professional soccer players taking part in Italian championships. These agreements, one concluded in 1992 and the other in 1995, had been reported to the Antitrust Authority by one of Panini's competitors. According to the two agreements, AIC had assigned to Panini the exclusive right to use images of the soccer players wearing their team colours, by publishing and marketing them on self-adhesive stickers, together with albums for stickers and other published items for collection.

Under the 1992 contract AIC was required to grant rights of use to a maximum of four different independent licensees, but only Panini could market and promote its products between January and August, while the competing companies were left the last four months of each year. Since 80 percent of sales of a collection come in the first two months following the launch and considering that the first few months of the year are the best period for selling soccer player stickers and picture cards, being the period in which the championship qualifying matches are played, the terms of the contract gave Panini the opportunity to exploit the most profitable period of the year.

In the 1995 contract, Panini was given even more preferential treatment: AIC granted the company, for a period of three years, the exclusive right to use the soccer players' images on any published item for collection world-wide, for every Italian or international football match in which Italian club teams or the Italian national team were playing. The contracting parties justified this agreement on the grounds that it was only by granting an exclusive right that they could adequately remunerate their respective investments, which would also enable Panini to invest more money in its promotional campaigns.

The relevant market was identified as the soccer players' picture collection market.

The Authority, consistently with Community case law, stated that competition rules apply to the exercise of intellectual property rights. In particular, the exercise of an exclusive intellectual property right

could infringe competition rules if it prevented, restricted or impeded competition to a significant and unjustifiable degree on any of the markets on which that right is exercised.

Assessing the economic impact of the agreements, the Antitrust Authority noted that the clubs to which the soccer players belonged had assigned to AIC the exclusive right to use the soccer players' pictures in their team colours; by becoming the sole holder of this right, which was not substitutable or replicable for production purposes on the relevant market, the Association could exercise substantial market power. Exercising this market power under the license agreement concluded in 1992, AIC had introduced clauses giving Panini substantial advantages over its competitors and subsequently, in the 1995 agreement, it had given Panini the right to the exclusive exploitation of products published as collectors' items. By doing so, the already low degree of competition on the market had been replaced by a monopoly.

According to the Authority, the assignment to one single entity of the exclusive right over the images of soccer players in order to publish collectors' items was not justified by the need to guarantee a full remuneration of any creative effort or of other investments.

The Authority was aware that by eliminating the exclusivity clause, revenues by AIC, the holder of the intellectual property rights, could fall. However, considering the effect of the incentives on the parties involved, it was not possible to claim that these exclusivity agreements were necessary for enhancing efficiency on the market (a potential soccer player would continue to pursue a soccer player career even if competition were introduced on the market for collectables and revenues by AIC fell). On this basis, the Authority ruled that both the 1992 and 1995 contracts were to be considered prohibited agreements under section 2(2) of the 'Antitrust Act' and therefore ordered AIC and Panini to put an end to all further offences within sixty days.

This case raises a number of challenging questions for the enforcement of competition rules in case of intellectual property rights, relating specifically to the question of the reward of innovation.

As a preliminary remark, it should be noted that licensing agreements should generally be considered pro-competitive to the extent that they promote the diffusion of innovation by permitting combining complementary factors, such as: the creative activity, the ability to manufacture and commercialise the goods incorporating the intellectual property right. In this respect licensing is an important source of income for the innovator and can be the only reward when the owner of the intellectual property right is not able to engage in the commercial exploitation of the innovation.

Exclusivity clauses have to be evaluated in this context. They allow the owner of the intellectual property right to exploit its property in the most efficient way. The exclusive licensee will, in fact, have the incentive to invest in the production and commercialisation of the goods embodying the idea or the invention, and will be willing to pay for the license the present value of all the profits that could be made in the secondary market.

Therefore, the exclusivity constitutes an instrument that allows the owner of the intellectual property right to appropriate all benefits originating from his creative activity. At the same time, the exclusivity, by rewarding the owner of the intellectual property right for his invention, constitutes the incentive for others to innovate.

Without exclusivities, profits in the secondary market would be much lower (at the limit they would fall down to zero). Therefore, the elimination of the possibility of exclusivities might be considered to be efficiency increasing, since it would lead to perfectly competitive prices. However, it

would be welfare enhancing only in a static ex-post framework, that is in a situation where the decision whether it is profitable or not to engage in a certain innovative activity is assumed not to take place. On the other hand, in a more dynamic framework, eliminating the possibility to exercise any market power may destroy all incentives to innovate and to imitate. An outcome which would certainly be welfare reducing.

In this respect the particular intervention of the Authority in the Panini case eliminating the exclusivity clauses, did not seem to modify the incentives for the owner of the intellectual property right (the soccer teams). Furthermore, assuming the correctness of the relevant market definition, the decision did not seem to modify the incentives of possible imitators. In a static framework, no actual or potential alternatives were identified as possible substitutes of the soccer players' picture collection products and thus no imitation was deemed to be possible, at least in the short run.

The problem of assessing whether and to what extent competition authorities should consider the question of incentives for innovation is a key aspect of evaluating the competitive effects of intellectual property rights licences. Whether competition authorities possess the instruments to quantify the incentives and to define what level of incentives are sufficient in order to promote innovation is a very important issue that still needs to be resolved.

JAPAN

A. Basic Issues

I. The relationship between intellectual property rights and competition policy

The system for the protection of technology by the patent system can serve as an incentive for research and development of technologies. It can also serve as the motivation for the creation of new technologies and markets, thereby promoting competition. Moreover, if transactions in intellectual property rights (IPR) result in the formation of new markets, the increase in the number of competitors or the promotion of effective use of technologies, the conduct of these transactions itself also has an effect on promoting competition.

On the other hand, excessive IPR protection may have an adverse effect on competition. Not only may IPR transactions restrain competition through the restriction of business activities or hinder fair competition, but such conduct may also adversely affect competition in the development of technologies. Competition policy must, therefore, be appropriately enforced in such cases. For example, it may happen that an entrepreneur, who has acquired valuable technological results through IPR transactions improperly excludes other entrepreneurs, including its competitors, or restricts their business activities. Such conduct would violate the Antimonopoly Act and impede lively competition related to the technology.

Both the intellectual property laws and the Antimonopoly Act have the same ultimate objectives, including encouraging business ingenuity under the liberal economy system and, thereby, promoting development of the national economy. Accordingly in Japan, conduct recognised as the proper exercise of IPR under intellectual property law, are exempted from the application of the Antimonopoly Act.[1] Conversely, the Antimonopoly Act shall apply to conduct not recognised as a proper exercise of IPR under intellectual property law, and thus deviating from the system for the protection of technology.

B. Issues concerning enforcement

II. Antimonopoly Guidelines for IPR

As described above, it is important to eliminate anti-competitive effects of IPR transactions. The FTC has released guidelines describing its views concerning IPR transactions under the Antimonopoly Act, for the purpose of improving business planning, ensuring the transparency of enforcement and promoting legal certainty. This section focuses on the outstanding features of the guidelines:

(1) Guidelines for patents and know-how[2]

On February 15, 1989, the FTC released the "Guidelines for the Regulation of Unfair Trade Practices with respect to Patent and Know-how Licensing Agreements" (hereinafter referred to as the "Patent and Know-how Guidelines"). [3]

The actual influence on competition of restrictions contained in licensing agreements must be analysed on a case-by-case basis to determine whether a specific transaction constitutes an unfair trade practice. The anti-competitive effects however, may differ, depending upon the types of restrictions provided in patent and/or know-how licensing contracts. In the Patent and Know-how Guidelines, therefore, certain types of restraints are classified into the following three categories:

(i) restrictions which are considered, in principle, not to fall under unfair trade practices;
(ii) restrictions which may fall under unfair trade practices; and
(iii) restrictions which are highly likely to fall under unfair trade practices.

For example, some restrictions provided under the Patent and Know-how Guidelines are as follows:

(a) Grantback and forced assignment of improved inventions

It is highly likely to fall under unfair trade practices any obligation for a licensee to assign the licensor the right on an improved or applied invention, etc. or to grant the licensor an exclusive license of such invention, with or without an agreement not to exploit the invention by a licensee in the territory. This is because such restrictions could result in undue enhancement or maintenance of a dominant position of the licensor in a relevant market. Moreover, it could reduce competition in the relevant product or technology market by discouraging licensees' research and development and thus impede innovation of new technologies.

(b) Price restriction

It is also highly likely to fall under unfair trade practice the restriction of a sales price or the maintenance of a resale price of the patented goods in the domestic market. This is because some types of restrictions on licensees' pricing freedom would cause a significant limitation of their chances to compete against each other, and thus could result in the reduction of price competition in relevant patented product markets.

(c) Restriction on parties to transactions

It is not considered, in principle, to fall under unfair trade practices the restriction of parties to transactions, including customers, as long as a license is granted for a limited period within the life of patent rights or for a limited territory within the area covered by the patent rights.

(d) Cross-license agreements and patent pools

If the agreements regarding IPR, such as cross-license agreements or patent pools, are used as means of unreasonable restraint of trade, such conduct could be an offence of Section 3 of the Antimonopoly Act[4]. The guidelines provide, therefore, that these types of contracts shall be

examined in terms not only of unfair trade practices, but also of other prohibited conduct (i.e., cartels.)[5]

(2) Guidelines for joint research and development[6]

A joint research and development project (R&D project) would improve the efficiency of research and development and encourage technological innovations through (i) the reduction of costs, distribution of risk or shortening of the period of time necessary for research and development and (ii) the complement of technologies held by firms in different lines of business. Accordingly, in many cases, such projects are regarded as having pro-competitive effects.

Nevertheless, joint R&D projects could cause antitrust concerns because such projects sometimes substantially restrain competition in the relevant market, or because arrangements to carry out such projects could hinder fair competition. On April 20, 1993, the FTC released "The Antimonopoly Act Guidelines Concerning Joint Research and Development" (the "Joint R&D Guidelines").

The Joint R&D Guidelines announced the FTC's general views regarding joint research and development and arrangements thereof. The Joint R&D Guidelines provide that the decisions as to whether such R&D projects may substantially restrain trade in the relevant technology or product market under the Antimonopoly Act shall be made on a case-by-case basis taking into consideration their pro-competitive effects. The Joint R&D Guidelines also provide that a comprehensive examination of various factors, including *(i)* number of participants and their market shares, *(ii*) characteristics of research and development, *(iii)* need for joint undertaking, and *(iv*) duration, shall be made. Moreover, the Joint R&D Guidelines classified certain types of arrangements for the Joint R&D projects into *(i)* those which are considered not to, in principle, fall under unfair trade practices, *(ii)* those which may fall under unfair trade practices, and *(iii)* those which are highly likely to fall under unfair trade practices.

The restriction on the participation by other entrepreneurs to a joint R&D project, including refusal to license, would not usually by itself, be cause for antitrust concern under the Joint R&D Guidelines. It could, however, be an offence of the Antimonopoly Act as an exception. If the total market share of the participants is fairly high, and an entrepreneur is restricted from participating in a joint R&D project to develop technologies indispensable for standardisation, it may find it difficult to carry on its business, and is thus exposed to the danger of being excluded from the market. On the other hand, an entrepreneur restricted from participating in a joint R&D project but guaranteed access to the results, may not find it difficult to carry on business, thus not raising any concern under the Antimonopoly Act.

III. IPR and parallel imports

(1) Supreme Court decisions concerning the suspension of the infringement of patent rights, etc.[7]

In one case, a German manufacturer of aluminium wheels that owns patents both in Germany and Japan (the "Plaintiff") brought an action against two Japanese distributors (the "Appellant") seeking a ban on sales conducted by them and alleging that the parallel imports to Japan constitutes an infringement of the patent rights held in Japan. Although the Tokyo District Court endorsed the Plaintiff's allegation, the Tokyo High Court overruled the lower court's holding on appeal, endorsing the Appellant's allegations. Subsequently, on July, 1997, the Supreme Court made a judgement on the case.

The Supreme Court, in the judgement, held as follows:

"When a patent holder in Japan, or a person who has the rights equivalent to those of a patent holder, sells patented products outside of the country, the patent holder may not exercise its patent rights with respect to the products, to a transferee, unless the patent holder and the transferee agreed to exclude Japan from the territory of sale or use of the products, and to a third party transferee who purchased the products from the first transferee or any subsequent transferee, unless the patent holder and the transferee agreed to exclude Japan from the territory of sale or use of the products and such an agreement is expressly indicated on the products," because "in cases where a patent holder sells patented products outside of the country, it is naturally assumed that a transferee or a third party, a subsequent transferee, would import these products to Japan for its business, or use or sell these products to another party in Japan."

This judgement seems to have significant meaning in terms of competition policy. Namely, it addresses the fact that, given international trade practices, a patent holder may not suspend parallel import or claim compensation for damages caused by parallel import based on the infringement of patent rights in such cases as stated in the judgement, although the judgement also holds that patent rights are not always immediately exhausted if a patent holder transfers patented products outside of the country. With regard to international agreements, Article 6 of the TRIPs Agreement stipulates that this Agreement shall not apply to the issue of patent right exhaustion for the purpose of resolving disputes. Moreover, because of the lack of an international agreement concerning the question of the relationship between parallel import and patent rights, the matter of parallel import should be internationally discussed.

(2) Tokyo District Court judgement regarding compensation for damages caused by the infringement of distribution rights of copyright holders[8]

On July 1, 1994, the Tokyo District Court delivered a judgement for a case in which some parallel importers sought remedy, through compensation of damages, alleging that they had suffered from the conduct of licensed sellers of copyrighted audio discs and video discs in Japan, which attempted to halt parallel import to Japan on the grounds that the parallel import of these products constituted an infringement of the copyrights licensed in Japan, i.e., distribution rights. This judgement addressed Tokyo District Court's view with respect to the relationship between copyrights and parallel import.

The District Court held as follows:

"In Japan, there is no unambiguous statute or established judicial precedent declaring that distribution of video cassette duplicates of a copyrighted film, without a license by a copyright holder, does not constitute an infringement of copyrights, i.e., distribution rights. [] Because the video cassettes in this case are manufactured and sold in the United States by permission of the copyright holder of the film, it is understood that there were no restrictions on subsequent distribution or circulation within the United States under Article 109 (a) of the US Copyright Act or the First Sale Doctrine. However, because there was not sufficient evidence to prove the fact that the aforementioned license in the US permitted the distribution of the products in Japan and that payment was made with such distribution in mind, the distribution of these video cassettes brought to Japan through parallel import is deemed to constitute an infringement of distribution rights in Japan, on the grounds that it is licensed in the United States."

IV. Decisions and other law enforcement activities by the Fair Trade Commission

(1) Case involving a patent pool of concrete pile manufacturers[9]

Six manufacturers of concrete piles have owned valuable patents and utility model rights with respect to concrete pile manufacturing. Unless a non-exclusive license (*tsujo jisshiken*) had been granted for these technologies from these six companies, it would have been very difficult to commence business operations as a pile manufacturer.

Under these circumstances, the six companies jointly determined how to allocate business deals and shipment ratios for each region, including the parties to transactions to be granted technologies from each company. Moreover, they decided that the compliance of market stabilisation policies should be a condition to the provision of technology for pile manufacturing and that these policies should be included in any agreement. They then carried out accordingly.

The FTC found that this conduct, contrary to public interest, substantially restrained competition in the field of pile sales in the relevant regions, and violated Section 3 of the Antimonopoly Act.

(2) Case involving metoclopramide manufacturers[10]

A pharmaceutical company which has acquired an exclusive license to the patents owned by a French company, executed a contract with three other companies concerning the method for manufacturing metoclopramide, a medicine which counteracts the irregular functioning of digestive organs. This contract provided for (i) "a non-dispute provision" under which no claims by licensees' are allowed concerning patents, (ii) a clause for co-operation to prevent market entry by third parties and (iii) a clause for co-operation to stabilise the market.

There was some suspicion that these four companies, triggered by the execution of the agreement, had jointly excluded other entrepreneurs from the business, and that they jointly set both the sales price of metoclopramide, and the share of production for each company in order to stabilise the market.

The conduct displayed by these four companies fell outside the scope of exemption allowed by the Antimonopoly Act[11], and thus there was concern that the conduct was likely to be unlawful. Although the FTC did not take legal measures in light of the fact that the term of the contract had already expired, the FTC issued a serious warning against similar future conduct.

(2) Case involving the Japan Radish Seedling Association[12]

The Japan Radish Seedling Association (the "Association") is a trade association consisting of 57 producers of radish seedlings nation-wide. It was stipulated that any entrepreneur could qualify for membership by consenting to the aims of the Association and by executing a contract with the Association for a non-exclusive license to the patents for containers used in the cultivation of seedlings.

The following suspicions arose:

The Association aimed to stabilise the radish seedlings market by both, restricting the amount of radish seedlings produced by its members, and adjusting supply and demand. The Association acquired, in the name of the chairperson, the exclusive license of patents for plant cultivation methods and cultivation equipment, which were jointly owned by four companies, including a chemicals manufacturer. The Association executed non-exclusive licensing agreements with members, which provided (i) for the quantities to be manufactured by a non-exclusive licensee to be determined at each district meeting and to be approved at a meeting of the board of directors and (ii) that if a non-exclusive licensee produced in excess of the permitted quantity, the Association could terminate the agreement upon the expiration of an appropriate period of time after the termination notice. By the above, the Association attempted to set maximum limits on the production of radish seedlings.

The FTC demanded that necessary measures be taken because this conduct would violate the Antimonopoly Act and subsequently issued a warning against similar future conduct.

(3) Case involving Pachinko[13] machine manufacturers[14]

Ten *Pachinko* machine manufacturers held a large number of patent rights relevant to *Pachinko* machines, and these companies manufactured approximately 90 percent of the *Pachinko* machines supplied in Japan. The management of the intellectual property rights, including patent rights, was entrusted to a company (the "management company") established by the members of an amusement device manufacturers, organisation and the ten *Pachinko* machine manufactures substantially participated in decisions to approve or deny the granting of licenses of these rights.

. It is likely that the interests of existing *Pachinko* machine manufacturers were significantly damaged by active entry into the *Pachinko* machine market by large manufacturers, factors caused by the expansion of the *Pachinko* machine market and by an erosion of the barriers to market entry caused by a decrease in the number of patent rights for *Pachinko* machines owned and managed by the management company. To address this problem, the ten companies and the management company refused to grant non-exclusive licenses of their rights, including patent rights owned and managed by the management company to new entrants, making it impossible for these potential entrants to manufacture *Pachinko* machines.

The FTC determined that this refusal to license patents etc., excluded entrepreneurs attempting to manufacture *Pachinko* machines, and thereby, contrary to public interest, substantially restricted competition in the field of *Pachinko* machine manufacturing. Moreover, this conduct was not recognised as a proper exercise of rights under the Patent Act or the Utility Model Act. As a result, the FTC issued a recommendation under Section 3 of the Antimonopoly Act, and issued a cease and desist order against measures preventing new entry to that market, such as a refusal to license patents to the manufactures of *Pachinko* machines.

Conclusion

While recognising that the system for the protection of technology and transactions involving technology have pro-competitive effects, the FTC will nevertheless continue to actively make efforts in the field of IPR in order to maintain and promote fair and free competition.

NOTES

1. Section 23 of the Antimonopoly Act provide that "The provisions of this Act shall not apply to such conducts recognised as the exercise of rights under the Copyright Act, the Patent Act, the Utility Model Act, the Design Act or the Trademark Act."

2. FTC/Japan Views No. 6, April 1989.

3. These guidelines are included in this publication.

4. Section 3 of the Antimonopoly Act provide for the prohibition of private monopolisation or unreasonable restraints of trade.

5. See to Paragraph 21-24, Paragraph 27-30.

6. FTC/Japan Views No. 15, June 1993.

7. Case involving a claim for suspension against the infringement of patent rights (Supreme Court, July 1, 1997; No. 1988 (o) No. 1995).

8. Case involving claims for compensatory damages (Tokyo District Court, decided July 1, 1994; No. 4948 (wa) 1993).

9. Case involving Japan Concrete K.K. and five other companies (decision of August 5, 1970; No. 25, 1970).

10. Warning issued on April 23, 1982.

11. See footnote 1

12. Warning issued on February 17, 1994.

13. Japanese style slot machine

14. Case involving manufacturers of *Pachinko* machines (August 6, 1997; No. 5, 1997).

Annex

Guidelines for the Regulation of Unfair Trade Practices with Respect to Patent and Know-How Licensing Agreements*

Preamble

1. The Fair Trade Commission, on May 24, 1968, had announced the Guidelines for International Technology Introduction Agreements and had specified outstanding restrictions among those which are liable to come under unfair trade practices in international technology licensing agreements on patent or know-how.

The FTC relied on these Guidelines when it reviewed international contracts or agreements filed under Paragraph 2 of Section 6 of the Antimonopoly Act.

2. In view of recent trends of increasing significance of importance as well as the number of international technology licensing agreements (those agreements between Japanese entrepreneur and foreign entrepreneur) and of technology licensing agreements among Japanese entrepreneurs, the FTC had formulated the Guidelines for the Regulation of Unfair Trade Practices with Respect to Patent and Know-How Licensing Agreements.

3. The legal framework to protect intellectual property rights such as patent has a procompetitive effect by giving stimulation to research and development for entrepreneurs, and could work as a promoter to introduce a new market or new technology.

Also, technology transactions could have a procompetitive effect when, as a result of technology transactions, new business entitles can enter a market, when the number of competing entities increases, or when the technology can be utilised more efficiently.

Therefore, transfer of technology should be promoted, and it is expected that transfer of technology could be promoted through clarification of examining standards by way of guidelines.

On the other hand, if certain types of restrictive conditions are imposed in technology licensing agreements, they might cause an anticompetitive effect.

In view of such nature of restrictions, it is as a matter of course that impacts on competition should be evaluated individually as to each case when it is examined whether restrictions contained in technology licensing agreements constitute unfair trade practices.

However, impacts on competition may vary depending on types of restrictive conditions.

Therefore, after taking our enforcement experience into consideration as well, the following three types of outstanding restrictions contained in patent and know-how licensing agreements which occupy a large part of technology licensing agreements are identified as much as possible in these Guidelines.

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* This is a tentative translation of the Japanese text of the Guidelines, therefore, the Japanese text should be consulted if interpretation of an individual provision is in question.

a) Such restrictions which are considered, in principle, not to fall under unfair trade practices;

b) Such restrictions which may fall under unfair trade practices;

c) Such restrictions which are highly likely to fall under unfair trade practices.

As to restrictions which are described as "may fall under unfair trade practices," such determination will be made, in addition to the requirements stipulated in each paragraphs, after the position of licensor and licensee in a relevant market, the conditions of a relevant market, the duration of restrictions imposed, etc. are examined as a whole.

On the other hand, as to restrictions which are described as to be “highly likely to fall under unfair trade practices,” such restrictions are considered to constitute unfair trade practices unless specific justifiable reasons could be presented.

4. Examining standards stipulated in these Guidelines are applicable without any discrimination to those patent and know-how licensing agreements among Japanese entrepreneurs as well as those between Japanese entrepreneur and foreign entrepreneur.

However, so far as restrictive conditions contained in patent and know-how licensing agreements between Japanese entrepreneur and foreign entrepreneur are concerned, examining standards in these Guidelines are applicable insofar as restrictive conditions can influence competition within a Japanese market.

5. As stated above, impacts on competition within a Japanese market should be evaluated individually as to each case when it is examined whether restrictions contained in technology licensing agreements constitute unfair trade practices.

Thus, clearance request from contracting parties is expected to increase. Therefore, at the same time with announcement of these Guidelines, a clearance system on patent and know-how licensing agreements is established, and any clearance request filed by foreign entrepreneurs as well as by Japanese entrepreneurs will be responded in a proper way.

6. Examining standards in these Guidelines could be applicable to reciprocal licensing agreements or licensing agreements among more than three parties such as cross-licensing agreement, patent pool, multiple licensing agreement, etc.

Because these Guidelines are to clarify examining standards for unfair trade practices as to patent and know-how licensing agreements, it is a matter of course that Section 3 of the Antimonopoly Act (Prohibition of Private Monopolisation or Unreasonable Restraints of Trade) and other Sections could also be applicable to such cases where technology licensing agreements are used as a means to effect unreasonable restraint of trade.

Thus, as to reciprocal licensing agreements or licensing agreements among more than three parties, other aspects than unfair trade practices need to be examined.

7. A licensing agreement which licenses both patent and know-how could be regarded as patent licensing agreements and know-how licensing agreements, therefore, as to restrictive conditions contained

in such hybrid licensing agreement, examining standards in each Part will be applied depending on which technology restrictive conditions are related to.

Part 1 - Patent Licensing Agreements

1. Restrictions which are considered, in principle, not to fall under unfair trade practices

Among restrictions contained in licensing agreements on patent or utility model rights (hereinafter referred to as "patent licensing agreements") which are considered, in principle, not to fall under trade practices (This is defined as those practices designated as unfair trade practices in the FTC Notification No. 15 of 1982. This Notification is referred to as "General Designation" hereinafter.) since they are thought to be within a proper exercise of patent rights or utility model rights, or to have only a negligible effect on competition, the following are outstanding.

Hereinafter, when referred to as "patent," "patent rights," "patented goods (Goods covered by patent rights are referred to as "patented goods." Goods produced by employing patented process are also included, hereinafter the same)", they also include "utility model," "utility model rights," "goods covered by the utility model rights" respectively.

1) separately granting a license to manufacture, use, sell, etc.

2) granting a license for a limited period within the life of patent rights;

3) granting a license for a limited area within the whole area covered by patent rights;

4) restricting exploitation of patent rights to a specified field of technology;

5) requiring minimum production or minimum sales volume of patented goods, or minimum use of patented process;

6) making it obligatory for the licensee to inform the licensor of knowledge or experience newly obtained by the licensee regarding licensed patent, or to grant the licensor now-exclusive license with respect to an improved or applied invention, etc. by the licensee, insofar as the licensor bears similar obligations and obligations of both parties with respect to informing the other party or granting non-exclusive license are roughly balanced in substance;

7) making it obligatory for the licensee to maintain certain standards of quality for patented goods, raw materials, components, etc., insofar as such obligation is confined to a necessary extent for guaranteeing the effectiveness of licensed patent (This condition applies when the licensor guarantees the license specifically the effectiveness of licensed patent.), or for maintaining the goodwill of trademark, etc. (This condition applies only when the licensor grant a license on trademark, etc. to the licensee, hereinafter the same);

8) making it obligatory for the licensee to procure raw materials, components, etc. from the licensor or a person designated by the licensor, insofar as restrictions on quality of raw materials, components, etc. or any other restriction is insufficient to guarantee the effectiveness of licensed patent, or to maintain the goodwill of trademark, etc.; provided that

such obligation is confined to a necessary extent for guaranteeing the effectiveness of licensed patent, or for maintaining the goodwill of trademark; etc.

9) restricting ability of the licensee to export patented goods into an area falling within one of the following paragraphs:

   a) the licensor has registered his patent rights on patented goods in the area;
   b) the licensor has been conducting a continuous marketing activity on patented goods in the area;
   (c) the licensor assigns the area as an exclusive sales territory to a third party;

10) restricting the licensee's export price or export volume of patented goods, or making it obligatory for the licensee to export through the licensor or a person designated by the licensor, insofar as the licensor allows the licensee to export to the area falling within one of the paragraphs (a), (b) or (c) mentioned in (9) above; provided that such restriction or obligation is confined to a necessary extent;

11) making it obligatory for the licensee to use production or sales volume or price of finished product as a basis for royalty in order to facilitate its calculation, or making it obligatory for the licensee to use consumption of raw materials or components, etc., which are necessary for producing patented goods, as a basis for royalty in order to facilitate its calculation.

12) making it obligatory for the licensee to accept licensing of more than two patents as a package, insofar as such restriction is necessary for guaranteeing the effectiveness of licensed patent;

13) providing that royalty continues to be charged after the expiration of patent rights, insofar as it constitutes instalment payment or extended payment of royalty;

14) providing that the licensor can terminate licensing agreements if the licensee challenges the validity of licensed patent;

15) making it obligatory for the licensee to use his best efforts to exploit licensed patent.

2. Restrictions which may fall under unfair trade practices

Among restrictions which may fall under unfair trade practices in patent licensing agreements, the following are outstanding.

The determination whether restrictions fall under unfair trade practices will be made, in addition to the requirements stipulated in each paragraph, after the positions of licensor and licensee in a relevant market, the conditions of a relevant market, the duration of restrictions imposed, etc. are examined as a whole.

1) making it obligatory for the licensee not to handle substitutable goods or similar goods which are in competition with patented goods (hereinafter referred to as "competing goods"), or not to employ substitutable technology or similar technology which is in competition with licensed patent (hereinafter referred to as "competing technology") during the term of licensing agreements:

- this restriction could fall under unfair trade practices in such cases where competing companies are deprived of important customers or the chance of business with them, or the licensee is deprived of freedom to select his goods or technologies, thus it could result in the reduction of competition in a relevant market (possibly falling under Articles 11 or 13 of the General Designation).

2) making it obligatory for the licensee to sell patented goods through the licensor or a person designated by the licensor, or not to sell to a person designated by the licensor:

- this restriction could fall under unfair trade practices in such cases where the licensee is deprived of an important means of competition, namely freedom to select sales outlet, and thus it could result in the reduction of competition in a patented goods market (possibly falling under Article 13 of the General Designation).

3) making it obligatory for the licensee to inform the licensor of knowledge or experience newly obtained by the licensee regarding licensed patent, or to grant the licensor non-exclusive license with respect to an improved or applied invention, etc. by the licensee.

However, such cases are excluded where the licensor bears similar obligations and obligations of both parties with respect to informing the other party or granting non-exclusive license are roughly balanced in substance.

- This restriction could fall under unfair trade practices in such cases where it could result in setting transaction terms in a way unduly disadvantageous to the licensee, by such reasons as the licensor does not bear similar obligations, or obligations of both parties are not well balanced in substance (possibly falling under Clause 3 of Article 14 of the General Designation).

4) making it obligatory for the licensee to use trademark, etc. designated by the licensor for patented goods.

- This restriction could fall under unfair trade practices in such cases where business activities of the licensee is unjustly restricted by the licensor by depriving of the licensee's freedom to select trademark, etc., which is one means of competition, thus it could result in the reduction of competition in a relevant market (possibly falling under Article 13 of the General Designation).

  This restriction could also fall under unfair trade practices in such cases where the licensee is forced to continue the use of trademark, etc. after expiration of patent rights, because of his continued use of the trademark, etc. during the term of licensing agreements, thus it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

5) Restricting quality of patented goods, raw materials, components, etc.

However, obligation for the licensee to maintain certain standards of quality for patented goods, raw materials, components, etc. are excluded where such obligation is confined to a necessary extent for guaranteeing the effectiveness of licensed patent, or for maintaining the goodwill of trademark, etc.

- This restriction could fall under unfair trade practices in such cases where it could result in the reduction of competition in a market of raw materials, components, etc. or in a market of patented goods, because quality of patented goods or quality of raw materials, components, etc., which should be freely decided by the licensee, is unduly restricted (possibly falling under Article 13 of the General Designation).

6) Making it obligatory for the licensee to procure raw materials, components, etc. from the licensor or a person designated by the licensor.

However, such cases are excluded where restrictions on quality of raw materials, component, etc. or any other restriction is insufficient to guarantee the effectiveness of licensed patent, or to maintain the goodwill of trademark, etc. and such obligation is confined to a necessary extent for guaranteeing the effectiveness of licensed patent, or for maintaining the goodwill of trademark, etc.

- This restriction could fall under unfair trade practices in such cases where the licensee is deprived of freedom to select his sources of raw materials, components, etc., and thus it is deemed as an unfair means from the viewpoint of efficient competition, or where it could result in the reduction of competition in a market of raw materials, components, etc. (possibly falling under Article 10 of the General Designation).

7) Restricting ability of the licensee to export patented goods.

However, such cases are excluded where restricted area falls within one of the following paragraphs:

a) the licensor has registered his patent rights on patented goods in the area;

b) the licensor has been conducting a continuous marketing;

c) activity on patented goods in the area;

d) the licensor assigns the area as an exclusive sales territory to a third party.

- This restriction could fall under unfair trade practices in such cases where freedom of the licensee to export patented goods to the area not covered by patent rights is restricted, and thus it could result in the reduction of competition in an export market (possibly falling under Article 13 of the General Designation).

8) Restricting the licensee's export price or export volume of patented goods, or making it obligatory for the licensee to export through the licensor or a person designated by the licensor.

However, such cases are excluded where the licensor allows the licensee to export to the areas falling within one of the paragraphs (a), (b) or (c) mentioned in (7) above, and such restriction or obligation is confined to a necessary extent.

- This restriction could fall under unfair trade practices in such cases where freedom of the licensee to export patented goods to the area not covered by patent rights is restricted, and

thus it could result in the reduction of competition in an export market (possibly falling under Article 13 of the General Designation).

9) Making it obligatory for the licensee to pay royalty based on products or service other than patented goods.

However, such cases are excluded where the licensor makes it obligatory for the licensee to use production or sales volume or price of finished product as a basis for royalty in order to facilitate its calculation, or the licensor makes it obligatory for the licensee to use consumption of raw materials or components, etc., which are necessary for producing patented goods, as a basis for royalty in order to facilitate its calculation.

- This restriction could fall under unfair trade practices in such cases where it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

10) Making it obligatory for the licensee to accept licensing of more than two patents as a package.

However, such cases are excluded where such restriction is confined to a necessary extent for guaranteeing the effectiveness of licensed patent.

- This restriction could fall under unfair trade practices in such cases where the licensee is deprived of freedom to select his technology, and thus it is deemed as an unfair means from the viewpoint of efficient competition, or it could result in the reduction of competition in a technology market (possibly falling under Article 10 of the General Designation).

  This restriction could also fall under unfair trade practices in such cases where the licensee is forced to pay extra royalty or the duration of royalty payment is extended, thus it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

11) Imposing unilaterally disadvantageous condition to the licensee for the termination of licensing agreements, such as terminating licensing agreements unilaterally or terminating them immediately without affording an appropriate notice by reasons other than unenforceability of licensing agreements due to insolvency, etc.

- This restriction could fall under unfair trade practices in such cases where it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

12) Making it obligatory for the licensee not to challenge the validity of licensed patent.

- This restriction could fall under unfair trade practices in such cases where patent rights continue to exist for technology which otherwise could not obtain any patent rights, and use of technology by other business is eliminated, thus it could result in the reduction of competition in a relevant market (possibly falling under Article 13 of the General Designation).

This restriction could also fall under unfair trade practices in such cases where the licensee may have to continue to pay royalty for technology which otherwise could be used without any royalty, thus it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

3. Restrictions which are highly likely to fall under unfair trade practices

Among restrictions in patent licensing agreements which are considered to constitute unfair trade practices unless specific justifiable reasons can be presented, the following are outstanding.

1) Restricting resale prices of patented goods in Japan.

- The licensor, under this restriction, restricts freedom of pricing which forms a basis of competition for wholesalers and retailers, therefore it is highly likely to impede fair competition (possibly falling under Article 13 of the General Designation).

2) Restricting sales price of patented goods by the licensee in Japan.

- This restriction, by restricting freedom of pricing by the licensee, will lead to a significant limitation of competitive ability of the licensee, and could result in the reduction of price competition in a patented goods market.

  Further, this restriction cannot be justifiable by such reason as securing royalty. Therefore, it is highly likely to Impede fair competition (possibly falling under Article 13 of the General Designation).

3) Making it obligatory for the licensee not to handle competing goods, or not to employ competing technology after the expiration or termination of licensing agreements.

- After the expiration or termination of licensing agreements, this restriction could have no such justification as securing royalty for the licensor based on sales by the licensee. Therefore, it is highly likely to impede fair competition (possibly falling under Articles 11 or 13 of the General Designation).

4) Restricting use of licensed technology in spite of the expiration of patent rights, or making it obligatory for the licensee to pay royalty for use after the expiration of patent rights.

- Anyone should be able to use licensed technology freely after the expiration of patent rights, and the licensor has no authority to limit the use of technology concerned, or to compel payment of royalty for use after the expiration of patent rights. Therefore, it is highly likely to impede fair competition (possibly falling under Article 13 or Clause 3 of Article 14 of the General Designation).

5) Restricting research and development activities by the licensee himself or joint research and development with a third party regarding licensed patent or its competing technology.

- Under this restriction, the licensor restricts freedom of research and development activities of the licensee which are an important means of competition, and also limits

business activities of the licensee in a product or technology market in the future, thus it could have an important and long term impact on these markets. Therefore, it is highly likely to impede fair competition (possibly falling under Article 13 of the General Designation).

6) Making it obligatory for the licensee to assign the licensor the right on an improved or applied invention or to grant the licensor exclusive license (such case where licensee grants a license exclusively for the licensor by agreeing not to exploit the invention by himself in the territory is included) with respect to an improved or applied invention, etc. by the licensee.

- This restriction could result in undue enhancement or maintenance of a dominant position of the licensor in a relevant market. This restriction could further impede incentive for research and development of the licensee, and thus it could impede development of new technology by restricting freedom of the licensee to use knowledge, experience and modification or to grant a license to a third party. Thus it could result in the reduction of competition in a product or technology market (possibly falling under Article 13 of the General Designation).

  When the licensor does not bear similar obligations, or obligations of both parties are not well balanced in substance, this restriction could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

Part 2 Know-How Licensing Agreements

1. Restrictions which are considered, in principle, not to fall under unfair trade practices

Among restrictions contained in licensing agreements on know-how (Only those types of technological know-how related to industrial use are covered. Non-secret know-how is excluded. Hereinafter these are referred to as "know-how" and "know-how licensing agreements") which are considered, in principle, not to fall under unfair trade practices, since they are thought to have only a negligible effect on competition, the following are outstanding:

1) granting a license for a limited period insofar as licensed know-how remains secret;

2) restricting exploitation of licensed know-how to a specified field of technology;

3) requiring minimum production or minimum sales volume of goods manufactured exploiting licensed know-how (Hereinafter referred to as "licensed goods"), or minimum use of licensed know-how;

4) making it obligatory for the licensee not to handle substitutable goods or similar goods which are in competition with licensed goods (Hereinafter referred to as "competing goods"), or not to employ substitutable technology or similar technology (Hereinafter referred to as "competing technology") for a short period after the expiration or termination of licensing agreements, insofar as it is difficult to prevent unauthorised exploitation of licensed know-how by such restrictions as use ban after the expiration or termination of

licensing agreements; provided that such obligation is confined to a necessary extent for preventing unauthorised exploitation of licensed know-how;

5) making it obligatory for the licensee to inform the licensor of knowledge or experience newly obtained by the licensee regarding licensed know-how, or to grant the licensor non-exclusive license with respect to an improved or applied invention by the licensee, insofar as the licensor bears similar obligations and obligations of both parties with respect to informing the other party or granting non-exclusive license are roughly balanced in substance;

6) making it obligatory for the licensee to maintain certain standards of quality for licensed goods, raw materials, components, etc., insofar as such obligation is confined to a necessary extent for guaranteeing the effectiveness of licensed know-how (This condition applies when the licensor guarantees the licensee specifically the effectiveness of licensed know-how.), or for maintaining the goodwill of trademark, etc.

7) making it obligatory for the licensee to procure raw materials, components, etc. from the licensor or a person designated by the licensor, insofar as restrictions on quality of raw materials, components, etc. or any other restriction is insufficient to guarantee the effectiveness of licensed know-how, or to maintain the goodwill of trademark, etc. or such obligation is vital for protection of the secrecy of licensed know-how; provided that such obligation is confined to a necessary extent for guaranteeing the effectiveness of licensed know-how, or for maintaining the goodwill of trademark, etc., or for protecting the secrecy of licensed know-how;

8) Restricting ability of the licensee to export licensed goods into an area falling within one of the following paragraphs:

   a) the licensor has registered his patent rights on licensed goods in the area;

   b) the licensor has been conducting a continuous marketing activity on licensed goods in the area;

   c) the licensor assigns the area as an exclusive sales territory to a third party.

9) Restricting the licensee's export price or export volume of licensed goods, or making it obligatory for the licensee to export through the licensor or a person designated by the licensor, insofar as the licensor allows the licensee to export to the areas falling within one of the paragraphs (a), (b) or (c) mentioned in (8) above; provided that such restriction or obligation is confined to a necessary extent;

10) making it obligatory for the licensee to use production or sales volume or price of finished product as a basis for royalty in order to facilitate its calculation, or making it obligatory for the licensee to use consumption of raw materials or components, etc., which are necessary for producing licensed goods, as a basis for royalty in order to facilitate its calculation;

11) making it obligatory for the licensee to accept licensing of more than two know-hows as a package, insofar as such restriction is necessary for guaranteeing the effectiveness of licensed know-how;

12) providing that royalty continues to be charged after licensed know-how has become publicly known due to reasons for which the licensee is not responsible, insofar as it constitutes instalment payment or extended payment of royalty, or insofar as royalty is charged for use after licensed know-how has become publicly known for a short period thereafter during the term of licensing agreements;

13) providing that the licensor can terminate licensing agreements if the licensee challenges whether licensed know-how has become publicly known;

14) making it obligatory for the licensee not to disclose licensed know- how to a third party insofar as licensed know-how remains secret;

15) making it obligatory for the licensee to use his best efforts to exploit licensed know-how.

2. Restrictions which may fall under unfair trade practices

Among restrictions which may fall under unfair trade practices in know-how licensing agreements, the following are outstanding.

The determination whether restrictions fall under unfair trade practices will be made, in addition to the requirements stipulated in each paragraph, after the positions of licensor and licensee in a relevant market, the conditions of a relevant market, the duration of restrictions imposed, etc. are examined as a whole.

1) Making it obligatory for the licensee not to handle competing goods, or not to employ competing technology during the term of licensing agreements.

   - This restriction could fall under unfair trade practices in such cases where competing companies are deprived of important customers or the chance of business with them, or the licensee is deprived of freedom to select his goods or technologies, thus it could result in the reduction of competition in a relevant market (possibly falling under Articles 11 or 13 of the General Designation).

2) Making it obligatory for the licensee to sell licensed goods through the licensor or a person designated by the licensor, or not to sell to a person designated by the licensor.

   - This restriction could fall under unfair trade practices in such cases where the licensee is deprived of an important means of competition, namely freedom to select sales outlet, and thus it could result in the reduction of competition in a licensed goods market (possibly falling under Article 13 of the General Designation).

3) Making it obligatory for the licensee to inform the licensor of knowledge or experience newly obtained by the licensee regarding licensed know-how, or to grant the licensor non-exclusive license with respect to an improved or applied invention by the licensee.

   However, such cases are excluded where the. licensor bears similar obligations and obligations of both parties with respect to informing the other party or granting non-exclusive license are roughly balanced in substance.

- This restriction could fall under unfair trade practices in such cases where it could result in setting transaction terms in a way unduly disadvantageous to the licensee, by such reasons as the licensor does not bear similar obligations, or obligations of both parties are not well balanced in substance (possibly falling under Clause 3 of Article 14 of the General Designation).

4) Making it obligatory for the licensee to use trademark, etc. designated by the licensor for licensed goods.

   - This restriction could fall under unfair trade practices in such cases where business activities of the licensee is unjustly restricted by the licensor by depriving of the licensee's freedom to select trademark, etc., which is one means of competition, thus it could result in the reduction of competition in a relevant market (possibly falling under Article 13 of the General Designation).

     This restriction could also fall under unfair trade practices in such cases when the licensee is forced to continue the use of trademark, etc. after licensed know-how has become publicly known because of his continued use of the trademark, etc. during the term of licensing agreements, thus it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

5) Restricting quality of licensed goods, raw materials, components, etc.

   However, obligations for the licensee to maintain certain standards of quality for licensed goods, raw materials, components, etc. are excluded where such obligation is confined to a necessary extent for guaranteeing the effectiveness of licensed know-how, or for maintaining the goodwill of trademark, etc.

   - This restriction could fall under unfair trade practices in such cases where it could result in the reduction of competition in a market of raw materials, components, etc. or in a market of licensed goods, because quality of licensed goods or quality of raw materials, components, etc., which should be freely decided by the licensee is unduly restricted (possibly falling under Article 13 of the General Designation).

6) Making it obligatory for the licensee to procure raw materials, components, etc. from the licensor or a person designated by the licensor.

   However, such cases are excluded where restrictions on quality of raw materials, components, etc. or any other restriction is insufficient to guarantee the effectiveness of licensed know-how, or to maintain the goodwill of trademark, etc., or where such obligation is vital for protection of the secrecy of licensed know-how, and such obligation is confined to a necessary extent for guaranteeing the effectiveness of licensed know-how, or for maintaining the goodwill of trademark, etc., or for protecting the secrecy of licensed know-how.

   - This restriction could fall under unfair trade practices in such cases where the licensee is deprived of freedom to select his sources of raw materials, components, etc., and thus it is deemed as an unfair means from the viewpoint of efficient competition, or where it

could result in the reduction of competition in a market of raw materials, components, etc. (possibly falling under Article 10 of the General Designation).

7) Restricting ability of the licensee to export licensed goods.

However, such cases are excluded where restricted area falls within one of the following paragraphs:

a) The licensor has registered his patent rights on licensed goods in the area;

b) The licensor has been conducting a continuous marketing activity on licensed goods in the area.;

c) The licensor assigns the area as an exclusive sales territory to a third party.

- This restriction could fall under unfair trade practices in such cases where freedom of the licensee to export licensed goods is restricted, and thus it could result in the reduction of competition in an export market (possibly falling under Article 13 of the General Designation).

8) Restricting the licensee's export price or export volume of licensed goods, or making it obligatory for the licensee to export through the licensor or a person designated by the licensor.

However, such cases are excluded where the licensor allows the licensee to export to the areas falling within one of the paragraphs (a), (b) or (c) mentioned in (7) above, and such restriction or obligation is confined to a necessary extent.

- This restriction could fall under unfair trade practices in such cases where freedom of the licensee to export licensed goods is restricted, and thus it could result in the reduction of competition in an export market (possibly falling under Article 13 of the General Designation).

9) Making it obligatory for the licensee to pay royalty based on product or service other than licensed goods.

However, such cases are excluded where the licensor makes it obligatory for the licensee to use production or sales volume or price of finished product as a basis for royalty in order to facilitate its calculation, or the licensor makes it obligatory for the licensee to use consumption of raw materials or component, etc., which are necessary for producing licensed goods, as a basis for royalty in order to facilitate its calculation.

- This restriction could fall under unfair trade practices in such cases where it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

10) Making it obligatory for the licensee to accept licensing of more than two know-hows as a package.

However, such cases are excluded where such restriction is confined to a necessary extent for guaranteeing the effectiveness of licensed know-how.

- This restriction could fall under unfair trade practices in such cases where the licensee is deprived of freedom to select his technology, and thus it is deemed as an unfair means from the viewpoint of efficient competition, or it could result in the reduction of competition in a technology market (possibly falling under Article 10 of the General Designation).

  This restriction could also fall under unfair trade practices in such cases where the licensee is forced to pay extra royalty or the duration of royalty payment is extended, thus it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

11) Imposing unilaterally disadvantageous condition to the licensee for the termination of licensing agreements, such as terminating licensing agreements unilaterally or terminating them immediately without affording an appropriate notice by reasons other than unenforceability of licensing agreements due to insolvency, etc.

- This restriction could fall under unfair trade practices in such cases where it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

12) Making it obligatory for the licensee not to challenge whether licensed know-how has become publicly known.

- This restriction could fall under unfair trade practices in such cases where the licensee may have to continue to pay royalty for technology which otherwise could be used without any royalty, thus it could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

3. Restrictions which are highly likely to fall under unfair trade practices

Among restrictions in know-how licensing agreements which are considered to constitute unfair trade practices unless specific justifiable reasons can be presented, the following are outstanding.

1) Restricting resale prices of licensed goods in Japan.

- The licensor, under this restriction, restricts freedom of pricing which forms a basis of competition for wholesalers and retailers, therefore it is highly likely to impede fair competition (possibly falling under Article 13 of the General Designation).

2) Restricting sales price of licensed goods by the licensee in Japan.

- This restriction, by restricting freedom of pricing of the licensee, will lead to a significant limitation of competitive ability of the licensee, and could result in the reduction of price competition in a licensed goods market.

Further, this restriction cannot be justifiable by such reason as securing royalty. Therefore, it is highly likely to impede fair competition (possibly falling under Article 13 of the General Designation).

3) Making it obligatory for the licensee not to handle competing goods, or not to employ competing technology after the expiration or termination of licensing agreements.

However, such cases are excluded where such obligation covers for a short period after the expiration or termination of licensing agreements, and it is difficult to prevent unauthorised exploitation of licensed know-how by such restrictions as use ban after the expiration or termination of licensing agreements.

- After the expiration or termination of licensing agreements, this restriction could have no such justification as securing royalty for the licensor based on sales by the licensee. Therefore, it is highly likely to impede fair competition (possibly falling under Articles 11 or 13 of the General Designation).

4) Restricting use of licensed technology in spite of the expiration of patent rights, or making it obligatory for the licensee to pay royalty for use after the expiration of patent rights.

- Anyone should be able to use technology freely after licensed know-how has become publicly known due to reasons for which the licensee is not responsible, and the licensor has no authority to limit the use of technology concerned, or to compel payment of royalty for use after licensed know-how has become publicly known. Therefore, it is highly likely to impede fair competition (possibly falling under Article 13 or Clause 3 of Article 14 of the General Designation).

5) Restricting research and development activities by the licensee himself or joint research and development with a third party regarding to licensed know-how or its competing technology.

- Under this restriction, the licensor restricts freedom of research and development activities of the licensee which are an important means of competition, and also limits business activities of the licensee in a product or technology market in the future, thus it could have an important and long term impact on these markets. Therefore, it is highly likely to impede fair competition (possibly falling under Article 13 of the General Designation).

6) Making it obligatory for the licensee to assign the licensor the right on an improved or applied invention by the licensee or to grant the licensor exclusive license (such case where licensee grants a license exclusively for the licensor by agreeing not to exploit the invention by himself in the territory is included.) with respect to an improved or applied invention, etc. by the licensee.

- This restriction could result in undue enhancement or maintenance of the dominant position of the licensor in a relevant market. This restriction could further impede incentive for research and development of the licensee, and thus it could impede development of new technology by restricting freedom of the licensee to use knowledge, experience and modification or to grant a license to a third party. Thus it could result in

the reduction of competition in a product or technology market (possibly falling under Article 13 of the General Designation).

When the licensor does not bear similar obligations, or obligations of both parties are not well balanced in substance, this restriction could result in setting transaction terms in a way unduly disadvantageous to the licensee (possibly falling under Clause 3 of Article 14 of the General Designation).

KOREA

I. Breadth of Intellectual Property Rights (IPR) and its effects on innovation and competition

Looking back at the history of intellectual property right protection, it can be said that the principle underlying intellectual property rights laws is not so much based on the principle of the natural law. Rather, the relevant laws began to take shape in the seventeenth century out of necessity for industrial and economic development. One of the pervasive views regarding intellectual property rights is that they provide potential inventors or authors with greater economic incentives to invest effort, knowledge and capital in innovation. It can also be said that intellectual property rights are a means by which the state induces innovation by ensuring economic benefits to innovators.

Although innovators are given exclusive power over their inventions with a view to encouraging more innovation, the ultimate objective of intellectual property rights is to encourage innovations that benefit society; therefore, there are limits inherent in the execution of intellectual property rights. To be more specific, the execution of intellectual property rights is not without limits, as it needs to be co-ordinated with other public policies.

In general, a broad definition of intellectual property rights protection results in strong protection of the rights of the innovator which, in turn, encourages innovation, and a narrow definition tends to emphasise public interests. However, a broad definition and strong protection of intellectual property rights do not necessary lead to a nation-wide improvement in innovation. For instance, under a strong protection of intellectual property rights, if patent laws and regulations entitle innovators to monopoly, two consequences could be produced: On the one hand, it could encourage innovators and promote technical innovation; on the other hand, innovators could demand compensation for infringement of intellectual property rights following commercialisation of technical innovations or charge high fees for use of their technology which could have the effect of discouraging investments in research and development. Moreover, if exclusive right is given only to the first person that applies for a patent, the second person could end up being treated no different than the rest of the people who have made no efforts. This could eliminate incentives for investments in research and development and discourage technical innovation.

Furthermore, the greater the breadth of intellectual property rights protection, the higher the costs the society has to bear for use of technology. In such a case, society needs to carefully co-ordinate between a market structure that promotes consumer interests through low costs and one that promotes consumer interests through high quality products. Basically, society wishes to allow protection of intellectual property rights up to a justifiable level, not more, not less. This is because society wants to reward an innovator with what he/she rightfully deserves and encourage innovation while maintaining the technical fees at a reasonable level.

Primary innovation can be considered more important than secondary innovation in that the former makes a more fundamental contribution to technical development aimed at enhancing social welfare. Moreover, there would be no secondary innovation without a primary innovation. Therefore, it would make sense to grant more protection to primary innovation than secondary innovation. At the same

time, however, under a broader picture of intellectual property rights, considered as an "economic incentive" aimed at improving social welfare, protection of the secondary innovation can be just as important. That is, reducing protection of primary innovation, which is more public and fundamental in nature than secondary innovation, could have the effect of providing more incentives to secondary innovation which would help to induce increasing technical development, ultimately contributing to the welfare of the entire society.

As such, determining the breadth of intellectual property rights is a very difficult task, but it should be at a scale at which social welfare is maximised. Also, in determining the scope of protection, the stage of economic development, level of technological development, and pace of technical innovation should be taken into account. Each state should adopt a breadth which is suitable to its reality and stimulates innovation and competition.

II. Potential conflict between IPR and competition/antitrust laws and possible means of reducing it

While intellectual property rights seek to promote economic development by imposing certain restraints on competition, competition laws seek to secure economic efficiency through free competition in the market. Therefore, intellectual property rights laws and competition laws are in potential conflict. In addition, intellectual property rights award innovators with legal monopolies while competition laws regulate monopoly for the purpose of obtaining fair and free competition.

Thus, at a glance, it looks as though intellectual property rights and competition laws do not work together. However, when one looks back at the historical background and economic roles of the two laws, one can easily see that the two are closely interrelated and that a balanced enforcement is critical.

In the short run, intellectual property rights can give the impression of restraining competition by blocking any person other than the intellectual property right holder from entering the market. In the long run, however, a comprehensive look reveals that intellectual property rights stimulate investment of time and capital in innovative and creative efforts and promote competition aimed at enhancing quality and credibility. Consequently, a more efficient and pro-competitive market is established.

The historical backgrounds of the two laws further support the fact that they are closely interrelated. Intellectual property rights laws, including patent laws, in their original enactments were not really a part of the pure judicial system based on the natural law of granting compensation to intellectual efforts such as innovation and creation. Rather, they were especially enacted to encourage economic development by stimulating technical innovation in the underdeveloped sectors of a state. Similarly, competition laws encourage creativity in businesses through free and fair competition, ultimately striving to promote economic development through active business activities. Although the approaches differ, the two laws are closely related in that they pursue a common goal of economic progress, and this shows the need to enforce them in a balanced manner.

The solution to the potential conflict between intellectual property rights and competition laws should be based on the belief that intellectual property rights laws should not grant excessive protection or monopoly to intellectual property right owners. In other words, competition/antitrust laws should play the role of putting the brakes on excessive protection of intellectual property rights. At the same time, laws and policies aimed at preventing abuse of intellectual property rights should be adopted. For example, when public interests outweigh the interests of intellectual property rights owners, under compulsory

license, the public should have access to intellectual properties without the approval of the right holders. Provisions relating to compulsory license are already provided for in Article 31 of TRIPs.

III. Enforcement Issues

The Fair Trade Commission of the Republic of Korea is preparing a guideline to address the conflict between intellectual property rights and competition laws. In Article 32 of the Fair Trade Act, it is stated that certain types of international contracts should not contain acts which are declared unfair in the Fair Trade Act, including undue collaborative acts, unfair business practices, resale price maintenance, and so on. Based on that article, the Fair Trade Commission has established "Types of and Criteria for Unfair Business Practices in International Contracts."

The guideline applies to international contracts involving patent rights, copyrights, utility model rights, design rights and trademarks. By stipulating that unfairness of a contract shall be determined on the basis of a comprehensive review of not only the terms of the contract itself, but also of its impact on competition, the duration of the contract, and situation of the relevant markets, the guideline demonstrates that a rule of reason approach will be taken to determine whether a practice is unfair.

Under Article 34 of the Fair Trade Act, with regard to unfair international contracts relating to intellectual property rights, the Fair Trade Commission has the authority to order measures for correction such as cancellations, modifications, and so forth. Between 1981 and 1996, the commission has issued such corrective measures against 1,578 cases.

III-1. Refusal to license

Although the Patent Code of Korea does not directly impose an obligation to license upon a licensor, if the licensor fails to license for three years or more, or if a public need arises, an order to license may be imposed upon judgement of the Administrator of the Patent Office. Also, if licensing one's patent depends on the licensing of another person's patent, one may request that the Administrator of the Patent Office make a judgement on the granting of an order to license of the patent right of the other person. Such provisions restrain, to a considerable extent, the execution of patent rights by a patent owner, and have the effect of indirectly forcing a patent owner to license his/her patent.

III-2. Tying agreement

If a patent holder (licensor) licenses his patented technology to a manufacturer (licensee) that manufactures a licensed product using the technology provided by the licensor, and the licensor forces the licensee to buy raw materials for the product from him/her, or forces the licensee to adopt a technology that is irrelevant to the licensed technology, restraining competition in the market of the licensed product or the subordinate product or technology, the licensor would be in violation of the competition law. The Korean guideline relating to international contracts states that the following acts fall into the category of unfair business practices:

- when a licensor of intangible property rights requires a licensee to purchase parts for a licensed product from the licensor or a party designated by the licensor;

- when a licensor requires a licensee to adopt technology which is not directly necessary for the performance of the licensed technology.

However, the following acts are considered fair business practices:

- when a licensor requires a licensee to purchase parts for a licensed product from the licensor or a party designated by the licensor to ensure that the licensed product meets a certain standard of quality or performance;

- when a licensor or a party designated by the licensor supplies a licensee with parts for the licensed product at the request of the licensee.

III-3. Grantback

Grantbacks, whereby licensees are unilaterally obliged to transfer improved technology to the licensor or to grant right of execution to the licensor may be considered a clear unfair business practice. The Korean guideline relating to international contracts states that the following acts regarding grantbacks fall into the category of unfair business practices:

- when a licensor requires a licensee to provide the licensor, without charge, with the ownership of or the exclusive (non-exclusive) right to use the technology (product) improved by the licensee; or when a licensor unilaterally requires a licensee to report to or notify the licensor of all technology (product) improvements made by the licensee.

The following acts, however, are considered fair trade practices:

- when a licensee gives joint ownership of or the exclusive (non-exclusive) right to use the technology improved by the licensee to the licensor upon receiving compensation, including the expenses required for such development and the anticipated profits therefrom;

- when either party reports to or notifies the other party of an improvement in the licensed technology (product), or gives the exclusive (non-exclusive) right to use such improved technology under equal conditions;

- when a licensor requires a licensee to report or give notice to the licensor prior to using the improved technology in order to ensure quality control or guarantee the performance of the licensed technology (product).

III-4. Restrictions on customers, method of sale and designation of sales (resale) price

The Korean guideline on international contracts prohibit the following acts: the licensor requiring a licensee to sell a licensed product through the licensor or a person designated by the licensor, or designating prospective customers to whom the licensee may or may not sell (resell) the licensed product; the licensor designating a particular method of business, or designating the sales price or the resale prices for a licensed product. Moreover, a licensor requiring a licensee to obtain prior consent or approval from the licensor in order to export a licensed product, designating the countries to which the

licensee may or may not export, completely prohibiting the licensee from exporting, or restricting the quantity or amount of exports are all regulated as unfair business practices.

III-5. Restraining competition through exclusive terms

Exclusive terms, that is, restraint of competition by imposing limits on sales quantities, improvement of technology or research and development of technology, and use or handling of competing technology, should be regulated by competition laws. The Korea Fair Trade Commission regulates the following acts under the guideline relating to international contracts:

- when a licensor designates a maximum limit for the manufacture/sales of a licensed product and prohibits a licensee from manufacturing/selling in excess of the limit; or when a licensor designates a minimum manufacture/sales target or amount of a licensed product and terminates the contract unilaterally when the licensee fails to meet the target or the amount;

- when a licensor prohibits a licensee from making technical improvements to the licensed technology (product); when a licensor allows a licensee to make technical improvements to the licensed technology only with the licensor's prior consent or approval; or when a licensor prohibits a licensee from conducting research and development with respect to the licensed technology (product) independently or in co-operation with a third party;

- when a licensor does not allow a licensee to handle competing products which are similar to or which may be substituted for the licensed technology (product or business) during the term of the contract or after the expiration of the contract; or when, during the term of the contract, a licensor requires a licensee to obtain the licensor's prior approval to handle competing products;

- when a licensor does not allow a licensee to handle products which are similar to or in competition with the licensed product, or prohibits the use of technology which is similar to or in competition with the licensed technology after the expiration of the contract or early termination of contract;

- when a licensor requires a licensee to pay royalties on products that do not embody the licensed technology.

III-6. Pools and cross-licensing

Presently, there are no statutes in Korea which state whether pools and cross-licensing violate the competition code or not. Korea feels that establishing clear standards for violations and special considerations would have strong preventive effects and encourage successful application of competition law.

For instance, if two or more licensors enter into cross-licensing with respect to their two or more patented technologies, evaluations should be made on the impact of such cross-licensing on competition. If evaluations reveal that it restrains competition, it should constitute a violation of the competition law. If, on the other hand, two or more licensors enter into cross-licensing with respect to their two or more patented technologies, and at the same time, engage in so-called patent pooling, as patent pooling clearly restrains competition, it should be explicitly stipulated as constituting a violation of the competition law.

MEXICO

COMPETITION POLICY AND INTELLECTUAL PROPERTY RIGHTS FRIENDS OR FOES?

This paper was prepared by the Mexican Institute of Industrial Property and it comprises most of the issues listed in the outline for this Roundtable, except for the issues regarding copyrights. However, considering that in Mexico the competition policy in connection with intellectual property rights is currently in a developing stage, it was not possible to address all items.

In this sense, the paper has essentially an academic character and does not reflect an official perspective. Also, it must be clarified that this paper does not contain references to cases, as most Mexican cases have related to trademarks, a topic that will not be discussed during the Roundtable.

A. Basic Issues

I. Breadth of Intellectual property rights (IPR) and its effect on innovation and competition.

The philosophy of Mexico to balance incentives for inventor and limiting monopoly effects is expressed in the Industrial Property Law of 1991, amended in 1994 and in the Competition Law of 1992. On the one hand, an individual who makes an invention or his successor in title, shall have the exclusive right to use it for his benefit, either himself or through others with his consent. The invention shall be disclosed through its description and the publication of a patent application shall take place as soon as possible following the expiration of a period of 18 months from the filing date of the application, or where applicable from the date of recognised priority. The disclosure of the information contained in a patent application is a requirement of all patent systems in the world, since such information represents a great source to the public interested in that particular technical field. On the other hand, the Competition Law sets out that time-limited privileges granted for inventors and creators do not constitute monopolies.

The rights conferred by the patent shall be determined by the claims as approved. The description and drawings, or where applicable the deposit of biological material shall be used to interpret them. The exclusive right of exploitation of the patented invention shall confer to its owner:

- if the subject matter of the patent is a product, the right to prevent others from manufacturing, using, selling, offering for sale or importing the patented product without his consent;

- if the subject matter of the patent is a process, the right to prevent others from using the process and from using, selling, offering for sale or importing the product obtained directly by means of the process without his consent.

The patent breath does not specifically refer to more than ease of patentability, but with the Industrial Property Law of 1991 as amended in 1994, inventions that do not refer to: essential biological processes for the reproduction and propagation of plants and animals; biological and genetic material as

found in nature; animal breeds; the human body and the alive parts forming it; and vegetable varieties, shall be patentable in Mexico. Thus, most of the technology areas where inventions are made are patentable. For instance, this may generate that patents are not conferred on a single product, they may be granted for all innovations in the same field.

In this sense, the breadth of IPR should positively affect primary innovation, thus reflecting the public interest in encouraging innovation. Patents ensure their owners appropriate some of the returns to invention, either through retaining exclusive use of the invention or by granting a patent license.

In return for being granted exclusive rights to use their inventions, including the possibility to develop some degree of monopoly power in various markets, inventors must disclose detailed information about their inventions which could provide useful information for secondary innovation. However, patent breadth itself does not increase costs through requiring more extensive research.

According to innovating stages such as basic research, applied research and development, protection for each stage varies enormously. If there is no secondary innovation, the inventor may receive a large share of its innovation's possible profit. But, in practice, the invention's effective life does not necessarily accord with the patent's legal life. It may be shorter depending on secondary innovations done by competitors or longer due to the original inventor doing further research and development (R&D) and innovating in the same area. In the first case, it may no be shorter at all, since cross-licensing may occur. Such licensing may provide competitive benefits by integrating complementary technologies and disseminating new technology and knowledge. However, cross-licenses could produce some anticompetitive effects in certain circumstances that will be further discussed in this paper.

Broader standards of IPR do not specifically tend to create competition problems, because even if they are likely to confer significant power market, there are other elements that also contribute to such market power, such as marketing and management skills, R&D, capital and raw material access or the achievement of scale economies. The right-holder has to plan the contribution and mix of such elements to gain further market power.

At this point, we can say that it is not necessarily true that broader IPR increases the incidence of licensing having higher risks for competition, because of the fact that the use of industrial property rights owned or licensed by a person may be an important means to consolidate technological advantages. Although IPR confer the power to exclude others with respect to the product or process protected, there will always be substitutes for such protected goods to prevent the exercise of market power in an anticompetitive manner.

It is indeed true that some degree of market power is necessary to foster innovation and consequently that there is an interface between intellectual property and competition law involving a trade-off between "... market structures that benefit consumers through lower prices and market structures that benefit consumers through more sophisticated products". Protection of technological innovations does not necessarily end at industrial application, in many industrial sectors it can go even further to cover other areas such as marketing, including price and product differentiation strategies to gain market power. That is, at production and commercialisation stages where protection becomes rather relevant, because this is where expected costs and returns may become clearer.

II. Potential conflict between IPR and competition/antitrust (AT) laws and some means of reducing it

In many countries it is recognised that there is an interaction between IP law and laws seeking to ensure free competition. The degree of such interaction depends on the development of the competition law in a certain country, which clearly relates to the degree of market development.

In the case of Mexico, this is a relatively new issue. There has been up to 1992, a prevailing theory that there were two different matters and the question was about boundary and paramountcy: where do IPR privileges or monopolies end and where do the unlawful restraints begin; when is there a case of legitimate reward for the IP right-holder; and when is there a case against free competition?.

Two polar options for handling conflict between the laws are:

a) complete forbearance on the part of competition;

b) define IPR as narrowly as possible and subject its use to strict competition review.

In Mexico, it has been a rather complex and long task to draw and define the line between IP law and competitive law. However, this line with the promulgation of the Competition Law in 1992, has been moved to expand and regulate the scope of the competition law but respecting IP monopolies. In this sense, we may say that Mexico is more likely to be handling the conflict between the two laws within a balanced position between options a) and b).

Undoubtedly, there may be some potential sources of conflict between the two policies:

1. Different goals

Probably a way of reducing the conflict between these two polices is not to stand in a extreme position. This means, to define a clear boundary between IPR law and competition law, allowing the right-holder to exercise and control its right and providing a fair competition environment, considering some other elements such as the product life cycle, types of products protected and the patent legal life.

Moving to another potential source of conflict between the two policies, we have:

2. Unintended side effects of IPR on competition policy

a. The pre-emptive patent danger

In this case, we have a problem where innovation may violate competition law. We believe there may be a false idea that, with pre-emptive patents, the incumbent monopolist has more to lose from innovation than an entrant has to gain. To prevent this alleged loss, the incumbent might decide to incur research and development costs to obtain a patent whose expected profits might be, on its own, negative. A patentee may accumulate a number of patents, through patenting his own inventions or by acquiring them from others, and they may consist of several basic patents covering new innovations in a certain technical field as well as several improvements patents. Accumulation of patents may generate a dominant position in the market or some degree of market power and to this point, it does not make a difference if

patents are or are not used. However, if the patentee owns a complement or competing patent its purpose is to suppress the use of such patent, he may restrict the promotion of innovation and inventive activity consequently, he may be acting against competition laws. Thus, IPR law and competition law may provide incentives for innovation.

3. Intentional use of competition policy to fine tune the rewards to innovation that IPR has permitted.

In regard to the alternative approach recommended by Gallini and Trebilcock, we believe that in some manner they are right. The task of patent policy is to define those rights that encourage innovation and the task of competition policy to moderate the diffusion of technology, while respecting the exclusive rights as laid out by the patent law. Thus, the normal exercise of IPR is legitimate and shall not be hampered by laws that aim to ensure freedom of competition. Competition laws may only affect clauses not related to the normal exercise of IPR and not justified by the exercise of such rights, in particular to prevent restraints or abuse.

However, it is understood that there should be a balance between the reward of the patentee and the public interest in promoting technological innovation, marked by both, IP law and competition law.

Concerning the (italicised) policy advice offered by Gallini and Trebilcock, we have the following comments:

a) There should not be a presumption that intellectual property creates market power

Competition institutions shall not presume that IPR necessarily creates market power, as they have to compete with other inventions (products/processes) to substitute such protected products or processes in the same relevant field. In order to create market power, IPR must be combined with other factors such as marketing and management, strategies and skills and access to capital, among others, and of course, to continue carrying out R&D activities. Competition institutions shall only sanction anticompetitive practices and shall oppose only operations and actions that substantially threaten free competition in the market-place.

b) The exclusive rights stated in the patent law should be respected by competition law

We agree with this recommendation because this is the way it is set out in the Mexican Competition Law.

c) Competition authorities should not base their policy on whether innovations have received a sufficient reward for their efforts, but should evaluate licensing contracts on their own merits

We also agree with this recommendation because a patent may not always be as rewarding and effective as the right-holder expects, but in the case of a patent that by itself returns sufficient profits, it is not an anticompetitive practice. However, licensing contracts may be evaluated separately as they may include certain clauses against free competition.

d) Licensing restrictions that do not reduce competition relative to a "no licensing" situation should be allowed; if a licensing restriction reduces competition from the "no licensing" situation, then an evaluation of offsetting pro-competitive effects from the restrictions and from the diffusion of the IP should be made

In this case, we believe that the situation may be allowed, but the duration of such restriction can be important in determining whether it is reasonably necessary to achieve the putative pro-competitive effect.

We consider that it is very important to take into account the policy advice mentioned above. However, in some cases, the scope of IPR protection should be analysed because the broader it is the greater the likelihood to grant market power. We disagree with the argument that some amount of fine tuning is somewhat automatic. For instance, the patent's claims could have such a great scope that the patent may generate more market power than was expected, because further innovations may invade the claims of the first patent and therefore, there is a situation of preventing the exploitation of the third patent, which is a restriction for free competition.

B. Enforcement issues

1. General comments on

a) The principle of respecting any market power inherent in an IPR while restricting the use of an IPR to increase or extend that market power

This is a relatively complex issue. In practice it is very difficult to make the required distinction.

b) What competition law can and should do when faced with overly broad IPR or IPR having dubious validity (but outright fraud cannot be established)

In Mexico the competition authority evaluates each situation in order to distinguish between an anticompetitive practice and a practice that is efficiency enhancing and therefore, legitimate. Such analysis may allow sanctioning anticompetitive acts. As we have stated before, broader IPR does not necessarily mean acting against free competition.

c) There is a need to distinguish between horizontal and vertical effects

This distinction is an aid in determining whether there may be anticompetitive effects arising from licensing arrangements. The Mexican law sets out this distinction between horizontal and vertical monopoly practices as "absolute" and "relative". Absolute monopoly practices are laid out in Article 9 of the Competition Law and the relevant competition authority may apply administrative sanctions to these practices. The objective of horizontal relationships is always to monopolise markets however, in IPR licenses this relationship does not indicate that the agreement is anticompetitve.

d) The definition of technology and innovation markets and the assessment of market power in regard to them

Evidently this is a new fact that somehow may be addressed in competition policy. However, the Mexican Competition Law does not refers to these issues.

e) The general advisability of establishing safe harbours at the IPR/competitive interface

In the Mexican Competition Law there are implicit safe harbours since it respects IPR monopolies because they can promote innovation and competition.

2. Refusal to licence

Should an essential facilities doctrine be applied to require licensing in order to foster greater competition and what are the limits to such an approach? The Industrial Property Law of Mexico sets out the exclusive rights granted under a patent and also specifically refers to patent licensing. However, there is no obligation imposed by the Law on the right holder to grant licenses to others. He may limit the use of his patent to himself or he may refuse to make any use. If he refuses to license for the purpose of preventing competition, there is no specific violation of competition law or the necessity to order a compulsory license. As the Mexican Industrial Property Law does not oblige the owner of the patent to grant licenses, refusal to license can be a legitimate strategy.

What criteria should be used in assessing whether to use compulsory licensing as a competition remedy? It is hard to determine what criteria should be applied in assessing whether to use compulsory licensing as a competition remedy as we shall take into count two different objectives: to correct the past situation and to prevent future anti-competitive activities. Because compulsory licenses are related to patent exploitation in the market place, these kind of licenses could be considered to foster pro-competition activities in the market.

The Mexican Industrial Property Law, article 70, sets out that in the case of inventions, after three years from the date of grant of the patent, or four years from the filing of the application, whichever period elapses later, any person may apply to the Mexican Institute of Industrial Property for the grant of a compulsory license to use the said invention where it has not been used, unless there are duly justified reasons for such non-use. However, it is important to mention that a compulsory licenses may not be granted when the patent owner or the right holder of a contractual license has been importing the patented product or a product obtained using the patented process. Whoever applies for a compulsory license must have the technical and economic ability to use the patented invention efficiently. According to article 72 of the Industrial Property Law, prior to granting the first compulsory license, the Institute shall give the patent owner the opportunity of exploiting the patent, within a period of one year from the date of the personal notification addressed to him. The Institute shall decide on the grant of the compulsory license and will establish the duration, conditions, fields, and royalties.

On the other hand, on the expiration of a period of two years following the granting date of the first compulsory license, the Institute may administratively declare the patent lapsed if the compulsory license granted has not remedied the non-exploitation thereof, or if the patent owner has not proved the exploitation thereof, or the existence of reasons that are justified in the opinion of the Institute. However, it is important to note that no compulsory licenses have been granted in Mexico yet.

3. Leveraging and tying restrictions

There is a possibility that the linkage used by Microsoft can eventually be anticompetitive, if the new program is used as an instrument to sell access to Internet, however we consider that the new program can grant Microsoft a competitive advantage in the market, even though there is no choice for consumers to access Internet through another competitor. Probably, Microsoft can gain more and leverage its market power beyond the normal reward of the program, but market power is limited by the demand curve for the new product and by further innovations.

4. Reach through royalties

Under what circumstances might reach through royalties be considered to be an antitrust violation ?

Considering that the amount of royalties may be established by the parties in a licensing agreement, it can not be an anticompetitive element *per se*, but however, it may be considered as an important element of analysis in an anticompetitive situation. The reach of certain amount of royalties set out in the licensing agreement may involve anticompetitive effects, such as price fixing or manipulation.

5. Grantbacks

Grantback clauses in a license have advantages and disadvantages. They may represent a disincentive on the licensee's part to engage in research and inventive activities since the results of such research are to be shared with the licensor and at the same time, may increase the licensor's monopoly position. So we face a complex problem that is innovation versus monopoly. To solve this problem many elements shall need to be considered, such as the market power of licensor; the duration of the license; and if it is a exclusive or non-exclusive license.

In this sense, if there is a non-exclusive license, grantbacks can have a procompetitive effect. A non-exclusive grantback leaves the licensee free to license his improvement thus, is not likely to have anticompetitive effects therefore, we support the European Law, in the sense that grantbacks that keep the licensee-inventor from using the new technology are anticompetitive.

6. Price restrictions

Do these always limit competition? Not always, but they limit competition in the case where the restrictions are beyond the scope of any patent right. However, it depends if there are cross licenses, because the price established by the licensor must apply to the patented product only and not to a finished product that may contain the patented component.

7. Exclusive contracts as where a patentee agrees to exclusively transfer his innovation to one party

Presuming the exclusive licensee is not an actual or potential competitor, under what circumstances could this be anticompetitive? Where the licensee is an actual or potential competitor, can standard law be applied?

A patentee who sells or assigns his patent may be properly required by the assignee to keep out of the activity covered by such patent, but if the patentee agrees to keep out of other fields not covered by the patent in question, this shall constitute a restriction beyond the patent's scope, and therefore an anticompetitive practice.

A patentee has the right to grant an exclusive license and therefore he may contract not to manufacture, use or sell the invention himself in competition with his licensee, without the agreement of the licensee and if he grants another license without the consent of the prior licensee he may be acting in an anticompetitive manner. According to article 67 of the Mexican Industrial Property Law, unless otherwise provided, the grant of a license shall not prevent the owner of the patent from granting other licenses, or from exploiting the patent at the same time himself.

When the licensee is an actual competitor, the standard merger law may not be applied because he is selling the patented product in competition with the licensor and other licensees.

8. Exclusive territories

The rights conferred by a patent according to the Industrial Property Law are nation-wide, thus, the patentee may license exclusively any person to produce and sell the patented product or to use the patented process only in a defined territory in Mexico. However, it may constitute a violation of the Competition Law in the sense of dividing or imposing market portions for products.

9. Exclusive dealing

The contracted restrictions limiting the licensee's freedom of action are ordinarily beyond the scope of any patent right. The likelihood that exclusive dealing may have anticompetitive effects is related to the degree of foreclosure in the relevant market, the duration of the exclusive dealing arrangement, and other characteristics of the input and output markets, such as concentration, difficulty of entry and the responsiveness of supply and demand to changes in price in the relevant markets.

10. Pools and cross-licensing

Cross-licensing may have both competition enhancing and competition reducing (including through effects on barriers to entry) properties. In some cases, (particularly in countries with broad IPR standards) they may be a necessity: what criteria should be used to assess them from the competition perspective?

Cross-licenses may have pro-competitive effects but this depends on how the patents interrelate. This relationship may consist of "blocking patents", "complementary patents" and "competing patents". In the case of cross-licensing of blocking or complementary patents there may be no anticompetitive effects, provided that there are no additional elements in the agreement which may violate competition law, such as price restrictions. Additionally, this kind of cross-licensing may produce pro-competitive benefits through integration of complementary technologies, reducing transaction costs, clearing blocking positions and exploiting substitute products.

In regard to pooling patents, we can say that this does not on its own always violate competitive law. A violation may arise if the pooling is used as means of increasing monopoly, market sharing and price restrictions, among other elements, which indeed go beyond the normal scope of the patent.

The criteria used to assess pools and cross-licenses from the competitive perspective focus on the restrictions contained in the agreements, such as price fixing.

POLAND

A. Basic Issues

Potential Conflict Between IPR and Competition / Antitrust (AT) Laws and Some Means of Reducing it

In the antimonopoly law the Polish legislator provided a general rule pertaining to the interaction between IPR and AT which is consistent with European standards.

According to Art. 3, Act of February 24, 1990 on Counteracting Monopolistic Practices, (uniform text announced in Official Journal of 1995 No. 49, item 318 hereinafter referred to as 'AT-PL'):

> This Act does not violate any exclusive rights ensuing from the legal regulations concerning protection of intellectual and industrial property rights, and in particular provisions on inventions, trademarks, decorative patterns, protection of layout design (topography) of integrated circuits, copyrights and neighbouring rights as well as agreements concluded between employees and trade unions with employers, aimed at protection of employee rights.
>
> This Act shall apply to:
>
> 1) licence contracts and other acts of exercising exclusive rights specified under item 1;
>
> 2) contracts concerning technical and technological information not disclosed to the public, with regard to which necessary action has been taken to ensure their confidentiality if the above contracts and agreements result in an unjustified reduction of market competition.

The content of exclusive rights as well as their enforcement results from the provisions regulating these rights. In view of the obligation to access the Munich Convention of 1973, resulting from the Europe Agreement of 1991 about Poland's association with the European Communities, Polish standards of protection are already uniform with those adopted by the European Patent Office. Law suits concerning patents withdrawal or violation have not yet been numerous enough in Poland to clearly define jurisprudential trends, especially in aspect of AT.

1. Different Goals

The Polish antimonopoly law as in other countries does not prohibit a dominant market position but counteracts its abuse (see Art. 3 AT-PL).

There has not yet been a case in which the Office for Competition and Consumer Protection (OCCP) or the Antimonopoly Court has given its opinion about the matter of a dominant position as a result of IPR. Nevertheless Art. 42 of the Invention Law (Act of 1972, uniform text Official Journal 1993, No. 26, item 117) forbids patent or license holder to abuse rights, in particular by prohibited monopolistic practices. The abuse of patent rights is one possible reason for granting a compulsory license (see below). This is an important link between IPR and AT. As the OCCP is the sole authority entitled to ascertain

monopolistic practices, it means that compulsory licence concessions are subject to the prior OCCP's decision. In view of the legal inadmissibility to question this decision by any other organ (in particular the court or the Patent Office), there is consequently no possibility to refuse a compulsory licence concession approved by the OCCP. Therefore, although indirectly, the OCCP may decide upon compulsory licence issuance. No such case has yet occurred.

In cases not coming within IPR regulation (e.g. patent holder abuses its right in suppressing the sales of commodities to lead to a rise in prices or charges excessive prices - see Art. 7 AT-PL), the antimonopoly law will be applied on general rules.

2. Unintended Side Effects on IPR on AT Policy

a. The Pre-emptive Patent Danger

There is very little economic justification for blocking the parallel imports of goods legally admitted to the market of another country even if its strongly supported by the territorial protection rule resulting from the Paris Convention on industrial property rights. It should be admitted that suppressing legal barriers is one of the principal rules on which trade turnover in the EU territory is based. It seems therefore that introducing the analogous rule in particular countries (which is described in international law as exhaustion) would be for these countries economically justified and in the context of adopted in European Communities freedom of movement of goods its legality would be difficult to impair. In this context it should be noticed that the Polish legislator, even if only to a limited extent, aimed in this direction. Namely Art. 51 paragraph 3 of the copyright law (Law of February 4, 1994 on copyright and neighbouring rights, O.J. No. 24, item 83) defines that imports of copies introduced to the sales on the territory of the country with which Poland concluded free-trade agreement does not constitute a breach of property rights. The similar normative solution is foreseen in the draft law 'Industrial Property Rights' (its scope is intended to cover practically all aspects of industrial property, i.e. invention protection, trade marks, industrial design, geographical indications and integrated circuits topography).

3. International Use of AT Policy to Fine Tune the Rewards to Innovation that IPR has Permitted:

a) there should not be a presumption that an intellectual property rights create market power. The existence of 'market power' is related to a particular product market. If there are substitutes, no market power can be observed. In case of deficiency of substitutes the existing market power is due to the actual factual situation and not to solely to IPR. The above comments refer, arguably, not only to product but invention market as well;

b) surely exclusive rights stated in the patent law should be respected by competition law. Under the Polish law it is directly determined by the above quoted Art. 3 of AT-PL;

c) competition authorities should evaluate licensing contracts on their own merits. From a practice point of view in relation to the particular obligations contained in the licence agreements this matter can be regulated by special implementing rules. In Poland in 1993 the OCCP published guidelines on the AT provisions enforcement regarding patent licences and know-how based on then binding Commission Regulations No. 2349/84 and 556/89;

d) if licence agreement restrictions fall within the scope of the regulation quoted under item c), their character is prejudged. With reference to the restrictions beyond this scope, the

particular case will be evaluated in the light of the rule of reason. This rule has its application in the Polish law provided that monopolistic practices are necessary because of technical and organisational reasons to run economic activities and do not lead to substantial restrictions of competition (art. 6 of AT-PL.).

B. Enforcement Issues

1. General Comments

a) as follows from quoted Art. 3 of the above quoted Act on counteracting monopolistic practices, the Polish law only limits the use of IPR. It is difficult to determine these limits, particularly with reference to the abuse of dominant position. Some procedural solution, present in the Polish law, it is the possibility of granting compulsory licence in cases of the abuse of a dominant position;

b) cases of overly broad IPR or IPR having dubious validity cannot and shouldn't be rectified by AT. The possibility to revoke exclusive rights exists and should exist only in relation to the cases and under conditions provided for by IPR provisions;

It should be noted however, that in accordance with art. 68 of the law on inventions, a patent can be withdrawn not only upon request of the person legally interested, but also to advance the public interest, on request by the General Prosecutor. Therefore there exists a procedure, whereby a public authority other than the Office for Competition and Consumer Protection, may start a proceeding for the revocation of incorrectly granted IPR. Perhaps the authority to apply for patent withdrawal (and eventually other IPR) should also be granted by the legislator to the President of the OCCP;

c) from the practical point of view, the differentiation between horizontal and vertical effects is justified only when it results from the regulations. In the Polish law there is a lack of such a general distinction, although some monopolistic practices described in AT-PL concern only horizontal agreements (i.e. treated more leniently);

d) the problem of market power is not necessarily confined to the sphere of research.

1) When a patent protects some way of conducting research and its economic application consists on using it during the phase of researches, than it may lead to the situation of market power. This may occur especially when conducting the research is impossible without the violation of the patent, that is when there is a lack of the substitutes of the invention.

2) When the invention is a necessary element of the subject of the research, then the possibility of blockade resulting from the possession of patents does not arise because the patent law contains a research exemption. According to Art. 16 point 8 of the invention law, "the right to the patent for the invention is not infringed by using the invention for research purposes".

It is evident that when the research works are taking advantage of the protected innovation, their results cannot be used without the agreement of the patent holder. Eventual demurrer to the holder of the abuse of his rights could be relevant rather to product than innovation market. It is different in case of the research resulting in innovation protected by the dependency license (as its use is not possible without use of the prior innovation). In such a case the possibility of taking economic advantage of the results of

research based on prior invention is granted. Namely, in conformity with Art. 49, paragraph 2b) of the Invention Law, the secondary patent holder may be then granted the compulsory license. It should be added that in such a case the original patent holder may also require granting him the license of the invention protected by dependency licence.

e) Undoubtedly "safe harbours" at the IPR/AT interface are purposeful, as they create legal certainty concerning the authorised conduct of the entitled from the patent or other IPR. Thus these matters should be regulated, as it is at present, by Guidelines or law provisions.

2. Refusal to licence

Compulsory licences are an appropriate means to counteract the abuse of rights by a patent holder. The possibility of issuing compulsory licences is also provided for by the international conventions, including the TRIPS agreement which contains exhaustive provisions pertaining to such licences.

Jorde's views, reflected in a document distributed to delegates, do not seem accurate as in practice the number of granted compulsory licenses is insignificant. The characteristic feature of the compulsory license is then in practice not being used as a tool, but as a treat of compulsory intervention in his exclusive rights, pending on the patent holder. It should be noted that compulsory licence systems are found in most if not all countries. Even in the US, although patent law does not provide for compulsory licences, 125 such licences have been granted up to 1988 based on the anti-trust law provisions (see Cole M. Fauver: "Compulsory Patent Licensing in the United States: An idea whose time has come", North-western Journal of International Law and Business" Winter 1988, Vol. 8, No 3, p. 670). Thus the question is not whether obligatory licensing should exist but what should be its legal basis (the patent law or the antimonopoly law).

It should be noted that compulsory licences limit the scope of third person using property rights protected by IPR in that sense, that according to the law interpretation it is not possible to compulsory infringe the scope of the entitled exclusivity unless in cases *expressis verbis* described by the law. However, in cases such as in the Polish law providing possibility for compulsory licence being granted as a result of the OCCP's decision (see above), there is no limitation of AT by IPR.

3. Leveraging and Tying Restrictions

If, for technical or other reasons, buyers will be interested in simultaneous possession of two mechanisms or technologies protected by patents granted on behalf of the same manufacture, generally there will be no tying restrictions.

4. Reach through Royalties

Interference in the sphere of royalties is generally unjustified, but Polish competition law does permit intervention to control excessively high royalties (under Art. 7 AT-PL).

5. Grantbacks

As with the application of European laws, Polish OCCP guidelines treat as unlawful, contractual obligations on licensees to transmit to licensors, all or partial rights concerning improvements of the object of licence, or to granting a licence excluding the licensee's use of these improvements (point IV. 6 guidelines of the OCCP).

6. Price restrictions

Price restrictions are examined in Polish law basically under a rule of reason. If however a business entity holds a monopolistic position and charges excessive prices according to art. 7, then a *per se* violation takes place.

7-10. Exclusivity

Exclusive licences are generally permitted. The merger law shouldn't apply to the licences where the licensor remains the owner of the IPR. The merger law may though apply to the full or partial sale of IPR. In that situation a merger of business entities takes place, in conformity with Art. 11 of the Antimonopoly Act.

As for cross-licensing, if this does not involve competitors, there is no need for AT intervention. If however the parties of the licence agreement or the participants of the patent-pool are competitors, such forms of co-operation constitute monopolistic agreements under Polish law and are judged under the rule of reason standard.

11. Standard Setting and Network Issues

Undoubtedly compatibility standards tend to facilitate entry since they allow new entrants to produce components rather than entire systems. There appears to be little danger that standards involving IPR can be used to tip market development to favour one product on the basis more of ubiquity than of better inherent value.

UNITED KINGDOM

Introduction

Competition policy in the United Kingdom has historically taken a relatively benign view of intellectual property rights (IPRs). Intellectual property issues have been formally considered by the competition authorities only where there has been either individual or collective market power, and even in those cases which have been investigated, the exercise of IPRs has not normally been constrained in the interests of competition.

This paper gives a brief account of the relevant competition and IPR legislation, and of a number of competition cases in which IPRs have been at issue. Reports by the UK competition authorities on these cases have not, typically, contained much discussion of the economic aspects of the interface between competition policy and IPRs, although some more recent reports demonstrate a growing recognition that any intervention should not undermine incentives to innovate and create.

IPR legislation

A full account of the provisions of UK intellectual property law is not within the scope of this paper. The principal relevant statutes are, however, the Patents Act 1977 and the Copyright, Designs and Patents Act 1988. Patents may be granted where a product or process is technically innovative. The owner of a patent has the right to prevent others producing the patented goods or applying the patented process for 20 years and can bring an infringement action against anyone attempting to do so without his permission. Copyright protection for artistic works lasts for the lifetime of the author, plus twenty years. Functional objects do not benefit from copyright protection, but may be protected under the unregistered design right, which extends for a maximum of 15 years, with provision for obtaining a licence of right during the last five years. Designs with 'eye appeal' may be protected under the registered design right, with a duration of up to 25 years. The 1988 Act contains provisions which are particularly relevant to the interface between competition policy and IPRs, conferring upon the Secretary of State the power - where the MMC finds that the terms of a licence for copyright, design right or registered design, or a refusal to grant such a licence, is against the public interest - to order that the licence should be modified, or that licences should be available as of right. In default of agreement, the terms are to be settled by the relevant authorities - the Copyright Tribunal and the Comptroller-General of Patents, Designs and Trade Marks. The Act also revised the power to modify or compel the grant of patent licences contained in the 1977 Act.

Restrictive agreements and intellectual property rights

A number of categories of agreement associated with the exercise of IPRs involve either horizontal or vertical restraints, whose adverse effects must be measured against the benefits they may bring. A horizontal arrangement such as a patent pool between all the firms in an industry under which no

licences are granted to third parties may lead to excessive profits and keep new entrants out of the market. But pooling arrangements such as collecting societies for performing rights may enable the parties to negotiate on a more equitable basis with powerful media interests. And the exchange of information between competitors about complementary technology may be justified if it is essential to successful research and development. So far as vertical arrangements such as licences are concerned, possible objections to the restrictions placed upon licensees, which generally have the effect of restricting intra-brand competition, must be balanced against the enhancement of inter-brand competition which will be brought about by the entry of the licensee to the market.

In UK competition law, agreements between two or more parties carrying on business in the supply of goods or services who accept specified restrictions on their freedom to compete are, generally, subject to the Restrictive Trade Practices Act 1976, which requires them to be registered with the Director General of Fair Trading (DGFT) and subjected to a scrutiny of their effects on competition. Agreements which operate against the public interest are modified or ended.

Notwithstanding the competition issues involved, no agreement relating to restrictions as to IPRs alone has ever been adjudicated on by the Restrictive Practices Court. This is primarily a consequence of agreements dealing with most trademark and copyright issues being explicitly exempted from registration under the Act. Furthermore, many intellectual property assignments and licences contain restrictions only on the activities of the assignee or licensee; such agreements are not subject to the Act, which applies only where two or more parties to the agreement accept restrictions. The application of the Act to assignments or licences is further restricted by the Ravenseft principle. In 1976 the Court[1] concluded that a lease of immovable property in itself conferred upon the lessee only an interest in property and was not the supply of goods or services and that, in general, limitations on the activities of the lessee under a lease were not restrictions within the Act. This was because, until he entered into the lease, the lessee had no right to do anything in relation to the property and so, by accepting a limitation on what he could do, he did not reduce any freedom which he had previously enjoyed. In the light of this judgement, the DGFT indicated[2] that in his view an assignment or licence of intellectual property, like a lease, was not the supply of goods or services, so that a prohibition on sub-licensing was not a restriction within the Act.

Monopolies and intellectual property rights

The legislation

The Fair Trading Act 1973 provides for the DGFT to refer monopoly situations in the supply of goods or services to the Monopolies and Mergers Commission (MMC). Such situations may be either ‘scale’ monopolies, where a single company supplies or purchases 25 per cent or more of all the goods or services of a particular type in the UK or in a defined part of it; or ‘complex’ monopolies, where a group of companies, which together have 25 per cent or more of the market, all behave in some way that adversely affects competition. Following a reference the MMC must investigate the matter, and decide whether a monopoly situation exists, whether any monopolist is exploiting the situation by any anti-competitive practice and whether his conduct has effects which are adverse to the public interest. The public interest is very widely defined, but in practice the MMC concentrates on the issue of competition. In the event of an adverse finding the MMC can recommend remedies, which may be implemented by means of undertakings given to, or orders made by, the Secretary of State for Trade and Industry. A significant omission from the wide range of remedies available under the Act is any power to modify or to compel the granting of intellectual property licences. This omission became apparent as a consequence of

investigations by the MMC in which IPRs were at issue, and led to the introduction of such powers under the Patents Act 1977 and the Copyright, Designs and Patents Act 1988.

The Fair Trading Act also contains a power for Ministers to make, in relation to uncompetitive practices, general references to the MMC. General references are not confined to the supply of goods or services and can, therefore, consider the exploitation of IPRs *per se*. The powers of the MMC on such references are, however, confined to making recommendations: no remedies can be imposed.

Under the Competition Act 1980, the DGFT may also make references to the MMC of anti-competitive practices in the supply of goods or services by a single dominant company. The procedures for investigation and implementation of remedies are similar to those under the Fair Trading Act.

The fact that all those cases involving IPRs in which formal action has been taken by the UK competition authorities have been under the Fair Trading Act or the Competition Act means that the exercise of IPRs has generally been examined only when some degree of market power is present. Even then, the MMC has not always made an adverse public interest finding. Particularly in the more recent cases, the MMC has given intellectual property issues more extensive treatment, and shown a clear recognition that IPRs are not usually in conflict with competition policy. Indeed, they are usually pro-competitive, so that competition authorities need to have good reasons before interfering with their exploitation.

The following account of nine MMC investigations involving intellectual property which have taken place since 1973 deals first with those in which adverse findings were made, and secondly with those in which the MMC took a more benign view of the IPR issues.

Cases leading to adverse public interest findings

Chlordiazepoxide and diazepam (1973)[3]

The principal matter of concern in this case was the prices which Roche Products, the leading supplier of these tranquillisers, was able to charge the National Health Service. The MMC's report recognised the significance of patents for research-based innovators, who thereby financed further (and quite possibly unsuccessful) research. It noted that the Patents Act 1949 mitigated in relation to pharmaceuticals the monopoly conferred by a patent in two ways: by providing for compulsory licensing on reasonable terms in the absence of any good reason to the contrary; and by conferring upon the Government the power to make and use any patented invention for the services of the Crown without any compensatory payment. Roche had pursued a policy of refusing to license applicants who had insufficient research resources (since to do so would reduce the degree and intensity of competitive research) but had no absolute objection to licensing products which did not have an established market, or to granting licences to large research-based international firms as part (for example) of a cross-licensing arrangement (though Roche's geographical coverage was wide enough to make this generally unnecessary).

The MMC's principal recommendations for dealing with a level of prices which it regarded as contrary to the public interest were price control and substantial reimbursement of earlier payments. It made no observation on the general question of the extent to which a holder of a patent is entitled to recover the cost of its research investment and maximise its returns during the life of the patent, except to object to the common practice in the pharmaceuticals industry of charging all current research cost against

current sales. On that issue, however, it made no recommendation, since the problem was resolved by price control.

Indirect electrostatic reprographic equipment (1976)[4]

In this investigation the MMC found that Rank Xerox (which supplied about 90 per cent of the UK market) had engaged in substantial and increasing research and development and had thereby created a stock of about 1000 patents and patent applications, many of them not used. Their number effectively prevented any test of their validity and thus impeded market entry by compelling competitors to expend resources on ascertaining the extent of the patents and on developing alternatives to avoid infringement. Rank Xerox also severely limited the number of licences which it granted.

The MMC acknowledged that Rank Xerox was entitled to enforce its patent rights but nevertheless concluded that such enforcement conflicted with the public interest by establishing and maintaining the company's market power. But Xerox, the US company which ultimately controlled Rank Xerox, had itself been subject to investigation by the Federal Trade Commission, and had in 1975 submitted to a consent order which provided that it must (*inter alia*) license all patents relating to office photocopiers. Since the order had world-wide effect, the MMC thought it unnecessary to make any recommendation. It did however observe that the requirement in the order that Xerox must license know-how did not apply outside the USA and thought that this aspect might need further attention in due course.

Ford Motor Co Ltd (1985)[5]

This investigation concerned Ford's practice of refusing licences to competitors to manufacture or sell certain replacement body parts for its vehicles, in the design for which it claimed the copyright or the registered design. The MMC had jurisdiction to deal with the practice because, as it found, it adversely affected competition in the supply of replacement body parts. It also found the practice to be against the public interest. The MMC considered that none of the powers available to the Secretary of State enabled him to impose the necessary remedy - to force Ford to grant a licence to competing manufacturers. This left the MMC with little to recommend except amendments to the existing law. This recommendation, together with their comments in the BBC/ITP case (see paragraph 21), led to the change in the law described in paragraph 7.

Collective Licensing (1988)[6]

This general reference of practices in the collective licensing of public performance and broadcasting rights in sound recordings required the MMC to consider in particular the assignment by copyright owners of copyright to collective licensing bodies and the royalties, tariffs and restrictions stipulated by such bodies. The enquiry was perhaps less extensive than intended, since of the five collecting societies in the UK four took licences of the copyright involved and only one (Phonographic Performance (PPL)) took an assignment.

The MMC rejected some but accepted other complaints made by radio broadcasters about royalties and limits on the playing time of music licensed by PPL and concluded that collective licensing bodies were the best available mechanism for licensing sound recordings. The MMC nevertheless made a wide range of recommendations for relieving the effects of the near-total monopoly in assigned copyright

enjoyed by PPL as the supplier of sound recordings to radio broadcasters, among them changes in the existing law[7]. Its specific proposals included compulsory licensing in certain circumstances and a more efficient method of arbitrating disputes as to royalties.

Video games (1995)[8]

The MMC's investigation of video games raised complex questions relating to intellectual property in computer programmes, microchips, circuitry and other features. The investigation resulted in several adverse findings relating, amongst other things, to the restrictive provisions inserted by the leading suppliers of the games in licences which they granted to publishers of software on their formats. These restrictions - which included limiting the number of games produced, directing packaging and presentation and controlling the manufacture of the necessary cartridges - had the effect, adverse to the public interest, of raising prices.

The complexity of the issues had the effect that for the first time in an enquiry MMC seriously discussed the question of the compulsory modification of licences, and the monopolists identified by the MMC - Nintendo and Sega - put forward detailed arguments, both legal and practical, why modification should not be recommended. Notwithstanding these arguments, the MMC considered that compulsory licences were an appropriate remedy and that certain provisions should be excluded from the licences for both existing and future games. Its report recognised that this case had presented it with complex issues of reconciling competition considerations with some aspects of the protection of IPRs in products involving recent developments in computer technology, and with problems in devising appropriate remedies.

Cases with no adverse public interest findings

British Broadcasting Corporation and Independent Television Publications (1985)[9]

In this case, the MMC considered the practice of the BBC and ITP of refusing to make their programme listings, in which they held the copyright, available to magazine publishers on terms which enabled those publishers to produce a weekly advance schedule of programmes - an issue similar to that considered later by the EC authorities in the *Magill* case. The MMC found that the practice was anti-competitive but not against the public interest. The need to recommend a remedy therefore did not arise. However, the MMC observed that no adequate remedy existed to compel the licensing of copyright - an omission which, as described in paragraph 7, was remedied by the Copyright, Designs and Patents Act 1988. So far as television programme listings are concerned, section 176 of the Broadcasting Act 1990 now provides that programme information must be made available to any person who wishes to publish it in the UK. Disputes about financial terms may be settled by an order of the Copyright Tribunal.

Exhaust gas analysers (1993)[10]

The four leading manufacturers of exhaust gas analysers refused to grant access to their calibration manuals and computer software, thus making it difficult for independent operators to service or calibrate the equipment and creating a barrier to entry. But the MMC found that the market was competitive, that there were no adverse consequences for users and, accordingly, that the refusal did not operate against the public interest. So, as in the BBC/ITP case, no question of remedies arose. The MMC

did not discuss any of the issues which might have arisen if it had considered that compulsory licensing was necessary, probably because an adequate order-making power was now available for that purpose. But it commented:

> 'The final public interest argument put to us in favour of the suppliers' practices was that the information needed to calibrate and service the [exhaust gas analysers] is the intellectual property of the respective manufacturers from which they are entitled to enjoy the full benefits. We recognise the force of this argument. The manufacturers have invested significant effort in developing the software and operational procedures which are used during calibration and servicing. Good reasons would need to exist for interfering with the way they choose to exploit their intellectual property rights if innovation, with its pro-competitive benefits, is not to be discouraged. An adverse public interest finding could provide such a reason but, given our findings on the competitive nature of the [exhaust gas analyser] market, we do not consider that the manufacturers have chosen to exploit their intellectual property rights in a way which operates against the public interest.[11]'

It recommended that the market be kept under review.

Historical on-line database services (1994)[12]

This enquiry arose from the refusal of the publishers of the *Financial Times*, a leading financial newspaper in the UK, who also owned a database containing a wide range of business and financial information in electronic form (and the copyright in the database), to permit competing database providers to carry material from the newspaper. As in the BBC/ITP case, a supplier with power in one market was exercising power in a downstream market. Again the MMC found that the practice did not operate against the public interest: the information in the *Financial Times* was available elsewhere and the database providers competed in many other ways as well as in content. In those circumstances the licensing practice of the *Financial Times* publishers was a legitimate competitive action which did not impair competition.

Recorded music (1994)[13]

In this enquiry the MMC again made no adverse public interest finding, and was thus not required to recommend any remedy. IPRs (in particular performing rights and mechanical rights) are of great importance in the recording industry and the MMC devoted a substantial part of its report to discussing these issues, including a complete chapter on the subject and an appendix containing an analysis by chartered accountants of possible methodologies for assessing the value of the copyrights owned by the record companies. The MMC emphasised the importance of copyright in classical terms:

> 'Ownership and control of copyright for a significant period is essential to a record company that has made a large initial investment in recordings and in an artist's career. We see no reason for any change in the ... copyright framework governing the relationship between artist and record company.[14]'

> 'Copyright lies at the heart of the recorded music industry. It allows record companies to invest money and enterprise in creating commercial recordings which can be exploited in both the UK and overseas markets knowing that they have legal protection against unauthorised reproduction.

> Copyright is also important in ensuring that the talents of successful artists and songwriters are rewarded. The protection of copyright is therefore crucial both to the creative side of the music industry and to the businesses of the record companies.[15]'

But in considering the restrictions imposed by some record companies on imports of recordings in which they held the copyright the MMC, whilst recognising the *right* which the companies had to restrict imports, observed that they had no *obligation* to do so. So if they all prohibited imports in certain circumstances, or if they all charged the same fee for permitting an import, they could be engaging in a complex monopoly practice. In those circumstances the fact that copyright law gave them certain rights would not prevent the way in which they exercised those rights being such a practice for the purpose of the Fair Trading Act - a view reinforced by the power under the Copyright, Designs and Patents Act 1988 to order compulsory licences in such circumstances.

Reform of UK competition legislation

A draft Bill which would substantially reform the provisions of UK law dealing with restrictive agreements and abuse of a dominant position is expected to be introduced to Parliament in October 1997. Its central feature is the introduction of prohibitions analogous to those in Articles 85 and 86 of the Treaty of Rome. Unlike the present provisions, these prohibitions would not be confined to goods and services, and so would allow for direct investigation of IPR issues. It is, however, intended that the present provisions for the control of scale and complex monopolies, which are confined to goods and services, would be retained alongside the prohibition on abuse of dominant position.

Cases in the civil courts

At about the same time as the MMC was investigating the refusal of licences by Ford (see paragraph 16), the English civil courts were considering the implications of competition policy in relation to copyright in British Leyland Motor Corp Ltd v Armstrong Patents Co Ltd[16]. This case was heard by the House of Lords, the final court of appeal in the UK, in 1985-86. British Leyland manufactured cars. Armstrong Patents was a vehicle components manufacturer. British Leyland produced designs and engineering drawings for its original and replacement components. Armstrong Patents copied the components and sold them in competition with British Leyland. It did so without seeing the drawings but by relying on reverse engineering. British Leyland sought damages from and an injunction against Armstrong Patents on the grounds that it held the copyright in the designs.

The House of Lords (by a majority) accepted that British Leyland held the copyright in the drawings, but refused British Leyland any remedy. Two main reasons were given by the majority of the House of Lords for the decision. The first was that British Leyland's copyright was subject to the right of the original purchaser of a car and of each of his successors to do whatever was necessary to keep the car in good repair in the most economical way possible and for that purpose to have access to a free market in replacement components; this right was inherent in the ownership of the car itself. The second was an analogy with the principle of derogation from grant: the manufacturer must not be allowed to reduce the value of the car which he has sold by relying on his copyright to prevent the owner from repairing it - having given a thing with one hand he could not take away the means of enjoying it with the other. But there were also indications in the judgement that the House of Lords was influenced by the powerful market position of British Leyland.

Any principles to be derived from this judgement concerning the relationship between competition policy and IPRs have recently been questioned by the Privy Council in Canon Kabushiiki Kaisha v Green Cartridge Co (Hong Kong) Ltd[17]. Canon supplied photocopiers and plastic cartridges which contained both toner and certain other components which needed to be replaced during the life of the photocopier. It owned the patents in the cartridges and the copyright in drawings for certain parts of them. Green Cartridge copied the cartridges. Canon claimed relief for breach of its IPRs.

The issue for the Privy Council was whether Green Cartridge had a defence to the allegation of copyright infringement based upon the spare parts exception in British Leyland v Armstrong. The Privy Council criticised the application of the two principles on which the House of Lords had relied in order to justify the exemption.

The Privy Council considered that the House of Lords had made its decision as a result of what it had regarded as an overriding public interest - the need to prevent a manufacturer from using copyright in order to control the aftermarket in spare parts. Since that public interest conflicted with an express statutory right, any extension of the spare parts exception should, the Privy Council observed euphemistically, be treated with caution. Assessing the public interest in such a case would normally involve an enquiry into the relevant market. In this case, for example, it would need to be established whether purchasers were able to compare lifetime costs of photocopiers (including cartridges to be bought in the aftermarket) and the proportions in which manufacturers divided the cost of the product between initial outlay and the aftermarket (with perhaps different deductions for tax). The courts, in contrast with specialised bodies such as the MMC, were ill equipped to consider such economic questions.

The House of Lords had assumed that the exercise of monopoly power in the aftermarket by means of copyright would unquestionably operate against the interests of consumers. Whilst the unfairness to the customer and the anti-competitive nature of the monopoly appeared obvious to the House of Lords in the case which it was considering, the jurisprudential and economic basis for the doctrine was extremely fragile. The cost (even repeated) of a replacement exhaust was relatively small in comparison with the capital and other running costs of the vehicle, and purchasers were perhaps unlikely to adopt lifetime costing in choosing a vehicle; so competition in the market for vehicles might not prevent anti-competitive practices in the aftermarket. But in view of the relative importance of the cost of cartridges as a proportion of the lifetime cost of a photocopier no such assumption could be made in the latter case. Furthermore competition did exist in the aftermarket, 40 per cent of cartridges being supplied other than by Canon; even if these products were inferior in quality their availability inhibited the ability of Canon to raise its prices. Indeed the business of Green Cartridge failed partly because Canon kept the prices of its cartridges sufficiently low. It could not therefore be assumed without evidence that the exercise of its IPRs gave Canon a monopoly position, let alone that it was abusing such a position.

Conclusions

The small number of cases involving IPRs makes it difficult to draw firm conclusions on the approach followed - although it is in itself perhaps a reflection of the fact that the UK competition authorities generally take a benign view of IPRs and view them as being in conflict with competition policy only in exceptional circumstances. This is reflected in the attitude taken by the Office of Fair Trading (OFT) to complaints concerning IPRs. (All complaints are considered by the OFT before the DGFT makes a reference to the MMC under the monopoly provisions of the Fair Trading Act.)

The OFT generally treats IPRs in the same way as other types of property. As with any competition policy case, intervention occurs only when a serious abuse of market power (or collective behaviour) has been identified. It is also important to recognise that although IPRs may restrict short-run price competition, they also promote long-run *dynamic* competition between firms. Two issues in this approach are worth highlighting.

Firstly, the OFT does not view ownership of an IPR as a source of market power in itself, provided that there is actual or potential competition in the relevant market. In other words, ownership of an IPR does not automatically create a 'monopoly'. This view is reflected in the MMC's reports on the Exhaust Gas Analysers, Historical On-line Database Services and Recorded Music cases, where the MMC concluded that adequate competition existed. In the latter two cases competition occurred between firms holding rival IPRs. The MMC defined the relevant market in terms of long-run dynamic competition, rather than short-run price competition.

Secondly, even where market power exists, the OFT would not normally view the exploitation of an IPR, or the failure to license a competitor, as anti-competitive. This recognises that IPRs are designed to be exploited. Parliament (and, in the case of copyright, international convention) has granted these rights to companies as a reward for their innovation and creativity, and in order to provide an incentive for future innovation and creativity by other firms. The whole point of creating IPRs is to allow firms to exploit that asset.

This suggests that IPRs can perhaps be treated more favourably than physical property. For example, a firm might gain market power from owning a physical asset which is an essential facility. Such a firm may be required to grant access to that facility. This is because the failure to allow potential competitors access to the essential facility is seen as a restriction of competition *with no compensating benefits*. In contrast, when a firm exploits an IPR, this normally produces compensating benefits, in the form of incentives for other firms (in completely different markets across the economy) to innovate or create new works. The difference is that the IPR is a reward for innovation, whereas ownership of a physical asset generally is not. Although an IPR might also be viewed as an essential facility, and a firm might gain market power from ownership of that IPR, exploiting that IPR is the legitimate use of the asset.

In those cases where a reference to the MMC has been considered necessary, this is because the OFT's preliminary analysis has concluded that exploitation may have gone beyond what Parliament intended, and therefore requires examination by the MMC. This can occur when the IPR affects two separate product markets. Firstly, there is the market where some form of innovation or creativity has taken place. Exploiting the IPR within that market is perfectly legitimate. This is what Parliament intended when it created these rights. Competition problems only occur if this exploitation affects competition in a second market. Such exploitation may be considered to go beyond what Parliament intended.

For example, in the Ford case, while the OFT and MMC did not question the company's right to exploit its intellectual property in the market for new cars, the market for spare parts could be regarded as separate. Implicitly, it could be argued that, by exploiting its IPRs in the spare parts market, Ford was going beyond what Parliament had intended. A similar distinction can be made in the Video Games case, between the market for games consoles and the market for associated software. In both cases the firms were using an IPR granted in one product market to exclude entry or restrict competition in a second market.

In conclusion, the OFT does not generally view IPRs as being in conflict with competition policy. Indeed, since IPRs promote dynamic competition they are normally *pro*-competitive. Exploitation of IPRs is viewed as anti-competitive only if two conditions are met.

Firstly, the firm must possess market power, where the ownership of an IPR is not of itself seen as granting a 'monopoly'. When determining whether a firm possesses market power, ownership of an IPR is no different to ownership of any other asset which might or might not be an essential facility.

Secondly, even if a firm possesses market power, it should still normally be free to exploit its IPRs as Parliament intended. The competition authorities should intervene only if they believe that the exploitation goes beyond what Parliament intended, and therefore beyond what is necessary to provide the required incentive effect. The two recent cases where the MMC have found such an effect both involved the companies using an IPR over one product to restrict competition in a second product market.

NOTES

1. Re Ravenseft Properties Ltd's application [1978] QB 52.

2. Annual Report of the Director General of Fair Trading, 1976.

3. HC 197, 1972-73.

4. HC 47, 1976-77.

5. Cmnd 9437.

6. Cm 530.

7. The Copyright, Designs and Patents Bill was under consideration by Parliament at that time.

8. Cm 2781.

9. Cmnd 9614.

10. Cm 2386.

11. Para 9.85.

12. Cm 2554.

13. Cm 2559.

14. Para 1.14.

15. Para 2.15.

16. [1986] 1 All ER 850.

17. [1997] 3 WLR 13. The Privy Council, through its judicial committee, is the final court of appeal for certain British dependencies including, until recently, Hong Kong. Hong Kong law in the present case was the same as English law. Although its membership in part duplicates that of the House of Lords, the Privy Council cannot overrule the House of Lords. It can, however, criticise its reasoning.

UNITED STATES

(Federal Trade Commission)

The Federal Trade Commission has analysed issues at the intersection of the antitrust and intellectual property laws in a variety of situations. The FTC Staff Report, Competition Policy in the New High-Tech, Global Marketplace (May 1996), which responded to and incorporated input received during extensive public hearings, devoted several chapters to the relationship between antitrust and intellectual property. The FTC Staff has also commented on proposed regulations for issuing patents in the computer field. As an enforcement matter, the Commission deals with antitrust/intellectual property issues on a regular basis. Often, consent agreements employed to resolve competitive issues in the pharmaceutical and computer industries require the licensing or sale of intellectual property assets.

An interesting case that involved the application of antitrust laws to intellectual property issues was the Federal Trade Commission's consent order against Dell Computer.[1] The proceeding implicated not only the patent-antitrust interface, but the role of antitrust in private, voluntary standard-setting activities as well. The FTC charged that Dell had restricted competition in the personal computer industry and undermined the standard-setting process by threatening to exercise previously undisclosed patent rights against computer companies that had adopted a new standard for a bus design.[2] *Dell* was a precedent-setting decision for the Commission. It was the first time federal law enforcement authorities took action against a company for acting through a standard-setting association to seek unilaterally to impose costs on rivals by abusing the standard-setting process.

According to the complaint, Dell became a member of the Video Electronics Standards Association (VESA), a non-profit standard-setting organisation in February 1992. VESA's membership comprises virtually all major US computer hardware and software manufacturers. At about the same time, the association began setting a design standard for a computer bus design in response to demand for faster graphics performance. The design ultimately adopted was known as the VESA local bus or VL-bus.

Dell representatives sat on VESA's Local Bus Committee. As part of committee approval and then of Association approval, VESA required that members certify that they knew of no patent, trademark or copyright that the bus design would infringe, and a Dell representative so certified. The VESA VL-bus design standard became successful, and computer manufacturers sold more than 1.4 million personal computers incorporating the VL-bus. Dell then asserted that it had obtained a patent in 1991 that "gave it exclusive rights to the mechanical slot configuration used on the motherboard to receive the VL-bus card." Dell contacted certain VESA members and informed them that they infringed the patent by using the VL-bus standard.

The FTC's complaint charged that Dell's action unreasonably restrained competition in the following ways:

- industry acceptance of the VESA VL-bus standard was hindered pending a resolution of the patent issue;

- companies avoided using systems incorporating the VL-bus design because they were concerned that the patent issue would chill its acceptance as the industry standard;

- uncertainty about acceptance of the design standard raised the cost of implementing the VL-bus design and the costs of developing competing bus designs; and

- willingness to participate in industry standard-setting efforts was chilled.

To settle the charges, Dell agreed not to enforce its patent against computer manufacturers incorporating the VL-bus design in their products. In the future, Dell is prohibited from enforcing any patent rights that it intentionally fails to disclose upon request of any standard-setting organisation during the standard setting process. The settlement also contains various reporting requirements to assist the FTC in ensuring Dell's compliance.

Because of the procompetitive values inherent in intellectual property protection and in voluntary standard-setting, relief needed to be carefully crafted to prevent unintended (and anticompetitive) consequences. Intellectual property protection is necessary to provide incentives for innovation. And, as the US Supreme Court has recognised, objectively formulated standards, adopted through unbiased procedures, can have "significant procompetitive advantages."[3] Standard-setting can be procompetitive by fostering greater compatibility among products, thereby increasing consumer choice, as it does in the computer industry. It can decrease manufacturers' costs by standardising inputs and capturing economies of scale in those inputs. It can decrease barriers to entry. A new entrant will not need to develop its products on a clean slate, but can design them around existing standards. Similarly, by relying on existing standards, a new entrant may be able to enter with only a single hardware or software item that will be compatible with other sellers' products.

Thus, it would be unfortunate if the *Dell* order were misread to reflect hostility either to intellectual property or to standard-setting. As the Commission emphasised in its written statement accompanying final acceptance of the consent agreement, the outcome was heavily dependent on the specific facts of the case.[4]

Suppose, for example, that Dell's patent had reflected a substantial and valuable innovation, so that if one wanted to accomplish a particular end, there was no other way to do it except through the means covered by the patent. In that case, nondisclosure of the patent would have little effect. Presumably, the standard-setting body would have no choice even if it were acting with full knowledge of the patent. And, equally importantly, an order that required Dell to license the patent for no royalty would deprive Dell of the fruits of an important innovation. Contrast it to the situation in the actual case. There, it was the adoption of the standard that created market power, because once industry-wide acceptance was given, it was hard to take back. Market participants were locked in, both by their own investments in conformity with the standard and by the investments of all other market participants. In that case, Dell was not being deprived of a return on its innovation, because the patent without the standard had little value. Instead, Dell was being deprived of a return only on its failure to disclose. Thus, the order did not interfere with the principles that undergird our system of intellectual property protection.

Even if the consent agreement did not interfere with the principles embodied in the intellectual property laws, inappropriate relief could chill participation in voluntary standard- setting processes.[5] Firms might be reluctant to participate if an inadvertent failure to disclose an intellectual property right could

result in the inability to enforce that right. This might be particularly so if the firm possesses a large patent portfolio, so that it would be very burdensome to undertake an exhaustive search. Thus, the majority's statement made clear that no general duty to search was being imposed. And, in fact, many standard setting organisations do not impose such a requirement. Here, however, VESA *did* require a certification of intellectual property rights from members voting on the standard. Failure to act in good faith to identify and disclose patent conflicts in the face of such a requirement runs a serious risk that market power will be obtained, not through any superior technology, but simply by misleading the standard-setting body.

That is not to say that competition laws should necessarily tilt in favour of standard-setting organisations to the detriment of other participants in the market. Quite often, after all, such organisations are groups of competitors, whose joining together may enable them to exercise market power to the detriment of those who buy from or sell to those competitors. Suppose, for example, that a standard-setting organisation consisted of all the computer manufacturers, and that entry into computer manufacturing were difficult. Suppose further that a semiconductor manufacturer made and patented a significant breakthrough in processor technology. Suppose, finally, that the standard-setting organisation refused to allow the new technology to be included in the standard unless the manufacturer offered a royalty-free license to all members of the standard-setting organisation. In such a case, the conduct of the standard-setting organisation would appear to be that of a buyers' cartel. Competition authorities should be alert to such exercises of market power.

More complex intellectual property issues arose in the FTC's investigation of the 1996 merger of Ciba-Geigy Limited ("Ciba") and Sandoz Ltd. ("Sandoz") into a new firm named Novartis. The Ciba/Sandoz merger raised serious competitive concerns in three distinct areas: gene therapy research and development, corn herbicides, and flea control products. Intellectual property issues figured most prominently in the gene therapy portion of this investigation, so the remainder of this discussion focuses on this aspect of the case.

Gene therapy involves treating diseases or medical conditions by modifying genes and then inserting the modified genes into a patient's cells.[6] Gene therapy research today targets fatal or disabling diseases such as cancer for which there are no current effective treatments and for which no drugs are in advanced development. At the time of the investigation, there were no commercially-available gene therapy products available in the United States. It is expected that the first gene therapy products will obtain the necessary regulatory approvals in 2000. Total sales of gene therapy products in the United States are projected to reach $45 billion by the year 2010. Thus, the FTC's analysis of the likely competitive effects from this merger applied the concepts of technology and innovation markets.[7]

The complaint alleges that the combination of Ciba and Sandoz would raise competitive concerns in: i) the broad market for gene therapy technology and the research and development of gene therapies, including *ex vivo* and *in vivo* gene therapy; and ii) the research, development, manufacture, and sale of four distinct gene therapy products: (1) herpes simplex virus- thymidine kinase ("HSV-tk") gene therapy for the treatment of cancer; (2) HSV-tk gene therapy for the treatment of graft versus host disease; (3) gene therapy for the treatment of hemophilia; and (4) chemoresistance gene therapy.

As stated in the complaint, the competitive concerns stem from the fact that each of the gene therapy markets is highly concentrated and that Ciba/Chiron[8] and Sandoz are two of only a few entities capable of commercially developing a broad range of gene therapy products and the only two capable entities in the case of the specific gene products identified in the complaint. Ciba/Chiron and Sandoz control crucial inputs for developing gene therapy products, and the merger creates an unmatchable portfolio of intellectual property assets needed for commercialising gene therapy products. They both also

possess the technological, manufacturing, clinical, and regulatory expertise and manufacturing capability to develop commercially gene therapy products.

The scope of the firms' intellectual property holdings was central to the analysis of this case. The complaint alleged that while a substantial number of other companies are able to conduct preliminary gene therapy research, without licenses to crucial intellectual property held by Ciba/Chiron and Sandoz, these researchers would not be likely to continue development. The critical intellectual property rights for gene therapy held by Ciba/Chiron and Sandoz include a broad patent covering all *ex vivo* approaches used in gene therapy (the so-called "Anderson patent"), and patents covering the use of certain cytokines, a protein that is necessary for many *ex vivo* gene therapy applications and that is used to increase the number of cells taken from a patient. The parties also have vital intellectual property rights in retroviral vectors, the only delivery vehicle for gene therapy that has been proven safe and relatively effective.

With respect to each of the specific gene therapy products identified in the complaint, Ciba/Chiron and Sandoz are either in clinical development or near clinical development for the treatment of these diseases, are the leading commercial developers of these gene therapy technologies and control critical proprietary intellectual property portfolios, including patents, patent applications, and know-how. For example, with respect to the HSV-tk gene therapy products, both Ciba/Chiron and Sandoz control intellectual property portfolios sufficient to make it likely that they could market HSV-tk gene therapy products in competition with one another. The merger would eliminate that competition, and because of the parties' patent portfolios, it is extremely unlikely that any other firm would be able to enter to replace that lost competition.

Absent relief, the merger of Ciba and Sandoz appeared very likely to reduce competition in the research, development, manufacture, and sale of gene therapy products. As previously noted, the merger would combine two of the leading firms active in developing possible gene therapies and the only two firms engaged in research efforts aimed at treating the same or similar disease in the four named distinct gene therapy markets. After the merger, the firms' incentives would change, and the parties would be likely to combine their research efforts or eliminate or slow down one of their parallel research projects.

Second, the merged firm would have a disincentive to license intellectual property rights to or collaborate with other companies as compared to the pre-merger incentives of the independent competitors, Ciba/Chiron and Sandoz. Although Ciba/Chiron and Sandoz had substantial individual intellectual property portfolios pre-merger, they had the incentive to and did act as rivals licensing needed intellectual property rights. Ciba/Chiron and Sandoz would grant limited intellectual property rights to other developers and researchers in return for receiving marketing or other valuable rights back from them. Consequently, as the complaint alleges, the merger may heighten barriers to entry by creating one entity holding so extensive a portfolio of patents and patent applications, of uncertain breadth and validity, as to diminish its incentives to license, thus impeding the ability of other gene therapy researchers and developers to continue developing their products.

To remedy the alleged competitive harms, the consent order provides for a set of patent licenses to allow other companies to restore the competition otherwise lost due to the merger. The Commission determined that licensing, rather than divestiture of assets, was sufficient because access to certain key intellectual property rights held by the merged firm is perhaps the crucial component of successful commercialisation of many potential gene therapy products. Rivals and other scientists confirmed that licensing would enable them to develop gene therapy products and replace the competition lost due to the merger. Further, an asset divestiture might have created substantial disruption in the parties' research and development efforts. In this case, therefore, a licensing remedy was judged to be the preferred approach to restoring the competition lost by the merger.

The consent order contains a number of licensing requirements. First, with respect to the HSV-tk gene therapy product markets, the consent decree restores the pre-merger incentives for research, development, manufacture and sale of HSV-tk gene therapy products for cancer and graft versus host disease by requiring licensing of the Sandoz' and Chiron's world-wide HSV-tk patent rights, including rights relating to vectors. By September 1, 1997, Sandoz and Chiron each are required to grant a non-exclusive license to Rhône-Poulenc Rorer ("RPR"), with whom Ciba, Sandoz and Chiron already have entered into a letter of intent for this purpose. If the agreement between RPR and Ciba, Sandoz, and Chiron were to fall through, Ciba, Sandoz and Chiron would be required to license these assets to another licensee who has received Commission approval by September 1, 1997. Under the terms of the consent order, the license granted to RPR, or an alternative licensee, must include the right to sublicense in fields that are not developed by RPR or the alternative licensee, as well as a technology transfer from Sandoz of necessary HSV-tk know-how, including know-how relating to vectors, within one year of execution of the license.

Second, to ensure the continued research, development, manufacture and sale of Factor VIII gene therapy products for the treatment of hemophilia A, the consent order requires that by September 1, 1997, Sandoz shall either: 1) convert its exclusive license for the use in gene therapy of the partial Factor VIII gene to a non-exclusive license; or 2) grant to RPR a sublicense to those gene therapy Factor VIII rights. At the option of the sublicensee, Sandoz may be required to provide technical information and know-how relating to Factor VIII gene therapy products.

Third, to ensure the continued research, development, manufacture and sale of chemoresistance gene therapy products in the United States, the consent order requires that neither Ciba, Chiron, Sandoz nor Novartis shall acquire exclusive rights in intellectual property and technology related to certain genes. Because the merger combines the parties' two competing chemoresistance gene therapy programs and potentially concentrates the important intellectual property rights for these genes, the proposed restriction on exclusive licensing of these genes will ensure that at least one other competitor has access to the chemoresistance genes.

Were the consent order to have included only the licensing provisions discussed above, the remedy would have restored competition in the specific gene therapy markets identified in the consent but not in the broader market for gene therapy research and development. The investigation determined that certain features of the underlying intellectual property limited the ways in which the licensees contemplated by the provisions discussed above could in turn sublicense the intellectual property to other researchers (e.g., the key "Anderson patent" was owned by the US Government). In light of these facts, to restore full competition in the broader gene therapy market, the consent order also contains some compulsory licensing provisions. While the Commission is generally reluctant to require compulsory licensing, because asset divestitures and/or licensing of intellectual property to a qualified buyer would typically be sufficient to restore the competition lost as a result of the merger, the specific facts in this matter justify compulsory licensing.

Specifically, the consent order requires the firms to provide to all gene therapy researchers and developers non-exclusive licenses or sublicenses to certain proprietary and patented technologies essential for the competitive development and commercialisation of gene therapy products. In the United States, Chiron owns the rights to commercialise cytokine Interleukin 2; Sandoz has exclusive rights to the Anderson *ex vivo* patent, and claims arising thereunder and owns the rights to cytokines Interleukin 3 and Interleukin 6. Within thirty (30) days of the date the consent order becomes final, the companies are required to grant to other gene therapy researchers non-exclusive licenses to each of these essential gene therapy technologies. In addition, each licensee must be given access to drug master files, the data filed with the FDA establishing the safety and purity of these cytokines. These licensing arrangements are

intended to remedy the reduction in competition in research and development of gene therapy caused by the merger.

As detailed in the consent order, the cytokines noted above and the Anderson *ex vivo* patent licenses include a right to a royalty payment at low rates (based upon net sales with no minimum amount). In the past, the Commission has had concerns with royalty payments in connection with compulsory licensing remedies because continuing entanglements between the divesting company and the acquirer might provide opportunities for information exchange between competitors and interfere with their economic incentives to compete vigorously. These risks are relatively slight, particularly because of the low royalties and potential number of non- exclusive licenses to the industry required under the remedy. To minimise further the financial relationships and the exchange of competitively sensitive information among Novartis, Chiron and potential competitor-licensees, an independent auditor will be appointed to collect and aggregate the royalty payments. In addition, Sandoz, Ciba, Chiron, and Novartis are prohibited from gaining access to this confidential sales information. Each license will also include a binding arbitration clause to resolve disputes regarding the royalties or any other terms, a provision that further insulates Sandoz, Ciba, Chiron, and Novartis from interactions with the potential licensees.

In summary, the gene therapy portion of the Ciba/Sandoz investigation was one of the most complex intellectual property matters ever confronted by the FTC and its staff. We believe that the remedy ultimately negotiated with the parties effectively restores the competition lost as a result of the merger of Ciba and Sandoz while maintaining the incentives of the new merged firm to compete vigorously in the relevant innovation and technology markets.

NOTES

1. The proposed consent agreement appears at 60 Fed. Reg. 57870 (1995); the agreement was accepted by the Commission with slight modifications. 62 Fed. Reg. 4767 (1997).

2. A bus carries information or instructions between a computer's central processing unit and the computer's peripheral devices, such as a hard disk drive, a video display terminal, or a modem.

3. Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492, 501 (1988).

4. Statement of the Federal Trade Commission, Dell Computer Corporation, Docket No. C-3658. Commissioner Azcuenaga dissented from the acceptance of the proposed consent agreement and explained her position in a separate statement. Copies of these documents are attached.

5. This possibility of interfering with the standard-setting process was the focus of most of the public comments.

6. Patients' genes may be altered using one of two broad approaches: *ex vivo*, outside the body, for subsequent administration into the patient; or *in vivo*, inside the body, by gene therapy products that are given directly to the patients.

7. These concepts are defined and described in the 1995 FTC/DOJ Antitrust Guidelines for the Licensing of Intellectual Property [included in this publication - ed.]. Although the Guidelines do not expressly cover merger analysis, we believe that the Guidelines' concepts can help focus the analysis in merger investigations with an intellectual property component

8. In the gene therapy portion of the case, the complaint names Chiron Corporation ("Chiron") as a party because Ciba owns approximately 46.5 percent of Chiron's voting stock and Chiron, not Ciba, is the firm active in gene therapy research and development.

UNITED STATES

(Department of Justice)

CROSS-LICENSING, PATENT POOLS AND THE ANTITRUST DIVISION

In the Intellectual Property Guidelines they issued in 1995, the Antitrust Division, United States Department of Justice, and the Federal Trade Commission state that cross-licensing and pooling of intellectual property rights "are often procompetitive," owing to their potential for lowering transaction costs, combining complementary technologies or copyrighted works, clearing blocking positions, and resolving unproductive infringement litigation.[1] This may have been surprising to some American antitrust practitioners, for whom the term "patent pool" traditionally has been a pejorative. Although it may not have carried connotations as extreme as those of "cartel," the term nevertheless suggested collusion among dominant firms, designed to minimise competition in the development and licensing of technology, and to curtail competitive entry altogether.

This connotation is not entirely unwarranted; as US cases such as National Lead[2] and Line Materials[3] indicate, pools surely can be a vehicle for combining competitive technologies and co-ordinating technological development in a manner which obviates any incentive to continue competing, whether in research and development, technology licensing, or even in downstream product markets. More often, however, pools and cross-licenses are likely to contribute to the development and production of new and better products at lower prices. Accordingly, the IP Guidelines indicate that such arrangements will not fall afoul of US antitrust law absent specific characteristics which overcome the arrangements' common benefits.

It was only this year, though, that the Antitrust Division enlarged on this general framework and enunciated in more detail how it would analyse cross-licenses and patent pools. In a May 2, 1997 speech to the American Intellectual Property Law Association (AIPLA), Assistant Attorney General Joel I. Klein explained that the Division's current approach is strikingly like that which the Department of Justice employed in 1917, in reviewing a proposed airplane-patent pool. Both in 1917 and today, the Department would examine factors such as: the relationship of the intellectual property rights being combined; the nature of the markets in which those rights, and the goods or services in which they are used, compete; the extent to which the pool controls access to those rights; the openness of the pool to outsiders; and the extent to which the pool controls the terms on which future innovations in the field will reach the market. Given the increasing importance of innovation competition, the last of these factors may get more weight now than it did in 1917. Even then, however, the Department was concerned about the extent to which a pool agreement might dull its participants' incentives to compete with each other in innovation.

The Division also has raised the need for a new regime for notification to the US government, so that the Division and the FTC are better able to learn of, and block, anticompetitive cross-licenses. As a start, the Division has proposed that notification be required as to cross-licenses that arise out of infringement litigation settlements. It is in these settlements that we have the most to fear from the

possibility that a cross-license may exalt the private interests of competitors at the expense of consumers. This proposal has elicited considerable comment from the private bar, ranging from strong, but *sotto voce*, support to frank skepticism.

A few months later, the Antitrust Division put the speech's substantive patent-pool analysis to use in reviewing a proposed pool for patents necessary for compliance with the MPEG-2 compression standard. A group comprising nine patent owners and a joint venture of likely users of the MPEG-2 standard had agreed to form a joint licensing agent for the purpose of granting a license on their patents to users of the MPEG-2 standard, which is likely to be used in many products and services that involve the transmission or storage of video information. They had agreed that the joint license would convey rights only to those patents that were essential to compliance with the standard, and had retained an independent patent expert, familiar with the technology, to conduct a search for such patents so that, if their owners wished, they could be included in the pool. In a business review letter to the attorney for the pool and its members, the Antitrust Division examined the factors set forth in the AIPLA speech, including the relationship of the pool patents to each other, the possibility of anticompetitive exclusionary effects, and the contemplated agreement's likely effect on incentives to innovate. Based on the representations of the applicants, it appeared that the pool would be a procompetitive combination of complementary technologies, since an independent expert would determine that the patents were essential to compliance with the standard -- in other words, that there was no substitute for any of them that would allow compliance.

As suggested above, the MPEG-2 pool's potential impact on innovation incentives received careful attention, particularly since the pool license effectively would require licensees to grant pool members a license, albeit on reasonable terms, on any patent related to the MPEG- 2 standard, whether or not it was essential. The Division concluded, however, that on balance this provision was likely to be procompetitive, since it allowed pool members to share the risks and rewards of the standard's success with licensees, and, by requiring innovators to share their developments with the pool members, may allow a royalty lower than would otherwise be possible, making the license attractive to more potential licensees and further disseminating the technology.

Copies of both AAG Klein's speech to the AIPLA and the MPEG-2 business review letter are available as room documents.

Notes

1. Antitrust Guidelines for the Licensing of Intellectual Property, § 5.5 (1995) [included in this publication - ed.].

2. *United States v. National Lead Co.*, 332 U.S. 319 (1947)

3. *United States v. Line Materials Co.*, 333 U.S. 287 (1948)..

Annex I

DEPARTMENT OF JUSTICE

CROSS-LICENSING AND ANTITRUST LAW

Address by:

Joël I. Klein
Acting Assistant Attorney General
Antitrust Division
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Before the:
American Intellectual Property Law Association

San Antonio Marriott Rivercenter
San Antonio, Texas

May 2, 1997

I am happy to be here today -- or, should I say, as happy to be here as any head of the Antitrust Division could ever be facing down a horde of intellectual property lawyers at the Alamo. Seriously, I'm flattered to have been invited, and grateful for the chance to speak with you at the close of your Spring Meeting. I view it as a sign of how far we at the Antitrust Division have come in the last few years that I can come before you with the sense that we share a lot of common ground. I especially want to mention how gratified I am by the cooperative and productive relationships we have developed with our colleagues at the Patent & Trademark Office and the Copyright Office, and want to thank Commissioner Lehman, Register Peters and Solicitor Linck. The open lines of communication among our offices have helped us understand and take into account each other's concerns, and I know, for our part, that our own work as competition advocates has benefited greatly as a result.

I. Antitrust Enforcement and Intellectual Property

Let me make clear at the outset, the intersection of antitrust law and intellectual property has become a major agenda item for the Antitrust Division. It figures prominently in the work of three of the Division's sections. Moreover, it raises such important and difficult questions, frequently involving consultations with other parts of the Executive Branch, that my predecessor Anne Bingaman appointed a senior counsel specifically for intellectual property and antitrust. This high priority makes sense to me, too. In a world where so many important products and services are driven by technology, it is becoming increasingly apparent that competition among technologies, and in the development of those technologies, is often as important to consumer welfare as the price competition that has been the traditional focus of

antitrust attention. This point was repeatedly emphasized in the fine hearings that the Federal Trade Commission recently held concerning the effects of globalization on the U.S. economy.

And, I should also add, the competitive significance of intellectual property rights is not limited to patents: on the contrary, our most recent public activity has involved material protected by copyright. Most recently, in an extensive investigation of competitive conditions in the market for legal research materials, we saw the competitive barrier that West Publishing Company was imposing through its assertion that other case law publishers' use of star pagination, showing the fact of where page breaks appeared in West's own case reports, infringed its copyright. Consequently, we filed amicus briefs in two declaratory-judgment actions brought by other publishers, contending that star pagination does not infringe West's copyright.[1] And, in another matter, only last August, we sued General Electric over restraints it imposed on over 500 hospitals and clinics that had licensed software for use in maintaining GE medical imaging equipment -- restraints that, we contend, amount to naked agreements keeping the licensees from competing with it in servicing and maintaining medical equipment of any kind. The effect of the agreements is to limit competition in providing service for medical equipment, raising the cost of that service for hospitals and clinics, and ultimately harming competition and raising prices in medical equipment markets too -- all leading to higher health-care costs. We are also grappling with a case we filed a little earlier -- in 1941, to be exact. Our antitrust consent decrees governing the licensing and royalty-distribution functions of both ASCAP and BMI are getting serious study and analysis, as we consider whether the licensing model the decrees employ is the right one in a world that could barely have been imagined when we entered into the BMI decree in 1966, let alone in 1941, when the original ASCAP decree took effect.

More generally, a great deal of attention given to our work involving intellectual property has focused on the drafting, issuance and application of the Antitrust Guidelines for the Licensing of Intellectual Property, which the Antitrust Division and the Federal Trade Commission released a little over two years ago. As the Guidelines indicate, our public focus has been primarily on fairly straightforward licenses, in which protected technology or creations move in one direction -- from the licensor to the licensee.[2] We've said little about our analysis of licensing transactions that combine the intellectual property of different owners -- i.e., cross-licensing -- or patent pools, if you will.[3] And we've said even less about the subset of licensing arrangements that bundle intellectual property rights together and present them to licensees in a mandatory package.

But, as some of you may know, we've spent a considerable amount of time looking at both of these complex subjects. And, while I can't pretend to tell you that we've got all the answers now, a few things have occurred to us along the way. In the future, I'll have something to say about the bundling issue. Today, I want to focus principally on the competitive issues posed by cross-licensing and pooling agreements. They concern both substantive issues that are likely to get our attention when we review combinations of intellectual property rights and some procedural ideas that should help us do a better job of identifying those combinations that are likely to be anticompetitive, while not standing in the way of the rest of them.

To put matters in perspective, I should make clear at the outset that I would expect that by far most cross-licenses and pools are, on balance, procompetitive. That means that, at bottom, they help sellers provide consumers with better products and services at lower prices because of benefits ranging from cost savings -- due to more efficient production technologies -- to improved product quality -- resulting from combining complementary inventions.[4] At the same time, cross-licenses can have anticompetitive effects, too, including increased prices, cutbacks in production, and reduced innovation. This is particularly true when the cross-license is between firms that are competitors, whether in producing

goods or services, licensing intellectual property, or in R&D. In that case, our antitrust antennae go out: we have to be alert to the possibility that the cross-license can serve the interests of the parties, at the expense of competition and consumers.

Based on our experience, we think this possibility is probably greatest in the context of settling infringement litigation. The stakes are high, particularly if the dispute involves a market with a small number of competitors to begin with or a particularly broad or fundamental intellectual property claim. The defendant may be facing the possibility of continuing in business only at the sufferance of the plaintiff; for the plaintiff, the litigation may determine its ability to decide who it will or won't allow to compete. Consequently, settlements are often based on considerations that lead parties to give up rights that they might well vindicate if they went to the mat. And when intellectual property rights are at stake, the consequences of those compromises can align the settlers' interests against the interests of consumers.

Essentially, we analyze these cross-licensing or pooling issues in the same way as we look at all licenses under Section 1 of the Sherman Antitrust Act. We ask, first, does something about the license hurt competition that either already existed or likely would have come into being without it? And if the license does have such an anticompetitive effect, we then ask, is that harm reasonably necessary in order to bring about some even greater procompetitive benefit? These two basic questions -- what are the anticompetitive effects, what are the procompetitive benefits -- constitute what's known in antitrust law as the Rule of Reason.[5]

The application of such a rule-or-reason analysis to cross-licenses is pretty straightforward. Obviously, our principal concern is whether the patents or their owners are using the arrangement to blunt competition that would otherwise take place -- a rather-switch-than-fight strategy, if you will. And so when we look at one of these arrangements, we generally analyze the following particulars, which have been common to our competitive analysis from the very beginning. They include the relationship of the intellectual property rights being combined; the nature of the markets in which those rights, and the goods or services in which they're used, compete; the extent to which the pool controls access to those rights; the openness of the pool to outsiders; and the extent to which the cross-license controls the terms on which future innovations in the field will reach the market. Fortunately, I can give some color to this rather arid description of what we do by taking an historical example -- involving airplanes and World War I -- that is remarkable for its endurance. If nothing else, when one relies on some venerable precedent to highlight contemporary concerns, it always has the sound of erudition.

II. The Manufacturers Aircraft Association

By the time of America's entry into World War I in April 1917, our Government had become an eager consumer of airplanes. Airplanes were still so new that the Wright brothers' basic patent, then in the hands of the Wright- Martin Aircraft Corp., still blocked would-be manufacturers, at least for all practical purposes.[6] So too, apparently, did "numerous important patents" in the hands of the Curtiss Aeroplane & Motor Corp.[7] The two firms were demanding royalties from other aircraft manufacturers, although the Attorney General singled out Wright-Martin for seeking "high" royalties.[8] The upshot for the Government was not only "excessive" airplane costs but an inability even to obtain enough planes, since the cost of licensing constrained industry capacity.

In the face of this problem, an obvious and time-honored Washington solution presented itself: an advisory committee. This one, though, had a better-than-average pedigree, having been convened by Assistant Secretary of the Navy Franklin D. Roosevelt.[9] After a series of consultations with the truculent

patentees,[10] the committee recommended the formation of a patent pool, which was in place by the end of July 1917. The aircraft pool, which encompassed "practically all" airplane manufacturers,[11] resolved all pending infringement claims and bound the members to give each other nonexclusive licenses to "all airplane patents of the United States (with unimportant exceptions) now or hereafter owned or controlled by them."[12] Membership was open to three types of entities: (1) any "responsible" present or potential airplane manufacturer; (2) any manufacturer to which the federal government had awarded a contract for ten or more planes;[13] and (3) any owner of U.S. aircraft patents.[14] The pool's charter contemplated only 100 members, but that was apparently more than adequate to accommodate the potential membership.[15] Members promised not to put relevant patents out of the pool's reach, as, for instance, by taking an exclusive but non-sublicensable license.[16] In consideration for access to the basic patents, manufacturing members would pay a flat $200-per-aircraft royalty, from which 67.5 percent went to Wright-Martin, 20 percent to Curtiss, and the remainder to the pool entity for administrative costs.[17] Wright-Martin and Curtiss were entitled to these shares, up to a maximum of $2 million each, until their patents expired.[18] An arbitration panel would decide what other pooled patents merited royalties and would set those royalties.[19] Unlike the flat $200 royalty,[20] the fee for other royalty-bearing patents was predicated on actual use; the rest of the patents were available to the pool members on a royalty-free basis.[21]

In September 1917, the Secretary of War passed along to the Attorney General a request for an antitrust advisory opinion.[22] The Attorney General responded in less than three weeks, concluding that there were no anticompetitive effects that came close to outweighing the very real procompetitive benefits resulting from assembling these patents into an affordable package available to all comers.[23] In reaching that conclusion, he touched on one after another of the issues that we would raise today as well. Let me go through them with you.

An unspoken but important premise of the Attorney General's analysis is that the patents were valid. Of course, restraints imposed in conjunction with licenses of invalid or illusory intellectual property rights would be highly anticompetitive.[24] Moreover, as the possessor of its own blocking, and presumably valid patents, Curtiss had more to gain than anyone else from challenging the validity of Wright's patent. If there were any significant doubt about validity, the cross-license between the firms could entail a real loss to the market, since Curtiss would no longer have that impetus to eliminate a principal entry barrier.[25]

The Attorney General's stated analysis began with the patents' relationship to the airplane industry and each other. In particular, he observed that the pool solved what we now call the bilateral monopoly problem. Both Wright-Martin and Curtiss separately had the industry over a barrel. Anyone that wanted a license from Wright-Martin had to pay the "excessive" royalty the Attorney General mentioned, only to find that Curtiss wanted something, as well. Combining the Wright and Curtiss patents in the pool resolves this dilemma: the Attorney General noted that the pool royalty is "materially lower" than what Wright-Martin alone had demanded, leading to "a substantial saving to the Government."[26]

Implicit in this analysis is that Wright-Martin and Curtiss had <u>each other</u> over a barrel as well.[27] If each had not needed the other's intellectual property to make a viable aircraft, their technologies would have been competitors, not complements, and the combination of the patents would have been a very different story. In that case, instead of reducing a series of monopoly rent- seekers to one, it would have made a monopolist out of the only two competitors in the field. Then, manufacturers probably would have faced a higher royalty than the two competitors quoted separately.[28] As it was, though, the complementary relationship of the patents made their combination in the pool procompetitive.

Just how procompetitive it was depended in part on whether the benefit that Wright-Martin and Curtiss were bestowing on each other would be freely available to their manufacturing competitors.

Because the pool was open to all, the Attorney General found, the cross-license "render[ed] competition freer by giving every responsible manufacturer of aircraft access to all the inventions in the field." [29]

On the other hand, an agreement by the two firms not to license their patents to others would have drastically limited the procompetitive benefits that the Attorney General saw in the pool. If the two firms' patents were competitors, such an agreement would be little more than a horizontal boycott by competitors, which is a clear Sherman Act violation. To be sure, when, as here, the patents compete neither with each other nor with any others, there is no current competition to be harmed. But if there were or might soon have been alternatives to the pooled patents, an agreement not to license to others might then have prevented Curtiss, for example, from combining its patents with some technology that substituted for Wright-Martin's. This could be a potent strategy for stifling new rivalry. On the other hand, in a robustly competitive market, mutually exclusive cross-licenses might not be at all troublesome.

What if Wright-Martin and Curtiss agreed that they would make their pooled patents freely available, but only as a package? Again, as long as the firms' patents truly blocked the industry, and each other, it is hard to see how such an agreement would harm competition. But once plausible alternatives appeared for either Wright's or Curtiss' inventions, the mandatory package would begin to look more like a tying arrangement. But even that's not the end of the issue. Under our Intellectual Property Guidelines, tying arrangements are generally subject to an analysis that balances procompetitive benefits against anticompetitive effects.[30] And, as I indicated at the outset, we will be giving some additional guidance in the future about the tying and bundling together of intellectual property. For now, suffice it to say that the general question is whether the tie really helps to increase output, lower costs, or create an otherwise unavailable product -- or whether it simply serves to raise the price of the tying product.

The fact that the Wright and Curtiss patents blocked the industry also made the flat per-airplane royalty acceptable. This provision, the Attorney General observed, "at first sight seems objectionable as possibly designed to extend the patent rights of these corporations to objects not covered by their patents."[31] While this is phrased in the parlance of misuse law, the concern is much the same as the one raised by Microsoft's per-processor license for DOS, which was at issue in the case we brought against Microsoft in 1994.[32] Since the flat royalty must be paid whether or not you use the licensed technology, it discourages you from using competing technologies. But in the 1917 aircraft industry, there was no OS/2, no operating system from Apple, and apparently, no new entrants on the horizon. In short, since there was essentially no technological competition out there to be squeezed, the convenience that the per-airplane royalty offered could not be outweighed by any anticompetitive effects.

The true antitrust cognoscenti among you will probably be amazed to learn that nowhere in the opinion letter did Attorney General Gregory discuss the concept of innovation markets. I can attribute this lapse only to the press of wartime, and perhaps the fact that our Intellectual Property Guidelines were not issued until 78 years later.[33] But while he didn't explicitly enunciate the concept of a specific "market" in which innovation takes place, competition among the pool's members in aircraft research and development was clearly an important factor in the Attorney General's analysis. He noted that the members' obligation to contribute future inventions to the pool, for compensation to be determined by arbitrators, "might possibly be used to secure valuable inventions at unreasonable compensation."[34] But taking into account that the obligation helped ensure that each subscriber's patents would be open to all, the Attorney General concluded that the obligation's "possible abuse . . . scarcely justifies its condemnation in the absence of such abuse."[35]

Today, I believe that the impact on the members' incentives to innovate would receive at least a bit more attention. The obligation to contribute future patents was not limited to improvements on the

fundamental patents; thus, it didn't serve simply as insurance against the possibility that a licensee might expropriate the entire value of a patent in the field. Instead, it guaranteed that any innovation, no matter how revolutionary, would be thrown into the pot, probably for nothing and otherwise for an amount to be determined by arbitration. Now, it may be possible that the arbitration mechanism was so fair that other manufacturers could have felt confident that their research and development would be competitively rewarded. But in ordinary circumstances, I wonder whether "the purpose of keeping [all] the patents of each of the subscribers open to all" ought to prevail over the drag such a broad obligation might exert on innovation.

Of course, these weren't ordinary circumstances: there was a war on and the U.S. needed airplanes quickly. The government was willing to give up long-term innovation -- and accept what we now have learned to call "dynamic inefficiencies" -- in exchange for the current technology at an attractive price. And in this situation, that "policy choice" -- even with the benefit of hindsight -- would still appear to make sense. Unless World War I had developed into another Thirty Years' War, the promise of long-run innovation competition would have been pretty cold comfort to our troops.

Still, as long as there isn't a war on the next time you form a patent pool, give some thought to members' future-patent obligations. Do they have to contribute only improvements? Or anything they invent in the field? If the latter, what is the justification? Are members free to license their future patents independently of the pool? Or is the pool going to be the only route the technology can travel to the market? Again, if the latter, what's the justification?[36] If the answers to these questions don't tell a very persuasive story about how the future patent obligations contribute to the pool's procompetitive purpose, you may want to rethink what's going on, or else risk Sherman Act exposure. The question of compensation that the Attorney General addressed is worth considering, too. The most obvious threat to the innovation incentive is if pool members have to give royalty-free licenses. But even if the pool agreement provides for a "reasonable" royalty, the actual royalty for new inventions may be artificially low if it set by the rest of pool -- i.e., by the innovator's competitors.[37]

III. The Need for a New Notification Regime

All this thinking about how we look at cross-licenses won't amount to much, of course, if we don't have the ability to investigate them effectively. Based on my activities at the Division over the past couple of years, I am convinced that, unlike with respect to mergers and many other kinds of business practices, cross-licenses have remained largely off our screen. I also believe that there are some cross-licenses in place now that, had we been aware of them at the time of their inception, we might have sought to block under the antitrust laws. Indeed, these two conclusions I have drawn apply not only to cross-licenses, but to license agreements generally. The reason that they have stayed off our screen is because they are not by any means open and notorious, unlike, say a merger, and the two statutes that might have been thought to bring such arrangements to our attention generally do not. Let me elaborate.

Those of you who are familiar with the antitrust laws know that the premerger notification provisions of the Hart-Scott-Rodino Antitrust Improvements Act of 1976 require notification to both the Antitrust Division & the FTC of stock and asset acquisitions that give the acquirer an interest of more than $15 million in the acquired company's stock or assets, if the acquirer and acquiree exceed some size thresholds.[38] You probably also know that the FTC Premerger Notification Office, which is the arbiter of Hart-Scott-Rodino notification rules, views some intellectual property licenses as asset acquisitions.[39] But this has not made Hart-Scott-Rodino notification an effective net for potentially anticompetitive licenses.

For one thing, only licenses that on their face are literally exclusive -- retaining no rights in the licensed field, even to the licensor -- qualify for HSR notification.[40] That is understandable, since HSR is meant to deal with asset acquisitions, in which the seller parts with beneficial ownership of whatever the acquirer is getting. I think we could all agree, though, that licenses not literally exclusive on their face can also raise competitive issues. For one thing, facially nonexclusive licenses can be de facto exclusive, due to devices such as royalty structures that penalize additional licensing, or, as in our suit against S.C. Johnson & Sons and Bayer AG, a side agreement.[41] For another, a nonexclusive license between two competitors could lead one of them to give up on its own technology, making its own product more like its competitor's and giving consumers less choice. In other situations, as where the royalty on a an input accounts for a large proportion of the finished good's sales price, a nonexclusive license could enable the parties to coordinate their prices with each other. These situations may not involve asset acquisitions within the purview of Hart-Scott-Rodino, but we as antitrust enforcers would still like to know about them.

Even among exclusive licenses, only those that pass Sec. 7A's size-of- person and size-of-transaction tests require notification. Essentially, anything acquired from a non-manufacturing firm that has assets of less than $10 million and sales of less than $100 million will escape notification in any event. When it is an intellectual property right that is being acquired, it does not strain the imagination that a large, even dominant firm, could acquire a competitively important technology from a research and development outfit with assets and sales below the threshold levels. Such a transaction flies under the Hart-Scott- Rodino radar. So too will the licenses that fall short of the $15 million size-of- transaction test, a test difficult to apply objectively to a stream of royalty payments keyed to uncertain factors such as usage, production, or sales.[42]

Given all this, you won't be surprised to learn that licenses account for no more than a tiny fraction of the approximately 3000 transactions that are reported annually pursuant to Hart-Scott-Rodino filings. The problem is not with how Hart-Scott-Rodino is construed. The real problem is that the statute simply wasn't designed to apply to licenses in the first place.

Some of you might think that filings of patent interference settlements, pursuant to 35 U.S.C. § 135(c), might help to bring some potentially important matters to our attention. Enacted in 1962 to discourage competitors from using the medium of an interference settlement to collude,[43] the statute requires "any agreement or understanding between parties to an interference, including any collateral agreements referred to therein, made in connection with or in contemplation of the termination of the interference" to be filed with the PTO, from which the Antitrust Division may obtain it for review. The filing requirement not only gives us a look at settlement agreements but also should dissuade parties from entering into the most egregiously anticompetitive agreements.

At least, that is, so long as parties obey their obligation to file their entire agreement. Disobedience carries a facially harsh penalty: it renders the agreement and any related patents unenforceable. But I still can't help but wonder whether the statute is fully effective in ensuring filings. The PTO is not in a position to police the requirement that there be no unfiled side agreements. Nor are third parties, who may find it difficult even to see what has been filed; most settlers designate their agreements as confidential, shielding them from public view except upon "good cause." And only way we're likely to find out about a failure to file is through serendipity in an already-opened investigation.

That did happen once, but it's not a happy story. In the course of an investigation, we concluded that the FMC Corporation had failed to honor its obligation to file all the agreements connected with an interference settlement it had entered into. We sued, asking the court to declare FMC's resulting patent unenforceable under Section 135(c). The district court found no violation of the statute;[44] on appeal, the

Third Circuit held that the statute did not give the Government standing to have the patent declared unenforceable.[45] The Department did not seek certiorari, and FMC is the sole case on this issue. A bill to add an explicit right of action for the Government was introduced into Congress and died there in 1985.

So, with the Antitrust Division apparently unable to enforce the statute, who can? Infringers, who might otherwise raise unenforceability as a defense, are unlikely to learn of a failure to file on their own, and almost certainly won't be able to learn about it from us. The Antitrust Civil Process Act imposes strict confidentiality requirements on our use of documents and information we obtain through Civil Investigative Demands.[46] Consequently, when, as in FMC, we learn through CIDs of a violation of Section 135(c), we cannot place an announcement in the New York Times.

What this means, then, is that the only people who are likely to know about a violation of Section 135(c) and to be able to do something about it are the parties to the settlement themselves. Of course, sometimes even cartels break down. But to hinge law enforcement on changes of heart by violators places more hope in redemption of the human spirit than one in my position can afford to have. Even the Third Circuit recognized that denying us standing under Section 135(c) makes the filing requirement toothless. But that, the panel concluded, was a matter for Congress to redress.[47]

As I indicated, Congress did take a brief look in 1985 at a bill that would have solved the problem with a simple addition to the end of Section 135(c): "The U.S. may bring an action for equitable or declaratory relief to enforce the provisions of this Section."[48] The bill enjoyed the support of the Commerce Department, but did not emerge from the Judiciary Committee. I think it may be time for another, more serious look at the same simple legislative fix. At the same time, if the opportunity to overturn FMC came along through litigation, I would jump at it. Like William Baxter, the distinguished leader of the Antitrust Division at the time of FMC, I think the case was wrongly decided. But the chance to persuade a court of that may not come again soon. FMC was one of only a very few instances where we came across a failure to file in the course of an antitrust investigation; who knows, given the difficulty of determining whether a required filing has been made, when the next instance will be.

But whether we do it by legislation or litigation, vindicating our right of action would give the Section 135(c) filing requirement teeth, and consequently have some measure of confidence that we will learn about interference settlements that could otherwise stifle competition from outsiders and protect potentially invalid patents. But that fix, alone, addresses only one subset of potentially anticompetitive agreements, which may or may not involve the cross-licenses I've been talking about.

IV. A Proposed System of Notification

As I just indicated, the problem I see is not limited to just one particular setting, such as the settlement of interferences, or one particular device, such as a cross-license. The problem is with our inability to learn of a whole range of agreements involving intellectual property rights, agreements which may impede competition while affording no countervailing competitive benefits. One solution, and of course the only way to assure full detection of all licensing arrangements, would be a mandatory filing system. But, frankly, that would swamp the boat as far as I'm concerned. A practical solution hinges on our ability to articulate some special characteristics common to these agreements, so that we could insist on being told about some -- where competitive scrutiny might be worth the candle -- while letting the large majority go. I think that eventually we can come up with those identifying characteristics, based on the essence of the agreements themselves rather than what specific form they take or whether they result from a lawsuit, an interference, a cease-and-desist letter, or a government advisory committee. In the

meantime, though, I propose that we start with the setting that concerns us the most: settlement of infringement disputes.

We should identify a category (or categories) of infringement cases in which we get notification at the outset. We could then monitor such cases and, if the parties decided to settle, we could either step into the defendants' shoes if we thought the settlement was anticompetitive or, perhaps, adopt a regime where the court, based on our comments and those of other interested parties -- could reject the settlement on public interest grounds. I should note that Bill Baxter made a similar proposal just last year. Our experience with West's star- pagination infringement claim provides an illustration of how this might work and a demonstration of the limitations of the status quo.

First, let me remind you of what is at stake for competition in the fight over star pagination. To put it simply, to produce a viable case law product, any case law publisher other than West itself must be able to star-paginate to tell the reader where each portion of each case it publishes may be found in West's printed system, so that the reader may employ pinpoint citation to the particular part of the case relevant to his analysis. West, however, contends that star pagination to its system infringes its copyrights by copying the "arrangement" of those volumes. It finds support in West Publishing Co. v. Mead Data Central, Inc.,[49] where the Eighth Circuit held that Lexis' use of star pagination did indeed infringe West's copyright. West ultimately granted Lexis a license but, until it agreed with the Department recently in an antitrust consent decree to license the right to star paginate on request,[50] West had licensed only one other publisher to star paginate -- in a set of Virgin Islands case reports. And competition has not thrived. In the meantime, though, the Supreme Court's Feist decision[51] pulled the rug out from under the Eighth Circuit's analysis, at least as we see it. Thus you shouldn't have to have a license to star paginate, but as long as West sees it the other way, the difficulty of getting a license is a considerable entry barrier into the case law publishing business.

Because of our interest in competition in the provision of legal research products and services, we followed the two declaratory-judgment actions brought against West by rival case law publishers with considerable interest.[52] We sought to appear as *amicus* in both at about the same time, but at very different stages. In the litigation brought by Matthew Bender and HyperLaw against West in the Southern District of New York, we filed our brief during the pendency of the plaintiffs' motions for summary judgment. The brief we filed in *Oasis v. West*, though, was in the Eighth Circuit; the District Court, following West v. Mead, had already entered summary judgment for West. Ordinarily, we are wary of weighing in at the District Court level, since the record frequently is not as well developed, and the legal issues are not always as clearly delineated, as we might like. In this instance, though, the legal issue -- whether star pagination infringes West's copyright -- was straightforward, and so were the facts, enabling us to contribute as intelligently to the summary- judgment question before Judge Martin in New York as we were to the Eighth Circuit's appellate review. And, as it turned out, the one decision that has come down on this issue where we have been heard as *amicus* has gone our way, whereas the courts that did not hear us, both the District Court in Oasis and the courts in West v. Mead, went the other way. But even though our *amicus* filing may have had an impact here, I am not convinced that such a role is enough.

For one thing, although we were able to be heard in these proceedings, we cannot prevent the parties from settling and taking the issue away from us. A settlement in the Oasis matter, for example, would not only still our voice but also leave West v. Mead intact. For another thing, we were lucky: the West cases are the rare instance where we actually are aware of infringement litigation because we had a pre-existing interest in this industry. In the more usual situation, an infringement dispute could go to court and settle without ever coming to our attention. Notice of an infringement action would at least allow us

to assess what is at stake for competition in the matter while it is pending, putting us in a position to decide quickly and, I would hope, confidently when confronted with a settlement.

If we had that right to be heard, we could ensure that meritorious defenses would not be abandoned, and questionable intellectual property claims would not triumph, without at least an opportunity for us to consider whether broader societal interests in competition warrant putting the claims to their proof, and to bring those considerations to the court's attention. Then, those broader interests would not be held hostage to the defendant's own economic interests, which may be subject to limited resources for litigation and a strong aversion to the consequences of defeat, no matter how remote the chances. Of course, we might well still wish to be heard as *amicus* on the merits when the dispute does go to litigation, as it has in the current star- pagination cases. But it is easy to imagine a case being at a stage where *amicus* participation might not yet be prudent, for the reasons I alluded to above, yet a settlement would be very troublesome. There, the additional right to be heard in some manner in advance of any settlement would be essential to ensure that competitive concerns be heard at all.

In sum, I see a lot of merit in a new notification requirement, and I'm giving serious thought to how we can make it work. Of course, such a system could require a significant investment of Antitrust Division resources, both in reviewing proposed settlements and in following through in the occasional case by litigating on behalf of the settling defendant or providing comments to the court. But it's an important enough challenge that we ought to figure out how we can meet it. I think we could devise a notification regimen that would impose only mildly on the settling parties. I recognize that many settlements, for understandable reasons, are confidential. Those of you who have dealt with the Division know that our staff deals daily with the most sensitive confidential business information, and has a well-deserved reputation for guarding it carefully. There is every reason to think that we could accord the same degree of care to confidential settlements.

I recognize, of course, that this may not be much comfort to patentees, who might find themselves put to their proof more often. But I remain convinced that the current situation means that, whenever there is even a more than trivial possibility of infringement, the costs of litigation skew the parties' decisions, steering them away from a serious test of the bounds of the rights of the patentee or copyright holder and towards agreements that too often make teammates out of rivals. Since society picks up the tab for these agreements over the long run, I think it may be worth an investment of our resources up front to head them off where necessary.

Lastly, lest there be any misunderstanding here, I want to make it clear that I don't think it is necessary for the Division to get notice of every last infringement settlement. We should be able to come up with some easily understood and applicable criteria. Whether they ought to be on the basis of the size of the parties, their shares of the relevant markets, the economic significance of the alleged infringement or the product or service in which the allegedly infringed intellectual property is put to use, or some combination of the above, needs to be considered carefully. Whatever criteria we adopt, I want to assure you, will be designed to impose a minimal bar to settlements that don't pose a serious competitive threat, and to limit the call on the Antitrust Division's resources to reviewing economically significant and competitively troubling agreements.

V. **Conclusion**

Again, I want to say how grateful I am for the chance to speak with you today. I am very interested in your thoughts as to the ideas I have put forward, and more generally about the Antitrust

Division's protection of competition in the creation and exploitation of intellectual property. As the advocates for the competitors in this arena, you can and should be significant contributors to our efforts to develop antitrust doctrine for intellectual property that is at once vigilant, sensitive to the facts of each case, capable of consistent application, predictable, and, of course, to come back to patent law concepts, useful without necessarily being too novel.

Notes

1. See Matthew Bender & Co. and HyperLaw, Inc. v. West Publishing Co., No. 94 Civ. 0589 (JSM) (S.D.N.Y. November 22, 1996)(bench ruling), appeal withdrawn, No. 96-9711 (2d Cir., March 4, 1997); Oasis Publishing Co. v. West Publishing Co., No. 96- 2887 (8th Cir., oral argument held March 10, 1997).

2. See, e.g., United States v. General Electric Co. (D. Mont., complaint filed August 1. 1996); United States v. S.C. Johnson & Son, Inc., 1995-1 Trade Cas. (CCH) ¶ 70,884 (N.D. Ill. 1994)(consent decree); United States v. Pilkington plc, 1994-2 Trade Cas. (CCH) ¶ 70,842 (D. Ariz. 1994)(consent decree); United States v. Microsoft Corp., 1995-2 Trade Cas. (CCH) ¶ 71,096 (D.D.C. 1995)(consent decree). The complaints in General Electric, Pilkington, and Microsoft, as well as numerous pleadings from the many other cases we have brought over the last few years, are available at the Antitrust Division's web site, www.usdoj.gov/atr.

3. By "cross-licensing," I mean the interchange of intellectual property rights between two or more persons. By "patent pool," I mean the aggregation of intellectual property rights which are the subject of cross-licensing, whether they are transferred directly by patentee to licensee or through some medium, such as a joint venture, set up specifically to administer the patent pool. I hope my use of these terms comports reasonably well with your own; I take some comfort in knowing that the Supreme Court has stated that "patent pool" is not a term of art. United States v. Line Materials, 333 U.S. 287, 313 n.24 (1948).

4. Our Intellectual Property Guidelines give several examples of intellectual property licensing's procompetitive benefits. Antitrust Guidelines for the Licensing of Intellectual Property ("IP Guidelines"), § 2.3 (1995) [included in this publication - ed.].

5. Only a very few licenses are likely to fall prey to Section 1's per se rule, which automatically condemns the most egregiously anticompetitive agreements. IP Guidelines, § 3.4.

6. Manufacturers Aircraft Association -- Antitrust Laws, 31 Op. Atty. Gen. 166 (1917).

7. Id. at 167.

8. Id. The Wright company was demanding $1000 per plane, George Bittlingmayer, *Property Rights, Progress, and the Aircraft Patent Agreement*, 31 J. L. & Econ. 227, 232 (1988), which then amounted to five percent of airplanes' $20,000 average cost, Harry T. Dykman, *Patent Licensing Within the Manufacturer's Aircraft Association (MAA)*, 46 J. Pat. Off. Soc'y 646, 649 (1964).

9. Dykman at 647.

10. Id. Dykman characterizes the aircraft manufacturers and patentees as classic rugged individualists who were damned if they would readily give their competitors access to their inventions "under anything like a reasonable basis." Id. Of course, this tends to suggest that, if they were each that determined to go it alone, they either were not blocked by, say, the Wright patent, or they were deluding themselves. In any case, it appears that the specter of eminent domain helped bring them all to the table. See Bittlingmayer at 232.

11. 31 Op. Atty. Gen. at 167.

12. Id. at 168. Among them were some very basic patents indeed, such as "Method of Getting a Hydroairplane Off the Water Into the Air," and "Heavier Than Air Flying Machines." Dykman at 648-49.

13. Evidently the award of a government contract was deemed a satisfactory indicator of responsibility.

14. 31 Op. Atty. Gen. at 171

15. Of course, 100 would seem like an absurdly high number for today's aircraft industry, but that's another speech.

16. Id. at 168-69

17. Dykman at 650. The following year, the Secretary of the Navy, armed again with the threat of eminent domain, jawboned the per-unit royalty down to $100, although the $2 million ceilings remained in place. Id. at 655; see also Manufacturers Aircraft Association v. United States, 77 Ct. Cl. 481, 490-93 (1933)(action by pool for payment of royalties on airplanes made for U.S. government by non-members of pool).

18. 31 Op. Atty. Gen. at 169.

19. Id. at 169.

20. Id. at 169, 170

21. Dykman at 650.

22. The Secretary may have been acting under duress, since the pool's formation had provoked an uproar about an "aircraft trust." Bittlingmayer at 235 n.30. Today, if you were to ask us for a business review letter on conduct your client had embarked on five months earlier, you'd be out of luck. See Antitrust Division Business Review Procedure, 28 C.F.R. §50.6, ¶ 2.

23. 31 Op. Atty. Gen. at 170-71.

24. This was the point of our suit against Pilkington PLC, which employed a web of exclusive licenses on its expired patents and commonly known know-how to maintain an international cartel in the manufacture of float glass. See United States v. Pilkington plc, n.2, supra

25. This was the point of our suit against Pilkington PLC, which employed a web of exclusive licenses on its expired patents and commonly known know-how to maintain an international cartel in the manufacture of float glass. See United States v. Pilkington plc, n.2, supra

26. 31 Op. Atty. Gen. at 167. Absent government arm-twisting, one might not expect every such pool to lead to such dramatically reduced aggregate royalties. But any combination of complementary intellectual property rights brings with it the potential for genuine savings in transaction costs and provides a forum for owners of blocking complementary patents to reach a royalty agreement that will make access to their technologies feasible.

27. All that was judicially determined was that Wright had Curtiss over a barrel. Wright sued Curtiss in 1909, contending that Curtiss' use of wing flaps (suggested by Alexander Graham Bell) infringed the basic Wright patent. Bittlingmayer at 231. Although Wright won, Curtiss altered its invention, reopening the dispute, which was still underway at the time of the pool's formation. Id. At a minimum, the Curtiss invention seems to be a valuable improvement on Wright's.

28. Admittedly, they would save the cost and inconvenience of negotiating a competitive royalty.

29. Id. at 171. This conclusion, which focuses on the pool's cross-license, seems to depend upon the representation made to the Attorney General that the by-laws' limitation of membership to 100 was more

than adequate to accommodate the likely interest in membership. Id. However, the Attorney General stated, that limitation "may prove objectionable" if the industry expanded. Id.

30. IP Guidelines, § 5.3.

31. Id. at 170.

32. See United States v. Microsoft, n.2, supra.

33. The Attorney General would have found Section 3.2.3 especially helpful.

34. Id. at 170. This was essentially the very same issue that fueled our 1994 inquiry into the intellectual property policy of the European Telecommunications Standards Institute, which raised the specter of a technology buyers' cartel. Because ETSI changed its policy, we chose not to pursue the matter further.

35. Id.

36. The answer to this question could be very important if the new technology were itself a rival of the basic pool technology or could be used in combination with such a rival.

37. Attorney General's doesn't mean that our stance towards conduct we assess in a business review might not change over time if the facts or circumstances change, or antitrust analysis evolves. In fact, while the aircraft pool got a clean bill of health from us in 1917, it was the subject of several antitrust investigations, and ultimately was ended by a consent decree we obtained after suing in 1972 to break it up, on the ground that it had, in fact, retarded innovation. See United States v. Manufacturers Aircraft Assn., 1976-1 Trade Cas. (CCH) ¶ 60,810 (S.D.N.Y. 1975). This suit has been the subject of thought-provoking commentary. See, e.g., Bittlingmayer at 235-40. The moral of this story is that not even a business review is forever, and that, to be responsible enforcers of the antitrust laws, we have to reserve the right to review the effects of old practices as times change, especially if things pan out differently from how they were originally presented to us.

38. See 15 U.S.C. § 18A.

39. See 15 U.S.C. § 18A

40. Id.

41. Bayer had undertaken extensive preparations to enter the U.S. market with a patented new insecticide, which was likely to provide potent competition to S.C. Johnson & Sons, the incumbent market leader. At the last minute, though, Bayer instead licensed the product to Johnson. Because we concluded that the license would be the only one Bayer would grant in the U.S., it deprived US consumers of a likely entrant in the insecticides market -- Bayer itself -- without any countervailing benefits. The consent decree we obtained enjoined the license. See United States v. S.C. Johnson & Sons, n.2, supra.

42. See, e.g., id., Interpretation 116 at 95.

43. See United States v. Singer Mfg. Co., 374 U.S. 174 (1963). There, the defendant and a Swiss competitor settled an interference, scuttling evidence that cast doubt on the validity of the Swiss firm's patent, as part of a larger set of understandings that allowed them to focus their energies on excluding Japanese competition. See id., 374 U.S. at 197-99 (White, J., concurring).

44. United States v. FMC Corp., 514 F. Supp. 1166 (E.D. Pa. 1981), reversed, 717 F.2d 775 (3d Cir. 1983).

45. 717 F.2d at 787.

46. 15 U.S.C. § 1313(c)(3).

47. 717 F.2d at 787.

48. S. 1358, 99th Cong., 1st Sess. (1985).

49. 799 F.2d 1219 (8th Cir. 1986), cert. denied, 479 U.S. 1070 (1987).

50. See United States v. The Thomson Corp. & West Publishing Co., Civ. Action No. 96-1415 (PLF) (D.D.C., consent decree entered March 7, 1997) (resolving competitive concerns raised by West's acquisition by The Thomson Corporation).

51. Feist Publications, Inc. v. Rural Telephone Service Co., 499 U.S. 340, 349 (1990).

52. See n.1, supra. Our brief in Oasis, which is largely the same as the one we filed in Bender, is available at our web site. See n.2, supra

Annex 2

DEPARTMENT OF JUSTICE
Antitrust Division

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June 26, 1997

Via Fax:

Gerrard R. Beeney, Esq.
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Dear Mr. Beeney:

This is in response to your request on behalf of the Trustees of Columbia University, Fujitsu Limited, General Instrument Corp., Lucent Technologies Inc., Matsushita Electric Industrial Co., Ltd., Mitsubishi Electric Corp., Philips Electronics N.V., Scientific-Atlanta, Inc., and Sony Corp. (collectively the "Licensors"), Cable Television Laboratories, Inc. ("CableLabs"), MPEG LA, L.L.C. ("MPEG LA"), and their affiliates for the issuance of a business review letter pursuant to the Department of Justice's Business Review Procedure, 28 C.F.R. § 50.6. You have requested a statement of the Department of Justice's antitrust enforcement intentions with respect to a proposed arrangement pursuant to which MPEG LA will offer a package license under the Licensors' patents that are essential to compliance with the MPEG-2 compression technology standard, and distribute royalty income among the Licensors.

I. The Proposed Arrangement

A. The MPEG-2 Standard

The MPEG-2 standard has been approved as an international standard by the Motion Picture Experts Group of the International Organization for Standards (ISO) and the International Electrotechnical Commission (IEC) and by the International Telecommunication Union Telecommunication Standardization Sector ("ITU-T"). It contains nine operative parts. Only Parts 1 (ISO/IEC 13818-1) and 2 (ISO/IEC 13818-2), which deal with systems and video, are relevant to the proposed activity.

Part 1, concerning systems, describes: (a) a syntax and semantics for combining separate video and audio bitstreams into a single bitstream, either a "program" stream for storage on a medium such as a digital video disk, or a "transport" stream, for transmission of multiple programs; and (b) a demultiplexer for breaking the bitstream down into its constituent video and audio bitstreams.

Part 2 describes (a) a common syntax and semantics of a bitstream containing compressed video, and (b) a decoder for decompressing the bitstream. MPEG-2 video compression allows considerable savings in the amount of data, and thus storage and transmission space, required to reproduce video sequences, by eliminating redundant information both within a particular image, as where a background is of all the same color, and between images, as where particular figures remain unmoved from one moment to the next.[1]

The video and systems parts of the MPEG-2 standard will be applied in many different products and services in which video information is stored and/or transmitted, including cable, satellite and broadcast television, digital video disks, and telecommunications. However, compliance with the standards will infringe on numerous patents owned by many different entities. Consequently, a number of firms that participated in the development of the standard formed the MPEG-2 Intellectual Property Working Group ("IP Working Group") to address intellectual property issues raised by the proposed standard. Among other things, the IP Working Group sponsored a search for the patents that covered the technology essential to compliance with the proposed standard and explored the creation of a mechanism to convey those essential intellectual property rights to MPEG-2 users.[2] That exploration led ultimately to an agreement among the Licensors, CableLabs and Baryn S. Futa establishing MPEG LA as a Delaware Limited Liability Company.[3]

Each of the Licensors owns at least one patent that the IP Working Group's patent search identified as essential to compliance with the video and/or systems parts of the MPEG-2 standard (hereinafter "MPEG-2 Essential Patent" or "Essential Patent").[4] Among them, they account for a total of 27 Essential Patents, which are most, but not all, of the Essential Patents. Pursuant to a series of four proposed agreements, the Licensors will combine their Essential Patents into a single portfolio (the "Portfolio") in the hands of a common licensing administrator that would grant licenses under the Portfolio on a nondiscriminatory basis, collect royalties, and distribute them among the Licensors pursuant to a pro-rata allocation based on each Licensor's proportionate share of the total number of Portfolio patents in the countries in which a particular royalty- bearing product is made and sold.[5]

This arrangement is embodied in a network of four proposed agreements: (1) an Agreement Among Licensors, in which the Licensors commit to license their MPEG-2 Essential Patents jointly through a common License Administrator and agree on basic items including the Portfolio license's authorized fields of use, the amount and allocation of royalties, and procedures for adding patents to, and deleting them from, the Portfolio; (2) a Licensing Administrator Agreement between the Licensors and

MPEG LA, pursuant to which MPEG LA assumes the tasks of licensing the Portfolio to MPEG-2 users and collecting and distributing royalty income; (3) a license from each Licensor to MPEG LA for the purpose of granting the Portfolio License; and (4) the Portfolio license itself.

B. MPEG LA

Pursuant to the Licensing Administrator Agreement, MPEG LA will: (1) grant a worldwide, nonexclusive sublicense under the Portfolio to make, use and sell MPEG-2 products "to each and every potential Licensee who requests an MPEG-2 Patent Portfolio License and shall not discriminate among potential licensees";[6] (2) solicit Portfolio licensees;[7] (3) enforce and terminate Portfolio license agreements;[8] and (4) collect and distribute royalties.[9] For this purpose, each MPEG-2 Licensor will grant MPEG LA a nonexclusive license under its Essential Patents,[10] while retaining the right to license them independently for any purpose, including for making MPEG-2-compliant products.[11]

The Licensing Administrator Agreement places the day-to-day conduct of MPEG LA's business, including its licensing activities, under the sole control of Futa and his staff. The other owners retain some control, however, over "major decisions," including approval of budgets and annual financial statements, extraordinary expenditures, entry into new businesses, mergers and acquisitions, and the sale or dissolution of the corporation.[12]

C. The MPEG-2 Portfolio

As noted above, the Portfolio initially will consist of 27 patents, which constitute most, but not all, Essential Patents. These 27 patents were identified in a search carried out by an independent patent expert under the sponsorship of the IP Working Group. Once the MPEG-2 standard was largely in place, the IP Working Group issued a public call for the submission of patents that might be infringed by compliance with the MPEG-2 standard. CableLabs, whose COO Futa was an active participant in the IP Working Group, retained an independent patent expert familiar with the standard and the relevant technology to review the submissions. In all, the expert and his assistant reviewed approximately 8000 United States patent abstracts and studied about 800 patents belonging to over 100 different patentees or assignees. No submission was refused, and no entity or person that was identified as having an essential patent was in any way excluded from the effort in forming the proposed joint licensing program.

The proposed agreement among the Licensors creates a continuing role for an independent expert as an arbiter of essentiality. It requires the retention of an independent expert to review patents submitted to any of the Licensors for inclusion in the Portfolio[13] and to review any Portfolio patent which an MPEG-2 Licensor has concluded is not essential or as to which anyone has claimed a good-faith belief of non-essentiality.[14] In both cases, the Licensors are bound by the expert's opinion.[15]

The Portfolio's composition may also change for other reasons. A patent will be deleted promptly from the Portfolio upon a final adjudication of invalidity or unenforceability by a tribunal of competent jurisdiction in the country of its issuance.[16] The expiration of a Licensor's last-to-expire Portfolio patent, or a final adjudication of invalidity or unenforceability of its last remaining Portfolio patent, terminates the Licensor's participation in the Portfolio and the Agreement Among Licensors.[17] Each MPEG-2 Licensor may terminate its participation in the Portfolio license on 30 days' notice; however, all existing Portfolio licenses will remain intact.[18]

D. The Portfolio License

The planned license from MPEG LA to users of the MPEG-2 standards is a worldwide, nonexclusive, nonsublicensable license under the Portfolio patents for the manufacture, sale, and in most cases, use of: (1) products and software designed to encode and/or decode video information in accordance with the MPEG-2 standard; (2) products and software designed to generate MPEG-2 program and transport bitstreams; and (3) so-called "intermediate products," such as integrated circuit chips, used in the aforementioned products and software.[19] The license grant to use encoding-related products and software for recording video information on a "packaged medium," e.g., encoding a motion picture for copying on digital video disks, is separate from the other grants for the same products and software.[20]

The Portfolio license expires January 1, 2000, but is renewable at the licensee's option for a period of not less than five years, subject to "reasonable amendment of its terms and conditions."[21] That "reasonable amendment" may not, however, increase royalties by more than 25 percent.[22] Each Portfolio licensee may terminate its license on 30 days' written notice. The per- unit royalties are those agreed upon in the Agreement Among Licensors, but they are subject to reduction pursuant to a "most- favored-nation" clause.[23] The royalty obligations are predicated on actual use of one or more of the licensed patents in the unit for which the royalty is assessed.[24] The Portfolio license imposes no obligation on the licensee to use only the licensed patents and explicitly leaves the licensee free independently to develop "competitive video products or video services which do not comply with the MPEG-2 Standard."[25]

The Portfolio license will list the Portfolio patents in an attachment.[26] It also explicitly addresses the licensee's ability, and possible need, to obtain Essential Patent rights elsewhere. The Portfolio license states that each Portfolio patent is also available for licensing independently from the MPEG-2 Licensor that had licensed it to MPEG LA[27]and that the license may not convey rights to all Essential Patents.[28]

The license's grantback provision requires the licensee to grant any of the Licensors and other Portfolio licensees a nonexclusive worldwide license or sublicense, on fair and reasonable terms and conditions, on any Essential Patent that it has the right to license or sublicense.[29] The Licensors' per-patent share of royalties is the basis for determining a fair and reasonable royalty for the grantback.[30] Alternatively, a licensee that controls an Essential Patent may choose to become an MPEG-2 licensor and add its patent to the Portfolio.[31] Failure to honor the grantback requirement constitutes a material breach of the license, giving MPEG LA the right to terminate the license unless the licensee has cured the breach within 60 days after MPEG LA sends it notice of the breach.[32]

A separate provision allows for partial termination of a licensee's Portfolio license as to a particular MPEG-2 Licensor's patents. Pursuant to Section 6.3, an MPEG-2 Licensor may direct MPEG LA to withdraw its patents from the Portfolio license if the licensee has (a) brought a lawsuit or other proceeding against the MPEG-2 Licensor for infringement of an Essential Patent or an MPEG-2 Related Patent ("Related Patent") and (b) refused to grant the MPEG-2 Licensor a license under the Essential Patent or MPEG- 2 Related Patent on fair and reasonable terms and conditions.[33] As with the grantback, the per-patent share of Portfolio license royalties is the basis for determining a fair and reasonable royalty for the licensee's patent.[34] Upon the withdrawal of the MPEG-2 Licensor's patents from the licensee's Portfolio license, the licensee may seek a license on the withdrawn patents directly from the MPEG-2 Licensor, which remains subject to its undertaking to the ISO and/or the ITU-T to license on fair and reasonable terms and conditions.[35]

II. Analysis

A. The Patent Pool in General

An aggregation of patent rights for the purpose of joint package licensing, commonly called a patent pool, "may provide competitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation."[36] By promoting the dissemination of technology, patent pools can be procompetitive.[37] Nevertheless, some patent pools can restrict competition, whether among intellectual property rights within the pool or downstream products incorporating the pooled patents or in innovation among parties to the pool.[38]

A starting point for an antitrust analysis of any patent pool is an inquiry into the validity of the patents and their relationship to each other. A licensing scheme premised on invalid or expired intellectual property rights will not withstand antitrust scrutiny.[39] And a patent pool that aggregates competitive technologies and sets a single price for them would raise serious competitive concerns. On the other hand, a combination of complementary intellectual property rights, especially ones that block the application for which they are jointly licensed, can be an efficient and procompetitive method of disseminating those rights to would-be users.

Based on your representations to us about the complementary nature of the patents to be included in the Portfolio, it appears that the Portfolio is a procompetitive aggregation of intellectual property. The Portfolio combines patents that an independent expert has determined to be essential to compliance with the MPEG-2 standard; there is no technical alternative to any of the Portfolio patents within the standard. Moreover, each Portfolio patent is useful for MPEG-2 products only in conjunction with the others.[40] The limitation of the Portfolio to technically essential patents, as opposed to merely advantageous ones, helps ensure that the Portfolio patents are not competitive with each other and that the Portfolio license does not, by bundling in non-essential patents, foreclose the competitive implementation options that the MPEG-2 standard has expressly left open.

The continuing role of an independent expert to assess essentiality is an especially effective guarantor that the Portfolio patents are complements, not substitutes. The relevant provisions of the Agreement Among Licensors appear well designed to ensure that the expert will be called in whenever a legitimate question is raised about whether or not a particular patent belongs in the Portfolio; in particular, they seem designed to reduce the likelihood that the Licensors might act concertedly to keep invalid or non-essential patents in the Portfolio or to exclude other essential patents from admission to the Portfolio.

B. Specific Terms of the Agreements

Despite the potential procompetitive effects of the Portfolio license, we would be concerned if any specific terms of any of the contemplated agreements seemed likely to restrain competition. Such possible concerns might include the likelihood that the Licensors could use the Portfolio license as a vehicle to disadvantage competitors in downstream product markets; to collude on prices outside the scope of the Portfolio license, such as downstream MPEG-2 products; or to impair technology or innovation competition, either within the MPEG-2 standard or from rival compression technologies. It appears, however, that the proposed arrangement will not raise any significant competitive concerns.

1. Effect on Rivals

There does not appear to be any potential for use of the Portfolio license to disadvantage particular licensees. The Agreement Among Licensors commits the Licensors to nondiscriminatory Portfolio licensing, and the Licensing Administrator agreement both vests sole licensing authority in MPEG LA and explicitly requires MPEG LA to offer the Portfolio license on the same terms and conditions to all would-be licensees. Thus, maverick competitors and upstart industries will have access to the Portfolio on the same terms as all other licensees. The Portfolio license's "most-favored-nation" clause ensures further against any attempt to discriminate on royalty rates.[41]

Although it offers the Portfolio patents only as a package, the Portfolio license does not appear to be an illegal tying agreement. The conditioning of a license for one intellectual property right on the license of a second such right could be a concern where its effect was to foreclose competition from technological alternatives to the second. In this instance, however, the essentiality of the patents -- determined by the independent expert -- means that there is no technological alternative to any of them and that the Portfolio license will not require licensees to accept or use any patent that is merely one way of implementing the MPEG-2 standard, to the detriment of competition. Moreover, although a licensee cannot obtain fewer than all the Portfolio patents from MPEG LA, the Portfolio license informs potential licensees that licenses on all the Portfolio patents are available individually from their owners or assignees. While the independent expert mechanism should ensure that the Portfolio will never contain any unnecessary patents, the independent availability of each Portfolio patent is a valuable failsafe. The list of Portfolio patents attached to the Portfolio license will provide licensees with information they need to assess the merits of the Portfolio license.

2. Facilitation of Collusion

From what you have told us, there does not appear to be anything in the proposed agreements that is likely to facilitate collusion among Licensors or licensees in any market. Although MPEG LA is authorized to audit licensees,[42] confidentiality provisions prohibit it from transmitting competitively sensitive information among the Licensors or other licensees.[43] Further, since the contemplated royalty rates are likely to constitute a tiny fraction of MPEG-2 products' prices, at least in the near term, it appears highly unlikely that the royalty rate could be used during that period as a device to coordinate the prices of downstream products.

3. Effect on Innovation

It further appears that nothing in the arrangement imposes any anticompetitive restraint, either explicitly or implicitly, on the development of rival products and technologies. Nothing in the Agreement Among Licensors discourages, either through outright prohibition or economic incentives, any Licensor from developing or supporting a rival standard. As noted above, the Portfolio license explicitly leaves licensees free independently to make products that do not comply with the MPEG-2 standard and premises royalty obligations on actual use of at least one Portfolio patent.[44] Since the Portfolio includes only Essential Patents, the licensee's manufacture, use or sale of MPEG-2 products will necessarily infringe the Portfolio patents. By weeding out non-essential patents from the Portfolio, the independent-expert mechanism helps ensure that the licensees will not have to pay royalties for making MPEG-2 products that do not employ the licensed patents.

The license's initial duration, to January 1, 2000, does not present any competitive concern. While the open-ended renewal term of "no less than five years" holds open the possibility of a perpetual license, its competitive impact will depend substantially on whether any of the "reasonable amendments" made at that time increase the license's exclusionary impact. While the term "reasonable" is the Portfolio license's only limitation on the Licensors' ability to impose onerous non-royalty terms on licensees at renewal time, the 25 percent cap on royalty increases and the "most-favored-nation" clause appear to constrain the Licensors' ability to use royalties to exploit any locked-in installed base among its licensees.

Nor does the Portfolio license's grantback clause appear anticompetitive. Its scope, like that of the license itself, is limited to Essential Patents. It does not extend to mere implementations of the standard or even to improvements on the essential patents.[45] Rather, the grantback simply obliges licensees that control an Essential Patent to make it available to all, on a nonexclusive basis, at a fair and reasonable royalty, just like the Portfolio patents. This will mean that any firm that wishes to take advantage of the cost savings afforded by the Portfolio license cannot hold its own essential patents back from other would-be manufacturers of MPEG-2 products. While easing, though not altogether clearing up, the holdout problem,[46] the grantback should not create any disincentive among licensees to innovate. Since the grantback extends only to MPEG-2 Essential Patents, it is unlikely that there is any significant innovation left to be done that the grantback could discourage.[47] The grantback provision is likely simply to bring other Essential Patents into the Portfolio, thereby limiting holdouts' ability to exact a supracompetitive toll from Portfolio licensees and further lowering licensees' costs in assembling the patent rights essential to their compliance with the MPEG-2 standard.

In different circumstances, the right of partial termination set forth in Section 6.3 of the Portfolio license could raise difficult competition issues. That section provides that, on instruction from any Licensor, MPEG LA, pursuant to its obligations under the Licensing Administrator Agreement, shall withdraw from a particular licensee's portfolio license that Licensor's patent or patents if the licensee has sued the Licensor for infringement of an Essential Patent or a Related Patent and refused to grant a license on the allegedly infringed patent on "fair and reasonable terms."

Of course, a licensee's refusal to license an Essential Patent on fair and reasonable terms, as required by Section 7.3 of the Portfolio License, is grounds for termination of the Portfolio license altogether. Even though MPEG LA may choose not to exercise its right to terminate, a Licensor that has been denied a license may invoke the less drastic partial termination provision, which is mandatory on MPEG LA. Partial termination would force the licensee to negotiate with the Licensor as if the pool had never existed. Thus, while the partial termination right leaves the licensee no worse off than it was in the absence of the pool, it enforces the Essential Patent grantback, which, as discussed above, appears procompetitive.

The right of partial termination could have a very different impact on a Portfolio licensee that owns a Related Patent. No matter how attractive the licensee's patented implementation of the MPEG-2 standard may be, by definition the Related Patent will not be essential to compliance with the standard. And, not being essential, the patent is not subject to the Section 7.3 grantback. If the Portfolio licensee that owns a Related Patent chooses not to license others to use its technology, those others may still have alternatives to choose from. But if a Licensor chooses to infringe the Portfolio licensee's Related Patent after having been denied a license, the Portfolio licensee's decision to sue for infringement could cause it to become unable, at least temporarily, to comply with the MPEG-2 standard.[48]

The MPEG-2 Licensor is not entirely unconstrained: Importantly, as you have pointed out, its undertakings to the ISO and/or the ITU-T obligate it to license on fair and reasonable terms. However, it

is not clear that this general commitment alone deprives the Licensor of the ability to impair competition. The partial termination right may enable Licensors to obtain licenses on Related Patents at royalty levels below what they would have been in a competitive market. Consequently, the partial termination right may dampen licensees' incentives to invest in research and development of MPEG-2 implementations, undercutting somewhat the benefits of the openness of the MPEG-2 standard and the prospects for improvements on the Essential Patents.

This impact on the incentive to innovate within the MPEG-2 standard would be of particular concern were the partial termination right designed to benefit all portfolio licensees. In that event, the partial termination right would function much like a compulsory grantback into the Portfolio. Licensees that owned Related Patents would not be able to choose among and negotiate freely with potential users of their inventions. The licensees' potential return from their R&D investments could be curtailed drastically, and the corresponding impact on their incentive to innovate could be significant.

Here, however, the partial termination right, unlike the grantback, protects only the Licensors. Other portfolio licensees have no right under the pool license to practice fellow licensees' inventions. And the Licensors are likely to be restrained in exercising their partial termination rights because the development of Related Patents will enhance MPEG-2 and, thus, the value of the Portfolio. The long-term interest of the Licensors is generally to encourage innovation in Related Patents, not to stifle it.

Moreover, the partial termination right may have procompetitive effects to the extent that it functions as a nonexclusive grantback requirement on licensees' Related Patents. It could allow Licensors and licensees to share the risk and rewards of supporting and improving the MPEG-2 standard by enabling Licensors to capture some of the value they have added to licensees' Related Patents by creating and licensing the Portfolio.[49] In effect, the partial termination right may enable Licensors to realize greater returns on the Portfolio license from the licensees that enjoy greater benefits from the license, while maintaining the Portfolio royalty at a level low enough to attract licensees that may value it less. This in turn could lead to more efficient exploitation of the Portfolio technology.

Therefore, in light of both its potentially significant procompetitive effects and the limited potential harm it poses to Portfolio licensees' incentives to innovate, the partial- termination clause appears on balance unlikely to be anticompetitive.

III. Conclusion

Like many joint licensing arrangements, the agreements you have described for the licensing of MPEG-2 Essential Patents are likely to provide significant cost savings to Licensors and licensees alike, substantially reducing the time and expense that would otherwise be required to disseminate the rights to each MPEG-2 Essential Patent to each would-be licensee. Moreover, the proposed agreements that will govern the licensing arrangement have features designed to enhance the usual procompetitive effects and mitigate potential anticompetitive dangers. The limitation of the Portfolio to technically essential patents and the use of an independent expert to be the arbiter of that limitation reduces the risk that the patent pool will be used to eliminate rivalry between potentially competing technologies. Potential licensees will be aided by the provision of a clear list of the Portfolio patents, the availability of the Portfolio patents independent of the Portfolio, and the warning that the Portfolio may not contain all Essential Patents. The conditioning of licensee royalty liability on actual use of the Portfolio patents, the clearly stated freedom of licensees to develop and use alternative technologies, and the imposition of obligations on licensees'

own patent rights that do not vitiate licensees' incentives to innovate, all serve to protect competition in the development and use of both improvements on, and alternatives to, MPEG-2 technology.

For these reasons, the Department is not presently inclined to initiate antitrust enforcement action against the conduct you have described. This letter, however, expresses the Department's current enforcement intention. In accordance with our normal practices, the Department reserves the right to bring an enforcement action in the future if the actual operation of the proposed conduct proves to be anticompetitive in purpose or effect.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. § 50.6. Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data will be made publicly available within 30 days of the date of this letter, unless you request that part of the material be withheld in accordance with Paragraph 10(c) of the Business Review Procedure.

Sincerely,

Joel I. Klein

JIK/cjk

NOTES

1. Notably, neither Part 1 nor Part 2 dictates a particular method for encoding video or programs into the specified syntax and semantics. Users of the standard are thus free to develop and use the encoding method they find most advantageous, while preserving the compatibility necessary to the integrity of the standard.

2. The patent search and the use of an independent expert to conduct the search are discussed in greater detail below.

3. Amended and Restated Limited Liability Company Agreement of MPEG LA, L.L.C. ("LLC Agreement"). Previously CableLabs' executive vice president and chief operating officer, Baryn Futa is now Manager of MPEG LA.

4. Each of the draft agreements submitted with your letter defines "MPEG-2 Essential Patent" as "any Patent claiming an apparatus and/or a method necessary for compliance with the MPEG- 2 Standard [defined generally as the MPEG-2 video and systems standards] under the laws of the country which issued or published the Patent." E.g., MPEG-2 Patent Portfolio License ("Portfolio License"), § 1.18.

5. Id., § 5.1.

6. Licensing Administrator Agreement, § 3.2.

7. Id., § 3.1.

8. Id., § 3.14. The Licensors, however, may veto a planned enforcement action or termination, by a vote of 2/3 of the licensors. Id.

9. Agreement Among Licensors, § 2.1.

10. License from Licensor to Licensing Administrator, §§ 2.1- 2.5, 2.8. Three of the Licensors, Columbia University, Fujitsu, and Mitsubishi, each own only one Essential Patent.

11. Agreement Among Licensors, § 2.8.

12. LLC Agreement, § 7.03.

13. Agreement Among Licensors, § 6.1.

14. Agreement Among Licensors, § 2.4.2.

15. However, they need not consult the expert if they agree unanimously in good faith that a submitted patent is an Essential Patent, id., § 2.4.1, or that a Portfolio patent is not essential, id., § 6.1.1.

16. Id., § 2.5. Although the Licensing Administrator Agreement does not explicitly direct MPEG LA to do so, we understand that Essential Patents will be deleted from the Portfolio as they expire.

17. Id., § 7.1.

18. Id., § 2.3.

19 Patent Portfolio License, §§ 2.1-2.5. The intermediate product license grant as to intermediate products limits the right to use such products to internal development and testing purposes. Id., § 2.1.

20. Patent Portfolio License, §§ 2.1-2.5. The intermediate product license grant as to intermediate products limits the right to use such products to internal development and testing purposes. Id., § 2.1.

21. Id., § 6.1.

22. Id.

23. Id., § 7.7.

24. Id., §§ 2.1-2.5.

25. Id., § 7.8. We understand this to mean that licensees are free also to develop technological alternatives to the MPEG-2 compression standard.

26. Id., § 1.21.

27. Id., § 4.3.

28. Id.

29. Id., § 7.3.

30. Id.

31. Id., § 7.4.

32. Id., § 6.2.

33. Related Patent" as "any Patent which is not an MPEG-2 Essential Patent but which has one or more claims directed to an apparatus or a method that may be used in the implementation of a product or a service designed in whole or in part to exploit the MPEG-2 Standard under the laws of the country which issued or published the Patent." Id., § 1.23. Read literally, this definition could encompass any patent capable of being employed in a product or service that exploits the MPEG-2 standard. At the extreme, it would take in any patent relevant not only to MPEG-2 applications but also to unrelated products, as well as patents on products or services that someone might build into an MPEG-2 Royalty Product -- for example, a patented informational display on a DVD player.

    You have informed the Department, however, that such a broad, literal interpretation was not the intent of the drafters of the Patent Portfolio License and that your clients would construe the term "MPEG-2 Related Patents" to encompass only patents which, as applied, constitute implementations of the MPEG-2 standard. Further, you have told the Department that it is exceedingly unlikely that any Related Patent would have any utility for any application other than MPEG-2.

34. Id.

35. Similarly, Sections 2.9 and 2.10 of the Agreement Among Licensors authorize each Licensor to instruct MPEG LA to withhold its Portfolio patents from any potential licensee that either: (1) has sued the Licensor for infringement of an Essential Patent or a Related Patent, and the Licensor has decided to counter with a claim of infringement of its Portfolio patents; or (2) has been sued by the Licensor for infringement of the Portfolio patents. We understand these provisions to apply only to ongoing litigation and not to authorize the vindictive withholding of Portfolio patents after the infringement suit has been resolved.

36. Department of Justice-Federal Trade Commission, Antitrust Guidelines for the Licensing of Intellectual Property ("IP Guidelines"), § 5.5.

37. Id.

38. Id.

39. See, e.g., United States v. Pilkington plc, 1994-2 Trade Cas. (CCH) ¶ 70,842 (D. Ariz. 1994)(consent decree resolving antitrust suit against exclusive licenses premised on technology covered by expired patents).

40. The Department presumes from the information you have provided us that the Portfolio patents are valid. Should this prove not to be so, the Department's analysis and enforcement intentions would likely be very different. As noted above, the Agreement Among Licensors provides for the deletion from the Portfolio of licenses held invalid or unenforceable

41. Portfolio License, § 7.7.

42. Licensing Administrator Agreement, § 3.15; Portfolio License, § 3.9.2.

43. Portfolio license, § 5.1

44. Cf. United States v. Microsoft Corp., 1995-2 Trade Cas. (CCH) ¶ 71,096 (D.D.C. 1995)(consent decree resolving suit against, among other things, use of per-processor royalty for license of dominant operating system).

45. Consequently, much of the section on grantbacks in the IP Guidelines is not directly applicable to this provision. The ultimate question, though, is the same: whether, by reducing licensees' incentives to innovate, the grantback causes competitive harm that outweighs its procompetitive effects. See IP Guidelines, § 5.6.

46. Any non-manufacturing owner of an Essential Patent, in contrast, can still be a holdout, having no need for the Portfolio license.

47. Improvements Id., § 1.21

48. Since, as noted in note 33 above, it is exceedingly unlikely that a Related Patent would ever have any utility outside the MPEG-2 standard, it is correspondingly unlikely that an owner of a Related Patent would ever have cause to sue an MPEG-2 Licensor for infringement of that patent in connection with the manufacture, use or sale of anything other than MPEG-2- related products or services. If Section 6.3 were used in response to such an infringement action, we could have serious concerns.

49. See IP Guidelines, § 5.6.

ANNEX TO THE UNITED STATES FEDERAL TRADE COMMISSION AND DEPARTMENT OF JUSTICE SUBMISSIONS:

ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY*

April 6, 1995

1. Intellectual property protection and the antitrust laws

1.0 These Guidelines state the antitrust enforcement policy of the US Department of Justice and the Federal Trade Commission (individually, "the Agency," and collectively, "the Agencies") with respect to the licensing of intellectual property protected by patent, copyright, and trade secret law, and of know-how.[1] By stating their general policy, the Agencies hope to assist those who need to predict whether the Agencies will challenge a practice as anticompetitive. However, these Guidelines cannot remove judgement and discretion in antitrust law enforcement. Moreover, the standards set forth in these Guidelines must be applied in unforeseeable circumstances. Each case will be evaluated in light of its own facts, and these Guidelines will be applied reasonably and flexibly.[2]

In the United States, patents confer rights to exclude others from making, using, or selling in the United States the invention claimed by the patent for a period of seventeen years from the date of issue.[3] To gain patent protection, an invention (which may be a product, process, machine, or composition of matter) must be novel, non obvious, and useful. Copyright protection applies to original works of authorship embodied in a tangible medium of expression.[4] A copyright protects only the expression, not the underlying ideas.[5] Unlike a patent, which protects an invention not only from copying but also from independent creation, a copyright does not preclude others from independently creating similar expression. Trade secret protection applies to information whose economic value depends on its not being generally known.[6] Trade secret protection is conditioned upon efforts to maintain secrecy and has no fixed term. As with copyright protection, trade secret protection does not preclude independent creation by others.

The intellectual property laws and the antitrust laws share the common purpose of promoting innovation and enhancing consumer welfare.[7] The intellectual property laws provide incentives for innovation and its dissemination and commercialisation by establishing enforceable property rights for the creators of new and useful products, more efficient processes, and original works of expression. In the absence of intellectual property rights, imitators could more rapidly exploit the efforts of innovators and investors without compensation. Rapid imitation would reduce the commercial value of innovation and erode incentives to invest, ultimately to the detriment of consumers. The antitrust laws promote innovation and consumer welfare by prohibiting certain actions that may harm competition with respect to either existing or new ways of serving consumers.

2. General principles

2.0 These Guidelines embody three general principles: (a) for the purpose of antitrust analysis, the Agencies regard intellectual property as being essentially comparable to any other form of property; (b) the Agencies do not presume that intellectual property creates market power in the antitrust context; and (c) the Agencies recognise that intellectual property licensing allows firms to combine complementary factors of production and is generally procompetitive.

2.1 Standard antitrust analysis applies to intellectual property

The Agencies apply the same general antitrust principles to conduct involving intellectual property that they apply to conduct involving any other form of tangible or intangible property. That is not to say that intellectual property is in all respects the same as any other form of property. Intellectual property has important characteristics, such as ease of misappropriation, that distinguish it from many other forms of property. These characteristics can be taken into account by standard antitrust analysis, however, and do not require the application of fundamentally different principles.[8]

Although there are clear and important differences in the purpose, extent, and duration of protection provided under the intellectual property regimes of patent, copyright, and trade secret, the governing antitrust principles are the same. Antitrust analysis takes differences among these forms of intellectual property into account in evaluating the specific market circumstances in which transactions occur, just as it does with other particular market circumstances.

Intellectual property law bestows on the owners of intellectual property certain rights to exclude others. These rights help the owners to profit from the use of their property. An intellectual property owner's rights to exclude are similar to the rights enjoyed by owners of other forms of private property. As with other forms of private property, certain types of conduct with respect to intellectual property may have anticompetitive effects against which the antitrust laws can and do protect. Intellectual property is thus neither particularly free from scrutiny under the antitrust laws, nor particularly suspect under them.

The Agencies recognise that the licensing of intellectual property is often international. The principles of antitrust analysis described in these Guidelines apply equally to domestic and international licensing arrangements. However, as described in the 1995 Department of Justice and Federal Trade Commission Antitrust Enforcement Guidelines for International Operations, considerations particular to international operations, such as jurisdiction and comity, may affect enforcement decisions when the arrangement is in an international context.

2.2 Intellectual property and market power

Market power is the ability profitably to maintain prices above, or output below, competitive levels for a significant period of time.[9] The Agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner. Although the intellectual property right confers the power to exclude with respect to the specific product, process, or work in question, there will often be sufficient actual or potential close substitutes for such product, process, or work to prevent the exercise of market power.[10] If a patent or other form of intellectual property does confer market power, that market power does not by itself offend the antitrust laws. As with any other tangible or intangible asset that enables its owner to obtain significant supracompetitive profits, market power (or even a monopoly) that

is solely "a consequence of a superior product, business acumen, or historic accident" does not violate the antitrust laws.[11] Nor does such market power impose on the intellectual property owner an obligation to license the use of that property to others. As in other antitrust contexts, however, market power could be illegally acquired or maintained, or, even if lawfully acquired and maintained, would be relevant to the ability of an intellectual property owner to harm competition through unreasonable conduct in connection with such property.

2.3 Procompetitive benefits of licensing

Intellectual property typically is one component among many in a production process and derives value from its combination with complementary factors. Complementary factors of production include manufacturing and distribution facilities, workforces, and other items of intellectual property. The owner of intellectual property has to arrange for its combination with other necessary factors to realise its commercial value. Often, the owner finds it most efficient to contract with others for these factors, to sell rights to the intellectual property, or to enter into a joint venture arrangement for its development, rather than supplying these complementary factors itself.

Licensing, cross-licensing, or otherwise transferring intellectual property (hereinafter "licensing") can facilitate integration of the licensed property with complementary factors of production. This integration can lead to more efficient exploitation of the intellectual property, benefiting consumers through the reduction of costs and the introduction of new products. Such arrangements increase the value of intellectual property to consumers and to the developers of the technology. By potentially increasing the expected returns from intellectual property, licensing also can increase the incentive for its creation and thus promote greater investment in research and development.

Sometimes the use of one item of intellectual property requires access to another. An item of intellectual property "blocks" another when the second cannot be practised without using the first. For example, an improvement on a patented machine can be blocked by the patent on the machine. Licensing may promote the co-ordinated development of technologies that are in a blocking relationship.

Field-of-use, territorial, and other limitations on intellectual property licenses may serve procompetitive ends by allowing the licensor to exploit its property as efficiently and effectively as possible. These various forms of exclusivity can be used to give a licensee an incentive to invest in the commercialisation and distribution of products embodying the licensed intellectual property and to develop additional applications for the licensed property. The restrictions may do so, for example, by protecting the licensee against free-riding on the licensee's investments by other licensees or by the licensor. They may also increase the licensor's incentive to license, for example, by protecting the licensor from competition in the licensor's own technology in a market niche that it prefers to keep to itself. These benefits of licensing restrictions apply to patent, copyright, and trade secret licenses, and to know-how agreements.

Example 1[12]

Situation*:* ComputerCo develops a new, copyrighted software program for inventory management. The program has wide application in the health field. ComputerCo licenses the program in an arrangement that imposes both field of use and territorial limitations. Some of ComputerCo's licenses permit use only in hospitals; others permit use only in group medical practices. ComputerCo charges different royalties for the different uses. All of ComputerCo's licenses permit use only in specified portions of the United States and in specified foreign countries.[13] The licenses contain no provisions that would prevent or discourage licensees from developing, using, or selling any other program, or from competing in any other good or service other than in the use of the licensed program. None of the licensees are actual or likely potential competitors of ComputerCo in the sale of inventory management programs.

Discussion: The key competitive issue raised by the licensing arrangement is whether it harms competition among entities that would have been actual or likely potential competitors in the absence of the arrangement. Such harm could occur if, for example, the licenses anticompetitively foreclose access to competing technologies (in this case, most likely competing computer programs), prevent licensees from developing their own competing technologies (again, in this case, most likely computer programs), or facilitate market allocation or price-fixing for any product or service supplied by the licensees. (*See* section 3.1.) If the license agreements contained such provisions, the Agency evaluating the arrangement would analyse its likely competitive effects as described in parts 3–5 of these Guidelines. In this hypothetical, there are no such provisions and thus the arrangement is merely a subdivision of the licensor's intellectual property among different fields of use and territories. The licensing arrangement does not appear likely to harm competition among entities that would have been actual or likely potential competitors if ComputerCo had chosen not to license the software program. The Agency therefore would be unlikely to object to this arrangement. Based on these facts, the result of the antitrust analysis would be the same whether the technology was protected by patent, copyright, or trade secret. The Agency's conclusion as to likely competitive effects could differ if, for example, the license barred licensees from using any other inventory management program.

3. Antitrust concerns and modes of analysis

3.1 Nature of the concerns

While intellectual property licensing arrangements are typically welfare-enhancing and procompetitive, antitrust concerns may nonetheless arise. For example, a licensing arrangement could include restraints that adversely affect competition in goods markets by dividing the markets among firms that would have competed using different technologies. *See, e.g.*, Example 7. An arrangement that effectively merges the research and development activities of two of only a few entities that could plausibly engage in research and development in the relevant field might harm competition for development of new goods and services. *See* section 3.2.3. An acquisition of intellectual property may lessen competition in a relevant antitrust market. *See* section 5.7. The Agencies will focus on the actual effects of an arrangement, not on its formal terms.

The Agencies will not require the owner of intellectual property to create competition in its own technology. However, antitrust concerns may arise when a licensing arrangement harms competition among entities that would have been actual or likely potential competitors[14] in a relevant market in the absence of the license (entities in a "horizontal relationship"). A restraint in a licensing arrangement may harm such competition, for example, if it facilitates market division or price-fixing. In addition, license

restrictions with respect to one market may harm such competition in another market by anticompetitively foreclosing access to, or significantly raising the price of, an important input,[15] or by facilitating co-ordination to increase price or reduce output. When it appears that such competition may be adversely affected, the Agencies will follow the analysis set forth below. *See generally* sections 3.4 and 4.2.

3.2 Markets affected by licensing arrangements

Licensing arrangements raise concerns under the antitrust laws if they are likely to affect adversely the prices, quantities, qualities, or varieties of goods and services[16] either currently or potentially available. The competitive effects of licensing arrangements often can be adequately assessed within the relevant markets for the goods affected by the arrangements. In such instances, the Agencies will delineate and analyse only goods markets. In other cases, however, the analysis may require the delineation of markets for technology or markets for research and development (innovation markets).

3.2.1 Goods markets

A number of different goods markets may be relevant to evaluating the effects of a licensing arrangement. A restraint in a licensing arrangement may have competitive effects in markets for final or intermediate goods made using the intellectual property, or it may have effects upstream, in markets for goods that are used as inputs, along with the intellectual property, to the production of other goods. In general, for goods markets affected by a licensing arrangement, the Agencies will approach the delineation of relevant market and the measurement of market share in the intellectual property area as in section 1 of the US Department of Justice and Federal Trade Commission Horizontal Merger Guidelines.[17]

3.2.2 Technology markets

Technology markets consist of the intellectual property that is licensed (the "licensed technology") and its close substitutes—that is, the technologies or goods that are close enough substitutes significantly to constrain the exercise of market power with respect to the intellectual property that is licensed.[18] When rights to intellectual property are marketed separately from the products in which they are used,[19] the Agencies may rely on technology markets to analyse the competitive effects of a licensing arrangement.

Example 2

Situation: Firms Alpha and Beta independently develop different patented process technologies to manufacture the same off-patent drug for the treatment of a particular disease. Before the firms use their technologies internally or license them to third parties, they announce plans jointly to manufacture the drug, and to assign their manufacturing processes to the new manufacturing venture. Many firms are capable of using and have the incentive to use the licensed technologies to manufacture and distribute the drug; thus, the market for drug manufacturing and distribution is competitive. One of the Agencies is evaluating the likely competitive effects of the planned venture.

Discussion: The Agency would analyse the competitive effects of the proposed joint venture by first defining the relevant markets in which competition may be affected and then evaluating the likely

competitive effects of the joint venture in the identified markets. (*See* Example 4 for a discussion of the Agencies' approach to joint venture analysis.) In this example, the structural effect of the joint venture in the relevant goods market for the manufacture and distribution of the drug is unlikely to be significant, because many firms in addition to the joint venture compete in that market. The joint venture might, however, increase the prices of the drug produced using Alpha's or Beta's technology by reducing competition in the relevant market for technology to manufacture the drug.

The Agency would delineate a technology market in which to evaluate likely competitive effects of the proposed joint venture. The Agency would identify other technologies that can be used to make the drug with levels of effectiveness and cost per dose comparable to that of the technologies owned by Alpha and Beta. In addition, the Agency would consider the extent to which competition from other drugs that are substitutes for the drug produced using Alpha's or Beta's technology would limit the ability of a hypothetical monopolist that owned both Alpha's and Beta's technology to raise its price.

To identify a technology's close substitutes and thus to delineate the relevant technology market, the Agencies will, if the data permit, identify the smallest group of technologies and goods over which a hypothetical monopolist of those technologies and goods likely would exercise market power—for example, by imposing a small but significant and non transitory price increase.[20] The Agencies recognise that technology often is licensed in ways that are not readily quantifiable in monetary terms.[21] In such circumstances, the Agencies will delineate the relevant market by identifying other technologies and goods which buyers would substitute at a cost comparable to that of using the licensed technology.

In assessing the competitive significance of current and likely potential participants in a technology market, the Agencies will take into account all relevant evidence. When market share data are available and accurately reflect the competitive significance of market participants, the Agencies will include market share data in this assessment. The Agencies also will seek evidence of buyers' and market participants' assessments of the competitive significance of technology market participants. Such evidence is particularly important when market share data are unavailable, or do not accurately represent the competitive significance of market participants. When market share data or other indicia of market power are not available, and it appears that competing technologies are comparably efficient,[22] the Agencies will assign each technology the same market share. For new technologies, the Agencies generally will use the best available information to estimate market acceptance over a two-year period, beginning with commercial introduction.

3.2.3 Research and development: innovation markets

If a licensing arrangement may adversely affect competition to develop new or improved goods or processes, the Agencies will analyse such an impact either as a separate competitive effect in relevant goods or technology markets, or as a competitive effect in a separate innovation market. A licensing arrangement may have competitive effects on innovation that cannot be adequately addressed through the analysis of goods or technology markets. For example, the arrangement may affect the development of goods that do not yet exist.[23] Alternatively, the arrangement may affect the development of new or improved goods or processes in geographic markets where there is no actual or likely potential competition in the relevant goods.[24]

An innovation market consists of the research and development directed to particular new or improved goods or processes, and the close substitutes for that research and development. The close substitutes are research and development efforts, technologies, and goods[25] that significantly constrain the

exercise of market power with respect to the relevant research and development, for example by limiting the ability and incentive of a hypothetical monopolist to retard the pace of research and development. The Agencies will delineate an innovation market only when the capabilities to engage in the relevant research and development can be associated with specialised assets or characteristics of specific firms.

In assessing the competitive significance of current and likely potential participants in an innovation market, the Agencies will take into account all relevant evidence. When market share data are available and accurately reflect the competitive significance of market participants, the Agencies will include market share data in this assessment. The Agencies also will seek evidence of buyers' and market participants' assessments of the competitive significance of innovation market participants. Such evidence is particularly important when market share data are unavailable or do not accurately represent the competitive significance of market participants. The Agencies may base the market shares of participants in an innovation market on their shares of identifiable assets or characteristics upon which innovation depends, on shares of research and development expenditures, or on shares of a related product. When entities have comparable capabilities and incentives to pursue research and development that is a close substitute for the research and development activities of the parties to a licensing arrangement, the Agencies may assign equal market shares to such entities.

Example 3

Situation: Two companies that specialise in advanced metallurgy agree to cross-license future patents relating to the development of a new component for aircraft jet turbines. Innovation in the development of the component requires the capability to work with very high tensile strength materials for jet turbines. Aspects of the licensing arrangement raise the possibility that competition in research and development of this and related components will be lessened. One of the Agencies is considering whether to define an innovation market in which to evaluate the competitive effects of the arrangement.

Discussion*:* If the firms that have the capability and incentive to work with very high tensile strength materials for jet turbines can be reasonably identified, the Agency will consider defining a relevant innovation market for development of the new component. If the number of firms with the required capability and incentive to engage in research and development of very high tensile strength materials for aircraft jet turbines is small, the Agency may employ the concept of an innovation market to analyse the likely competitive effects of the arrangement in that market, or as an aid in analysing competitive effects in technology or goods markets. The Agency would perform its analysis as described in parts 3–5.

If the number of firms with the required capability and incentive is large (either because there are a large number of such firms in the jet turbine industry, or because there are many firms in other industries with the required capability and incentive), then the Agency will conclude that the innovation market is competitive. Under these circumstances, it is unlikely that any single firm or plausible aggregation of firms could acquire a large enough share of the assets necessary for innovation to have an adverse impact on competition.

If the Agency cannot reasonably identify the firms with the required capability and incentive, it will not attempt to define an innovation market.

Example 4

Situation: Three of the largest producers of a plastic used in disposable bottles plan to engage in joint research and development to produce a new type of plastic that is rapidly biodegradable. The joint venture will grant to its partners (but to no one else) licenses to all patent rights and use of know-how. One of the Agencies is evaluating the likely competitive effects of the proposed joint venture.

Discussion: The Agency would analyse the proposed research and development joint venture using an analysis similar to that applied to other joint ventures.[26] The Agency would begin by defining the relevant markets in which to analyse the joint venture's likely competitive effects. In this case, a relevant market is an innovation market—research and development for biodegradable (and other environmentally friendly) containers. The Agency would seek to identify any other entities that would be actual or likely potential competitors with the joint venture in that relevant market. This would include those firms that have the capability and incentive to undertake research and development closely substitutable for the research and development proposed to be undertaken by the joint venture, taking into account such firms' existing technologies and technologies under development, R&D facilities, and other relevant assets and business circumstances. Firms possessing such capabilities and incentives would be included in the research and development market even if they are not competitors in relevant markets for related goods, such as the plastics currently produced by the joint venturers, although competitors in existing goods markets may often also compete in related innovation markets.

Having defined a relevant innovation market, the Agency would assess whether the joint venture is likely to have anticompetitive effects in that market. A starting point in this analysis is the degree of concentration in the relevant market and the market shares of the parties to the joint venture. If, in addition to the parties to the joint venture (taken collectively), there are at least four other independently controlled entities that possess comparable capabilities and incentives to undertake research and development of biodegradable plastics, or other products that would be close substitutes for such new plastics, the joint venture ordinarily would be unlikely to adversely affect competition in the relevant innovation market (cf. section 4.3). If there are fewer than four other independently controlled entities with similar capabilities and incentives, the Agency would consider whether the joint venture would give the parties to the joint venture an incentive and ability collectively to reduce investment in, or otherwise to retard the pace or scope of, research and development efforts. If the joint venture creates a significant risk of anticompetitive effects in the innovation market, the Agency would proceed to consider efficiency justifications for the venture, such as the potential for combining complementary R&D assets in such a way as to make successful innovation more likely, or to bring it about sooner, or to achieve cost reductions in research and development.

The Agency would also assess the likelihood that the joint venture would adversely affect competition in other relevant markets, including markets for products produced by the parties to the joint venture. The risk of such adverse competitive effects would be increased to the extent that, for example, the joint venture facilitates the exchange among the parties of competitively sensitive information relating to goods markets in which the parties currently compete or facilitates the co-ordination of competitive activities in such markets. The Agency would examine whether the joint venture imposes collateral restraints that might significantly restrict competition among the joint venturers in goods markets, and would examine whether such collateral restraints were reasonably necessary to achieve any efficiencies that are likely to be attained by the venture.

3.3 Horizontal and vertical relationships

As with other property transfers, antitrust analysis of intellectual property licensing arrangements examines whether the relationship among the parties to the arrangement is primarily horizontal or vertical in nature, or whether it has substantial aspects of both. A licensing arrangement has a vertical component when it affects activities that are in a complementary relationship, as is typically the case in a licensing arrangement. For example, the licensor's primary line of business may be in research and development, and the licensees, as manufacturers, may be buying the rights to use technology developed by the licensor. Alternatively, the licensor may be a component manufacturer owning intellectual property rights in a product that the licensee manufactures by combining the component with other inputs, or the licensor may manufacture the product, and the licensees may operate primarily in distribution and marketing.

In addition to this vertical component, the licensor and its licensees may also have a horizontal relationship. For analytical purposes, the Agencies ordinarily will treat a relationship between a licensor and its licensees, or between licensees, as horizontal when they would have been actual or likely potential competitors in a relevant market in the absence of the license.

The existence of a horizontal relationship between a licensor and its licensees does not, in itself, indicate that the arrangement is anticompetitive. Identification of such relationships is merely an aid in determining whether there may be anticompetitive effects arising from a licensing arrangement. Such a relationship need not give rise to an anticompetitive effect, nor does a purely vertical relationship assure that there are no anticompetitive effects.

The following examples illustrate different competitive relationships among a licensor and its licensees.

Example 5

Situation: AgCo, a manufacturer of farm equipment, develops a new, patented emission control technology for its tractor engines and licenses it to FarmCo, another farm equipment manufacturer. AgCo's emission control technology is far superior to the technology currently owned and used by FarmCo, so much so that FarmCo's technology does not significantly constrain the prices that AgCo could charge for its technology. AgCo's emission control patent has a broad scope. It is likely that any improved emissions control technology that FarmCo could develop in the foreseeable future would infringe AgCo's patent.

Discussion: Because FarmCo's emission control technology does not significantly constrain AgCo's competitive conduct with respect to its emission control technology, AgCo's and FarmCo's emission control technologies are not close substitutes for each other. FarmCo is a consumer of AgCo's technology and is not an actual competitor of AgCo in the relevant market for superior emission control technology of the kind licensed by AgCo. Furthermore, FarmCo is not a likely potential competitor of AgCo in the relevant market because, even if FarmCo could develop an improved emission control technology, it is likely that it would infringe AgCo's patent. This means that the relationship between AgCo and FarmCo with regard to the supply and use of emissions control technology is vertical. Assuming that AgCo and FarmCo are actual or likely potential competitors in sales of farm equipment products, their relationship is horizontal in the relevant markets for farm equipment.

Example 6

Situation: FarmCo develops a new valve technology for its engines and enters into a cross- licensing arrangement with AgCo, whereby AgCo licenses its emission control technology to FarmCo and FarmCo licenses its valve technology to AgCo. AgCo already owns an alternative valve technology that can be used to achieve engine performance similar to that using FarmCo's valve technology and at a comparable cost to consumers. Before adopting FarmCo's technology, AgCo was using its own valve technology in its production of engines and was licensing (and continues to license) that technology for use by others. As in Example 5, FarmCo does not own or control an emission control technology that is a close substitute for the technology licensed from AgCo. Furthermore, as in Example 5, FarmCo is not likely to develop an improved emission control technology that would be a close substitute for AgCo's technology, because of AgCo's blocking patent.

Discussion: FarmCo is a consumer and not a competitor of AgCo's emission control technology. As in Example 5, their relationship is vertical with regard to this technology. The relationship between AgCo and FarmCo in the relevant market that includes engine valve technology is vertical in part and horizontal in part. It is vertical in part because AgCo and FarmCo stand in a complementary relationship, in which AgCo is a consumer of a technology supplied by FarmCo. However, the relationship between AgCo and FarmCo in the relevant market that includes engine valve technology is also horizontal in part, because FarmCo and AgCo are actual competitors in the licensing of valve technology that can be used to achieve similar engine performance at a comparable cost. Whether the firms license their valve technologies to others is not important for the conclusion that the firms have a horizontal relationship in this relevant market. Even if AgCo's use of its valve technology were solely captive to its own production, the fact that the two valve technologies are substitutable at comparable cost means that the two firms have a horizontal relationship.

As in Example 5, the relationship between AgCo and FarmCo is horizontal in the relevant markets for farm equipment.

3.4 Framework for evaluating licensing restraints

In the vast majority of cases, restraints in intellectual property licensing arrangements are evaluated under the rule of reason. The Agencies' general approach in analysing a licensing restraint under the rule of reason is to inquire whether the restraint is likely to have anticompetitive effects and, if so, whether the restraint is reasonably necessary to achieve procompetitive benefits that outweigh those anticompetitive effects. See Federal Trade Commission v. Indiana Federation of Dentists, 476 US 447 (1986); NCAA v. Board of Regents of the University of Oklahoma, 468 US 85 (1984); Broadcast Music, Inc. v. Columbia Broadcasting System, Inc., 441 US 1 (1979); 7 Phillip E. Areeda, Antitrust Law § 1502 (1986). See also part 4.

In some cases, however, the courts conclude that a restraint's "nature and necessary effect are so plainly anticompetitive" that it should be treated as unlawful per se, without an elaborate inquiry into the restraint's likely competitive effect. Federal Trade Commission v. Superior Court Trial Lawyers Association, 493 US 411, 433 (1990); National Society of Professional Engineers v. United States, 435 US 679, 692 (1978). Among the restraints that have been held per se unlawful are naked price-fixing, output restraints, and market division among horizontal competitors, as well as certain group boycotts and resale price maintenance.

To determine whether a particular restraint in a licensing arrangement is given per se or rule of reason treatment, the Agencies will assess whether the restraint in question can be expected to contribute to an efficiency-enhancing integration of economic activity. See Broadcast Music, 441 US at 16–24. In general, licensing arrangements promote such integration because they facilitate the combination of the licensor's intellectual property with complementary factors of production owned by the licensee. A restraint in a licensing arrangement may further such integration by, for example, aligning the incentives of the licensor and the licensees to promote the development and marketing of the licensed technology, or by substantially reducing transactions costs. If there is no efficiency-enhancing integration of economic activity and if the type of restraint is one that has been accorded per se treatment, the Agencies will challenge the restraint under the per se rule. Otherwise, the Agencies will apply a rule of reason analysis.

Application of the rule of reason generally requires a comprehensive inquiry into market conditions. (See sections 4.1–4.3.) However, that inquiry may be truncated in certain circumstances. If the Agencies conclude that a restraint has no likely anticompetitive effects, they will treat it as reasonable, without an elaborate analysis of market power or the justifications for the restraint. Similarly, if a restraint facially appears to be of a kind that would always or almost always tend to reduce output or increase prices,[27] and the restraint is not reasonably related to efficiencies, the Agencies will likely challenge the restraint without an elaborate analysis of particular industry circumstances.[28] See Indiana Federation of Dentists, 476 USat 459–60; NCAA, 468 US at 109.

Example 7

Situation: Gamma, which manufactures Product X using its patented process, offers a license for its process technology to every other manufacturer of Product X, each of which competes world-wide with Gamma in the manufacture and sale of X. The process technology does not represent an economic improvement over the available existing technologies. Indeed, although most manufacturers accept licenses from Gamma, none of the licensees actually uses the licensed technology. The licenses provide that each manufacturer has an exclusive right to sell Product X manufactured using the licensed technology in a designated geographic area and that no manufacturer may sell Product X, however manufactured, outside the designated territory.

Discussion: The manufacturers of Product X are in a horizontal relationship in the goods market for Product X. Any manufacturers of Product X that control technologies that are substitutable at comparable cost for Gamma's process are also horizontal competitors of Gamma in the relevant technology market. The licensees of Gamma's process technology are technically in a vertical relationship, although that is not significant in this example because they do not actually use Gamma's technology.

The licensing arrangement restricts competition in the relevant goods market among manufacturers of Product X by requiring each manufacturer to limit its sales to an exclusive territory. Thus, competition among entities that would be actual competitors in the absence of the licensing arrangement is restricted. Based on the facts set forth above, the licensing arrangement does not involve a useful transfer of technology, and thus it is unlikely that the restraint on sales outside the designated territories contributes to an efficiency- enhancing integration of economic activity. Consequently, the evaluating Agency would be likely to challenge the arrangement under the per se rule as a horizontal territorial market allocation scheme and to view the intellectual property aspects of the arrangement as a sham intended to cloak its true nature.

If the licensing arrangement could be expected to contribute to an efficiency- enhancing integration of economic activity, as might be the case if the licensed technology were an advance over existing processes and used by the licensees, the Agency would analyse the arrangement under the rule of reason applying the analytical framework described in this section.

In this example, the competitive implications do not generally depend on whether the licensed technology is protected by patent, is a trade secret or other know-how, or is a computer program protected by copyright; nor do the competitive implications generally depend on whether the allocation of markets is territorial, as in this example, or functional, based on fields of use.

4. General principles concerning the Agencies' evaluation of licensing arrangements under the rule of reason

4.1 Analysis of anticompetitive effects

The existence of anticompetitive effects resulting from a restraint in a licensing arrangement will be evaluated on the basis of the analysis described in this section.

4.1.1 Market structure, co-ordination, and foreclosure

When a licensing arrangement affects parties in a horizontal relationship, a restraint in that arrangement may increase the risk of co-ordinated pricing, output restrictions, or the acquisition or maintenance of market power. Harm to competition also may occur if the arrangement poses a significant risk of retarding or restricting the development of new or improved goods or processes. The potential for competitive harm depends in part on the degree of concentration in, the difficulty of entry into, and the responsiveness of supply and demand to changes in price in the relevant markets. Cf. 1992 Horizontal Merger Guidelines (1.5, 3).

When the licensor and licensees are in a vertical relationship, the Agencies will analyse whether the licensing arrangement may harm competition among entities in a horizontal relationship at either the level of the licensor or the licensees, or possibly in another relevant market. Harm to competition from a restraint may occur if it anticompetitively forecloses access to, or increases competitors' costs of obtaining, important inputs, or facilitates co-ordination to raise price or restrict output. The risk of anticompetitively foreclosing access or increasing competitors' costs is related to the proportion of the markets affected by the licensing restraint; other characteristics of the relevant markets, such as concentration, difficulty of entry, and the responsiveness of supply and demand to changes in price in the relevant markets; and the duration of the restraint. A licensing arrangement does not foreclose competition merely because some or all of the potential licensees in an industry choose to use the licensed technology to the exclusion of other technologies. Exclusive use may be an efficient consequence of the licensed technology having the lowest cost or highest value.

Harm to competition from a restraint in a vertical licensing arrangement also may occur if a licensing restraint facilitates co-ordination among entities in a horizontal relationship to raise prices or reduce output in a relevant market. For example, if owners of competing technologies impose similar restraints on their licensees, the licensors may find it easier to co-ordinate their pricing. Similarly, licensees that are competitors may find it easier to co-ordinate their pricing if they are subject to common restraints in licenses with a common licensor or competing licensors. The risk of anticompetitive co-

ordination is increased when the relevant markets are concentrated and difficult to enter. The use of similar restraints may be common and procompetitive in an industry, however, because they contribute to efficient exploitation of the licensed property.

4.1.2 Licensing arrangements involving exclusivity

A licensing arrangement may involve exclusivity in two distinct respects. First, the licensor may grant one or more exclusive licenses, which restrict the right of the licensor to license others and possibly also to use the technology itself. Generally, an exclusive license may raise antitrust concerns only if the licensees themselves, or the licensor and its licensees, are in a horizontal relationship. Examples of arrangements involving exclusive licensing that may give rise to antitrust concerns include cross-licensing by parties collectively possessing market power (see section 5.5), grantbacks (*see* section 5.6), and acquisitions of intellectual property rights (see section 5.7).

A non-exclusive license of intellectual property that does not contain any restraints on the competitive conduct of the licensor or the licensee generally does not present antitrust concerns even if the parties to the license are in a horizontal relationship, because the non-exclusive license normally does not diminish competition that would occur in its absence.

A second form of exclusivity, exclusive dealing, arises when a license prevents or restrains the licensee from licensing, selling, distributing, or using competing technologies. See section 5.4. Exclusivity may be achieved by an explicit exclusive dealing term in the license or by other provisions such as compensation terms or other economic incentives. Such restraints may anticompetitively foreclose access to, or increase competitors' costs of obtaining, important inputs, or facilitate co-ordination to raise price or reduce output, but they also may have procompetitive effects. For example, a licensing arrangement that prevents the licensee from dealing in other technologies may encourage the licensee to develop and market the licensed technology or specialised applications of that technology. See, e.g., Example 8. The Agencies will take into account such procompetitive effects in evaluating the reasonableness of the arrangement. See section 4.2.

The antitrust principles that apply to a licensor's grant of various forms of exclusivity to and among its licensees are similar to those that apply to comparable vertical restraints outside the licensing context, such as exclusive territories and exclusive dealing. However, the fact that intellectual property may in some cases be misappropriated more easily than other forms of property may justify the use of some restrictions that might be anticompetitive in other contexts.

As noted earlier, the Agencies will focus on the actual practice and its effects, not on the formal terms of the arrangement. A license denominated as non-exclusive (either in the sense of exclusive licensing or in the sense of exclusive dealing) may nonetheless give rise to the same concerns posed by formal exclusivity. A non-exclusive license may have the effect of exclusive licensing if it is structured so that the licensor is unlikely to license others or to practice the technology itself. A license that does not explicitly require exclusive dealing may have the effect of exclusive dealing if it is structured to increase significantly a licensee's cost when it uses competing technologies. However, a licensing arrangement will not automatically raise these concerns merely because a party chooses to deal with a single licensee or licensor, or confines his activity to a single field of use or location, or because only a single licensee has chosen to take a license.

Example 8

Situation: NewCo, the inventor and manufacturer of a new flat panel display technology, lacking the capability to bring a flat panel display product to market, grants BigCo an exclusive license to sell a product embodying NewCo's technology. BigCo does not currently sell, and is not developing (or likely to develop), a product that would compete with the product embodying the new technology and does not control rights to another display technology. Several firms offer competing displays, BigCo accounts for only a small proportion of the outlets for distribution of display products, and entry into the manufacture and distribution of display products is relatively easy. Demand for the new technology is uncertain and successful market penetration will require considerable promotional effort. The license contains an exclusive dealing restriction preventing BigCo from selling products that compete with the product embodying the licensed technology.

Discussion: This example illustrates both types of exclusivity in a licensing arrangement. The license is exclusive in that it restricts the right of the licensor to grant other licenses. In addition, the license has an exclusive dealing component in that it restricts the licensee from selling competing products.

The inventor of the display technology and its licensee are in a vertical relationship and are not actual or likely potential competitors in the manufacture or sale of display products or in the sale or development of technology. Hence, the grant of an exclusive license does not affect competition between the licensor and the licensee. The exclusive license may promote competition in the manufacturing and sale of display products by encouraging BigCo to develop and promote the new product in the face of uncertain demand by rewarding BigCo for its efforts if they lead to large sales. Although the license bars the licensee from selling competing products, this exclusive dealing aspect is unlikely in this example to harm competition by anticompetitively foreclosing access, raising competitors' costs of inputs, or facilitating anticompetitive pricing because the relevant product market is unconcentrated, the exclusive dealing restraint affects only a small proportion of the outlets for distribution of display products, and entry is easy. On these facts, the evaluating Agency would be unlikely to challenge the arrangement.

4.2 Efficiencies and justifications

If the Agencies conclude, upon an evaluation of the market factors described in section 4.1, that a restraint in a licensing arrangement is unlikely to have an anticompetitive effect, they will not challenge the restraint. If the Agencies conclude that the restraint has, or is likely to have, an anticompetitive effect, they will consider whether the restraint is reasonably necessary to achieve procompetitive efficiencies. If the restraint is reasonably necessary, the Agencies will balance the procompetitive efficiencies and the anticompetitive effects to determine the probable net effect on competition in each relevant market.

The Agencies' comparison of anticompetitive harms and procompetitive efficiencies is necessarily a qualitative one. The risk of anticompetitive effects in a particular case may be insignificant compared to the expected efficiencies, or vice versa. As the expected anticompetitive effects in a particular licensing arrangement increase, the Agencies will require evidence establishing a greater level of expected efficiencies.

The existence of practical and significantly less restrictive alternatives is relevant to a determination of whether a restraint is reasonably necessary. If it is clear that the parties could have achieved similar efficiencies by means that are significantly less restrictive, then the Agencies will not give weight to the parties' efficiency claim. In making this assessment, however, the Agencies will not

engage in a search for a theoretically least restrictive alternative that is not realistic in the practical prospective business situation faced by the parties.

When a restraint has, or is likely to have, an anticompetitive effect, the duration of that restraint can be an important factor in determining whether it is reasonably necessary to achieve the putative procompetitive efficiency. The effective duration of a restraint may depend on a number of factors, including the option of the affected party to terminate the arrangement unilaterally and the presence of contract terms (e.g., unpaid balances on minimum purchase commitments) that encourage the licensee to renew a license arrangement. Consistent with their approach to less restrictive alternative analysis generally, the Agencies will not attempt to draw fine distinctions regarding duration; rather, their focus will be on situations in which the duration clearly exceeds the period needed to achieve the procompetitive efficiency.

The evaluation of procompetitive efficiencies, of the reasonable necessity of a restraint to achieve them, and of the duration of the restraint, may depend on the market context. A restraint that may be justified by the needs of a new entrant, for example, may not have a procompetitive efficiency justification in different market circumstances. Cf. United States v. Jerrold Electronics Corp., 187 F. Supp. 545 (E.D. Pa. 1960), aff'd per curiam, 365 US 567 (1961).

4.3 Antitrust "safety zone"

Because licensing arrangements often promote innovation and enhance competition, the Agencies believe that an antitrust "safety zone" is useful in order to provide some degree of certainty and thus to encourage such activity.[29] Absent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement if (1) the restraint is not facially anticompetitive[30] and (2) the licensor and its licensees collectively account for no more than twenty percent of each relevant market significantly affected by the restraint. This "safety zone" does not apply to those transfers of intellectual property rights to which a merger analysis is applied. *See* section 5.7.

Whether a restraint falls within the safety zone will be determined by reference only to goods markets unless the analysis of goods markets alone would inadequately address the effects of the licensing arrangement on competition among technologies or in research and development.

If an examination of the effects on competition among technologies or in research development is required, and if market share data are unavailable or do not accurately represent competitive significance, the following safety zone criteria will apply. Absent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement that may affect competition in a technology market if (1) the restraint is not facially anticompetitive and (2) there are four or more independently controlled technologies in addition to the technologies controlled by the parties to the licensing arrangement that may be substitutable for the licensed technology at a comparable cost to the user. Absent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement that may affect competition in an innovation market if (1) the restraint is not facially anticompetitive and (2) four or more independently controlled entities in addition to the parties to the licensing arrangement possess the required specialised assets or characteristics and the incentive to engage in research and development that is a close substitute of the research and development activities of the parties to the licensing agreement.[31]

The Agencies emphasise that licensing arrangements are not anticompetitive merely because they do not fall within the scope of the safety zone. Indeed, it is likely that the great majority of licenses falling outside the safety zone are lawful and procompetitive. The safety zone is designed to provide owners of intellectual property with a degree of certainty in those situations in which anticompetitive effects are so unlikely that the arrangements may be presumed not to be anticompetitive without an inquiry into particular industry circumstances. It is not intended to suggest that parties should conform to the safety zone or to discourage parties falling outside the safety zone from adopting restrictions in their license arrangements that are reasonably necessary to achieve an efficiency-enhancing integration of economic activity. The Agencies will analyse arrangements falling outside the safety zone based on the considerations outlined in parts 3–5.

The status of a licensing arrangement with respect to the safety zone may change over time. A determination by the Agencies that a restraint in a licensing arrangement qualifies for inclusion in the safety zone is based on the factual circumstances prevailing at the time of the conduct at issue. [32]

5. Application of general principles

5.0 This section illustrates the application of the general principles discussed above to particular licensing restraints and to arrangements that involve the cross-licensing, pooling, or acquisition of intellectual property. The restraints and arrangements identified are typical of those that are likely to receive antitrust scrutiny; however, they are not intended as an exhaustive list of practices that could raise competitive concerns.

5.1 Horizontal restraints

The existence of a restraint in a licensing arrangement that affects parties in a horizontal relationship (a "horizontal restraint") does not necessarily cause the arrangement to be anticompetitive. As in the case of joint ventures among horizontal competitors, licensing arrangements among such competitors may promote rather than hinder competition if they result in integrative efficiencies. Such efficiencies may arise, for example, from the realisation of economies of scale and the integration of complementary research and development, production, and marketing capabilities.

Following the general principles outlined in section 3.4, horizontal restraints often will be evaluated under the rule of reason. In some circumstances, however, that analysis may be truncated; additionally, some restraints may merit per se treatment, including price fixing, allocation of markets or customers, agreements to reduce output, and certain group boycotts.

Example 9

Situation: Two of the leading manufacturers of a consumer electronic product hold patents that cover alternative circuit designs for the product. The manufacturers assign their patents to a separate corporation wholly owned by the two firms. That corporation licenses the right to use the circuit designs to other consumer product manufacturers and establishes the license royalties. None of the patents is blocking; that is, each of the patents can be used without infringing a patent owned by the other firm. The different circuit designs are substitutable in that each permits the manufacture at comparable cost to consumers of

products that consumers consider to be interchangeable. One of the Agencies is analysing the licensing arrangement.

Discussion*:* In this example, the manufacturers are horizontal competitors in the goods market for the consumer product and in the related technology markets. The competitive issue with regard to a joint assignment of patent rights is whether the assignment has an adverse impact on competition in technology and goods markets that is not outweighed by procompetitive efficiencies, such as benefits in the use or dissemination of the technology. Each of the patent owners has a right to exclude others from using its patent. That right does not extend, however, to the agreement to assign rights jointly. To the extent that the patent rights cover technologies that are close substitutes, the joint determination of royalties likely would result in higher royalties and higher goods prices than would result if the owners licensed or used their technologies independently. In the absence of evidence establishing efficiency-enhancing integration from the joint assignment of patent rights, the Agency may conclude that the joint marketing of competing patent rights constitutes horizontal price fixing and could be challenged as a per se unlawful horizontal restraint of trade. If the joint marketing arrangement results in an efficiency-enhancing integration, the Agency would evaluate the arrangement under the rule of reason. However, the Agency may conclude that the anticompetitive effects are sufficiently apparent, and the claimed integrative efficiencies are sufficiently weak or not reasonably related to the restraints, to warrant challenge of the arrangement without an elaborate analysis of particular industry circumstances (*see* section 3.4).

5.2 Resale price maintenance

Resale price maintenance is illegal when "commodities have passed into the channels of trade and are owned by dealers." Dr. Miles Medical Co. v. John D. Park & Sons Co., 220 US373, 408 (1911). It has been held per se illegal for a licensor of an intellectual property right in a product to fix a licensee's *resale* price of that product. United States v. Univis Lens Co., 316 US241 (1942); Ethyl Gasoline Corp. v. United States, 309 US436 (1940).[33] Consistent with the principles set forth in section 3.4, the Agencies will enforce the per se rule against resale price maintenance in the intellectual property context.

5.3 Tying arrangements

A "tying" or "tie-in" or "tied sale" arrangement has been defined as "an agreement by a party to sell one product . . . on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that [tied] product from any other supplier." Eastman Kodak Co. v. Image Technical Services, Inc., 112 S. Ct. 2072, 2079 (1992). Conditioning the ability of a licensee to license one or more items of intellectual property on the licensee's purchase of another item of intellectual property or a good or a service has been held in some cases to constitute illegal tying.[34] Although tying arrangements may result in anticompetitive effects, such arrangements can also result in significant efficiencies and procompetitive benefits. In the exercise of their prosecutorial discretion, the Agencies will consider both the anticompetitive effects and the efficiencies attributable to a tie-in. The Agencies would be likely to challenge a tying arrangement if: (1) the seller has market power in the tying product,[35] (2) the arrangement has an adverse effect on competition in the relevant market for the tied product, and (3) efficiency justifications for the arrangement do not outweigh the anticompetitive effects.[36] The Agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner.

Package licensing—the licensing of multiple items of intellectual property in a single license or in a group of related licenses—may be a form of tying arrangement if the licensing of one product is conditioned upon the acceptance of a license of another, separate product. Package licensing can be efficiency enhancing under some circumstances. When multiple licenses are needed to use any single item of intellectual property, for example, a package license may promote such efficiencies. If a package license constitutes a tying arrangement, the Agencies will evaluate its competitive effects under the same principles they apply to other tying arrangements.

5.4 Exclusive dealing

In the intellectual property context, exclusive dealing occurs when a license prevents the licensee from licensing, selling, distributing, or using competing technologies. Exclusive dealing arrangements are evaluated under the rule of reason. See Tampa Electric Co. v. Nashville Coal Co., 365 US 320 (1961) (evaluating legality of exclusive dealing under section 1 of the Sherman Act and section 3 of the Clayton Act); Beltone Electronics Corp., 100 F.T.C. 68 (1982) (evaluating legality of exclusive dealing under section 5 of the Federal Trade Commission Act). In determining whether an exclusive dealing arrangement is likely to reduce competition in a relevant market, the Agencies will take into account the extent to which the arrangement (1) promotes the exploitation and development of the licensor's technology and (2) anticompetitively forecloses the exploitation and development of, or otherwise constrains competition among, competing technologies.

The likelihood that exclusive dealing may have anticompetitive effects is related, *inter alia*, to the degree of foreclosure in the relevant market, the duration of the exclusive dealing arrangement, and other characteristics of the input and output markets, such as concentration, difficulty of entry, and the responsiveness of supply and demand to changes in price in the relevant markets. (See sections 4.1.1 and 4.1.2.) If the Agencies determine that a particular exclusive dealing arrangement may have an anticompetitive effect, they will evaluate the extent to which the restraint encourages licensees to develop and market the licensed technology (or specialized applications of that technology), increases licensors' incentives to develop or refine the licensed technology, or otherwise increases competition and enhances output in a relevant market. (See section 4.2 and Example 8.)

5.5 Cross-licensing and pooling arrangements

Cross-licensing and pooling arrangements are agreements of two or more owners of different items of intellectual property to license one another or third parties. These arrangements may provide procompetitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation. By promoting the dissemination of technology, cross-licensing and pooling arrangements are often procompetitive.

Cross-licensing and pooling arrangements can have anticompetitive effects in certain circumstances. For example, collective price or output restraints in pooling arrangements, such as the joint marketing of pooled intellectual property rights with collective price setting or co-ordinated output restrictions, may be deemed unlawful if they do not contribute to an efficiency-enhancing integration of economic activity among the participants. Compare NCAA 468 USat 114 (output restriction on college football broadcasting held unlawful because it was not reasonably related to any purported justification) with Broadcast Music, 441 US at 23 (blanket license for music copyrights found not per se illegal because the co-operative price was necessary to the creation of a new product). When cross-licensing or pooling

arrangements are mechanisms to accomplish naked price fixing or market division, they are subject to challenge under the per se rule. See United States v. New Wrinkle, Inc., 342 US 371 (1952) (price fixing).

Settlements involving the cross-licensing of intellectual property rights can be an efficient means to avoid litigation and, in general, courts favour such settlements. When such cross-licensing involves horizontal competitors, however, the Agencies will consider whether the effect of the settlement is to diminish competition among entities that would have been actual or likely potential competitors in a relevant market in the absence of the cross-license. In the absence of offsetting efficiencies, such settlements may be challenged as unlawful restraints of trade. Cf. United States v. Singer Manufacturing Co., 374 US 174 (1963) (cross-license agreement was part of broader combination to exclude competitors).

Pooling arrangements generally need not be open to all who would like to join. However, exclusion from cross-licensing and pooling arrangements among parties that collectively possess market power may, under some circumstances, harm competition. Cf. Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co., 472 US 284 (1985) (exclusion of a competitor from a purchasing co-operative not per se unlawful absent a showing of market power). In general, exclusion from a pooling or cross- licensing arrangement among competing technologies is unlikely to have anticompetitive effects unless (1) excluded firms cannot effectively compete in the relevant market for the good incorporating the licensed technologies and (2) the pool participants collectively possess market power in the relevant market. If these circumstances exist, the Agencies will evaluate whether the arrangement's limitations on participation are reasonably related to the efficient development and exploitation of the pooled technologies and will assess the net effect of those limitations in the relevant market. *See* section 4.2.

Another possible anticompetitive effect of pooling arrangements may occur if the arrangement deters or discourages participants from engaging in research and development, thus retarding innovation. For example, a pooling arrangement that requires members to grant licenses to each other for current and future technology at minimal cost may reduce the incentives of its members to engage in research and development because members of the pool have to share their successful research and development and each of the members can free ride on the accomplishments of other pool members. See generally United States v. Mfrs. Aircraft Ass'n, Inc., 1976-1 Trade Cas. (CCH) ¶ 60,810 (S.D.N.Y. 1975); United States v. Automobile Mfrs. Ass'n, 307 F. Supp. 617 (C.D. Cal 1969), appeal dismissed sub nom. City of New York v. United States, 397 US 248 (1970), modified sub nom. United States v. Motor Vehicle Mfrs. Ass'n, 1982–83 Trade Cas. (CCH) ¶ 65,088 (C.D. Cal. 1982). However, such an arrangement can have procompetitive benefits, for example, by exploiting economies of scale and integrating complementary capabilities of the pool members, (including the clearing of blocking positions), and is likely to cause competitive problems only when the arrangement includes a large fraction of the potential research and development in an innovation market. See section 3.2.3 and Example 4.

Example 10

Situation*:* As in Example 9, two of the leading manufacturers of a consumer electronic product hold patents that cover alternative circuit designs for the product. The manufacturers assign several of their patents to a separate corporation wholly owned by the two firms. That corporation licenses the right to use the circuit designs to other consumer product manufacturers and establishes the license royalties. In this example, however, the manufacturers assign to the separate corporation only patents that are blocking. None of the patents assigned to the corporation can be used without infringing a patent owned by the other firm.

Discussion: Unlike the previous example, the joint assignment of patent rights to the wholly owned corporation in this example does not adversely affect competition in the licensed technology among entities that would have been actual or likely potential competitors in the absence of the licensing arrangement. Moreover, the licensing arrangement is likely to have procompetitive benefits in the use of the technology. Because the manufacturers' patents are blocking, the manufacturers are not in a horizontal relationship with respect to those patents. None of the patents can be used without the right to a patent owned by the other firm, so the patents are not substitutable. As in Example 9, the firms are horizontal competitors in the relevant goods market. In the absence of collateral restraints that would likely raise price or reduce output in the relevant goods market or in any other relevant antitrust market and that are not reasonably related to an efficiency-enhancing integration of economic activity, the evaluating Agency would be unlikely to challenge this arrangement.

5.6 Grantbacks

A grantback is an arrangement under which a licensee agrees to extend to the licensor of intellectual property the right to use the licensee's improvements to the licensed technology. Grantbacks can have procompetitive effects, especially if they are nonexclusive. Such arrangements provide a means for the licensee and the licensor to share risks and reward the licensor for making possible further innovation based on or informed by the licensed technology, and both promote innovation in the first place and promote the subsequent licensing of the results of the innovation. Grantbacks may adversely affect competition, however, if they substantially reduce the licensee's incentives to engage in research and development and thereby limit rivalry in innovation markets.

A non-exclusive grantback allows the licensee to practice its technology and license it to others. Such a grantback provision may be necessary to ensure that the licensor is not prevented from effectively competing because it is denied access to improvements developed with the aid of its own technology. Compared with an exclusive grantback, a non-exclusive grantback, which leaves the licensee free to license improvements technology to others, is less likely to have anticompetitive effects.

The Agencies will evaluate a grantback provision under the rule of reason, see generally Transparent-Wrap Machine Corp. v. Stokes & Smith Co., 329 US637, 645–48 (1947) (grantback provision in technology license is not per se unlawful), considering its likely effects in light of the overall structure of the licensing arrangement and conditions in the relevant markets. An important factor in the Agencies' analysis of a grantback will be whether the licensor has market power in a relevant technology or innovation market. If the Agencies determine that a particular grantback provision is likely to reduce significantly licensees' incentives to invest in improving the licensed technology, the Agencies will consider the extent to which the grantback provision has offsetting procompetitive effects, such as (1) promoting dissemination of licensees' improvements to the licensed technology, (2) increasing the licensors' incentives to disseminate the licensed technology, or (3) otherwise increasing competition and output in a relevant technology or innovation market. *See* section 4.2. In addition, the Agencies will consider the extent to which grantback provisions in the relevant markets generally increase licensors' incentives to innovate in the first place.

5.7 Acquisition of intellectual property rights

Certain transfers of intellectual property rights are most appropriately analysed by applying the principles and standards used to analyse mergers, particularly those in the 1992 Horizontal Merger Guidelines. The Agencies will apply a merger analysis to an outright sale by an intellectual property owner of all of its rights to that intellectual property and to a transaction in which a person obtains through grant, sale, or other transfer an exclusive license for intellectual property (i.e., a license that precludes all other persons, including the licensor, from using the licensed intellectual property).[37] Such transactions may be assessed under section 7 of the Clayton Act, sections 1 and 2 of the Sherman Act, and section 5 of the Federal Trade Commission Act.

Example 11

Situation: Omega develops a new, patented pharmaceutical for the treatment of a particular disease. The only drug on the market approved for the treatment of this disease is sold by Delta. Omega's patented drug has almost completed regulatory approval by the Food and Drug Administration. Omega has invested considerable sums in product development and market testing, and initial results show that Omega's drug would be a significant competitor to Delta's. However, rather than enter the market as a direct competitor of Delta, Omega licenses to Delta the right to manufacture and sell Omega's patented drug. The license agreement with Delta is nominally nonexclusive. However, Omega has rejected all requests by other firms to obtain a license to manufacture and sell Omega's patented drug, despite offers by those firms of terms that are reasonable in relation to those in Delta's license.

Discussion: Although Omega's license to Delta is nominally nonexclusive, the circumstances indicate that it is exclusive in fact because Omega has rejected all reasonable offers by other firms for licenses to manufacture and sell Omega's patented drug. The facts of this example indicate that Omega would be a likely potential competitor of Delta in the absence of the licensing arrangement, and thus they are in a horizontal relationship in the relevant goods market that includes drugs for the treatment of this particular disease. The evaluating Agency would apply a merger analysis to this transaction, since it involves an acquisition of a likely potential competitor.

6. Enforcement of invalid intellectual property rights

The Agencies may challenge the enforcement of invalid intellectual property rights as antitrust violations. Enforcement or attempted enforcement of a patent obtained by fraud on the Patent and Trademark Office or the Copyright Office may violate section 2 of the Sherman Act, if all the elements otherwise necessary to establish a section 2 charge are proved, or section 5 of the Federal Trade Commission Act. Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp., 382 US 172 (1965) (patents); American Cyanamid Co., 72 F.T.C. 623, 684–85 (1967), aff'd sub. nom. Charles Pfizer & Co., 401 F.2d 574 (6th Cir. 1968), cert. denied, 394 US 920 (1969) (patents); Michael Anthony Jewellers, Inc. v. Peacock Jewellery, Inc., 795 F. Supp. 639, 647 (S.D.N.Y. 1992) (copyrights). Inequitable conduct before the Patent and Trademark Office will not be the basis of a section 2 claim unless the conduct also involves knowing and wilful fraud and the other elements of a section 2 claim are present. Argus Chemical Corp. v. Fibre Glass-Evercoat, Inc., 812 F.2d 1381, 1384–85 (Fed. Cir. 1987). Actual or attempted enforcement of patents obtained by inequitable conduct that falls short of fraud under some circumstances may violate section 5 of the Federal Trade Commission Act, American Cyanamid Co., supra. Objectively baseless litigation to enforce invalid intellectual property rights may also constitute an

element of a violation of the Sherman Act. See Professional Real Estate Investors, Inc. v. Columbia Pictures Industries, Inc., 113 S. Ct. 1920, 1928 (1993) (copyrights); Handgards, Inc. v. Ethicon, Inc., 743 F.2d 1282, 1289 (9th Cir. 1984), cert. denied, 469 US 1190 (1985) (patents); Handgards, Inc. v. Ethicon, Inc., 601 F.2d 986, 992–96 (9th Cir. 1979), cert. denied, 444 US B1025 (1980) (patents); CVD, Inc. v. Raytheon Co., 769 F.2d 842 (1st Cir. 1985) (trade secrets), cert. denied, 475 US 1016 (1986).

NOTES

* These guidelines supersede section 3.6 in Part I, "Intellectual Property Licensing Arrangements," and cases 6, 10, 11 and 12 in Part II of the US Department of Justice 1988 Antitrust Enforcement guidelines for International Operations.

1. These guidelines do not cover the antitrust treatment of trademarks. Although the same general antitrust principles that apply to other forms of intellectual property apply to trademarks as well, these Guidelines deal with technology transfer and innovation-related issues that typically arise with respect to patents, copyrights, trade secrets, and know-how agreements, rather than with product-differentiation issues that typically arise with respect to trademarks.

2. As is the case with all guidelines, users should rely on qualified counsel to assist them in evaluating the antitrust risk associated with any contemplated transaction or activity. No set of guidelines can possibly indicate how the Agencies will assess the particular facts of every case. Parties who wish to know the Agencies' specific enforcement intentions with respect to any particular transaction should consider seeking a Department of Justice business review letter pursuant to 28 C.F.R. § 50.6 or a Federal Trade Commission Advisory Opinion pursuant to 16 C.F.R. §§ 1.1–1.4.

3. *See* 35 U.S.C. § 154 (1988). Section 532(a) of the Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809, 4983 (1994) would change the length of patent protection to a term beginning on the date at which the patent issues and ending twenty years from the date on which the application for the patent was filed.

4. *See* 17 U.S.C. § 102 (1988 & Supp. V 1993). Copyright protection lasts for the author's life plus 50 years, or 75 years from first publication (or 100 years from creation, whichever expires first) for works made for hire. *See* 17 U.S.C. § 302 (1988). The principles stated in these Guidelines also apply to protection of mask works fixed in a semiconductor chip product (*see* 17 U.S.C. § 901 *et seq.* (1988)), which is analogous to copyright protection for works of authorship.

5. *See* 17 U.S.C. § 102(b) (1988).

6. Trade secret protection derives from state law. *See generally Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974).

7. "[T]he aims and objectives of patent and antitrust laws may seem, at first glance, wholly at odds. However, the two bodies of law are actually complementary, as both are aimed at encouraging innovation, industry and competition." *Atari Games Corp. v. Nintendo of America, Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990).

8. As with other forms of property, the power to exclude others from the use of intellectual property may vary substantially, depending on the nature of the property and its status under federal or state law. The greater or lesser legal power of an owner to exclude others is also taken into account by standard antitrust analysis.

9. Market power can be exercised in other economic dimensions, such as quality, service, and the development of new or improved goods and processes. It is assumed in this definition that all competitive dimensions are held constant except the ones in which market power is being exercised; that a seller is able to charge higher prices for a higher-quality product does not alone indicate market power. The definition in the text is stated in terms of a seller with market power. A buyer could also exercise market power (e.g., by maintaining the price below the competitive level, thereby depressing output).

10. The Agencies note that the law is unclear on this issue. *Compare Jefferson Parish Hospital District No. 2 v. Hyde*, 466 U.S. 2, 16 (1984) (expressing the view in dictum that if a product is protected by a patent, "it is fair to presume that the inability to buy the product elsewhere gives the seller market power") *with id.* at 37 n.7 (O'Connor, J., concurring) ("[A] patent holder has no market power in any relevant sense if there are close substitutes for the patented product."). *Compare also Abbott Laboratories v. Brennan*, 952 F.2d 1346, 1354–55 (Fed. Cir. 1991) (no presumption of market power from intellectual property right), *cert. denied*, 112 S. Ct. 2993 (1992) *with Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336, 1341–42 (9th Cir. 1984) (requisite economic power is presumed from copyright), *cert. denied*, 473 U.S. 908 (1985).

11. *United States v. Grinnell Corp.*, 384 U.S. 563, 571 (1966); *see also United States v. Aluminum Co. of America*, 148 F.2d 416, 430 (2d Cir. 1945) (Sherman Act is not violated by the attainment of market power solely through "superior skill, foresight and industry").

12. The examples in these Guidelines are hypothetical and do not represent judgments about, or analysis of, any actual market circumstances of the named industries.

13. These Guidelines do not address the possible application of the antitrust laws of other countries to restraints such as territorial restrictions in international licensing arrangements

14. A firm will be treated as a likely potential competitor if there is evidence that entry by that firm is reasonably probable in the absence of the licensing arrangement.

15. As used herein, "input" includes outlets for distribution and sales, as well as factors of production. *See, e.g.*, sections 4.1.1 and 5.3–5.5 for further discussion of conditions under which foreclosing access to, or raising the price of, an input may harm competition in a relevant market.

16. Hereinafter, the term "goods" also includes services

17. U.S. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines (April 2, 1992) (hereinafter "1992 Horizontal Merger Guidelines"). As stated in section 1.41 of the 1992 Horizontal Merger Guidelines, market shares for goods markets "can be expressed either in dollar terms through measurement of sales, shipments, or production, or in physical terms through measurement of sales, shipments, production, capacity or reserves."

18. For example, the owner of a process for producing a particular good may be constrained in its conduct with respect to that process not only by other processes for making that good, but also by other goods that compete with the downstream good and by the processes used to produce those other goods

19. Intellectual property is often licensed, sold, or transferred as an integral part of a marketed good. An example is a patented product marketed with an implied license permitting its use. In such circumstances, there is no need for a separate analysis of technology markets to capture relevant competitive effects

20. This is conceptually analogous to the analytical approach to goods markets under the 1992 Horizontal Merger Guidelines. *Cf.* § 1.11. Of course, market power also can be exercised in other dimensions, such as quality, and these dimensions also may be relevant to the definition and analysis of technology markets.

21. For example, technology may be licensed royalty-free in exchange for the right to use other technology, or it may be licensed as part of a package license.

22. The Agencies will regard two technologies as "comparably efficient" if they can be used to produce close substitutes at comparable costs.

23. *E.g.*, *Sensormatic*, FTC Inv. No. 941-0126, 60 Fed. Reg. 5428 (accepted for comment Dec.

24. *E.g.*, *Sensormatic*, FTC Inv. No. 941-0126, 60 Fed. Reg. 5428 (accepted for comment Dec.

25. For example, the licensor of research and development may be constrained in its conduct not only by competing research and development efforts but also by other existing goods that would compete with the goods under development.

26. *See, e.g.*, U.S. Department of Justice and Federal Trade Commission, Statements of Enforcement Policy and Analytical Principles Relating to Health Care and Antitrust 20–23, 37–40, 72–74 (September 27, 1994). This type of transaction may qualify for treatment under the National Cooperative Research and Production Act of 1993, 15 U.S.C.A §§ 4301–05.

27. Details about the Federal Trade Commission's approach are set forth in *Massachusetts Board of Registration in Optometry*, 110 F.T.C. 549, 604 (1988). In applying its truncated rule of reason inquiry, the FTC uses the analytical category of "inherently suspect" restraints to denote facially anticompetitive restraints that would always or almost always tend to decrease output or increase prices, but that may be relatively unfamiliar or may not fit neatly into traditional per se categories

28. Under the FTC's *Mass. Board* approach, asserted efficiency justifications for inherently suspect restraints are examined to determine whether they are plausible and, if so, whether they are valid in the context of the market at issue. *Mass. Board*, 110 F.T.C. at 604.

29. The antitrust "safety zone" does not apply to restraints that are not in a licensing arrangement, or to restraints that are in a licensing arrangement but are unrelated to the use of the licensed intellectual property.

30. "Facially anticompetitive" refers to restraints that normally warrant per se treatment,

31. This is consistent with congressional intent in enacting the National Cooperative Research Act. *See* H.R. Conf. Rpt. No. 1044, 98th Cong., 2d Sess., 10, *reprinted in* 1984 U.S.C.C.A.N. 3105, 3134–35.

32. The conduct at issue may be the transaction giving rise to the restraint or the subsequent implementation of the restraint.

33. *But cf. United States v. General Electric Co.*, 272 U.S. 476 (1926) (holding that an owner of a product patent may condition a license to manufacture the product on the fixing of the *first* sale price of the patented product). Subsequent lower court decisions have distinguished the *GE* decision in various contexts. *See, e.g., Royal Indus. v. St. Regis Paper Co.*, 420 F.2d 449, 452 (9th Cir. 1969) (observing that *GE* involved a restriction by a patentee who also manufactured the patented product and leaving open the question whether a nonmanufacturing patentee may fix the price of the patented product); *Newburgh Moire Co. v. Superior Moire Co.*, 237 F.2d 283, 293–94 (3rd Cir. 1956) (grant of multiple licenses each containing price restrictions does not come within the *GE* doctrine); *Cummer-Graham Co. v. Straight Side Basket Corp.*, 142 F.2d 646, 647 (5th Cir.) (owner of an intellectual property right in a process to manufacture an unpatented product may not fix the sale price of that product), *cert. denied*, 323 U.S. 726 (1944); *Barber- Colman Co. v. National Tool Co.*, 136 F.2d 339, 343–44 (6th Cir. 1943) (same).

34. *See, e.g., United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 156–58 (1948) (copyrights); *International Salt Co. v. United States*, 332 U.S. 392 (1947) (patent and related product).

35. *Cf.* 35 U.S.C. § 271(d) (1988 & Supp. V 1993) (requirement of market power in patent misuse cases involving tying).

36. *Cf.* 35 U.S.C. § 271(d) (1988 & Supp. V 1993) (requirement of market power in patent misuse cases involving tying).

37. The safety zone of section 4.3 does not apply to transfers of intellectual property such as those described in this section.

EUROPEAN COMMISSION

DIFFERENCE BETWEEN PRIMARY AND SECONDARY INNOVATION

A) Summary of the issue

Technical and scientific progress is sequential in most industries, so that today's inventions are not only the origin of new technologies and products but also the starting point of future innovation. It is clear that the original invention makes possible the follow-on inventions, and so it would be logical to allow the original innovator to get a part of the social surplus originated by the subsequent innovations (for instance through the payment of licence fees), otherwise there would be no means for the original innovator to internalise the positive externalities created by the invention and hence its incentives to innovate will be reduced. However, the wider the scope of the original patent granted today, the more likely future inventions based on it will infringe it, and so, the more reduced the incentives for innovation for follow-on innovators will be.

The issue of the subsequent innovation has been the origin of a number of contributions and proposals in the literature to tackle it[1]. One conclusion often reached is that no system will grant both the initial innovator and the follow-on innovator adequate incentives to innovate under the patent system. This is so because to compensate the original innovator for the positive externality he creates, he must receive a part of the surplus originated by the follow-on innovations. However, to give those follow-on innovators an adequate incentive, they must get the entire surplus created by their innovations. So, a choice has to be made to solve this "egg and chicken" problem.

In general, the majority of authors appear to be of the opinion that it is the first innovator who should receive the greater benefit. Patents -which indeed are a means of rendering public an otherwise secret invention- should be granted to the original innovator and follow-on investors should negotiate to get a licence. Among the reasons invoked in support of this option, the following appear particularly convincing: I) if the inherent value of the original invention is high and/or the inherent value of the follow-on inventions is limited, it is efficient to grant the first innovator a high degree of protection and II) if the inherent value of the original invention is small but the innovation could lead to future innovations with a high social surplus, it would be risky not to give a patent to the original innovator allowing him a part of that social surplus, because he could opt for not disclosing its original invention (Deffains).

It is also argued (Deffains) that the protection of the original innovator will be also the most efficient solution in cases where its holder is anyway the best suited to fully develop the follow-on developments. In such a case, a high degree of protection will induce him to actually engage in the development of those further innovations. The patent will allow him to monitor future developments and, at the same time, will help to reduce wasteful duplication of R&D efforts.

There are also voices that point out that the best response would be to find ways to strengthen incentives and opportunities for the follow-on innovator. Those authors evoke mainly the "hold-up" effect resulting from the fact that an improvement of an original invention which is within the claims of that original innovation could not be marketed unless the holder of the original patent agrees. In cases where the negotiation is carried out after the second innovator has made substantial investments to develop the

improvement, his position will be completely dependent on the first innovator which could use his privileged position to get a part of the value created by the improvement. In such cases, the second firm's investment decisions must be tempered by the risk that the negotiations will not turn out well (Barton, Deffains). Other arguments point out to concerns that the original broad patents can be used to raise high barriers to entry because of high licence fees or fear by new entrants of expensive patent infringement litigation.

In addition, in cases where basic research is encouraged by direct public support, it is argued (Barton) that a strong patent system may be less an incentive to basic research than a barrier to applied research. Finally, some authors are concerned that a strong patent to the original innovator (Merges and Nelson in Deffains) could block the development of an industry in cases where the product for which a patent is requested is based on public scientific knowledge (to privatise public knowledge) (Deffains). This is particularly relevant in the biotechnology field.

In any event, several arguments can be adduced for reducing the importance of the protection granted to the original innovator in some cases:

- first, the concern of some authors opposed to granting broad patents to the first innovator, is that such patents could create a risk of delaying technical progress in a particular sector. In view of the history of technical progress, broad patents have never seriously impeded the development of a large variety of products;

- in addition, patents are rarely an efficient protection device. Only in very specific sectors (chemicals, pharmaceuticals and, allegedly, biotechnology) do they work properly. In other high technology areas, such as microelectronics, the speed of progress is such that the effective life of any given patent is far less than the official period granted. In that field the competitive advantage resulting from putting a new family of microprocessors on the market is measured in terms of months;

- finally, in the case of very complex and expensive technologies it is very rare that a single company controls all the necessary patents linked to that technology. In such a case, companies normally cross-licence each other. That will be the case of the petrochemical industry, for example;

In more practical terms, several solutions are proposed. None of them includes a proposal for a substantial change of the patent system. Instead, many nuanced solutions are proposed. Most of them refer to changes in the criteria used by public bodies for granting patents:

- a change towards stricter patent law standards (Barton) which will better define what can be patented[2];

- a true policy-oriented experimental use exemption, so that experimental activity intended to bring the technology to the next step is freely allowed, whether in commercial or non-commercial settings (Barton, Ducor). Such exemption already exists in most European patent legislations but is not included in other legislations, notably in that of the US;

- the issuing of dependency licences (Barton) to follow-on innovators having made a substantial improvement of the original patent or of other more general compulsory licences (Barton, Articles 45 and 46 of the amended Community Patent Convention[3] and draft

European Parliament and Council Directive on the legal protection of biotechnological inventions[4]).

B) EU competition legislation

There is little distinction under EU competition law and practice between primary and secondary innovation.

The block exemption on technology transfer agreements[5] includes some provisions which are relevant in respect of sequential innovation. So, on the one hand, an undertaking by a licensee to grantback to the licensor a non exclusive licence for improvements to the licensed know-how and/or patents are generally not restrictive of competition if the licensee is entitled by the contract to share in future experience and inventions made by the licensor (Article 2 1. (4)). An exclusive grantback is neither an authorised nor a prohibited clause and therefore may be authorised in the context of an opposition procedure or of an individual exemption under Article 85(3).

On the other hand, a restrictive effect on competition arises where the agreement obliges the licensee to assign to the licensor rights to improvements of the originally licensed technology that he himself has brought about (Article 3 (6)).

In general terms, the same approach is followed in the Notice concerning the assessment by the Commission of certain subcontracting agreements in relation to Article 85(1) of the EC Treaty[6]. Non-exclusive grantbacks can be imposed by subcontracting agreements without giving grounds for objection under Article 85(1). Such grantbacks can even be exclusive if the improvements made by the subcontractor are incapable of being used independently of the contractor's patent or secret know-how.

A.I Breadth of IPR standards and competition

The possible negative effects of broad intellectual property rights (IPR) on competition (mainly in the context of sequential innovation) are better explained by the example of biotechnology[7].

The advent of biotechnology has radically changed the picture, by virtually eliminating the traditional distinction between basic (generally made by academics) and applied (product-oriented, generally conducted by firms) research. It happens that fairly basic scientific information previously considered as strictly academic in nature can now have significant economic value in addition to conferring scientific prestige. As a result, both the biotechnology industry and non-profit research institutions have become interested in the same type of information (indeed many biotechnology companies have their origins in university-based research) and equally aggressive in patenting their discoveries.

In addition, a growing number of patents is issued on basic technology, where most of the value lies in the research potential leading to subsequent innovations. As a result, entire areas of research are now controlled by patents. That is, the claims of the initial patent may be broad enough that the original innovator may be able to restrict not just marketing of the products based on the follow-on research but the research itself.

Biotechnology appears to be among the relatively few sectors of activity[8] where patents provide an adequate level of protection to its holders. In many other high-technology markets the result of R&D is

basically information which is very difficult to adequately protect because its mere use will reveal it in part to others, so an unavoidable leakage of information will happen in spite of patents.

The biotechnology sector could be an example where the application of standard patent law could give rise to dominant positions. In such a case, the firm could be tempted to impose conditions on its licensees which reflect such dominant position; for instance by refusals to license competitors or by asking extremely high royalties. However, such behaviour could very easily amount to an abuse of dominant position.

A.I Market power and innovation

Three issues need to be addressed here.

Schumpeter was the first to show that market structure has an effect on the pace of innovation. He went on to say that large monopolistic firms are ideally suited for introducing technology innovations that benefit society[9]. Since his seminal work, a lot of theoretical and empirical effort has been devoted to examine Schumpeter's assertions. Nowadays, it is generally agreed, that "up to a point, increased fragmentation [that is increased number of competing firms in a market] stimulates more rapid and intense support of R&D....But when the number of firms becomes so large that no individual firm can appropriate quasi rents sufficient to cover its R&D costs, innovation can be slowed or even brought to a halt"[10]. So, some degree of market power will be preferable to perfect competition for fostering innovation, in particular in cases where advances in the knowledge base occur slowly. But, a high level of market power will most often retard progress, in particular in areas where technological progress is quick, by restricting the number of independent sources of innovation and by dampening firms' incentives to gain market share through accelerated R&D[11].

Second, R&D activities by firms is an area where positive externalities exist. As most of the result of it is information, in most cases companies which have not participated in the R&D process will be able to appropriate some of the results at no cost. This originates a market failure; and unless the innovator is adequately rewarded for his invention so to recover (or have the expectation to recover) his investment, he will have little incentive to engage in R&D activities. As a result there would be an inefficient allocation of resources in respect of R&D activities which will have a negative effect on social welfare. A solution to this market failure is to grant innovators property rights over their inventions. A patent gives its holder a exclusive right to ask royalties from companies and to sue others in case of improper use. In other words, it gives its holder some degree of temporarily limited market power over his invention. This, in principle can be in conflict with the goals of competition policy to keep free and open markets, but it is a means of internalising the positive externalities so that an efficient allocation of resources could be achieved in the form of a sufficient level of investment in R&D.

Finally, regarding the trade-off between lower prices and more sophisticated products, many commentators in the literature are increasingly critical of the traditional focus of competition policy on static market structures and traditional microeconomics focused on the ability of companies to influence prices. Such criticism is based on the fact that a "substantial portion of the increase in the output of advanced industrial nations is widely judged to have been attributable to technical progress"[12]. So, there is a growing consensus that innovation is more important than price competition in social welfare terms.

The implication for competition policy is that the promotion of innovation in the long run could request in specific cases market structures in the short run in which firms exercise some degree of market power and/or in which competing firms do collaborate in R&D activities, for instance by forming co-

operative or concentrative R&D joint ventures[13]. For many other cases, however, there is no contradiction between price competition and innovation both in the short run and in the long run. So that, keeping competitive structures in the short run will foster innovation in the long run.

II. Polar Options

As further described below, action by the EU in respect of innovation consists on the one hand of an active policy of I) financial support of pre-competitive R&D and II) of improving the efficient protection of innovation, and, on the other hand, of a competition policy which is mainly devoted to ensure the dissemination of technology.

Under well established EU Law and practice[14] a distinction has been made between the existence and the exercise of an IPR. The *existence* of an IPR is not prejudiced by the Treaty. Article 222 states that the Treaty shall in no way prejudice the rules in member States governing the system of property ownership. However, the *exercise* of such rights is subject to (and limited by) the rules on the free movement of goods (Articles 30 and 36) and services (Article 59) and to the competition rules (Articles 85 and 86).

II.1 Different goals

In view of the importance of innovation on the progress of nations, there is growing consensus in the literature that competition policy enforcement should adopt a view which sees as its primary goal to keep the market open to future waves of innovation. This will require looking at complex business practices using a dynamic perspective which "emphasises the preservation of long term incentives for investment in human, physical and intellectual capital"[15]. In high-technology industries, vertical and horizontal co-operation between firms may frequently be pro-competitive because it can improve both appropriability and dissemination of the results of innovation.

Co-operation between firms in R&D activities up to the joint exploitation of the results is, in general terms, allowed under the competition rules of the EU. The two main pieces of legislation are the Commission Notice concerning agreements, decisions and concerted practices in the field of co-operation between enterprises[16] and the Commission Regulation (EC) n° 418/85 of 19 December 1984 on the application of Article 85(3) of the Treaty to categories of R&D Agreements[17]. In addition, as indicated above, the block exemption Regulation on technology transfer agreements allows for some grantbacks of rights between licensors and licensees.

In addition, dynamic efficiency considerations are increasingly taken into account under Article 85(3) exemption analysis of cases formally notified to the Commission for the assessment of their compatibility with Article 85 of the Treaty.

II.2.b. Restrictions on parallel imports

Under the *exhaustion of rights* doctrine by the European Court of Justice, export of the product to another member State is protected by the principle of free movements of goods under Article 30 and cannot be restricted under the exception provided for in Article 36 of the Treaty. Accordingly, once a product that is the subject of a property right is put onto the market in a legal manner in one member State

by the owner of such right or with its consent, i.e., under license, the parallel industry property right held in another member State may not be used to prevent its importation there.

The block exemption on technology transfer agreements permits a prohibition on direct passive sales by the licensee in the territories of other licensees (in response to unsolicited orders) for five years from the date the product is first put onto the market within the Community[18], but does not permit, other than with an objectively justified reason, the prohibition of indirect passive sales[19] -that is sales to users or resellers within the territory who would market the product outside it.

II.3 Fine-tuning the rewards to innovation

In general, antitrust should encourage the exercise of IPR in a way which promotes dissemination of technology. This view is consistent with the second-best policy recommended by Gallini and Trebilcock.[20] A deeper involvement by AT into IPR could result in putting into question the limited market power granted to innovators which form the foundations of IPR. Such action could be a source of uncertainty with negative effects on innovation. Coming back for a moment to the sequential innovation discussion, despite the fact that the behaviour resulting from blocking patents could amount to an abuse of dominant position by the holder thereof, remedies in the field of patent law and practice should be given preference to pure antitrust actions. Nobody wants to put into question the patent system.

II.3.(d) No licensing situation

In general terms, any licensing is preferable to no licensing. Dissemination of technology will improve welfare and in the long run it may permit the development of alternative technologies to the one licensed. There can be instances, however under which a no licensing (or a refusal to license) could be justified if the holder of the patent is the best placed to fully develop the patented invention. In any event, under EU competition Law and practice there is no obligation to grant licences.

In addition, it is difficult to imagine a situation under which a separate licensing agreement could result in a reduction of competition in the market on its own. A different case would be if such licensing agreement is part of a more complex transaction; i.e. a cross-licensing agreement or a strategic alliance between competitors. In that context, a restriction of competition which has an effect on current market structure, could be exemptable under Article 85(3) of the Treaty (assuming all conditions for exemption are fulfilled) if such alliance is a way of making new technologies available within the EU.

II.3 Automatic fine-tuning

Gallini and Trebilcock could be right, assuming that the patent confers its holder a dominant position in a defined relevant market.[21] A dominant firm can abuse its dominant position without using the market power which such position confers, but by ordinary commercial practices also engaged in by non-dominant firms.

II.3.1 Intangible nature of IPR

The assertion regarding the level of hands-on intervention cannot be attributed to the intangible nature of IPR. A patent includes as precise a description of the patented product, service or know-how as

possible. The real problem with IPR is that in many cases the main result of R&D activities is information. Information is very difficult to protect. As Arrow said "the very use of information in any productive manner is bound to reveal it, at least in part. Mobility of personnel among firms provides a way of spreading information. Legally imposed property rights can provide only a partial barrier, since there are obviously enormous difficulties in defining in any sharp way an item of information and differentiating it from similar sounding items".[22] Indeed, society benefits from the largest diffusion of information. The patent system provides a solution to this problem, but for most sectors of activity only a partial one, as imitation (by free-riding or reverse engineering) cannot be impeded by the holder of the patent.

Similar degrees of hands-on intervention can be found in many other vertical relationships, such as exclusive or selective distribution or franchise agreements. In all those cases, there are reasons for explaining hands-on intervention (protecting reputation, optimising marketing and sales, maximising level of services to customers), but the intangible nature of the products to be distributed does not play a major role. Protection of IPR can legitimately be an element included in a license, but its main object would normally be the royalty payments, as the means for the licensor to recoup its front end investment.

II.3.2 Price Discrimination

All pricing strategies by firms (having some degree of market power) are ways of capturing parts of consumer surplus and converting it into producers surplus. Price discrimination implies charging different prices to different customers having different demand elasticities. It is the most common pricing strategy and it is used in many industries. Successful price discrimination increases the level of profits of firms.

In some cases, price discrimination by dominant firms could be an abuse of a dominant position under Article 86 of the Treaty[23]. Such would be the case when applied in order to divide the market, overcharge customers without an alternative source of supply or exclude competitors from the market. However, price discrimination may have positive effects for welfare as it could increase the customer base, expand output and even reduce cost.

In the context of licensing, however, there can be situations (in particular where no dominant situation exists) where the inability of the innovator to price discriminate perfectly (that is, apply a different price to every single licensee in accordance with the utility of the invention for each of them) may mean that the firm will ask royalties that lead to inefficiently low levels of utilisation of the innovation by other firms[24].

II.3.3 Difficulty to monopolise invention-rich markets

Generally speaking, it is difficult to monopolise most high-technology markets. Technical progress is so quick it is extremely difficult to have and exercise stable market power. However, the problems with patents in biotechnology and the strong position built by companies in some high-technology fields (like Microsoft in software) tend to show that market power is not excluded even in those sectors.

II.3 Summary

The three policy principles advanced by Gallini and Trebilcock are acceptable.[25] However, the second one should include a favourable attitude from AT to situations in sectors where collaboration between firms would provide the incentive to innovate which patents or other IPR are not able to provide.

B.1.a. Respecting market power inherent in an IPR

The dividing line is quite clear under EU Law and practice. As indicated before, the *existence* of an IPR is not prejudiced by the Treaty. However, the *exercise* of such rights is subject to (and limited by) the rules on the free movement of goods (Articles 30 and 36) and services (Article 59) and to the competition rules (Articles 85 and 86). As regards the latter, the block exemption regulation on technology transfer agreements defines the limits of licence agreements.

B.1.b. Broad IPR

AT is not well place to judge the validity of IPR. Generally speaking it should accept IPR as valid. Then, if a very broad patent confers a dominant position and the holder abuses that position, different solutions could be envisaged under AT, corresponding to the nature of the abuse.

If a holder refuses to licence, then a compulsory licensing solution could be imposed in some cases. If the holder grants licences but includes abusive conditions on it, combined action under Articles 86 and 85 could be envisaged, including, as regards the latter-the withdrawal of the exemption granted by the block exemption (assuming the licence agreement could be covered).

B.1.d. Definition of markets

A distinction between upstream research markets and downstream product markets appears justified. The barriers to entry into the two activities are likely to be different and the level and nature of actual or potential competition are likely also to vary[26]. However, in the end, AT should base its decisions on the likely effects on the market for future products. Whereas a reduced R&D supply is not necessarily its concern, a reduced supply of future products is.

II.2 Refusal to Licence

Under EU Law and practice, the fact of having applied and obtained an IPR and exercising that right does not constitute, as such, an abuse, even by a dominant firm. In addition, the simple refusal to grant a licence is not in itself abusive. Additional elements are required, such as the fact that the holder is neither working the patent itself, nor allowing others to do so (under licence), thus withholding important technical progress from the public against the public interest; unfair sales prices, discriminatory sales conditions and so on[27].

The most advocated solution is that of compulsory licensing which is commonly used also under patent law for failure to exploit a patent. However, as pointed out by Jorde, compulsory licensing can have negative effects on welfare. So, its use should be limited for example to cases in which the progress of an entire industry is actually blocked by a patent.

B.3 Tying restrictions

Tying or bundling provisions can also be employed by companies to gain additional consumer surplus. However, they can be used as a substantial barrier to entry to a market, in particular against small competitors unable to offer a full array of products or services.

A very clear example are concerns which have been raised by the Commission in the context of big alliances in the telecommunications field in respect of bundling and tying. In markets which are half way to full liberalisation, the ability of telecommunications incumbents to offer packages of services will make the successful entry of smaller competitors in the incumbent's national markets extremely difficult. For that reason, the Commission has imposed undertakings on the founders of those alliances under which the companies in question (which at the same time are national distributors of the services within the business scope of the alliance) will not tie the sale of any service provided by them on their own with that of any service provided by the alliance but distributed by the parent company as distributor of the alliance[28].

B.5 Grantbacks

The inclusion of an obligation on the licensee to assign any right to its improvements of the licensed technology among the black list of prohibited clauses in the block exemption regulation on technology transfer agreements is intended both to maintain the licensee's incentives to employ its own improvements and to safeguard the possibility of their dissemination to others.

B.6 Price restrictions

In the context of a vertical relationship, price restrictions limit intrabrand competition, in particular if they are combined with territorial restrictions. Under European jurisprudence they are prohibited. Price restrictions are indeed included in the list of practices which do not qualify for automatic exemption under block exemption on technology transfer agreements[29].

Recommended prices are unobjectionable unless they lead to a concerted practice to maintain prices at the recommended level.

B.7 Exclusive transfers

As indicated above, an exclusive grantback is neither authorised nor prohibited under the block exemption regulation on technology transfer agreements and therefore may be authorised in the context of an individual exemption. In addition, such grantbacks can be exclusive in subcontracting agreements if the improvements made by the subcontractor are incapable of being used independently of the contractor's patent or secret know-how.

In principle, such an exclusive licence could be acceptable if it does not completely foreclose access by competitors to the territory under exclusivity. The availability of substitutable technologies, products or services is an important factor to take into account.

Regarding merger control, the implementation of a transfer of an undertaking generally includes the transfer or licensing to the acquirer of rights to industrial property or know-how. These kind of licences are normally accepted under EU Merger Control as necessary for the completion of the transaction because they are indispensable for the full exploitation of the assets transferred [30].

B.8/B9 Exclusive Territories - exclusive dealing

The basic rationale behind those exclusivities is that they improve distribution and are the best way for manufacturers to enter new markets. The exclusivity provisions on behalf of the distributor/licensees are the balance to obligations imposed on distributors to concentrate their marketing and sales efforts on the territory under exclusivity. Such exclusivity must be open so that consumers within the protected territory must have alternative ways of getting the products other than through the exclusive distributor (parallel imports).

B.10 Patent pools and Cross-licensing

Patent pools can have potential anticompetitive effects when they are a means to discriminate against third parties or when specific technologies from given companies are excluded from the pool. The latter can be especially relevant in case the patent pool develops *(de jure or de facto)* standards which are widely applied by the industry[31]. On the other hand, patent pools can be a possible solution in cases where no company has all necessary patents to a technology.

Given those potentially anticompetitive effects, patent pools are excluded from the block exemption regulation on technology transfer agreements[32], although they can still apply for an individual exemption.

Cross-licensing agreements may have similar anticompetitive effects. They can make access by third parties to the cross-licensed patent more difficult and they can be used to partition markets. On the other hand, similarly to patent pools, they can be a solution to situations where no company controls all patents relevant to a given technology.

In addition, cross-licensing agreements (or other forms of co-operative R&D) can be a solution in situations where the degree of appropriability of the result of innovation is small, so that other companies can benefit from the results of innovation. Co-operative R&D has some beneficial effects: by sharing the R&D output, it tends to eliminate wasteful duplication[33] of R&D. In addition, cost-sharing (if part of the agreement -probably not in the case of cross-licensing), will help to restore the incentives to innovate[34].

Cross-licensing agreements are covered by the block exemption regulation on technology transfer agreements only when the parties are not subject to any territorial restriction within the common market with regard to the manufacture, use or putting on the market of the licensed products or technologies[35].

OVERVIEW OF EU ACTION IN THE INNOVATION FIELD

Innovation is vital for the viability and success of a modern economy. In this regard, Europe seem less well placed than its main competitors, in particular as regards converting skills into new products and market share, especially in high-technology sectors.

The European Union is aware of those weaknesses and is taking action at its level to try to redress the situation. Such action has two main pillars; the financial support of innovation (with an element of European value-added) and the protection of innovation.

As explained above, the competition policy of the European Union has also an important role to play; to help to encourage the dissemination of technical knowledge in the Union.

A) Financial support of innovation

The European Union has recognised that research needs public support since knowledge production is a lengthy, costly and risky business. This activity cannot depend on market forces alone.

The European Union's research and technological development (EU RTD) policy aims to strengthen Europe's scientific and technological base and thus to contribute to the development of the competitiveness of European industry and to promote the quality of life of Europe's citizens. EU RTD policy complements Member States' national research efforts and supports other Union policies such as on agriculture, cohesion, transport, environment, health, education, energy, etc.

It is implemented by means of research programmes with associate companies -including SMEs-, universities and research centres from various European countries in joint research projects at the pre-competitive level (from basic to applied research and development up to the prototype stage). The research themes covered by EU RTD are defined in multi-annual Framework Programmes. The current Framework Programme (1994-98)[36] has a total budget of ECU 13,100 million, respectively ECU 11,764 million for the 4th EC Framework Programme and ECU 1,336 million for the Euratom Framework Programme. In 1996 alone, such activities accounted for nearly ECU 3,000 million and approximately 4% of the Community budget.

Work on implementation of the 4th EC Framework Programme is very intense. Only in 1996, nearly 24,000 proposals were received and more than 6,000 contracts were signed. Significant results were obtained in numerous research fields; and so, more than 3,000 publications and patents were recorded.

As of 31 December 1996, more than 9,000 research projects were running under the 2nd, 3rd and 4th EC Framework Programmes.

In parallel, to the framework programmes, the Commission has launched the First Action Plan for Innovation in Europe with a view to further redress Europe's shortcomings in the innovation field. The plan was drawn up following the request of the European Council at the June 1996 Florence Summit.

Alongside measures aimed at promoting initial training and adjusting the regulatory and legal field, in particular as regards the protection of industrial and intellectual property rights, the Commission, as a matter of priority, will encourage capital companies to invest more in the early phases of innovative projects (launching of the I-TEC pilot project with the European Investment Fund), create conditions to

encourage the development of new European capital markets for rapidly growing firms and propose measures to promote the formation of technology-based companies.

B) Improved protection of innovation

Patent protection is ensured in the European Union by the different national patent systems and the European patent system.

The European patent system is based on two international agreements, the 1973 Munich Convention on the European Patent and the 1975 Luxembourg Convention on the Community patent, which is an integral part of the Agreement relating to Community patents signed in 1989.

The Munich Convention does not create a uniform protection right, but it does provide the applicant with protection in as many of the Signatory States[37] as he wishes. However, translations of the specifications have to be filed with the national patent office of each designated country and there is not a common court to deal with disputes or infringement actions.

The Luxembourg Convention is intended to bring together the bundle of protection rights resulting from the grant of a European Patent under the Munich Convention and merge them into a single, unitary and autonomous protection right valid throughout the Union.

The Luxembourg Convention is not yet operational because by November 1996 only seven Member States had fully ratified it. However, the European Commission is convinced of the need that the Community patent system is brought into operation. It would have the essential feature of granting patents with a unitary character that would have equal effect throughout the Community and could be granted, transferred, revoked or otherwise allowed to lapse only in respect of the whole of the Community. In the context of the First Action Plan for Innovation in Europe, the Commission has launched a wide consultation by means of a green book[38] in order to move ahead. Ease of obtaining patents, legal certainty and appropriate geographic coverage are essential criteria for the effective protection of innovation in the European Union.

In addition, the Court of Justice of the European Communities has repeatedly recognised that the Community is competent to take action in the field of patents if this contributes to the attainment of one of the objectives of the Treaty. So, the European Union has been able to use its powers to legislate in the patents field, notably in order to take into account technological progress in sectors with high value added. Two Parliament and Council Regulations have thus been adopted creating a supplementary protection certificate for pharmaceutical and plant-health products with a view to plugging the gap in protection that was penalising research into those products. In the biotechnology field, the Commission has proposed an instrument specifying the conditions in which a patent may be obtained for a biotechnological invention [39]

NOTES

1. See for instance:

   Bruno Deffains. *Progrès Scientifique et Analyse Économique des Droits de Propriété Intellectuelle.* Revue d'Économie Industrielle, n° 79, 1er trimestre 1997

   John H. Barton. *Patents and Antitrust: A Rethinking in Light of Patent Breadth and Sequential Innovation.* Antitrust Law Journal, Vol. 65, n°2, winter 1997.

   Philippe Ducor. *Are Patents and Research Compatible?.* Nature. Vol. 387. 1 May 1997.

2. In this respect, Article 3 of the Proposal for a European Parliament and Council Directive on the legal protection of biotechnological inventions (COM(95) 661 final; OJ N° C296, 8.10.96), states that the human body and its elements in their natural state shall not be considered patentable inventions..

3. OJ N° L401/1 of 31.12.89.

4. In the field of use and exploitation of new plant characteristics, where public interest demands the exploitation of the plant variety for which the licence is required. Article 14.

5. Commission Regulation (EC) N) 240/96 of 31 January 1996 on the application of the Treaty to certain categories of technology transfer agreements. OJ n° L31 of 9.2.96.

6. OJ n° C1, 3.1.79,p.2.

7. Ducor: *op cit*, p.13.

8. Others are chemical and pharmaceutical industries.

9. Mainly because profits accumulated through the exercise of monopoly power are a key source of funds to support costly and risky innovation.

10. F.M.Scherer and D. Ross, *Industrial Market Structure and Economic Performance.* Third Edition. Houghton Mifflin, 1990. p.637.

11. F.M.Scherer and D.Ross, *op cit*. p. 660.

12. Dasgupta and Stiglitz: *Industrial Structure and the Nature of Innovative Activity.* The Economic Journal, 90 (June 1980), p.266-293.

13. In fact, many of these commentators examine R&D joint ventures as an alternative to the patent system in cases where appropriability problems exists; as a vehicle to improve appropriability -by having potential free-riders on board- and dissemination of technology -at least among the participating firms- See for instance, J.Ordover and R.Willig *Antitrust for High-Technology Industries: Assessing R&D Joint Ventures and Mergers.* Journal of Law & Economics, vol.XXVIII. May 1985; p.311-343.

14. The European Court of Justice developed the doctrine in cases Grundig/Consten for trademarks (ECJ July 13,1966, 1966 ECR 299, 345-346), Parke Davis for patents (ECJ Feb.29,1968, 1968 ECR 55, 72-73) and Sirena for trademarks (ECJ Feb. 18,1971. 1971 ECR 69, 82-84).

15. J.Ordover *Competition Policy for High-Technology Industries.* International Business Lawyer, November 1996. P.479-480.

16. OJ n° C75, 29.7.1968,p.3 corrected by OJ n° C84, 28.8.1968, p.14.

17. OJ n° L53, 22.2.1985, p.5 as amended by Commission regulation (EC) n° 151/93 of 23 December 1992, OJ n° L21, 29.1.1993, p.8.

18. Article 1 (6).

19. Article 3(3)(a).

20. See DAFFE/CLP/WD(97)36

21. To appreciate what is meant by automatic fine tuning, see Ibid., p.9.

22. K.Arrow, *Economic Welfare and the Allocation of Resources for Invention* In *The Rate and Direction of Inventive Activity: Economic and Social Factors.* 1962. Princenton University Press.

23. In most decided cases under EU competition Law discrimination abuses was associated with other wider abuses.

24. M. Katz: *An analysis of co-operative R&D* Rand Journal of Economics. Vol. 17 n° 4, Winter 1986.

25. See DAFFE/CLP/WD(97)36, p.6. The three principles referred to were:

    P1 There should not be a presumption that an intellectual property right creates market power.

    P2 Competition policy should acknowledge the basic rights granted under patent law.

    P3 A licensing restriction should be permitted if it is not anticompetitive relative to the outcome that would result if that license were proscribed; otherwise, an evaluation of potential efficiency effects of the restriction on the pricing and diffusion of the intellectual property should be made.

26. G. Grossman and C. Shapiro: *Research Joint Ventures: An Antitrust Analysis.* Journal of Law, Economics and Organization. Vol. 2 n° 2, Fall 1986.

27. See cases Renault (ECJ Oct. 5, 1988, 1988 ECR 6039, 6071-6073) and Volvo/Veng (ECJ Oct.5, 1988, 1988 ECR 6211,6235).

28. See Commission Decision of 17 July 1996 relating to a proceeding under Article 85 of the EC Treaty and Article 53 of the EEA Agreement in Case n° IV/35.337 - ATLAS. (OJ n° L239 of 19.9.96, p.23. Point (29)(5) and Commission Notice published pursuant to Article 19(3) of Council Regulation n° 17/62 in Case n° IV/35.830 - Unisource (OJ n° C44 of 12.2.97, p.2).

29. Article 3(1)

30. See Commission notice regarding restrictions ancillary to concentrations (OJ C203, 14.8.90, p.5).

31. The anticompetitive effect is of lesser importance if entry to the pool was voluntary for all those having something to offer at the time of its formation.

32. Article 5.1.(1).

33. In many cases, the cost of diffusion of technology is far smaller than that of duplicating a patent.

34. M. Katz *op cit p.528*

35. Article 5.2(2).

36. On 30 April 1997, the Commission adopted its formal proposals for the 5th Framework Programme.

37. Signatory States are all the Member States of the European Union plus Switzerland, Liechtenstein and the Principality of Monaco.

38. Green Paper on the Community patent and the patent system in Europe (COM(97) 314 final of 24.06.97).

39. See Proposal for a European Parliament and Council Directive on the legal protection of biotechnological inventions (COM(95) 661 final; OJ N° C296, 8.10.96).

REFUSALS TO LICENSE INTELLECTUAL PROPERTY

by Tadashi Shiraishi[*]

I. Introduction

I would like to focus on refusals to license intellectual property, because they are genuine and transparent forms of exercising those rights. In other words, if ancillary restrictions added into a licensing agreement are to be condemned in light of antitrust law, the right holder can simply say, "If so, I would refuse to license". Thus, refusal to license is the most important and easiest tool with which we can discuss the IP/AT interface.

The discussion paper distributed in advance refers mainly to Professor Barton's article[1] and Professor Jorde's paper[2]. I generally agree with Barton. Because Jorde's paper is well-organised enough to represent those who are against the idea that some kinds of refusals to license should be prohibited by antitrust law, I am going to comment on Jorde's points.

II. Comments on Professor Jorde's paper

1. "Many" is different from "all"

First of all, those who are against the idea of prohibiting some kinds of refusals to license, including Jorde, tend to emphasise that in many cases such prohibitions would have negative welfare effects and then conclude that *all* refusals to license should be permitted[3]. If, by any chance, the former is correct, that would not logically bring us to the latter. Jorde himself refers to the First Circuit decision in Data General where the court cautioned that there might be rare cases where antitrust law should bar refusals to license[4]. We are talking about those 'rare cases'.

I do not believe that those in favour of the essential facility doctrine are going to punish all refusals to license 'essential intellectual property'. Rather, as the 1996 US FTC Staff Report clearly pointed out, this doctrine facilitates rapid screening of situations unlikely to pose competitive concerns[5] i.e. almost all antitrust enforcers would abstain from applying the essential facilities doctrine where a refusal to license is grounded in legitimate business justifications. Fewer enforcers believe that such justifications are present in every case involving IPR.

2. Enforcement difficulties?

Jorde also argues that "Application of the doctrine to intellectual property is also unwise because the remedy -- compulsory licensing -- would require on-going regulation"[6]. This calls for two comments.

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First, this argument might apply to US antitrust law which is mainly enforced by the courts. But, this contention would never justify any policy of a country as a whole. In other words, this argument would not apply even to other laws of US and its states which might deal with refusals to license intellectual property, to say nothing of antitrust laws and other laws of other countries. A competition policy can be realised not only by judicial orders but also by regulatory agencies' activities, *ex post* monetary damages, rejecting injunctive relief against alleged intellectual property infringement, and so on.

Second, even in the field of US antitrust law, consent decrees play a very important role in enforcement. Did AT&T, BT/MCI, Sprint/FT/DT and Microsoft consent decrees come without 'on-going regulations'?

3. All or nothing?

Jorde correctly points out that "[p]roblems associated with the breadth of intellectual property should be addressed within intellectual property law"[7]. But, antitrust law could undertake some tasks, too. Otherwise, the conclusions would have to be 'all or nothing'.

Good examples which might not fit the 'all or nothing' formula include intellectual property which is indispensable for taking advantage of standardisation. Some inventors might have to refrain from making any legal claims. In other cases, however, inventors should be permitted to collect 'reasonable' royalties, provided that they do not discriminate against anyone and abuse a dominant position.

One of the most famous cases of standardised intellectual properties is Dell Computer Corp.[8] Japan Fair Trade Commission (JFTC) has another example, Hinode Suido Kiki, which is related to standardised intellectual property, although it is not a refusal to license case but a quota restriction case[9]. Hinode, which owned a patent on manufacturing covers for manholes, licensed the patent to competitors with restrictions on their quotas. Those restrictions seem to be permitted because a licensee's breach of the restriction would be a patent infringement, the situation of which is similar with refusals to license. In that case, however, Hinode's patent was indispensable for selling covers to the civic government of Kitakyushu, because the government had adopted Hinode's patent as an unavoidable requirement. JFTC declared those quota restrictions illegal, although it did not argue so much about IP/AT interface.

Another example which does not fit the 'all or nothing' paradigm might be intellectual property pools, although even Jorde might support antitrust intervention against multilateral refusals. On August 6, 1997, JFTC issued a cease and desist order to those who manufacture pachinko machines, the Japanese equivalent of pinball. The ten manufacturers have excluded outsiders by accumulating patents for pachinko machines to make an unavoidable patent pool and refusing to license them. JFTC did not require royalty-free licenses but intermediate solutions.

III. Conclusion

Like other commentators, I do not believe that every refusal to license essential intellectual property would be antitrust violation. Nor do I believe that every refusal to license essential intellectual property should be out of the reach of antitrust law. We should discuss the appropriate criteria for distinguishing illegal refusals to license and lawful ones, without giving up debating due to the difficulties.

Appendix

UNFAIR COMPETITION LAW TO BE ADJUSTED BY COMPETITION POLICY[10]

by Tadashi Shiraishi

I. Introduction

The law of unfair competition is an important tool to make sound competition policy. For that purpose, however, prohibition of unfair competition should not be enforced to the extent of promoting monopolies. This essay will focus on this topic, with some cases and arguments including those in Japan.

II. The legal framework prohibiting unfair competition in Japan

There are at least two ways of describing the framework of unfair competition law. Starting from 'what to be prohibited' and starting from 'how to be enforced'. The latter method seems to be better for outlining Japan's framework[11].

The Anti-Monopoly Act (AMA) authorises the Fair Trade Commission (JFTC) to issue cease and desist orders to some categories of unfair competition. Those are listed as kinds of 'unfair trade practice', the concept of which is much broader than so-called 'unfair competition'[12]. Those categories of unfair competition include deceptive representations, premiums which detrimentally affect consumer choice, and so-called business torts which exclude competitors. With respect to misrepresentations and premiums, the Unfair Premium and Unfair Representation Act strengthens the enforcement power of JFTC and also authorises governments of prefectures to deal with regional matters.

The Unfair Competition Act (UCA) enables a private plaintiff to get an injunctive relief. UCA's concept of 'unfair competition' includes free-riding representations, identical copy of tangible products of others, misappropriations of trade secrets, deceptive representations, and falsely speaking ill of competitors. Misrepresentations could be criminally punished pursuant to UCA.

UCA also provides monetary relief. But even for practices not covered by UCA, monetary damages could be sought pursuant to the general tort clause of the Civil Act section 709. There are a number of court decisions in favour of private plaintiffs[13].

In addition to those, there are not a few industry-by-industry regulations which, mostly administratively, handle unfair competition. And, taking a broader look at the legal system, intellectual property law is an important part of unfair competition law.

III. Adjustments from the viewpoint of competition policy

Japan has some examples in which the law of unfair competition has been adjusted from the viewpoint of competition policy.

1. Sanyo -- free-riding misrepresentation

In Sanyo Electric Co.[14], Sanyo sued an alleged free-rider pursuant to UCA section 2-1-1. Sanyo manufactured and sold a series of electronic goods for singles, such as small rice-cookers, small refrigerators and so on. The colour of those commodities was all navy blue. They became so well-known that many consumers could identify navy blue small electronic goods as those of Sanyo. One day, the defendant began to manufacture and sell small electronic goods with the colour of navy blue.

The judgement of the Osaka District Court was in favour of the defendant, saying "If we authorised the plaintiff to enjoy monopoly on a very popular colour, competitors would have fewer choices for their own products, with a result that the last starters would have no choice. An exclusive use of a colour, distinguished from that of a combination of some colours, would unreasonably restrict competition in a market. Thus, even if the colour of navy blue, not a combination of some colours, is well-known enough to indicate that the products are from the plaintiff, it cannot rely on UCA 2-1-1 to seek any remedies."[15]

The decision itself may be controversial because an exclusive use of a colour does not eliminate all competitors but a few of them. But, the case is very interesting in accepting the general principle that the law of unfair competition should be adjusted by competition policy.

2. UCA section 2-1-3 -- identical copy of tangible products of others

The 1993 amendment of UCA admitted a new category of prohibition against identically copying tangible products of others ('dead-copy' in Japanese English). Form and shape of a newly introduced tangible product will be protected for three years. This clause, which has yet to be frequently used because it is still new, explicitly accepts adjustment by competition policy.

Suppose hypothetically that automobiles were invented and introduced last year. Should the first producer of tires be entitled to prohibit others from manufacturing and selling round tires?

UCA 2-1-3, which adds identical copies to the list of 'unfair competition' for the purpose of the Act, explicitly excludes copying "form and shape which such a product should normally have".

While this is similar with the Sanyo case of UCA 2-1-1, this is an illustration of legislative adjustment to the law of unfair competition.

3. Adjustment to the expected database protection

A database, electronic or not, can be copyrighted if the selection and/or arrangement of data is original. But, copyright law protects only the originality itself. If one extracts all the data from the database, excludes some data, adds other data, and shuffles the arrangement, he or she does not infringe the copyright of the database maker because the new database does not feature the same selection and arrangement[16]. In other words, 'sweat of the brow' or investment itself is not protected by copyright law.

Desiring protection for investment in databases, often cited as a *sui generis* right, the EC adopted a Directive in March 1996[17]. Following that, in August of the same year, WIPO (World Intellectual

Property Organisation) unveiled a committee proposal for database protection to be argued at the diplomatic conference of the Organisation[18].

The expected law of database protection is definitely among the law of unfair competition. Thus, in parallel with what has taken place to limit the effects of Japanese UCA 2-1-1 and 2-1-3, there are a number of supporters world-wide for adjusting database protection in light of competition policy. Actually, the EC Commission Proposal for the Directive included an explicit exception in its Article 8[19], a kind of 'compulsory licensing clause'. The final Directive does not have such a clause, but its Recital 47 makes it clear that "the provisions of this Directive are without prejudice to the application of Community or national competition rules". The WIPO proposal is silent as to the issue.

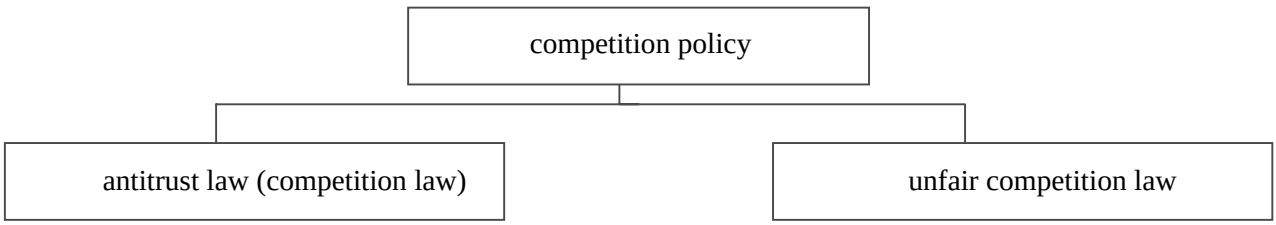
It is fair to speculate that the EC is relying on its competition laws. The reason why the EC Directive dropped the 'compulsory licensing clause' is said to be the appearance of the Magill case in April 1995 at the Court of Justice of the European Communities[20]. The Court affirmed the Commission decision that a refusal to license 'copyright' violated Article 86 of the Rome Treaty. The 'copyright' in this case, which was given to a compilation of TV program data pursuant to the Irish and the UK copyright laws, does not seem to exist in other countries including Germany, US and Japan[21]. In that sense, Magill is an important leading case of adjusting database *sui generis* right from the viewpoint of competition policy.

The Government of Japan, especially MITI, is studying whether to introduce such a right, listening to various opinions of database makers and users. One of the hot issues is whether and how to make adjustments in light of competition policy. Alternatives include a proposal that the expected database protection law (likely UCA) should have a built-in adjustment like the cases in UCA 2-1-1 and 2-1-3. Although it is not impossible to rely solely on AMA, many people argue that built-in adjustment is indispensable especially in Japan.

IV. Conclusion

Competition policy consists of, among others, unfair competition law and antitrust law (or, competition law). The former assures a sound basis for competition on the merits, and the latter condemns restricting competition on the merits. Unfair competition law is surely a complement to antitrust law.

Taking that for granted, it would be contradictory if unfair competition law promoted detrimental monopolies. We have to adjust unfair competition law from the viewpoint of competition policy. Those adjustments can be realised by antitrust law, well-designed unfair competition law, or both.



NOTES

1. John H. Barton, "Patents and Antitrust: A Rethinking in Light of Patent Breadth and Sequential Innovation", 65 Antitrust L.J. 449 (1997).

2. Thomas M. Jorde, "Issues in the Antitrust -- Innovation Interface", presented at the ABA Antitrust Section Program "The Changing Nature of Competition" (Washington, DC, November 7-8, 1996).

3. Jorde's paper, II, D-1 a, b, d, D-2 c. *See also* Richard J. Gilbert and Carl Shapiro, "An Economic Analysis of Unilateral Refusals to License Intellectual Property", prepared for the conference on "Competition Policies for an Integrated World Economy" (Oslo, June 13-14, 1996).

4. "Wary of undermining the Sherman Act, however, we do not hold that an antitrust plaintiff can never rebut this presumption [that an author's desire to exclude others from use of its copyrighted work is a valid business justification for any immediate harm to consumers], for there may be rare cases in which imposing antitrust liability is unlikely to frustrate the objectives of the Copyright Act." Data General Corp. v. Grumman Systems Support Corp., 36 F. 3d 1147, n.64 (1st Cir. 1994).

5. Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace (1996), reprinted in: Antitrust & Trade Reg. Rep. (BNA) vol.70 no.1765, Chapter 9, II-C.

6. Jorde's paper, II D-2 d.

7. Jorde's paper, II E.

8. Dell Computer Corp., File No. 931-0097 (consent agreement accepted for public comment (FTC November 2, 1995)).

9. JFTC Decision on September 10, 1993, Shinketsushu vol. 40 p. 29.

10. This essay is originally for the meeting of "Comparative Competition Law", Bruges, July 3-5, 1997.

11. Not a few Japanese scholars believe that the intersection of AMA and UCA should be talked from the viewpoint of 'what to be prohibited'. They try to follow German arguments on the interface of GWB and UWG. At least for the purpose of describing the current law in Japan, however, the viewpoint of 'how to be enforced' is a far better tool, especially taking account of the fact that AMA, along with UCA, covers some categories of unfair competition, as explained right away.

12. The rest of 'unfair trade practice' in AMA covers, among others, refusal to deal, predatory pricing, tying arrangement, exclusive dealing, and resale price maintenance. To be sure the number of cases is pretty small in the category of 'private monopoly' of AMA, which is the seeming equivalent of the Sherman Act section 2, this fact provides no basis for criticism of the alleged weakness of Japan's AMA. 'Unfair trade practice' is substantially the most important equivalent of the Sherman Act section 2.

13. Foreign watchers may be familiar with the notion that the requirements for private plaintiffs are too harsh to be satisfied in Japan. This is very misleading. First, the most famous case of the Supreme Court in the Tsuruoka Oil case (December 8, 1989, Minshu vol. 43 no. 11 p.1259) did not require impossible proof of the plaintiff, the decision of which was in favor of the defendants just because the plaintiff did not try to prove it at all. Second, common arguments in Japan, which are often exposed to foreigners, have been

concerned almost exclusively with *consumer*-plaintiff *antitrust* suits. Japan has some antitrust cases in favor of *competitor*-plaintiffs and quite a few private cases against *unfair competitions.*

14. Judgment of the Osaka District Court on May 30, 1995, Hanrei Jiho no. 1545 p. 84.

15. This decision apparently followed the articles of Professor Yoshiyuki Tamura of Hokkaido University, the young leader of intellectual property jurisprudence in Japan. *See* Yoshiyuki Tamura, *Fusei Kyoso Ho Gaisetsu [Unfair Competition Law]* (Yuhikaku Publishing Co., 1994) pp.101-104.

16. *See* Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991).

17. Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, [1996] O.J. L 77/20.

18. Basic proposal for the substantive provisions of the treaty on intellectual property in respect of databases to be considered by the diplomatic conference, prepared by the Chairman of the Committees of Experts on a Possible Protocol to the Berne Convention and on a Possible Instrument for the Protection of the Rights of Performers and Producers of Phonograms (CRNR/DC/6, August 30, 1996). This document can be easily and hopefully lawfully extracted from the WIPO website of http://www.wipo.int/ .

19. Proposal for a Council Directive on the legal protection of databases (submitted by the Commission on 15 April 1992), [1992] O.J. C 156/4.

20. Radio Telefis Eireann and Independent Television Publications v. Commission, [1995] E.C.R. I-743, [1995] 4 C.M.L.R. 718 (1995).

21. *See* the Opinion of the Advocate General (Mr. Gulmann) paras. 118-127.

PARADIGMS OF INTELLECTUAL PROPERTY/COMPETITION BALANCES IN THE INFORMATION SECTOR*

by John H. Barton[1]

I. Introduction

To meet the challenges imposed by the emerging international information industry, we are now attempting to rethink intellectual property rights -- probably more deeply than at any time since the invention of printing. In this emerging world, we are seeing new linkages between intellectual property law and competition law, for intellectual property rights may be used to provide exclusive rights over operations and activities (e.g. computer programs) as well as over information and entertainment products as traditionally conceived. This paper presents a series of three paradigms to explore these linkages and examines their implications for the law relating intellectual property and competition. It does not attempt to answer the question whether or when the activities involved in a specific paradigm should be regarded as anticompetitive; it rather attempts to define those paradigms that deserve careful economic analysis by statistical or microeconomic theory tools.

For purposes of this paper, intellectual property law includes (1) patent law where this law affects the use of particular information technologies, whether of software or of hardware, (2) copyright law that affects such technologies, (3) derivatives of copyright law such as database protection,[2] (4) relevant trade secret law, including, for example, the contractual provisions included in a shrink-wrap license or the installation programs of computer software, and (5) exclusive grants of access to government information that may have the same effect.[3]

Competition law includes, of course, the economic principles regarded as embodied in the United States Sherman Act and Articles 85-86 of the Treaty of Rome. But this paper uses a somewhat broader scope. Most important, on the theoretical level, it naturally assumes that a consumer can be benefited by obtaining a product at a lower price, as reflected in traditional allocative principles of competition law, but it also assumes that a consumer can be benefited by a new generation of product. This effort to incorporate technological progress implies a view of the interface between intellectual property and competition law as one in which a balance must be made between market structures that benefit consumers through lower prices and market structures that benefit consumers through more sophisticated products. Moreover, there may be a need to balance between incentives that encourage one generation of product and incentives that encourage multiple generations of products.[4] And, on the practical level, the paper is indifferent as to whether a particular balance between intellectual property and competition principles is legally implemented in intellectual property law, in competition law, or elsewhere. For example, a judgement that the reverse engineering of software is legitimate (or not) may

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be implemented by saying that copyright law does not (or does) regard such reverse engineering as an infringement, or by saying that a contractual prohibition against such reverse engineering does (or does not) violate competition law principles.

Finally, for purposes of this paper, the international information sector is regarded as including all those sectors that reasonably directly affect the international flow of digitised information. The Internet and the materials circulated on it are certainly the central focus. But, among the factors directly affecting that system are the software industry more generally, the digitised information industries, the computer sector, and the international telecommunications sector.

In describing the paradigms, the paper begins with those directly deriving from the scope of intellectual property law, moves to those associated with tying and linkages from one market to another, and concludes with those associated with cross-licensing within an industry. But it first considers the special characteristics of *international* intellectual property/competition issues.

II. A little international background

Intellectual property rights are territorial. This makes it relatively easy to achieve market division, at least as a legal matter. One simply assigns licenses under US intellectual property rights to one firm and under, say, Canadian intellectual property rights to another firm, and each firm can use its rights to protect itself against imports from the other, United States v. Westinghouse Elec. Corp.[5] Within Europe, this market division is a primal evil, e.g. Nungesser v. Comm. (Maize Seed).[6] In a broader context, however, jurisdictional limitations make it very difficult for the competition authorities of a single nation to respond to the problem.[7] Globally, to the extent it can be made effective, it permits price discrimination, thus increasing the monopoly rent to the holder of the intellectual property right and also permitting a price discrimination in favour of poorer nations with more elastic demand curves. Looking ahead, the spread and growth of intellectual property rights will permit this type of market division to be more widely attempted, but the realities of international information flow may undercut the price discrimination. The result is likely to have implications for the rent available for an information entrepreneur and for the prices paid for information in the developing world.

What will also be seen is differential protection levels among different nations. In spite of the efforts of the international community exemplified in the TRIPS agreement,[8] there are likely to be infringement havens, in which information can be more freely put onto the Internet, broadcast, or widely copied. And there will also be nations or groups which deliberately build a stronger protection for one kind of information and may seek to favour the access of their own firms; Article 11 of the European Union's Databank Directive[9] is a clear example. Indeed, this is one of the reasons why the United States sought to push an international database agreement last year.

Many of the issues here are, of course, issues of policy and of efforts at harmonisation. There are very important questions as to whether internationally-harmonised intellectual property rights are likely to be more or less protective than those defined at a national level. The various interests are represented in quite different ways at the international level, and at the national legislative, administrative, and judicial levels. But there are also important competition policy questions: for example, should there be any form of defence available in competition law when a firm argues that it is severely hurt, in comparison to its international competitors, as a result of differential intellectual property standards or price differences maintained through territorial divisions based on intellectual property rights.

More broadly, the Uruguay Round clearly showed that those nations with strong intellectual property industries (including information industries) are interested in globally strengthening the level of intellectual property protection. This is a very rational response to a situation in which information and technology are becoming the fundamental form of wealth. This new mercantilism can also affect competition law: What are the risks that national prosecution authorities will shade competition law judgements to protect, not weaken, their own national firms' positions of global market dominance deriving from intellectual property rights? We are likely to face important and difficult questions that combine not just intellectual property and competition policies, but also trade policies.

III. The first paradigm: breadth of intellectual property Rights themselves

Every form of intellectual property right is a distortion of free-market principles. In the absence of intellectual property rights, one would be free to copy and market a patented invention or a copyrighted work, and the price of the work would become the marginal cost of the copying and production (a cost that, in the case of many information products, is tending to zero). We deliberately, however, prohibit such copying in order to permit an inventor or author to obtain a monopoly rent and thus create an incentive "to promote the Progress of Science and useful Arts,[10] — and one of the basic problems of intellectual property is to define a scope and term for this protection that offers a reasonable balance between the benefits of new products and works deriving from the incentive and the benefits of marginal cost pricing deriving from the freedom to copy.

Some aspects of this balance have relatively limited practical consequences — except in the case of a few specific products for example, there is little rational basis for arguing that the current patent or copyright terms are too long or too short and it would be very difficult to devise a helpful empirical study examining the value of longer or shorter terms in different sectors. (It does, however, seem absurd to have a 75-year copyright term for computer software![11]) However, some issues of the scope of intellectual property rights directly involve industry structure and therefore have profound competitive consequences, some of which can certainly be usefully explored in an analytical or empirical fashion. And national governments will be tempted toward a mercantilist position in these scope issues; the homes of the currently powerful international actors generally preferring options that favour the intellectual property incentives over competition.

One of the most important of these is the computer program reverse engineering issue mentioned above. Suppose the law clearly permits the owner of a computer program to prohibit decompilation and structural analysis of a computer program. This can be done by appropriately defining the scope of copyright coverage of a computer program, by prohibiting the marketing and use of the computer programs designed to defeat any forms of protection that might be built into the computer program to be analysed, or by permitting enforcement of shrink-wrap or similar contracts prohibiting decompilation.[12] Whatever the legal technique, the holder of the original program can use this prohibition to build a barrier against the ability of others to understand and improve on the program. This strengthens its market position and, of course, increases the incentives for writing such a program in the first place. Under this approach to the law, the software industry is more likely to be dominated by a few powerful actors and their power is likely to be less vulnerable to product improvement. Under an alternative approach, under which software engineers would tear apart other firm's programs and seek to develop and market improvements, there would likely be more firms, more new products, and more turnover among market leaders, and perhaps less incentive to invest. Not surprisingly, the larger, more established firms tend to prefer the stronger coverage; their smaller competitors would prefer the weaker coverage. Is there an economic basis for making this choice?

Another version of this paradigm is raised by the possibility that intellectual property rights might extend to standards. An obvious copyright example is Lotus Devel. Co. v. Borland Intern., Inc.,[13] in which the question was whether the commands used in a widely-sold spreadsheet program were protectible or not. If they had been held protectable under copyright, then the holder of this copyright would have been able to use the network externalities to protect its position against competitors whose program would require users to learn a new command set. By holding this standard not copyrightable, the US court permitted greater competition in the spreadsheet market, at the cost, of course, of incentives for writing such programs. Again, is there an economic basis for choosing one principle over the other?[14] The argument against extension of copyright exclusivity to protect standards is significantly stronger in cases in which the need to meet the standard is imposed not simply by personal choice (as in the case of the Lotus spreadsheet commands) but by interoperability concerns. Thus, there is probably a greater willingness to respond to competition concerns when an intellectual property right provides a mechanism of control over a standard adopted by an industry committee, as in the case of Dell Computer Corp., where the existence of the patent was not disclosed at the time the standard was negotiated.[15] This conflict has also been extensively debated within the European Telecommunications Standards Institute, where special procedures have been developed to try to balance the concerns of intellectual property rights holders and those who would be compelled by the standards to obtain a license from a particular rights holder. [16]

Other important examples of this paradigm of balancing incentives for research against the benefits of competition in defining an appropriate scope for intellectual property rights arise in the control of data and of databases. A straightforward example is the recent US case of National Basketball Assn. v. Motorola, Inc.,[17] which permitted use of a hand-held pager that supplied information about ongoing sports events with about a two to three minute lag and updated every two to three minutes, through reporters who watched the games on television or listened to them on radio. The court distinguished a 1918 case in which a news service was held not entitled to take information from a competing new service on a regular base.[18] The pager (or the reliance of one news service on another) provides a consumer benefit, but weakens the incentives for the developer of the initial information. Because there are still substantial investment costs in assembling a database, and because most nations' legal systems do not extend copyright law protection to information itself (as opposed to the expression of that information), there have been proposals, and some law, for sui generis coverage for databases. The new European Database Directive creates such a right in a form balanced in favour of the intellectual property interest. Much the same result was achieved by the court's reading of a form license agreement contained in the package in ProCD, Inc. v. Zeidenberg.[19] Although the Directive permits "extracting and re-utilising insubstantial parts of the [database] contents, [20] it poses concerns about the ability of a customer/competitor to develop applications that involve access to large portions of the database. For example, should a service that offers access to digitised weather maps be entitled to prohibit (or require a license from) a firm that combines the digitised data for a large area with certain of its own data and a proprietary computer program to provide precise long-range weather forecasts for a large area? Where is the best balance between the incentive for providing the original service and the benefits of more free use of the information assembled by the original service? And, should concepts of the political and intellectual benefits of access to information be taken into account in making the more specifically economic analysis?

IV. The second paradigm: leverage from one market to another

In the examples just presented, intellectual property rights strengthen a market position against later innovation, in a way that poses a balance between the incentives for the initial innovation and the benefits of the subsequent innovation. Parallel issues can arise with the use of power in one market to

leverage into a position in another market, and are likely to be crucial in the future international information industry. This industry is likely to see such rapid evolution in markets and products that the essential dynamic of competition will precisely be leverage from market to market. Moreover, dominant positions are likely to be common in specific subsections, because information products are likely, in general, to be expensive to create, and cheap to reproduce and distribute. And, as in the previous case, governments of nations with strong firms are likely to favour legal accommodations that strengthen the positions of those firms.

These are, of course, traditional competition law tying questions; yet they involve particular kinds of market structures and they affect the magnitude of the research/program writing incentives. Analysis of the role of intellectual property rights in conferring market power to be used in tying analysis has long been a staple of antitrust analysis.[21] In the information industry, the "classic" examples of this issue are the various arguments that have been made against Microsoft's use of its strong position in the personal computer operating system sector. Is it an antitrust violation if Microsoft creates operating system program features that make it significantly easier for a program user to obtain access to the Internet through a Microsoft interface? Or make it significantly easier for a Microsoft applications programmer rather than a competitor to produce a word processing program? Whether or not these linkages should be regarded as troublesome in the actual Microsoft context, there is a clear possibility that linkages of this type can be genuinely anticompetitive.[22] Admittedly, some of these linkages should be regarded as just mechanisms of obtaining a license fee in a way that can price discriminate and collect some of the surplus under the demand curve.[23] The markets involved, however, are responsive to much more than price, and a firm that can establish an early strong position in a market may be uniquely favoured against competitors. Learning curve effects may favour it as it amortises its research costs and reduces its product prices in a market that may last only a product cycle or two. Network externalities may favour it should the standards associated with its product gain market power through consumer familiarity or through third party reliance, as exemplified by the growth of Internet servers that use specific features linked with a particular Internet connection program.

Another version of this leverage paradigm is exemplified by the Sabre case, in which American Airlines was found not to violate antitrust law in using its computerised reservation system as a way to favour presentation of American flights to travel agents.[24] Similarly, as analysed by the European Court of Justice, the leading European case directing compulsory licensing was an extension of power from one information market (that for television program information) to a different market (that for compiled program information including data on all stations).[25] More generally, to what extent can or should intellectual-property based control over an information resource be used to leverage power in a product market? As the information economy grows, and comes to include more and more information of commercial value (including database information), control of databases may amount to significant market control. When can internal databases be used this way? What about exclusive agreements between a database firm and a commodity economy firm?

These are closely related to questions in which the market power giving rise to the leverage derives from regulated monopoly access to specific markets. Such access is certainly not the same as an intellectual property right, but the difference may not be great, and may sometimes be narrowing. The classic example of the use of power derived from a regulatory monopoly is posed in the litigation over the break-up of AT&T.[26] The concern is that a firm with a regulatory-based monopoly controlling access to consumers that is allowed to offer a service in a related market, e.g. value-added services, will be in a position to discriminate against other firms in providing access to consumers or to cross-subsidise between the regulated and the unregulated sectors of its operation. Perhaps the competition being created in the United States at this level[27] will eliminate the issue in the specific instance; yet not all the world is regulating telecommunications in the same way as the United States. Moreover, the telecommunications

industry is concentrating globally, as many national telecommunications operations are being bought by multinational telecommunications firms. And there are national differences in analysis. In analysing the British Telecommunications-MCI joint venture, Europe emphasised a potential competition analysis looking to the protection of competition in the market being entered by the joint venture,[28] while the United States emphasised the risk that the relationship might disadvantage other firms in their interconnections to the British market.[29] It would be very surprising if there were not many such questions in the future and if some did not involve monopoly positions more closely viewed as intellectual property rights.

V. The third paradigm: pools and cross-licensing

A final concern is posed by the issue of very fundamental and far-reaching patents on methods of doing business and on software design features. Examples of these include patents on a system of multiple interactive self-service terminals that provide audio-visual sales presentations and dispense goods and services from multiple institutions,[30] and on a uniform system for verifying and tracking articles of value.[31] Because of the character of software, some of these patents may read on essentially all activities within a specific sector.

Conceivably, in a few cases, these intellectual property rights will be used in an effort to monopolise the sector — or there will at least be issues of evaluating mergers that bring together important combinations of patent rights. In addition to raising competition law questions, these will involve questions whether monopoly is acceptable in an area that affects the flow of information and the ability to participate intelligently in the political process.

But the more likely use of such basic patents is exemplified by the semiconductor sector (which is certainly at the edge of the information industry). This is the likelihood of formal or informal cross-licensing. It is at least a reasonable hypothesis that the participants in the semiconductor industry all hold patents that all other members of the industry infringe. Firms respond quite understandably through explicit cross-licenses. Sometimes, they may instead simply choose not to sue others for infringement because of fear of countersuit; such an arrangement is essentially a tacit cross-license. So far, whether there is a competition law problem depends on whether the terms of the cross-licenses significantly reduce incentives for research (as for example were there an agreement among all industry leaders to cross-license all future technologies).[32] The issue comes if the patent rights -- many of which are rarely used against one another -- are used to prevent entry by new firms into the business.[33]...(Note that the cost of litigation is an entry barrier, so that the patents can be economically effective even if they are legally invalid.) Is this simply a protection of an oligopoly rent that can be viewed as a reward for past research and incentive for future research? Or is it the use of a patent structure to create barriers to entry and protect an oligopoly in a way that should not be accepted because the barriers to entry bear little actual relationship to research incentives?[34]

If this interpretation accurately characterises the semiconductor industry, this very puzzle will have important direct effects for the international information industry, because many forms of information may well end up embedded on chips made by the industry (or other products made by a similarly organised industry), and the possibility of information-firm entry into certain sectors may be affected by this patent and licensing structure. Moreover, whether or not this interpretation is exemplified in the semiconductor industry, it is plausible in many software sectors, as the number and scope of basic software patents lead to the same pattern of mutual infringement. In the software case, in contrast to the semiconductor case where there are substantial capital costs to entry, the intellectual property barrier might even become the fundamental way of preventing entry into a sector in which we might well want

much more competition. And in all these cases, there may be international enforcement issues, for the members of the formal or informal cross-license will be spread among several nations.

VI. Conclusion

These intellectual-property v. competition-law issues -- defining an appropriate scope for intellectual property rights, dealing with use of such rights as part of a tying/leverage relationship between markets, and dealing with sophisticated cross-license situations — are not fundamentally new in concept. They have all been raised before in competition law doctrine. Yet, the analysis must go well beyond the insight that many license provisions that were once regarded as anticompetitive are better regarded simply as reasonable ways to collect a monopoly rent. The markets are more complex and dynamic and the importance of entry barriers such as learning curves and network externalities too great. Moreover, in international markets, the nation with the most clear legal authority may have mercantilist disincentives to act.

The stakes for global freedom of access to information are enormous. Solid economic analysis would be highly beneficial, and the plausibility of the paradigms suggests that they may define an appropriate agenda for discussion in new international competition law arrangements.

NOTES

1. George E. Osborne Professor of Law, Stanford Law School

2. E.g. Directive 96/9 of the European Parliament and of the Council, of 11 March 1996 on the legal protection of databases, OJ No. L 77/20, 27.3.96.

3. E.g., exclusive access to *digitized* nautical charts, *DeLorme Publishing Co. v. National Oceanic and Atmospheric Administration of the U.S. Dept. Of Commerce.* 917 F.Supp. 67 (D. Me. 1996).

   Although they constitute an extremely important form of intellectual property right, and are used extensively in the computer/software sector, I do not include trademarks in this list, because they raise economic question very different from those raised by the forms listed.

4. E.g., J. Barton, "Patents and antitrust; A rethinking in light of patent breadth and sequential innovation," Antitrust L.J. (Forthcoming); R. Merges & R. Nelson, "Market structure and technical advance: The role of patent scope decisions," in T. Jorde & D. Teece (eds), Antitrust, Innovation, and Competitiveness 185 (1992); S. Scotchmer, "Standing on the shoulders of giants; Cumulative research and the patent law," 5 J. Of Econ. Perspectives 29 (1991).

5. 648 F.2d 642 (9th Cir. 1981).

6. ECJ 258/78 (1982).

7. See, e.g. *United States v. Imperial Chemical Industries*, 1954 Trade Cas ¶ 67,739 (S.D.N.Y., 1954) (U.S. court allowing restrictions on ICI imports into U.S., following unsuccessful effort to free U.S. competitor's exports to U.K.).

8. Uruguay Round Agreement on Trade Related Aspects of Intellectual Property Rights (1994).

9. Supra.

10. U.S. Constitution, Art 1, § 8.

11. 17 U.S.C. § 302.

12. See, e.g., European Directive 91/250 on the legal protection of computer programs, OJ 1991 L122/42, 14 May 1991) (software directive permitting decompilation under certain circumstances); and *Sega Enterprises v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992), *amended* 1993 U.S. App. LEXIS 78 (1993) (dicta interpreting copyright law to permit decompilation as part of reverse engineering).

13. 49 F.3d 807 (1st Cir. 1995) aff'd by an equally divided Court 116 S.Ct. 804 (1996).

14. For a proposal for context-dependent protection to respond to this concern, see L. Burgunder & C. Heckman, "An emerging theory of computer softweare genericism," 2 High Tech. L.J. 229 (1988).

15. Federal Trade Commission, Consent Decree, 60 *Fed. Reg.* 57870, Nov. 22, 1995.

16. *Re: The European Telecommunications Standards Institute (ETSI) Interim Intellectual Property Rights Policy*, [1995] 5 C.M.L.R. 352 (E.C. Comm. 1994).

17. 1997 U.S. App. LEXIS 1527 (2d. Cir. 1997).

18. *International News Service v. Associated Press*, 248 U.S. 215 (1918).

19. 86 F.3d 1447 (7th Cir. 1996).

20. Directive, supra Art. 8(1).

21. E.g. *Digidyne v. Data General Corp.*, 734 F.2d 1336 (9th Cir. 1984), *cert denied* 473 U.S. 908 (1985); 35 U.S.C. § 271(d)(5).

22. See, e.g., M. Lemley, "Antitrust and the internet standardication problem," 28 Conn. L. Rev. 1041 (1996).

23. For valuable insights, see G. Lunney, "Atari Games v. Nintendo: Does a closed system violated the antitrust laws?" 5 High Technology L. J. 29 (1990).

24. *Alaska Airlines, Inc. v. United Airlines, Inc.*, 948 F.2d 536 (9th Cir. 1991).

25. *Radio Telefis Eiranne v. Commission*, C241/91 & 242/91, 6 April 1995.

26. *United States v. American Telephone and Telegraph Co.*, 552 F.Supp 131 (D.D.C. 1982), *aff'd mem. Sub nom., Maryland v. United States*, 460 U.S. 1001 (1983).

27. Telecommunications Act of 1996, P.L. 104-104, Feb. 8, 1996.

28. *Re British Telecommunications plc and MCI*, [1995] 5 C.M.L.R. 285 (E.C. Comm 1994).

29. *United States v. MCI Communications Corp.*, 1994-2 Trad.Cas ¶ 70,730 (D.C.D.C. 1994) (consent decree).

30. U.S. Patent 4,567,359, considered in *Lockwood v. American Airlines*, 1997 U.S. Appl LEXIS 3830 (Fed. Cir. 1997).

31. U.S. Patent 5,521,815, May 28, 1996. See generally M. Lubbock, "Intellectual property protection for financial and othere service industry products," [1996] E.I.P.R. 249 (May 1996).

32. See *United States v. Automobile Mfrs. Ass'n*, 1969 Trad.Cas. ¶ 72,907 (C.D. Cal. 1969; 1982-83 Trade Cas ¶ 65,008 (C.D. Cal 1982) (automotive emissions control technology).

33. E.g., *Intel Corp. v. ULSI System Technology, Inc.*, 995 F.2d 1566 (Fed. Cir. 1993); *Intel. Corp. v. U.S. Int'l Trade Comm.*, 946 F.2d 821 (Fed. Cir. 1991). The exception is Texas Instruments which broke with the pattern and brought suit against established competitors, e.g., *Texas Instruments v. U.S. Int'l Trade Comm.*, 988 F.2d 1165 (Fed. Cir. 1993).

34. For examples of the difficult analysis here, see, e.g., *United States v. Singer Mfg. Co.*, 374 U.S. 174 (1963); *Carpet Seaming Tape Licensing Corp. v. Best Seam, Inc*, 616 F. 2d 1133 (9th Cir. 1980).

THE IMPACT OF CONTEMPORARY PATENT LAW ON PLANT BIOTECHNOLOGY RESEARCH*

by John H. Barton[1]

This presentation examines the implications of current trends in the patent law of biotechnology for plant agriculture. The first part reviews several recent developments in the application of intellectual property protection to plants. The second part examines current litigation over plant biotechnology. The third part examines implications for the structure of the agricultural biotechnology industry and describes the mergers affecting that industry. The final part considers appropriate public sector responses.

Current intellectual property developments

The precise character of plant-oriented regular patents depends on the details of the national system and on the limitations it places on patents in the biological area. The possibilities in the United States are among the most broad. Here, it is possible to obtain a patent on a gene and its application in a plant, on a plant itself, and on basic processes and inventions.

Patents covering a gene and transformed plants utilizing the gene are frequently written with a number of claims. These may cover, for example, an isolated or purified protein, the isolated nucleic acids having a sequence that codes for the protein, plasmids and transformation vectors containing the gene sequence, plants (or seeds for such plants) transformed with such vectors and containing the gene sequence, and the progeny (or seeds) of such plants. This claim structure protects the patent holder against use of the gene by another biotechnologist, but leave anyone free to use and breed with organisms containing the gene naturally. From the business perspective, such claims are essential to obtain effective control of agricultural biotechnology use of the gene, and to keep a third party from crossing the inserted gene into a different variety and marketing that variety.

(The plant containing the gene naturally is not "novel" for the purposes of the patent law.)

Another patent pattern covers finished plants. It is possible to obtain claims covering broad groups of transgenic plants, as exemplified by the Agracetus patents on all transgenic cotton and all transgenic soybean plants. The breadth of such patents is extremely significant and has been the subject of severe criticism and significant debate. In the United States, it is possible to obtain not only broad patents but also claims on a specific variety identified by a description or a deposit, e.g. on a specific hybrid corn plant. Such claims are designed to make it impossible for another to breed with the material — for the claims can reach the use of the material as a parent — and thus provide a way to protect an important line, such as the inbreds used as parents of a hybrid. This use of the regular patent system,

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almost certainly correct under *Diamond v. Chakrabarty*, 447 U.S. 303 (1980) — and unlikely to be accepted elsewhere in the world -- provides a way to protect a variety from use for breeding and from reuse by farmers, and thus to avoid these provisions of the Plant Variety Protection laws.

As will be seen in the discussion of litigation, the most important (and probably least criticized) category of patents involves basic processes and inventions. Here, there are many extremely important patents, covering, for example, transformation processes, specific promoters used in agricultural applications, the use of virus coat proteins to confer resistance, and anti-sense technology. The variety and scope of these are so broad that it is becoming very difficult to develop new transgenic plants without infringing one or another of these patents. Many of these patents are likely to be available in almost any legal system, so the coverage in any specific nation will depend primarily on where the inventor has chosen to file.

Firms are also attempting to supplement plant variety and patent protection by using contractual provisions to prohibit "reverse engineering" of the material they sell to farmers. When one buys the seeds, the label or the reverse of the sale bill contains a restrictive provision, whose key relevant language is that the material will not be used for breeding. The legal effectiveness of this approach is subject to debate. First, there is a question whether this mechanism of achieving contract agreement is effective, and there are cases on both sides of the issue in such contexts as warranty disclaimers on herbicides. Second, there has been a tradition in U.S. law that one has a right to "reverse engineer" products that are commercially marketed, reflecting a sense that maintaining this right permits more rapid scientific advance. Hence, it is possible that, even if they would otherwise be enforceable under contract law principles, these agreements are unenforceable because preempted by federal standards on intellectual property protection (or, in other legal systems, by a competition law provision). The leading recent Supreme Court case, *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989), struck down a state statute prohibiting the use of direct molding processes to copy boat hulls, on the theory that the state statute "conflicts with ?strong federal policy favoring free competition in ideas which do not merit patent protection.'" Nevertheless, in 1996, a federal judge in the U.S. Midwestern area upheld a restrictive provisions governing use of a CD-ROM containing an uncopyrightable database, *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996). Much of the new case's logic could be applied by analogy to the seed labels -- but will not necessarily be followed in seed contexts.

The Uruguay Round brought a new international standard to intellectual property protection. The traditional intellectual property treaties incorporated some, but relatively weak, minimum standards of protection that had to be satisfied by a member nation's intellectual property system. The Uruguay Round's Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods establishes more severe standards, particularly in the biological area. Its Article 27 states that "patents shall be available for any inventions, whether products or processes, in all fields of technology," but permits members to "exclude from patentability" inventions whose exploitation must be prevented "to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment." The Article permits members to exclude from patentability "plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof." Again, most nations are parties, but the agreement gives nations a number of years (up to 10 years for the least developed countries) to bring their systems into compliance. Nations are now moving to comply with this requirement; if they do not so, they can be subject to trade sanctions under the World Trade Organization's dispute settlement system. There is a procedure for

review of the obligations governing plants and animals four years after TRIPS enters into force; thus the review will be in 1999.

Current litigation developments

For many years, patent litigation in the agricultural biotechnology appeared unlikely — after all, the costs of litigation are enormous and the sums available in marketing seeds are relatively small compared with those available in the pharmaceutical industry. This has radically changed, as indicated by Chart I.[2] The patents involved are listed and described in Chart II.[3]

A study of the litigation suggests two kinds of disputes. In one, exemplified by the early litigation between Boehringer and Mycogen, the key issue involved a relatively narrow patent, e.g., one on a specific strain of Bacillus thuringiensis. This is the type of litigation that many of us expected as the first patents were being filed. A firm would develop a specific Bt line or sequence a particular gene; patent rights over use of that line or gene would provide the exclusivity that would be an incentive for research. Under this kind of patent, the farmer and the society would have the benefit of a number of seed companies that would assemble licenses to create competing combinations of novel genes and traditional-bred background material. The litigation to enforce such patents is precisely what is necessary to make the incentive work. This is also the way the patent system is currently working in the pharmaceutical area, where the typical current patent dispute is between several firms that had been in a race to develop the same product.

What we are seeing in most of the other cases, however, is a very different type of litigation. — essentially the use of patents that cover an entire market in an apparent effort to drive all competitors out of the market (or at least to create a strong negotiating position for a licensing arrangement). It is useful to examine certain of the disputes with some care in order to clarify what is really happening and how to respond. Three examples are appropriate: the use of Bacillus thuringiensis (Bt) in crop plants, the recoding of the Bt gene for better expression in plants, and the use of antisense technology in crop plants.[4]

Four firms are asserting broad rights over the use of Bt in crop plants in the current litigation. Mycogen's 1983 disclosure describes the use of Bt in plants (as well as recoding), but provides specific details only of cloning Bt rather than of actual insertion into plants. The resulting patents include very broad claims over use. PGS (now part of AgrEvo) also holds broad claims on transformation vectors that enable expression of Bt toxins. These are based on a 1985 disclosure which describes insertion of Bt into tobacco plants. Novartis bases claims for use of Bt in corn on a 1987 disclosure, which describes several techniques of inserting a Bt gene into corn itself. And Dekalb bases its claims on a 1990 disclosure, which describes insertion of a Bt gene into corn using microprojectile methods.

Traditional principles of priority or invalidity may affect the competing claims of Novartis and Dekalb as to insertion of Bt into corn itself. And it is possible that PGS might have rights over its transformation vector method that are in addition to and separate from another firm's over corn transformed corn with Bt. But two special issues stand out as characterizing the agbiotech patent area: First, how broad a group of claims should be granted on the basis of successful transformation of one organism with one gene. For example, should insertion of Bt into a tobacco plant be a basis for claims over corn? Put more broadly, how should the patent system respond to the analogical character of agricultural biotechnology? Second, in a research sequence moving from relatively abstract idea to detailed implementation, who should have what rights? Mycogen discussed the general concept of Bt use in the earliest disclosure; later PGS showed how to do it in tobacco, while still later Novartis and Dekalb

did it in corn itself. Is there a particular point of implementation that should be the basis for patenting in such a context (as gene sequencing has informally been for gene patents), or should several or none of the firms have rights in such a progress from general to applied?

The recoding issue provides another example of this second question.[5] Mycogen's 1983 filing presented charts comparing codon usage frequencies in plants and in Bt and described ways to modify a Bt gene to use the preferred codons. Monsanto's 1989 filing described a number of apparently different modifications to achieve the same goal and also presented experiments demonstrating expression in tobacco, tomato, cotton, and corn. Again, there may be traditional questions, e.g. Mycogen and Monsanto may have discovered different ways of modifying the codons. But the cases certainly reveal another example of the general question of the more abstract earlier filing as contrasted with the later filing supported by more directly relevant experimental data.

The antisense issue is still another example of the sequence from abstract to concrete. Here, three firms are in litigation. Patents, now held by Enzo, were first filed by the State University of New York in 1983. They describe a way to use inverted sequences to modify gene expression, describe experiments with E. coli, and broadly claim all artificial genes and applications that include an inverted sequence. They are the basis of Enzo's current litigation with Calgene, in which Calgene won a ruling that the Enzo patents were invalid, but the ruling was withdrawn.[6] The same withdrawn decision upheld Calgene's patent, a patent based on use of antisense in plants and claiming application in that context. In addition, Calgene has filed (and is reported to have lost) an opposition against an Enzo patent in Europe.[7] Further, Calgene has just lost (at the appellate level) an interference dispute with Agracetus. (This dispute arises at the pre-patent stage, so that issued patents are not yet available.) What was at stake was a claim to virus-resistant plants, in which the virus-resistance was based on a "negative strand RNA complementary to viral RNA," and the legal issue, won by Agracetus, was whether a 1984 laboratory notebook entry was adequate collaborating evidence, *Kridl v. McCormick*, 105 F.3d. 1446 (CAFC 1997). (This specific dispute will probably be settled, now that Agracetus and Calgene are part of the same corporate family.) The broader issue that appears to be posed by the antisense example is again: in a sequence from abstract conceptions to concrete implementation and success, where should rights be assigned?

Implications for the structure of the Industry

The litigation examples suggest that there are so many such broad and fundamental patents that, in essence, every major actor may be violating a patent held by every other major actor. This is clearly not going to be simply a United States issue but a global issue. Most of the kinds of patents at issue in this litigation are available in most national legal systems. Indeed, as shown in the patent chart, some of the patents have counterparts in even developing nations, such as Brazil or China.

At this point, the conflicts among the actors in biotechnology are still being fought out in court. The courts, however, are unlikely long to remain the central agency of conflict resolution. In a pattern typical in other industries, business almost always finds it better to resolve these disputes by agreement. The agreement can be an explicit cross-license, under which each firm permits its cross-licensee to use certain of its own basic technologies in return for the right to use the cross- licensee's basic technology. It can be an implicit cross-license in which the possibility of a suit is countered by the threat of a counter suit, leaving each party relatively free to use the other party's technology. In this context -- and the point is extremely important for a firm's intellectual property strategy -- it may be as important for a firm to obtain patents that others are likely to infringe as to obtain patents to protect its own proprietary position.

Moreover, as exemplified in the analogous situation in the semiconductor manufacturing industry, litigation incentives become quite perverse. There is more incentive to sue outsiders seeking to enter the industry that to sue other major participants, for these major participants can reply in kind. And a firm that is losing market share is the most likely to sue its competitors, for it has the least to lose.

The ultimate cross-license is the merger. Consolidation has been taking place within the agricultural biotechnology industry at an amazing pace, as shown in Chart III. These acquisitions and mergers are designed primarily to obtain access to the underlying technology, which is only partly embodied in a patent portfolio. Thus a Monsanto executive described the full acquisition of Calgene as a way to "promote the closer working relationships and the greater sharing of technologies that are only possible with full ownership of the company.[8] The patents facilitate this process and increase the value of the acquired firm, as exemplified by the amount ($550 M for 75 percent of the company) paid for PGS.[9]

Evaluation and implications

Significant concentration of the industry appears to have been supported by the existence of a number of overlapping and competing broad patents. The concentration is almost certainly unhealthy. The counterargument is that these large firms will be able to raise capital more readily than the small firms that recently made up the industry. The existence of an oligopoly gives the firms some pricing freedom, and thus the ability to recover their research expenses. Moreover, it is, arguably, precisely the promise of this industry structure that makes it ultimately possible for small businesses to be sold for large amounts, and therefore for investors to make initial investment in the small firms.

Nevertheless, there are serious risks in domination of the industry by a small number of firms. The issue is not one of control over prices. This is obviously a possibility, but the consolidation of biotechnology-based agricultural research is <u>not</u> in general a consolidation of traditional-breeding based research. The price chargeable for the new products is therefore limited to the price of seeds based on traditional breeding plus a markup that can be only a portion of the benefit to the farmer of the more advanced materials.

Rather, the situation may be a recipe for declining incentives for research. The incentives for the industry leaders to conduct research are now limited, for these leaders are in an oligopolistic (and potentially monopolistic) situation. And new smaller firms (who are generally the most important source of innovation) may now find it impossible to enter the business, because they face the assembled patent rights of the industry leaders and possibly also face contract restrictions on access to marketed materials that would once have been available for further breeding. Certainly some of the patents would be struck down during litigation, as may be controls on breeding materials, but the expense of litigation is itself a significant problem for many firms, as are the possibilities that litigation threats might be directed against customers.

The important policy issue for the United States and the world is to define ways to reverse this trend toward oligopoly, while maintaining the strength of intellectual property incentives to encourage research. In the patent context, this requires facing the hard issues posed by the examples. Considering biotechnology's infinite capacity for analogy, how broad should claims be? And, in a research sequence from the abstract to the specific, who should have what rights?

These two questions can best be answered together, and several patent-law directions should be considered. One is a stronger non-obviousness principle. This would limit the extent to which a firm

could obtain a patent on concepts and approaches that were being widely considered at the time. This would also reduce the total number of patents and therefore decrease the rate at which an industry can move into a closed cross-license structure. It would also decrease the ability of well- financed firms to force a cross-license from a competitor by "flooding" an area with minor patents, a possibility that is particularly serious in legal systems, such as the Japanese, that have a nearly trivial inventive step requirement. At the same time, it would still favor and encourage major innovation.

Second, in an industry such as biotechnology in which analogous applications are so easy to conceive, the scope of patent claims must be reasonably limited. Under current law, it is a function of enablement, i.e. whether the research disclosed in the patent permits doing everything claimed in the patent "without undue experimentation," and the burden of proof is currently on the patent office to show that enablement has not occurred. The claims in agricultural biotechnology might also reasonably be narrowed to reflect the importance of the disclosure: even if a further step in the application of well-known tools might provide the basis for a narrow patent, it should not provide the basis for a broad patent. And, certainly, a scientific surprise, as I believe was the case for antisense, would deserve broader coverage than movement along well-understood and expected lines.

Third, the inventor of a process of obtaining a plant with certain desirable properties might be given rights over plants obtained with that method, but not over plants with the same properties obtained with fundamentally different methods. For chemicals, it may have been reasonable to give a synthesizer rights over a new chemical even if that chemical was made in a different way; a plant with a new property created in one way is normally not the same as a plant with the same property created in a different way.

Other approaches include using a utility principle to avoid patents that preempt a large area of research, and creating strong experimental use exemptions. And in the broader intellectual property context, patent claims or trade secret principles should not be usable to prevent breeding or research with the marketed product of a firm's research (while patent rights might still sometimes provide a basis for claims for a right in the new materials developed from such marketed products).

There is clearly an antitrust concern if the business response to a number of interlocked fundamental intellectual property rights leads inexorably to an industry dominated by a small number of firms; and the rights appear then to be more useful in preventing entry than in encouraging research. One response is carefully to consider the anti-innovative effects of assembling several firms' research capabilities when deciding whether or not to approve a merger. A merger of firms working at the basic research level may not actually reduce competition in any specific current market but may still weaken the combined firm's incentives to conduct research toward products for future markets. We would not want one firm to control all plant transformation techniques.

Cross-licenses themselves are not generally anticompetitive or antiinnovative, but, may sometimes be so. Some combinations or cross-licenses of patent capabilities -- such as of mutually blocking patents -- are essential to permit easy marketing of a product. Cross-license terms, however, may affect incentives for further research. A license of current patents leaves incentives for further research intact, while an agreement to license future patents decreases that incentive. And license provisions that affect participant's ability to license to third parties may affect the ability of new firms to enter the industry, and thus protect the industry leaders.

This issue of entry by new firms is probably the most important and also the most difficult. A patent is useless as an incentive unless it can sometimes be used to bar competitors. At the same time, in a concentrated industrial structure, the patent may have more economic value in deterring entry than in incenting invention, and this is not a desirable result. The concentrated structure may present outsiders

with a nearly impossible task of assembling the licenses that are readily shared within the inner group. And, the inner group may be able to finance successive litigation over a variety of patents in order to bar a newcomer from the industry. It may therefore be desirable to apply patent-misuse or antitrust concepts to allow an outsider a defense against patent infringement actions, in some circumstances in which the technology involved is already freely licensed (explicitly or implicitly) among the major competitors of a concentrated industry, but is not offered on reasonable terms to other firms.

CHART I

AGBIOTECHNOLOGY PATENT LITIGATION
(BT unless otherwise noted)

PARTIES	DATE AND COURT	PATENTS	SOURCES AND REMARKS
Boehringer v. Mycogen	SD CA, Feb. 4, 1991	4,766,203; 4,973,676	Settled 1992, Biotechnology Newswatch, Sept. 7, 1992
X. v. Agracetus	PTO reexamination	5,004,863; 5,159,135	All transgenic cotton; several objectors
X. v. Agracetus	European reexamination	Euro O 301 749 B1	All transgenic soybeans
Enzo v. Calgene	1993 and 1994, Delaware (first filed on date of patent	5,208,149	Replicative antisense; 1 Nature Medicine 389 (May 1995); Science (may 5, 1995); Enzo patents declared invalid on Feb 2. 1996 (Calgene 10-K, March 31, 1997)
Calgene v. Enzo	European opposition	EP-B1 0140 308	Antisense; Enzovictory; April 7, 1987, Bioworld Today
Mycogen v. Monsanto	Interference declared Feb 28, 1994	App. 06/535,354 on Bt insect resistant tomatos	Mycogen 10-Q, April 9, 1997
Monsanto v. DNAP	USDC Del., May 4, 1995 DNAP countersuit in CA		Settled Aug. 14, 1995. Monsanto press release at www.monsanto.com
Mycogen v. Monsanto	May 19, 1995, SD CA (San Diego)	5,380,831	1995 U.S. Dist LEXIS 20383; Monsanto 10-K March 24, 1997
Mycogen v. Monsanto	Aug 27, 1995, PA	5,380,831	1996 LEXIS 2264

PARTIES	DATE AND COURT	PATENTS	SOURCES AND REMARKS
PGS v. Mycogen & Ciba	Oct 31, 1995, CD NC	5,254,799; 5,545,565 added on Aug 13, 1996	Mycogen 10-Q, April 9, 1997; and 933 F. Supp 514 and 519
Mycogen v. PGS	Oct 31, 1995, SD CA	5,317,096	Data from patent
Pioneer v. Monsanto	Interference		Coat protein; 41 U.S.P.Q. 2d 1 158
Calgene v. Agracetus	Interference		Antisense; 105 F. 3d 1446 favorable to Agracetus
Monsanto v. Mycogn & Ciba-Geigy	March 19, 1996 DC Del	5,500,365	Oct 27, 1996 Dubuque Telegraph Herald
DeKalb v Pioneer, N.K, Ciba Mycogen	April 30, 1996 ND IL Rockford, II, and July 23, 1996, also sui against smaller seed companies in Aug in SD IN	5,538,877; 5,538,880; 5,484,956; 5489,520; added 5,550,318 on Aug 27, 1996	Oct 27, 1996 Dubuque Telegraph Herald; total of 5 lawsuits v. Pioneer (Pioneer 10-Q, April 11, 1997); Mycogen 10-Q, April 9, 1997
PGS v. DeKalb	Oct 1, 1996, DC CN.	5,561,236	DeKalb 10-Q, April 10 1997
Mycogn v. Monsanto	Aug 15 DC Del; interference		Protoxin gene; Int'l. Pty Litig Rptr, Sept 11, 1996 Mycogen 10-Q April 10, 1997
Mycogen v. Monsanto	Oct 22, 1996, DC Del;	5,567,862;5,567,600	DeKalb 10-Q, April to, 1997; Mycogen 10-Q, April 9, 1997

PARTIES	DATE AND COURT	PATENTS	SOURCES AND REMARKS
Norvatis v. Monsanto, Dekalb	Jan 21, 1997;DC Del	5,595,733 (jan 21, 1997)	Mealey's Litig Repts, Feb 17, 1997 DeKalb 10-Q April 10, 1997
Mycogen v. Ecogen	Jan 21, 1997, SD CA	5 126, 133; 5,188,960	Data from patents
Novartis v. Pionner	Feb. 1997, DC MN	5,595,733	Mealey's, supra;

CHART II

AGBIOTECH PATENTS IN LITIGATION

HOLDER	NUMBER AND DATE ISSUED	DATE FIRST FILED	IMPORTANT CLAIMS AND ISSUES
Mycogen	5,380,831 Jan 10, 1995	Sept. 26, 1983	Synthetic insecticidal crystal protein gene
Mycogen	5,567,862 Oct 22, 1996	Sept 26, 1983	Synthetic insecticidal crystal protein gene
Mycogen	5,567,600 Oct 22, 1996	Sept 26, 1983	Synthetic insecticidal crystal protein gene; coding sequence modification for better expression; broad claims based on theoretical analysis and deposited strain; ?831 covers method for Bt, ?600 covers a specific group of modifications for Bt; ?862 covers transformed cells and plants; foreign counterparts include China
Enzo (SUNY)	5,190,931 Mar 2, 1993	Oct. 20, 1983	Regulation of gene expression by employing translation inhibition of MRNA utilizing interfering complementary MRNA
Enzo (SUNY)	5,208,149 May 4, 1993	Oct 20, 1983	Nucleic acid constructs containing stable stem and loop structures

HOLDER	NUMBER AND DATE ISSUED	DATE FIRST FILED	IMPORTANT CLAIMS AND ISSUES
Enzo (SUNY)	5,272,065 Dec 21, 1993	Oct 20, 1983	Regulation of gene expression by employing translational inhibition of MRNA utilizing interfering complementary MRNA; ?931 includes broad claims to constructs with an inverted sequence and to cells containing, ?149 covers polypeptides both both inverted sequences and certain other sequences, ?065 covers methods for a variety of applications
Boehringer Mannheim	4,766,203 Aug 23, 1988	Dec 14, 1984	New strain of Bacillus, a toxin derived thereof and a composition for combating Coleoptera
Boehringer Mannheim	4,973,676 Nov 27, 1990	Dec 14, 1984	Plasmids, genes and DNA expressing a bacillus thuringiensis protein toxic to coleoptera and bacteria transformed thereby; based on specific Bt strain; ?203 covers toxins and use; ?676 covers plasmids and transformed bacteria
PGS	5,254,799 Oct 19, 1993	Jan 18, 1985	Transformation vectors allowing expression of Bacillus thuringiensis endotoxins in plants
PGS	5,317,096 May 31, 1994	Jan 18, 1985	Transformation vectors allowing expression of foreign polypeptide endotoxins from Bacillus thuringiensis in plants.

HOLDER	NUMBER AND DATE ISSUED	DATE FIRST FILED	IMPORTANT CLAIMS AND ISSUES
PGS	5,545,565 Aug 13, 1996	Jan 18, 1985	Transformation vectors allowing expression of foreign polypeptide endoxins from Bacillus thuringiensis in plants; based on Agrobacterium transformation of tobacco plants with Bt gene; ?096 covers a gene; ?565 covers a number of transformation constructs, and ?799 covers the transformed plant
Calgene	5,107,065 Apr 21, 1992	Mar 28, 1986	Anti-sense regulation of gene expression in plant cells; plant claims based on application in plants
Agracetus	5,004,863 Apr. 2, 1991	Dec 3, 1986	Genetic engineering of cotton plants and lines
Agracetus	5,159,135 Oct 27, 1992	Dec 3, 1986	Genetic engineering of cotton plants and lines; based on transformation of cotton; ?863 covers method and ?135 covers plants and seeds; foreign counterparts include Brazil
Agracetus	Euro 0 301 749 B1		All transgenic soybeans
Novartis	5,595,733 Jan 21, 1997	May 20, 1987	Method for protecting ZEA Mays plants against pest damage; based on inserting Bt into corn; claims cover use of Bt in transformed corn cells as method of controlling insects
PGS	5,561,236 Oct 1, 1996	Nov 5, 1987	Genetically engineered plant cells and plants exhibiting resistance to glutamine synthetase inhibitors, DNA fragments and recombinants for use in the production of said cells and plants; foreign filings include Brazil

HOLDER	NUMBER AND DATE ISSUED	DATE FIRST FILED	IMPORTANT CLAIMS AND ISSUES
Monsanto	5,500,365 March 19, 1996	Feb. 24, 1989	Synthetic plant gene; coding sequence modification for better expression; based on experiments with Bt in tobacco, tomato, cotton, and corn; foreign counterparts include Brazil
Mycogen	5,126,133 Jun 30, 1992	Jun 27, 1989	Bacillus thuringiensis isolate active against lepidopteran pests, and genes encoding novel lepidopteran-active toxins
Mycogen	5,188,960 Feb. 23, 1993	Jun 27, 1989	Bacillus thuringiensis isolate active against lepidopteran pests, and genes encoding novel lepidopteran-active toxins; based on inserting gene into bacteria and noting that it can be inserted into plants; ?960 covers gene and sequence and ?133 covers process of using.
Dekalb	5,484,956 Jan 16, 1996	Jan 22, 1990	Fertile transgenic Zea mays plant comprising heterologous DNA encoding Bacillus thruingiensis endotoxin
Dekalb	5,538,877 July 23, 1996	Jan 22, 1990	Method for preparing fertile transgenic corn plants
Dekalb	5,538,880 July 23, 1996	Jan 22, 1990	Method for preparing fertile transgenic corn plants; based on transforming corn with microprojectiles; ?956 covers transformed plants, ?877 covers transformation process with callous, and ?880 covers transformation process with other regenerable tissues; foreign counterparts include China

HOLDER	NUMBER AND DATE ISSUED	DATE FIRST FILED	IMPORTANT CLAIMS AND ISSUES
Dekalb	5,489,520 Feb. 6, 1996	April 17, 1990	Process of producing fertile transgenic zea mays plants and progeny comprising a gene encoding phosphinothricin acetyl transferase
Dekalb	5,550,318 Aug. 27, 1996	April 17, 1990	Methods and compositions for the production of stably transformed, fertile monocot plants and cells thereof; based on transforming maize; ?520 covers process and ?318 covers plants; foreign counterparts include Brazil

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CHART III

SELECTED RECENT AGBIOTECH MERGERS
(1996 AND 1997)

MONSANTO

- AGRACETUS
- ASGROW
- DEKALB (40 percent)
- HOLDENS
- CALGENE

AGREVEO (HOECHST + SCHERING)

- PGS

DOWELANCO (ELI LILLY + DOW)

- MYCOGEN

NOVARTIS (SANDOZ + CIBA GEIGY)

NOTES

1. George E. Osborne Professor of Law, Stanford University, in preparing this presentation. I have drawn liberally from materials prepared for an Appendix to E. Galun, Transgenic Plants (forthcoming), for a chapter in F. Erbisch et al, Intellectual Property Rights Handbook (forthcoming), and for a presentation to the ABSP Global Conference, April 28-30, 1997. I wish also to thank David Bridgman and Erika Wayne, who assisted greatly in the patent research. Responsibility for errors is mine, and I would greatly appreciate any corrections and suggestions.

2. Although I believe that I have managed to list most disputes (and in the next chart most litigated patents) I do not claim completeness in any of the charts.

3. In this patent chart, I have lumped the applications deriving from one initial application and presented the date of that initial application, because this is the date that normally defines priority. I have also presented information about developing nation filings based on the Derwent data base, which includes filings in Brazil, China, and the Philippines.

4. In describing these cases, I am not attempting to predict the outcome of the litigation. Neither am I examining the state of the literature as of the priority date of the patents. Rather, I am attempting to clarify the interrelated dynamics of the research structure and the patent law that lead to patent conflict.

5. Again there may be traditional issues — Mycogen argues that Monsanto "stole" certain of the ideas, *Mycogen Plant Science, Inc. v. Monsanto Co.*, 1996 U.S. Dist. LEXIS 2264 (EDPA 1996).

6. Mealey's Litigation Reports, Biotechnology, Sept. 1996.

7. Business Wire, April 3, 1997.

8. Hendrik Verfaillie, quoted in "Monsanto to Acquire Remainder of Calgene," The Commercial Appeal (Memphis), April 2, 1997, p. B9.

9. D. Crossland, "AgrEvo strengthens biotechnology arm with purchase," Reuter European Business Report, Aug. 16, 1996; "Belgian biotech firm sold for record sum," Agra Europe, Aug 23, 1996, p. N2.

A HYPOTHETICAL CASE WHERE COMPETITION POLICY PERHAPS SHOULD BE APPLIED TO CURTAIL THE EXERCISE OF INTELLECTUAL PROPERTY RIGHTS

by John H. Barton[*]

The industry is technology-intensive and is in the throes of rapid technological change showing up in continually evolving product lines and falling real prices. Seven leading firms dominate the industry. Some firms focus completely on the industry; others are conglomerates with a division within the industry. In addition, there are many smaller firms linked with the industry by license arrangements.

Each major firm holds a large number of patents. Although a few of these are relatively fundamental, the patent network is dense, and many of the patents contain highly restricted claims covering detailed incremental innovations in the products and production processes. Copyright law and trade secrecy law are heavily used in the sector. At the same time, there is some co-operation among the firms, in order to ensure interoperability and make second-sourcing possible.

In general, each of the firms is probably infringing patents held by others. Normally, because of the possibility of reciprocal suit, there is little litigation, so that the firms are, in effect, in a network of tacit cross-licenses. During some periods, there have been successful efforts to convert these tacit cross-licenses into formal cross-licenses; typically, these are bilateral cross- licenses that grant non-exclusive rights for the lifetime of the patents for all patents issued to the participants in the license, including those that will be issued in the five or ten years following the agreement.

There has been some litigation -- sometimes over intellectual property and sometimes over license provisions. Some of this has been among leading firms; in some but not all such litigation, a firm that is doing less well in the market may bring an intellectual property suit against its competitors. One firm, in particular, has done very well with this strategy. Some of the litigation, however, concerns potential entrants gaining access to the technology. Although it is uncommon for such a firm to be sued directly by industry leaders for infringement, this has happened, and such firms have also been sued by industry leaders over the interpretation of licensing contracts. Moreover, a number of would-be entrants have brought declaratory judgement actions seeking to have specific industry-leader patent rights struck down.

Suggested competition analysis and possible remedy:

The possibility of oligopolistic pricing of the product is not a competition law violation. This is the normal competition-law answer to conscious parallelism. The answer might be different if there were evidence that intellectual property lawsuits were being used as a threat to enforce a particular oligopolistic price.

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Given the very rapid technological progress, it would be absurd to conclude that incentives for research are being undercut. Cross-licensing of future inventions among competitors is certainly likely to reduce incentives to research, and should therefore be viewed with suspicion; it seems unlikely to be a problem in this case. Presumably, it is the rapid product cycle more than intellectual property protection that encourages and rewards technological progress.

3. The possible exclusion of new entrants raises much more difficulty and should be the focus of discussion. Arguably, the existence of the oligopoly is simply a reflection of the fact that the firms involved have gained intellectual property; any oligopoly rents would then be an appropriate reward and incentive to innovation. But there are strong counterarguments. Fundamentally, the intellectual property rights are, in this case, so freely licensed among insiders, and the alternate incentives to innovation so important, that the rights end up serving primarily not to encourage innovation but to exclude third parties. This seems likely, in the long run, to slow innovation. Should free cross-licensing to big competitors, with a refusal to do so to smaller competitors therefore be treated as a boycott or denial of access to an essential facility? If so, what is the right remedy -- compulsory licensing to serious potential entrants? If so, on what terms and by what members of the industry?

INTELLECTUAL PROPERTY RIGHTS AND COMPETITION POLICY[1]

A FRAMEWORK FOR ANALYSIS OF ECONOMIC AND LEGAL ISSUES[*]

by

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I. Introduction

The legal and policy issues raised by intellectual property (IP) have attracted increasing attention from policymakers around the world. Modern advances in technology have created classes of products and processes that present new challenges for patent and competition authorities. Moreover, markets have changed. With the elimination of many barriers to trade, survival in highly competitive global markets depends on the development or adoption of state–of–the–art technologies. These changes have necessitated a reevaluation of the laws which impact on the development and diffusion of innovations, namely IP and competition laws.

An inherent tension exists between competition and patent laws. Louis Kaplow describes the tension between these two policies:

> A practice is typically deemed to violate the antitrust laws because it is anticompetitive. But the very purpose of the patent grant is to reward the patentee by limiting competition, in full recognition that the monopolistic evils are the price society will pay.[2]

This tension can be traced to the familiar public goods problem. Intellectual property embodies information which is a public good: An inventor's consumption of the information does not preclude others from consuming it and so, in the absence of property rights, an innovation will be imitated. In recognition of the public goods nature of IP, patent law provides intellectual property rights (IPRs) in innovations; without IPRs, the incentive to invest toward innovation would be diminished. The law also recognises that the dynamic benefits from IPRs come at an allocative cost, in that the use of the innovation will be suboptimal.[3] The IPR awarded under patent law that gives exclusive rights to an innovation, limited in scope and duration, attempts to strike the appropriate balance between these

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competing concerns.[4] Competition law impacts on the exercise of those rights, and therefore on the innovator's reward, by restricting certain practices involving the IPR.

Although the dynamic-allocative efficiency trade-off that underlies patent law applies as well to competition law, a tension has existed between the approaches espoused through IP and competition laws in attempting to maximise social welfare[5] Simply put, the IP grant seeks to protect property rights, and, in so doing, limits competition. In contrast, competition law generally has reflected the premise that consumer welfare is best served by removing impediments to competition. However, this previous short–run view of competition authorities has been replaced by a longer–run view, which acknowledges that technological progress contributes at least as much to social welfare as does the elimination of allocative inefficiencies from non-competitive prices.[6] There is, therefore, a growing willingness to restrict competition today in order to promote competition in new products and processes tomorrow.[7] Thus IPRs and competition policy are now seen as complementary ways of achieving efficiency in a market economy.[8]

The problem of co-ordinating patent and competition policy is subjected to economic analysis in the next section. First, a brief review of the relevant patent and licensing economic literature is provided, followed by alternative economic proposals for competition policy treatment of IPRs, especially regarding licensing contracts,[9] which form the largest proportion of patent-competition cases.[10] In Section III we provide a comparative analysis of the laws reflecting the interface between IP and competition in the US, Canada and the EU, with a view toward identifying major commonalties and differences amongst the regimes. As in the economic review, the legal analysis focuses on licensing arrangements for patented innovations: both unilateral restrictions by a dominant firm (e.g., resale price maintenance, package licensing, exclusivity, grant-backs, output royalties), and multilateral agreements among competitors (e.g., patent pooling and cross-licensing)[11] The economic and legal discussions are brought together in Section IV where the economic analysis of Section II is applied to particular licensing restrictions and their treatment by competition authorities, as reviewed in Section III. Section V concludes the paper.

II. Economics of the IP and Competition Interface

As discussed in the Introduction, the challenge facing policy makers is to co-ordinate patent instruments (patent scope[12] and duration) and competition instruments (contractual restrictions) so as to achieve an efficient allocation of resources directed toward the development and use of new products and processes. We analyse this problem in this section, after a brief review of the economic literature on this problem.

A. Economic Literature on the IP–Competition Interface

Starting with Nordhaus[13] an economic literature has examined the problem described above. In this literature two patent instruments are considered[14] the length of the patent grant and the scope (or breadth) of the patent. While patent length establishes the extent to which firms have exclusive rights over their *own* inventions, patent scope establishes the extent to which a pioneer has property rights over *related* inventions. That is, scope dictates how similar imitations can be to the original innovation without infringing the patent grant. If patent scope is narrow, then firms may develop a close substitute, for example, through small chemical changes in a drug's composition.

Tandon (1984) and Gilbert and Shapiro (1990[15] model the social planner's problem in two stages: In the first, the *level* or amount of the reward to the innovator is determined; the second stage problem is to design the structure of the patent policy: the combination of patent length and patent scope that provides the incentives to engage in the desired level of research.

In their model, a striking result emerges: the socially efficient way to provide the optimal reward to the innovator is through a patent policy that entails infinite patent lives, but a narrow scope[16] that effectively constrains the innovator's price. These papers show that a small reduction in the patentee's monopoly price, compensated by an extension in patent life that preserves the firm's incentive to innovate, enhances social welfare. That is, a reduction in scope contributes more to a reduction in dead-weight loss than to the innovator's profits, thus calling for long, narrow patents.

These results are not robust, however, to changes in the assumption of competition in the market. If the innovator faces competition from firms producing their own differentiated products or imitations of the patented product, as is typically the case, optimal policy may be reversed to one that provides for a large profit flow (broad patent) over a short patent life.

For example, in Klemperer (1990)[17], scope is defined by the set of products close to the innovation that is protected by the patent. In his model, the original innovator sets price so that all consumers buy some variety, although they may switch to less-preferred varieties at that price. Although less-preferred varieties (or imitations) are costless to develop in his model, a transport cost is incurred when consumers purchase inferior products. The trade-off in the model is this: wide patents raise price but reduce the dead-weight loss (relative to profits) that arises from consumers switching to inferior products. If switching costs are similar among consumers, then the innovator can set a price that keeps inferior imitators out of the market, which makes long narrow patents desirable. However, if consumers have identical reservation prices for the most preferred variety, then short, broad patents are efficient; a narrow patent would result in a social cost from consumers switching to other brands.

Gallini (1992)[18] extends the analysis to allow for imitation responses by rivals to patent policy. As in the other papers, a patent confers a monopoly over the patented drug for length T. Although *duplication* (e.g., producing the same drug) is prevented during the patent life, firms may *imitate* a product or process that differentiates it in some way. For any patent length and scope, an imitator can either wait for the patent to expire to begin producing the product, or it can attempt to develop one of its own. The longer the rival must wait for the innovation, the greater is its incentive to imitate. There will be some "critical" patent length for every level of imitation costs that will trigger entry by the first rival. As patent life increases beyond that critical patent life, further imitators will enter until profits are dissipated. Increasing patent life, then, encourages wasteful imitation; to prevent this, a broad scope patent with patent life adjusted to achieve the desired return to the innovator becomes the optimal policy.

In these models, competition policy is absent or, in some cases, is redundant given the availability of patent scope. For example, in the Gilbert-Shapiro paper, patent scope and competition policy are perfect substitutes for constraining the innovator's profits in each period

Patent scope is defined as the profit that the innovator is allowed to earn (or equivalently, the price it is allowed to set) in each period. Hence, the socially efficient profit level derived in their model can be achieved either through a narrow scope or a strict antitrust policy. In contrast, the substitutability between patent and antitrust policy is not perfect in the Klemperer and Gallini papers in that price can be controlled only indirectly by narrowing the scope of patent protection. But an attempt to reduce price by

narrowing the scope may result in inefficient imitation, suggesting that both policies are necessary to achieve an efficient allocation of resources toward development and use of innovations.[19]

In reality, patent and competition policy are complementary instruments for rewarding the innovator most efficiently: patent scope by preventing imitation and antitrust by effecting price through constraints on contracts for transferring technology. Green and Scotchmer[20] recognise this distinction. In their paper the incentive to research depends not only on patent policy but also on the ability of firms to co-operate through licensing arrangements. Two types of co-operative arrangements are considered: *ex ante* licensing or joint ventures between the pioneer and a subsequent innovator, prior to making R&D investments in the second stage, and *ex post* licensing after the second stage investment has been sunk. The breadth of patent claims establishes whether or not *ex post* licensing takes place: If claims are broad then the second-generation infringes and the firms enter into an *ex post* licensing agreement; if claims are narrow, then the two firms compete in the market.

A subtle interaction is identified between patent and antitrust policies: Patent scope fixes the bargaining strength of the innovator in its negotiations with the licensee. Hence, patent scope and competition policy are distinct instruments for affecting the incentives to research and to transfer technologies: one sets the "threat points" or the opportunity cost of entering into the licensing agreement (e.g., whether or not a rival can introduce an imitation) and the other establishes the feasible set of legal licensing contracts. They conclude that, in a situation in which innovation is sequential (innovations build upon each other), a competition policy that allows joint ventures and *ex post* licensing and a patent policy that grants a broad scope to the initial innovator ensures the best allocation of resources.

Chang (1995)[21] follows Green and Scotchmer by examining the optimal policy toward price fixing between the innovator and potential entrants under different patent regimes. In particular, four cases are considered in which patents are broad or narrow, and antitrust policy toward price fixing is strict or lenient. For these policy parameters, Chang shows that broad protection should be available to innovations that are either very valuable or have very little value relative to subsequent improvements, whereas antitrust policy should restrict price fixing between the innovator and entrants so as to reduce incentives for inefficient entry by imitators.

While this literature is illuminating, the results are not robust, nor do they go far enough in suggesting appropriate competition policy toward IP; for example, the papers by Green- Scotchmer and Chang restrict attention to only joint ventures and price fixing.[22] Perhaps of greater concern with this analysis is the formidable task assigned to competition policy: in co-ordination with patent policy, it must determine the flow of patent profits that induces the firm to make the desirable R&D investment. In an environment of technological and market certainty and low transactions costs of co-ordination, such a task is not insurmountable. In less ideal conditions, this task would be difficult at best. As discussed in the next section, the analysis in this literature represents one of several alternative approaches that competition policy might take toward IP. We argue that, compared to the alternatives that place less emphasis on R&D, competition policy toward IP as modelled in the literature, is neither practical nor socially efficient in more complex environments.

B. Alternative Approaches for Competition Treatment of IPRs

We begin our quest for an efficient competition policy toward IP by identifying three effects that competition policy can have on social surplus generated from innovation:

(i) it provides *ex ante* incentives to innovate;

(ii) it affects *ex post* incentives to transfer new technologies and products; and

(iii) it promotes price competition in product markets that use the new products and processes. Hence, competition policy affects welfare through its effects on R&D, licensing and prices. Competition policy typically concerns itself with *(iii):* anticompetitive effects on prices and output. We propose that competition policy toward IP also should center its analysis around (ii): pro-competitive effects of diffusion. The role competition policy should play in fostering R&D (effect *(i)*) is more contentious, as discussed below.

A. Framework for Competition Policy of IPRs

Given these initial observations, we recommend that the following set of rules or principles should guide competition policy toward intellectual property:

P1: There should not be a presumption that an intellectual property right creates market power.

P2: Competition Policy should acknowledge the basic rights granted under patent law.

P3: A licensing restriction should be permitted if it is not anticompetitive relative to the outcome that would result if that license were proscribed; otherwise, an evaluation of potential efficiency effects of the restriction on the pricing and diffusion of the intellectual property should be made.

The first principle (P1) makes the important well-known point that the scope of a patent is not commensurate with an antitrust market; that is most products and processes face a large number of substitutes. For example, in a survey of businesses, licensors faced no alternative suppliers in only 27 percent of the cases; whereas in over 29 percent of cases, they had over 10 competitors[23] There should be no presumption of market power from a patent but, where a patent does confer market power, it is not in violation of the antitrust laws. This principle is consistent with that followed in the general enforcement of competition policy: Market power acquired through "superior skill, foresight, and industry" should not be condemned,[24] although the anticompetitive exercise of this right may be prevented.

The second basic principle (P2) is not as straightforward as it may seem. For patented innovations, patent law ensures the *existence* of property rights, while antitrust policy restricts the *exercise* of those rights. In Canada, for example, this principle appears in Section 79[5] of the Competition Act (a qualified exemption of IPRs from the abuse of dominant provisions), yet compulsory licensing is believed to have a role when the exercise of the property right raises anticompetitive concerns.

In the US, the innovator's "right to exclude others from making, using or selling the invention" under the Patent Act is respected by antitrust courts. However, beyond this right to "refuse to license", not much more is *explicitly* guaranteed. For example, while the right to grant an exclusive license of the entire bundle of rights is inherent in the patent, that right does not allow assignment to *anyone*; nor does it allow partial restrictions, for example, to make and use but not to sell, or to license with price, quantity, or use restrictions. Moreover, where exclusion of others from using the property right extends market power beyond that intended by the patent right, antitrust policy may intervene; for example, in the case where

patents are accumulated for the purpose of eliminating competition. That is, recognition of the existence of the right does not imply that the exercise of that right will escape antitrust scrutiny.

The third basic principle (P3) acknowledges the roles that competition policy has to play in promoting the efficient diffusion of technology and pricing of goods that use the technology. Note that the principle evaluates the impact of a licensing restriction relative to a benchmark situation in which the restriction is prohibited. For example, if the licensor and licensee were horizontal competitors prior to licensing, then an innovator may choose not to license its competitor if restrictions in the contract are prohibited. In this case, the benchmark against which to compare the license is the situation under no licensing. Where the transfer of technology generates social benefits relative to exclusive exploitation of the patent, this principle permits such restrictions, even when they have anticompetitive effects.

But licensing may not always be socially desirable; for example, licensing "sham agreements" that transfer technologies of little value for the purpose of dividing the market among competitors. Other contentious restrictions include those that foreclose the market to competing technologies (exclusive dealing), or patent pooling arrangements that facilitate a cartel, unless there are offsetting efficiencies from diffusion and a less harmful arrangement is not feasible.

Moreover, if the restriction in the license were not necessary to encourage diffusion, for example in the case of vertically-related firms, then the analysis would be similar to that in non-IP cases: anticompetitive effects would be weighed against possible efficiency benefits to determine the social merits of the restriction.

While these rules or guidelines for competition policy explicitly acknowledge the rights provided by patents and the benefits from diffusion from particular licensing restrictions as well as the possible adverse effects on prices, they are silent on whether competition policy should evaluate the impact that the licensing restriction may have on incentives to innovate. The role that competition policy should take in promoting research and development is more contentious, as will be evident from the different positions adopted by the authors in this volume and in the court cases discussed in the next section. Below are summarised three different views to the question: How important should R&D considerations be in competition cases?

Approach 1: Competition policy should intervene to correct perceived excesses or deficiencies of IP protection provided under patent policy.

This approach mirrors the one taken in the economic literature summarised above, whereby both policies co-ordinate to provide the correct incentives for research and use of society's resources in the most efficient manner. Under this view, competition policy plays a direct role in ensuring that an innovator receives an adequate return on her R&D investment. For example, under this approach, if patent policy is perceived as providing inadequate incentives for research, competition policy should be more lenient; where it is too generous such that rival firms are discouraged from innovating, it would intervene in certain licensing arrangements.

Approach 2: Competition policy should determine whether a license reduces competition in innovation markets.

This approach echoes that proposed in the DOJ - FTC Guidelines (hereafter, Guidelines)[25]: restrictions that reduce innovation of future products and processes or, in the language of the Guidelines, competition in "innovation markets", should be prohibited.[26] The innovation market is a forward–looking concept defined as: "the research and development directed to particular new or improved goods or processes, and the close substitutes for that research and development.[27] The policy is similar to the first approach in that R&D considerations are taken into account; however, the focus is on the effect of contractual restrictions on *future* innovation, and not on the return to past innovation efforts. Several types of arrangements would be challenged under this approach: mergers between firms capable of developing similar technologies; exclusive dealing restrictions that prevent a licensee from using technologies of the licensor's rival; and patent pooling arrangements perceived to suppress future innovation.

Approach 3: Competition policy should determine whether a license reduces potential competition in product and/or technology markets

In contrast to the previous two approaches, this one advocates that the allocative effects from a contract on diffusion and pricing, and not R&D, should be paramount concerns of competition policy. In terms of the effects of competition policy identified above, this approach focuses on *(ii)* providing incentives for transferring technology and *(iii)* ensuring that product markets operate efficiently, and defers the problem of *(i)* providing incentives to innovate to patent law[28] It should be noted that this approach, while avoiding innovation market analysis, does rely on the more conventional *potential* competition doctrine. That is to say, if a license restriction is perceived as reducing potential competition in product or technology markets, then it should be proscribed.[29]

Comparison of Approaches

Each of the three approaches attract support from authors in this volume: the Church- Ware and Merges papers favour the first approach, Rey-Winter the second and Scotchmer the third. In fact, all three approaches might be appropriate, depending on the particular market or technological conditions. For example, the competition agency might decide that it will generally follow the second or third approach, while still allowing itself the flexibility to follow the first approach if there is strong evidence that IP protection is overbroad and unnecessarily stifling to competition.

We recommend, as a general policy, that competition policy follow the third approach: This second-best policy has the advantage of dividing the responsibilities according to the comparative advantages of the two legal institutions: The task of patent policy is to define those rights that encourage innovation (in terms of duration and protection from imitation); the task of competition policy is to prevent anticompetitive transfer and use of technology, while respecting the basic exclusive rights as laid out by patent law. Indeed, this policy will affect the innovator's overall return, and therefore the incentive to innovate in the first place, but the decision to allow the license will be based on the *ex post* incentives to license, not on the *ex ante* incentives to innovate.[30] As evidenced in Section IV, attempts by competition authorities to play a more direct role in ensuring an innovator's return has produced confusing decisions.

Even if R&D considerations are not taken into account explicitly, as recommended by the first approach, competition policy has a built-in mechanism for fine-tuning patent policy indirectly. For example, if patent protection is weak, then imitation is easy, leaving the innovator with minimal market power. In contrast, where patents are strong and effective, restrictions (such as tying) would be more carefully scrutinised. That is, to the extent that effectiveness of patent policy in protecting property rights is correlated with the degree of market power acquired, a competition policy that is sensitive to market power may indirectly "fine-tune" the protection granted under a patent.

Similarly, conventional potential competition analysis appears to be adequate for addressing the concerns of the second approach. For example, if rival innovators who are affected by a licensing restriction are also potential competitors in the product market, then the expected deleterious effect on prices in the product market from a reduction in potential competition may be sufficient to proscribe a particular restriction without appealing to innovation market analysis. If competitors in innovation are not competitors in the product market, potential competition analysis may continue to be adequate, in contrast to the recommendation made by the Federal Trade Commission[31]In this case the relevant market will be the *technology*, rather than the product, market. That is, a reduction in innovation competition implies a reduction in potential competition in technology markets, and conventional potential competition analysis can be applied to address concerns of contentious licensing restrictions. [32]

In summary, we recommend that competition authorities give only limited attention to R&D effects from licensing restrictions. Extensive economic investigations have not uncovered a causal link between innovation and competition; to expect more success from competition authorities in predicting the social harm to innovative activity from certain arrangements is impractical at best. Indeed, failing to make the correct prediction “could inhibit or deter innovation rather than further it”[33] Moreover, it may be that some restrictions, while potentially suppressing competition in future R&D, may be necessary to induce the patentee to transfer the innovation in the first place (e.g., in the case of grant-backs), thus rendering the concerns of future R&D less important.

Whether R&D considerations are explicitly taken into account by competition authorities or not, an important distinction exists between IP and other forms of property, as implied by the above framework: IP can be used by many individuals at the same time, unlike tangible property which, if transferred, merely changes hands. Since the social cost of transferring innovations is effectively zero, it is socially efficient for the innovation to be freely available. However, a patentee may be reluctant to license her competitors unless she can impose some restrictions on the use of the innovation. This distinction may call for a different application of competition law toward IP. [34]

A second important distinction between IP and other property should be mentioned here that has important implications for the evaluation required under principle ***P3***: in many licensing contracts, the relationship of the parties to the contract is both horizontal and vertical. The licensor and licensee are horizontally-related if they would have been competitors in the product market without licensing; they are vertically-related if the IP represents an input used in the production of the licensee's product. Examples of this "mixed" relationship are developed in Section IV below.

We turn now to a review of patent and competition law and the jurisprudence related to intellectual property in Canada, the US, and the European Union.

III. Competition law toward IP

The law in Canada

A. Overview

In Canada, both the *Patent Act* and the *Competition Act* check abusive exercise of patent rights and provide remedies for such practices.[35] A third body of law has also been used sparingly in IP cases, the common law doctrine on restraint of trade.[36] As in the United States, IPRs were viewed with suspicion in Canada prior to the 1980s. In contrast to the US, however, this suspicion was reflected more in legislative attempts to limit the exercise of patent rights than in jurisprudence.[37] The 1980s, however, saw policymakers adopt a more positive view of IPRs, recognising their importance to Canada's economic growth and ability to compete in world markets. The *Competition Act* 1986, as well as recent patent policy, incorporates this new attitude. Given the paucity of Canadian case law in this area, it is particularly important to analyse the legislative provisions.

(i) The Patent Act

The *Patent Act* designates both the life and scope of a patent right, restricts the exercise of the patent and provides for compulsory licensing and removal of patent rights. Practices constituting abusive behaviour under the *Patent Act* are set out in section 65(2). These abuses include failing to meet the demand for the patented article in Canada to an adequate extent or on reasonable terms, refusing to license on reasonable terms when it is in public interest to do so, and unfairly prejudicing trade or industry in Canada through unfair conditions for licensing. These provisions include the review of certain "competition–related" restrictions such as tie–ins and field–of–use restrictions where they have been used to unfairly prejudice the manufacture, use, or sale of unpatented materials.[38] Moreover, compulsory licensing may be invoked under the *Patent Act* in some cases where a firm refuses to license. The jurisdiction to oversee these provisions of the *Patent Act* are vested in the Commissioner of Patents and the Attorney General: any person may apply to the Commissioner of Patents alleging an abuse. If the Commissioner is satisfied that there has been an abuse he may order that the patentee license the patent pursuant to section 66.

(ii) The Competition Act

The *Competition Act* also covers IPR holders by either exempting them from the Act or ensuring that they are covered. Two sections provide specific exemptions from parts of the *Competition Act*. First, subsection 79(5) creates an exemption from the abuse of dominance provisions in sections 78 and 79 of the Competition Act. This exemption is limited to acts engaged in pursuant *only* to the exercise of any right or enjoyment of any interest derived under IP statutes. This should not be read as a blanket exemption; if the exercise of the IPR goes beyond the purposes contemplated in the statutes, violations of sections 78 and 79 may occur.[39] Second, section 86(4), dealing with specialisation agreements, provides for a specific exemption from scrutiny under section 45 (conspiracies) and section 77 (exclusive dealing) for agreements which, for example, ration output so that firms may meet international competition more effectively, or that involve cross-licensing or pooling of patents. The latter agreements must receive the approval of the Tribunal, which may require wide–spread licensing of the patents throughout the industry as a condition for the registration of a specialisation agreement.

Two sections of the *Competition Act* specifically ensure that IP holders fall within the ambit of the Act. First, section 32 allows the Attorney General to apply to the Federal Court of Canada for various remedial orders to address the abuse of IPRs.[40] The remedial powers of the Federal Court are broad and include the power to revoke the patent, to declare the contractual arrangement void, or to impose compulsory licensing.[41] It is worth noting, however, that although section 32 specifically addresses IPRs, it has rarely been invoked.[42] Furthermore, as with any allegation of abuse under section 32, the Attorney General must establish that the practices in question have led to an *undue* lessening of competition. Finally, section 61, which prohibits resale price maintenance, contains a specific "no exemption" clause for IPR holders so that if they attempt to influence prices in the downstream market they may be held criminally liable.

In addition to the explicit reference to IPRs in these four sections, several other sections contain provisions which affect the exercise of these rights, as in US antitrust law. In particular, section 77 (reviewable vertical restrictions) includes licensing practices of IPRs such as tied selling, exclusive dealing, and territorial market restrictions; section 75 covers refusals to deal, which may be relevant to refusals to license intellectual property; and section 45 covers conspiracies which are subject to criminal sanctions. A licensee choosing to challenge a potential abuse of IPRs can do so directly only under the *Patent Act*. Complaints under the *Competition Act* must in most cases be made through the Director of the Bureau of Competition Policy, although section 36 provides for a private right of action for single damages for violations of the criminal provisions of the *Act*. This contrasts with the US, where the scope for private action is much greater.

B. *Unilateral Licensing Practices by a Dominant Firm*

(i) Tied Sales and Extension of IPRs

The paucity of case law makes a detailed analysis of the Canadian law on tied selling extremely difficult. To date there have been only four tying cases in which charges have been laid. Only two of these proceeded to trial, and neither resulted in conviction.

Complaints under section 32 of the *Competition Act* were filed in two cases against Union Carbide. In the first of these, the licensee used patented machines that extracted polyethylene film from resin and was required to purchase resin from the licensor and a particular group of suppliers.[43] Licensees were forced to pay higher royalties if they imported polyethylene resin from other suppliers. The Crown contended that this practice caused an undue lessening of competition in the market for resin. In the settlement, Union Carbide agreed to abandon this practice. In the second case, several of Union Carbide's practices involving process and machinery patents for polyethylene film were alleged to be anti–competitive. These practices included sliding scale royalties believed to be discriminatory against small suppliers, royalty payments beyond the patent life, restraints on patent challenges, and field–of–use restrictions. Union Carbide agreed to cease all of these practices and the complaint was dropped.

The first of the two cases regarding an allegation of tying in the IP area to proceed to trial was the NutraSweet case.[44] NutraSweet was accused of giving buyers a lower price in the US, where their patent on aspartame (an artificial sweetener) was still in effect if they also purchased their aspartame from NutraSweet in Canada, where the patent had expired, thus effectively tying sales in the US to those in Canada. The Tribunal did not find evidence of this alleged practice. The second case, a patent extension decision, Culzean *Inventions Ltd. v. Midwestern Broom Company Ltd. et. al.*[45], was heard under the common law of restraint of trade. In this case, the patentee attempted to obtain royalties from the licensee

after patent expiration. The licensee argued that this was illegal and an attempt to extend the patent life. However, since the agreement was freely made between the parties and the respondent had failed to demonstrate "unreasonableness", the court concluded that the royalties were not in violation of the doctrine.

(ii) Refusal to License

The patentee's exclusive right to use and work the innovation is not as extensively recognised under the Canadian *Patent Act* as it is in the US Compulsory licensing is an instrument that can be and has been used if the innovation is not being worked to an adequate degree, especially when licensing (on reasonable terms) would be in the public interest.[46]

The courts have found royalties to be "unreasonable" under patent law if they were so high that the patent could not be worked. In some cases this was seen as a "refusal to license" and compulsory licenses were issued.[47] This diverges dramatically from the US where the courts have indicated that an innovator does not have to offer a royalty that is acceptable to a licensee[48]. A showing of anti–competitive effects is not necessary to establish this "abuse" under the *Patent Act*. It is unclear if section 75 (refusal to supply under the *Competition Act*), applies to IPRs. Most likely, unless the practice were a part of a conspiracy, licensing refusal cases would not be reviewed under competition laws.[49]

(iii) Resale Price Restrictions

There have been no cases regarding price restrictions on the resale of licensed products, but section 61 of the *Competition Act* states clearly that IP will be treated no differently from other forms of property.

(iv) Exclusivity Restrictions

Territorial Restrictions

Territorial restrictions, a vertical restraint, restrict the territory in which the licensee can produce and sell. "An exclusive territory" typically entails a restriction on both the licensor, who is constrained from licensing others in the specified territory, and the licensee, who is restricted from operating outside the designated area.

In international territorial division, restrictions on a foreign licensee's territory of production/sale are dealt with under both the *Competition Act* and the *Patent Act*. The *Patent Act* allows the patent holder to claim infringement against the parallel importation of goods embodying the IP, whereas the *Competition Act* is the vehicle by which territorial arrangements are challenged. There have been few cases on parallel importation of patented goods in Canada to test whether exclusive territories will be challenged, although cases on trademarked goods abound, as discussed in Anderson, et. al. of this volume.[50] The ability of a patentee to segment international markets extends to the domestic market. For both international and domestic market segmentation, territorial restrictions used by major suppliers that have the effect of lessening competition will not escape the scrutiny of competition law, and are subject to a case–by–case review under section 77 of the Competition Act[51].

Exclusive Contracts

In an exclusive contract, the patentee undertakes not to license the patent to anyone but the licensee. The exclusive transfer of patent rights is not necessarily an offence under either patent or competition law. For example, in EC *Walker and Sons, Ltd. v. Lever Bras Machine Corporation*,[52] the court permitted the licensor's refusal to license because it had already licensed the patented machine on an exclusive basis. However, since the *Patent Act* prohibits the suppression of innovations, an exclusive contract, especially with a potential competitor of the licensor, will be viewed with suspicion if the licensee does not work the invention because such exclusivity might imply cartelization.

Exclusive Dealing

Under an exclusive dealing contract, the licensee is required not to engage in the use or sale of the technology or products of the licensor's work. The only case in this area is NutraSweet[53], an abuse of dominance decision involving an exclusive dealing arrangement. The Director applied to the Tribunal for remedial orders on the grounds that NutraSweet was foreclosing the market from its competitor through rebates to customers for using the NutraSweet trademarked logo, as a result of the most favoured customer and meet or release clauses in Nutrasweet's agreements with its customers.[54] The Tribunal concurred with the Director in holding that NutraSweet was not "entitled to any more protection against competition than it was able to obtain through patent grants that provided it with a considerable head start on potential competitors",[55] and prohibited use of related, most-favoured customer, meet or release, and exclusivity provisions.

C. Multilateral Agreements: Pooling and Cross–Licensing

Patent pools that do not enhance efficiency and have the effect of eliminating competition between members of the pool, or the fixing or restricting of prices, will be treated like any other collusive agreement to eliminate competition.[56] The only Canadian horizontal IPR case was an unsuccessful attempt by an alleged infringer to declare "patent misuse" through conspiracy[57] In contrast to the US, this defence is rare in Canada because of the courts' view that even if patent misuse is found, the patent would not be revoked if it had been acquired legally prior to the anticompetitive offence and thus the court would allow the patentee to retain its patent.[58]

The law in the United States

A. Overview

In the US the patent and antitrust laws define and govern the extent of IPRs. The *Patent Code* of 1952 is a federal statute defining patent rights as "the right to exclude others from making, using or selling the invention throughout the United States."[59] The exercise of those rights is subject to private and public enforcement under two bodies of law: (i) patent law's doctrine of "misuse"; and (ii) antitrust laws.

"Patent misuse" cases arise when a patentee sues for infringement of its IPR, and the responding party claims that there has been no infringement because the patent has been misused, usually in violation of the antitrust laws.[60] If the defence prevails, the patent is void, thereby eliminating the possibility of

infringement. Although antitrust jurisprudence has influenced the law in this area, in many cases "antitrust–related" misuse has been shown when such acts would not have violated the antitrust laws.[61] In 1988, the *Patent Misuse Reform Act* was passed; although this Act does not resolve this conflict, it does add the antitrust requirement of market power in tying cases under the patent misuse doctrine. [62]

The antitrust statutes that are relevant to the anti–competitive exercise of IPRs include sections 1 and 2 of the *Sherman Act* and sections 3 and 7 of the *Clayton Act*[63] Explicit reference to IPRs, however, is not contained in any of these laws. In applying antitrust law to IP, antitrust authorities adopt two principles derived from the exclusive right granted in the *Patent Code*. First, the patentee is not obligated to use or to license its innovation. Second, the patentee can grant exclusive licenses for particular territories in the United States.[64]

In addition to the antitrust statutes, the US Department of Justice (DOJ) and the Federal Trade Commission (FTC) have released guidelines regarding their view of enforcement in the IP area. In 1988, the DOJ published the *Antitrust Enforcement Guidelines for International Operations* (1988 Guidelines).[65] According to the 1988 Guidelines, the IP owner is "fully entitled" to exploit the market power derived from the protected property, unless a licensing arrangement is "likely to create, enhance, or facilitate the exercise of market power beyond that which is inherent in the IP itself". In 1995, the DOJ and the FTC issued the IP *Guidelines*.[66] These guidelines echo three main principles from the 1988 Guidelines: first, IP is comparable to other forms of property; second, IPRs do not necessarily imply market power; and, third, the licensing of IP may have pro-competitive effects, particularly when combined with complementary factors of production. In contrast to the 1988 Guidelines, which applied merger law to most licensing agreements, the *Guidelines* provide a much more comprehensive application of the law on specific practices adopted by IPR holders, such as horizontal market division, price fixing, and resale price maintenance. In this respect, the *Guidelines* attempt to conform the DOJ and FTC's approach to
that of the courts.

The guidelines identify a "safety zone" within which IP practices will not be challenged; an agreement is free from scrutiny if the restraint is not typically *per se* illegal and if the parties to the contract account collectively for no more than twenty percent of each type of market (technology, product, innovation) affected by the restraint. These agreements will be subject to a rule of reason analysis. In contrast, agreements falling outside the safety zone and which generate no efficiency–producing benefits will be challenged under the *per se* rule (for example, sham agreements). The former scenario represents the majority of cases.[67]

B. Unilateral Licensing Practices of a Dominant Firm

(i) Application of Patent Misuse Doctrine

(a) Tying Restrictions and Extension of IPRs

In general, tying two products together, or refusing to sell them separately, is only unlawful if the seller has market power in the tying product or substantial anticompetitive effects result from the tie. Historically, however, ties in the patent area have often been found to entail patent misuse even though neither requirement was shown[68] In *Motion Pictures Patents Co. v. Universal Film Manufacturing Co.*[69], the Court invalidated a license restriction that only movies leased from the patent owner could be shown with the patentee's projector. This decision was not based on antitrust laws, but instead on general patent

policy against using tying requirements to extend the scope of the patent monopoly. This reasoning was affirmed and followed in a number of subsequent cases where economic power was presumed.[70]

Recent cases have reached divergent results. The Court adopted a permissive approach in the 1980 decision of Dawson Chemical Co[71], but acknowledged that "misuse of a tie–in would substantially reduce the incentives for firms to invest in research."[72] Conversely, however, the most recent tying case, while not a patent licensing decision, contains elements which echo the stricter position of earlier cases. In *Jefferson Parish*[73], the Court upheld unanimously the tie, but split on how tie–ins generally should be treated. Following prior case law, the majority held that a tie should receive *per se* treatment because of the market power implied by a patent. Consistent with current thinking, however, the minority argued that this view was misguided and that market power cannot be assumed.[74] Although the law still remains confused on this issue, there exists a growing consensus amongst economists and policymakers that the existence of a patent ought not to lead inexorably to a presumption of market power.[75]

Package Licensing and Royalty Terms

Licensing a bundle of products or setting royalties on the total sales of the licensee, as opposed to the use of the licensed input, are alternative forms of tying, and there have been several cases involving these practices. Where the granting of a license is conditional on the acceptance of a package by a firm with market power, the agreement may be disallowed.[76] When the agreement, however, is mutually agreed upon for any one of the following reasons, a royalty on total sales may be permitted: it represents "the most convenient method" of payment[77] it avoids costly monitoring of output produced with the innovation;[78] the licensee can terminate the agreement after some of the patents expire;[79] or the patented product is used in fixed proportions with other inputs. In the 1988 Guidelines, the DOJ indicated that it will take a different approach from the courts toward enforcement of tying arrangements, and generally will not be concerned with the "basis upon which license royalties are measured"[80] That having been said, the settlement that the DOJ attempted to make with *Microsoft* indicates that it will not tolerate such arrangements by dominant firms which are perceived to foreclose the market to competitors. In that case, the DOJ argued that the royalty Microsoft placed on total computer sales foreclosed the market to competitors because a manufacturer that included a rival's system would have to pay royalties to both Microsoft and the competitor. A consent decree which would have ended this practice was unilaterally rejected by the Court but has now been approved[81].

Grantbacks

Another practice that has been interpreted as a form of "tying" in licensing contracts is the inclusion of grantbacks, a restriction in which the licensor requires that the licensee transfer the patent, or grant a license to the licensor, on any improvement that it may develop on the original innovation. The courts have taken a much stricter approach than the DOJ in this area. In the TransWrap case[82], the licensee refused to "grant–back" licenses for its patents on improvements of the original machines. The Supreme Court decided against the licensor, noting that the grantback created a "double monopoly" and expressing concern that the "fruits of invention of an entire industry might be systematically funnelled into the hands of the original patentee".[83] In contrast, the DOJ views grantbacks as an arrangement that can "promote innovation and subsequent licensing of the results of the innovation"[84] However, the 1995 *Guidelines* caution against such arrangements if competitors' incentives to research are reduced or rivalry in innovation markets is limited.

(ii) Application of Antitrust Laws

(a) Refusal to License

Court decisions have generally recognised that a patentee is under no obligation to use its patent or to license it to others.[85] This view, however, has not gone unchallenged. For example, in 1975, the FTC brought an action against Xerox for refusing to license high– speed plain paper copiers. As part of an out–of–court settlement, Xerox and foreign joint venturers were obligated to license the technology and know–how in the US[86]

If the refusal to license other parties is seen as part of a conspiracy between the licensor and a licensee[87], or used to enforce illegal restrictions on licensees (e.g., resale price maintenance), it will be contested. More generally, competitors cannot agree to refuse to license or to refrain from practising a patent as part of a conspiracy or anticompetitive arrangement.[88] Such refusals to license are often the consequence of exclusive licensing arrangements, which are discussed below.

(b) Resale Price Restrictions

In *United States v. General Electric Co.*[89] (*General Electric*) the Supreme Court held that a patentee should be able to place reasonable price restrictions on a licensee in order both to achieve the profits it would obtain if it produced the product exclusively and to secure pecuniary reward for its monopoly.[90] Since General *Electric*, courts have taken a stricter approach to resale price maintenance restrictions on IP. Fifteen years later, the Supreme Court in Univis *Lens*[91] ruled that Univis' patent rights were exhausted after the first sale of its lenses, making further price restrictions unlawful under section 1 of the Sherman Act. The Court distinguished *General Electric* because the licensee in Univis *Lens* was not a producer of the innovation. In later cases in which price restrictions were proscribed, the courts also distinguished *General Electric* on various bases, noting that the licensor was not a manufacturer of the product,[92] that there were multiple licenses[93] that a large proportion of firms in the industry were licensed,[94] that the price restriction was on an unpatented product produced from a patented process,[95] and that the licensor and licensee cross–licensed competing patents[96]. Despite this series of negative decisions on resale price restrictions, *General Electric* may still reemerge as the governing precedent as the courts become more lenient toward resale price maintenance on non–patented products.[97]

(c) Exclusivity Restrictions[98]

Exclusive Territories

The *Patent Code* explicitly recognises the right to establish territorial restrictions in licensing agreements and sanctions such restrictions on the first sale of the product. After the good has been placed on the US market, however, it is no longer *per se* legal for an IPR holder to use its patent right to restrain trade in its good.[99] Even so, however, territorial restrictions may be permitted under a rule of reason.[100] In addition, leniency has been extended toward international territorial restrictions that prevent the importation of the patented goods into the US from other countries (parallel importation),[101] especially when they are seen as a way "to secure the pecuniary reward for the patent monopoly".[102]

More generally, the 1988 Guidelines note that while the licensor has no obligation to "create competition in its own technology", exclusive territories may be challenged where the licensee is a

competitor or potential competitor, markets are concentrated, or barriers to entry are high. Similarly, for unpatented products produced from patented processes, licenses including exclusive territorial restrictions are examined under a rule of reason.[103]

Exclusive Contracts

While the patentee has the right to exclusively transfer its innovation under US law, the identity of the licensee is important to the legality of the transfer. If the licensee is a competitor, the transfer is viewed as an asset acquisition, and therefore will be evaluated under the Merger Guidelines.[104] In addition, section 2 of the Sherman Act may be implicated if a firm has a policy of acquiring exclusive licenses in an area and then not practising the patents.

Exclusive Dealing

Although there is relatively little jurisprudence on exclusive dealing, courts have prohibited such restrictions when they affect a significant proportion of buyers or sellers, and deprive either other suppliers of a market for their goods or other buyers of a source of supply.[105] Courts have condemned this practice because it is seen as one where "the lawful monopoly granted by the patent [is used] as a means of suppressing the manufacture and sale of competing unpatented articles."[106] In addition to explicit exclusive dealing contracts, firms can arrange royalty payments to achieve the same effect. [107]

C. Multilateral Agreements: Pooling and Cross–Licensing[108]

In an approach analogous to decisions involving information exchange in non–patent cases, the courts treat patent pools and cross–licensing under a rule of reason where the reduction of litigation costs in patent infringement litigation is seen as one legitimate use of a pool.[109] Similarly, the 1995 *Guidelines* take the view that while cross–licensing and pooling arrangements are not intrinsically anticompetitive, attendant restrictions may raise antitrust concerns. The *Guidelines* caution against agreements with horizontal competitors, especially where they comprise exclusive pools involving a large proportion of market participants, involve joint co-ordination of substitute innovations,[110] or appear to suppress innovation,[111] unless there are offsetting efficiencies[112].

The Law in the European Union

A. Overview

In the EU, competition policy towards IP, particularly the licensing of patent and know-how, is governed by Article 85 (addressing anticompetitive agreements) and Article 86 (addressing abuse of dominance) of the Treaty of Rome (the Treaty). The primary goal of the Treaty is market integration[113] Article 85 prohibits and voids all agreements which may affect trade between Member States and have as their object or effect the prevention, restriction or distortion of competition within the common market. However, Article 85(3) provides an exemption for agreements which contribute either to improving the production or distribution of goods, or to promoting technical or economic progress. To be exempted, the practices must leave consumers with a fair share of the benefits; they must be indispensable toward achieving the benefits; and they cannot have the effect of eliminating competition.[114] The Block

Exemptions for Patent License and Know–How issued in 1984 and 1987,[115] respectively, identify the patent and know–how[116]practices exempted by Article 85(3).[117]

Although the protection of national IPRs is discussed in other articles of the Treaty, the free movement of goods is paramount. In most cases, the Treaty supersedes national laws, although Article 36 of the Treaty explicitly recognises national IPRs. The potential conflict between the two bodies of law is resolved because while the Treaty respects the *existence* of IPRs[118] as recognised under national IP laws, it regulates the *exercise* of those rights. However, the Commission and Court of Justice do not always agree over when "existence" rights end and anticompetitive "exercise" begins. As noted above, practices that impede the free flow of goods across borders are particularly suspect. In contrast to Canada and the US, this places territorial segmentation by countries high on the list of contested practices. Exclusivity in contracts, in general, appears to be a central concern with the Commission.

B. Unilateral Licensing Practices by a Dominant Firm

(i) Tying and Extension of IPRs

Tie-in clauses are illegal pursuant to Article 85 unless they are indispensable to a successful exploitation of the patent. Exemptions under Article 85(3) are rarely granted for tie-ins.[119] In addition, neither of the block exemptions includes tying, unless "necessary for a technically satisfactory exploitation of the licensed invention" or to ensure high quality.[120] Forcing the purchase of an unwanted product on the licensee falls outside of the exemptions.[121] A similar approach to package licensing is followed.

(a) Package Licensing and Royalty Terms

The Commission has found royalty arrangements on expired patents or patents not being used to be in violation of 85(1), and without "economic justification", especially if the licensee cannot terminate such a contract.[122] As in the US, the Commission has expressed concern over the possible reduced incentives to research or to use competitors' innovations as a result of this practice. In contrast to patent royalties, royalties on non–public know–how collected after patents expire are sanctioned under the know–how block exemption. However, restrictions are placed on extensions of contracts achieved through the transfer of additional know–how beyond that in the original contract. Additional contraventions include royalties on unpatented products, or products produced either with an unpatented process or with public know–how.

(b) Grantbacks

The Commission has generally allowed grant–backs on improvements of the original innovation and on patents not related to the original invention, especially when the license is non–exclusive and either party can terminate the agreement after the original patent expires.[123] Consistent with this view, the patent block exemption includes a "mutual exchange".[124] Similarly, the know–how block exemption calls for non–exclusive contracts, but provides for protection of the licensor’s trade secrets; it also stipulates that the grant–back not continue past the length of the basic license. Exclusive grantbacks are not exempted.

(ii) Refusal to License

The leading case in this area is Volvo/Weng,[125] where Volvo refused to license its patented car parts to Weng; the issue was whether the refusal to license implied an abuse of dominant position granted by the patent right. The Court ruled that forcing a firm to license its invention, even when the potential licensee is prepared to pay reasonable royalties, would eliminate the existence of the exclusive right. Thus there was no abuse of dominance. The Court did, however, add that the exercise of the exclusive right may be regulated by Article 86 if a firm with a dominant position in the market takes "unfair advantage" by arbitrarily refusing to deliver spare parts to independent repairers, fixing spare part prices at inequitable levels, or terminating the production of spare parts for specific car models that are in demand, where these practices "affect the trade among EC members". [126]

(iii) Resale Price Restrictions

For both patents and know–how, there is no block exemption on contracts that restrict the price for the products under license. Similarly, output restraints do not receive a block exemption for patented goods, but know–how may, under certain conditions.[127] Although not benefiting from the block exemption, output restrictions may be exempted from Article 85(1) under Article 85(3) [128]

(iv) Exclusivity and Extension of IPRs

Exclusive Contracts

Exclusive contracts have been found to restrict intra–community trade since the licensor is restricted from competing with the licensee or from adding licensees. While exclusive contracts have been held to violate Article 85(1), they have usually been exempted under Article 85(3) because they were "indispensable" for the licensee to invest in the technology. This reasoning and conclusion changed in *Maize Seed*, where the court noted that exclusivity is permitted, except when used to restrict trade within the community.[129] Exclusivity once again became contentious in Boussois/Interpane[130], where the Commission departed from *Maize Seed* and found a violation of Article 85, but an exemption under Article 85(3) because of redeeming benefits from the exclusive territory restriction.

Exclusivity provisions on know–how that prevent competition in research are not covered by the block exemption, although a licensor can withhold information and ensure that the know–how is not being used in competing products. This parallels attempts by the US DOJ and FTC to preserve competition in innovation markets.

Exclusive Territories

The largest proportion of exclusivity cases involve territorial restrictions. Territorial restrictions that prevent parallel imports are not allowed when the imports originate in an EU Member State.[131] As long as goods have been placed in the common market with the authorisation of the IP holder, the location of the resale of those goods embodying the IP cannot be restricted;[132] that is, the doctrine of exhaustion prevails throughout the EC.[133] However, in *Maize Seed*[134], an important distinction was made between "open" and "closed" or "absolute" exclusive licensees[135]. The Court disagreed with the Commission on the exclusivity of the contract awarded to a German importer and noted that an "open exclusive license" does

not restrict competition under Article 85, since it does not block parallel imports from other Member States of the EU. Furthermore, there was no exemption under Article 85(3) because the facts did not "justify a special system for breeders' rights"[136] and the agreements were neither justified nor "indispensable" for economic progress.

The "open" vs. "absolute" distinction of *Maize Seed* was adopted in the patent licensing block exemption that was issued two years later. "Open" territories[137] are exempted, whereas "absolute" territories[138] fall under the black list. The regulation also distinguishes between "active" and "passive" sales; restrictions on an "active policy of putting the licensed product on the market" in other licensees' territories are exempted, but restrictions on passive sales (e.g., not selling to third–party importers) would impede parallel imports within the EU and are therefore prohibited.

Furthermore, when the agreement "contributes to improving the production or economic progress, while allowing consumers a fair share of the benefits" and the restriction is "indispensable" to encourage the licensee to adopt and promote the technology; when goods originate outside of the EU; or if goods originate within the EU under a compulsory license,[139] then parallel goods may be excluded from importation into any Member State. Moreover, the Commission may allow territorial restrictions that prevent exports from countries outside of the Community into the EU when "practical barriers to such exports were likely to be insurmountable"[140], or where they do not affect intra–Community trade.[141] If the exclusive territories do not involve inter–state trade, then the national competition laws govern, which are generally permissive towards vertical market restraints.[142]

C. Multilateral Agreements: Pooling and Cross–Licensing

Both pools and cross–licensing agreements fall outside the block exemption, but stricter treatment is applied to patent pools in which a group of firms make available their patents to other members of the pool;[143] pools are condemned when they create a "monopoly bottleneck" and offer no pro-competitive ancillary benefits. In contrast, a cross–licensing agreement may be allowed if "the parties are not subject to any territorial restriction within the common market on the manufacture, use or putting on the market of the products covered by these agreements or on the use of the licensed processes."[144]

Summary of Legal Analysis

There are sharp differences among the competition laws in the three jurisdictions with respect of IPRs. In the US, the statutes are broadly worded and subject to judicial interpretation, whereas specific provisions in the *Competition Act* in Canada apply directly to IPRs. However, the DOJ and FTC provide guidelines as a framework for challenging IPR practices, in contrast to Canada where no guidelines presently exist. In the EU, the Block Exemptions on patent and know–how licensing provide explicit lists of practices that are condemned, exempted, or subject to rule of reason analysis. These detailed "guidelines" provide a clear, but more restrictive, framework under which licensors operate relative to the other two jurisdictions. Review of comparative legislative and judicial experience with IPRs is a first step in formulating coherent rules that might guide the courts and enforcement agencies. In the next section we adopt an economic approach towards IPRs, with a view toward recommending a co-ordinated patent and competition policy for IPR abuses.

IV. Economic Analysis of Specific Contractual Restrictions

In this section, we analyse particular licensing restrictions using the general framework outlined in Section II. We do not analyse all the benefits and costs of certain restrictions, but focus on those distinguishing features of IP that may imply differential treatment under IP law. Relevant competition cases, reviewed in Section III, are revisited to determine whether the decisions have accorded with the framework proposed in this paper.

(i) Refusal to License

The US laws are clear in recognising the unconditional "right to exclude others"; as was seen in Section III, this is less clear in Canada and in the EU. While an innovator need not be a "guardian of the public interest", an exclusive *licensee* of related patents who refuses to use or relicense them may be prohibited even in the US if the license creates a monopoly in the market that would otherwise be a duopoly in the "no licensing" situation.[145]

Respecting a firm's right to exclusive exploitation of its intellectual property is consistent with patent law and with principle ***P2*** of the framework presented above. It is important to note that if this right were not protected, and licensing were forced upon innovators, then courts would be placed in the undesirable position of controlling prices. That is, an innovator could set a price sufficiently high that it would not be acceptable to potential licensees. Hence, a "reasonable" price would have to be established.

There may be circumstances in which it may be desirable to require the patentee to license its innovation, for example, in cases of abuse of dominant position; licensing has been used as a remedy under the misuse doctrine in the US A more difficult issue, taken up in Mc Fetridge's paper, is whether compulsory licensing should be imposed when no anticompetitive violation has occurred, but simply because the innovation is "essential".

(ii) Price Restrictions

In affirming the District Court's decision in *General Electric*[146], the US Supreme Court concluded that, because of its patent, GE should be allowed to include price restrictions in its license to Westinghouse so as to achieve the same profits that it would obtain if it were to produce the product exclusively. The Court reasoned that since GE was not required to license, it would retain production rights for itself if the price restrictions were prohibited. Since the license, then, was deemed not to reduce competition relative to the "no license" situation, it was permitted.

Economic analysis provides support for the Court's concern that, in the absence of price restrictions, patentees may refuse to license its innovation to competitors. Katz and Shapiro show that this argument may be valid if the output of the licensee cannot be observed and the licensor must resort to fixed fees.[147] If the joint profits under licensing are less than the joint profits under exclusive production of the innovation, then the licensor will not have the incentive to license since competition would reduce profits, even though such a transfer is socially efficient. Resale price maintenance, output restrictions or territorial restrictions might restore the incentives to license and permit the diffusion of the technology.

While the Court's ruling was consistent with the framework in Section II in recognising the impact of price restrictions on the incentive to transfer the innovation, it obscured its decision by defining

the set of allowable restrictions as those that are "reasonably within the reward which the patentee...is entitled to secure." It was not entirely clear what the Court meant by the "reasonable reward"-- whether it referred to the expected return from past R&D effort or from exclusive exploitation of the patent. Turner argues that this rule is no more informative than a "rule of reason" standard with little guidance and considerable confusion.[148] As we argued in Section II (*Approach 3*), the Court should not engage in the former calculation. This confusion may explain the large number of subsequent decisions that have attempted to circumscribe the GE decision.[149]

More importantly, the Court's analysis was incomplete. While recognising that GE may not have had the incentive to license without price restrictions, it failed to evaluate whether licensing with price restrictions was socially preferred to no licensing at all. That is, a careful analysis of the benefits and costs from diffusion, as called for by principle ***P3***, had not be undertaken.[150] In the case in which the licensor and licensee compete in products other than the innovation, licensing with price restrictions on the innovation may not necessarily be better than no licensing. For example, if the licensee and licensor are horizontal competitors in the absence of the license, then under a license-cum-price restrictions, the licensee will internalise the effect on the demand for the innovation from a reduction in the prices of its substitute products. Hence, competition in other products in which the licensor and licensee compete may be dampened even though the price restriction is applied only to the innovation being transferred. According to principle ***P3*** in the framework proposed above, if this restriction is necessary for the innovator to license, then these negative allocative effects should be weighed against the positive benefits from diffusion.[151]

In a later case, the Court took a stronger position on price restrictions in a situation that probably should have received more tolerant treatment. In particular, in *Line Material*[152] two innovators with blocking patents were prevented from setting a resale price for the final good. The transfer of the blocking patents (an original patent and an improvement) was efficient, but such a transfer made the firms close competitors, necessitating some restriction as in *General Electric*..[153] Such restrictions are socially efficient if the cross–licensed products are complements (for example, inputs in the production of a final product); resale price maintenance would *lower* the price of the final good, relative to the price realised under separate production of the complementary inputs.[154] In this case, price restrictions in cross–licensing agreements should clearly be allowed. Output or territorial restrictions might be more acceptable to competition authorities, although the economic effects of these alternatives are not necessarily less harmful.[155]

(iii) Exclusivity in Contracts

In this subsection, we present an overview of exclusive licensing arrangements -- exclusive territories, contracts, and dealing. An in-depth analysis of these and other practices that mimic these arrangements is found in Rey and Winter's paper in this volume.

Exclusive Contracts

Under an exclusive contract, the licensor grants one or more exclusive licenses (e.g., geographically separated), which restricts the right of the licensor to license others and possibly from practising the technology itself. As noted earlier, the right to offer an exclusive license is clear, but not necessarily to *anyone*, especially a competitor in a concentrated market. If potential competition is eliminated by the transfer of an exclusive right, then this represents effectively a transfer of assets (the

patent) from the licensor to the licensee and merger standards should be applied.[156] It is of note that if IP were not involved, the agreement would be similar to a competitor agreeing not to produce, which would be evaluated under a *per se* conspiracy standard.

If the firm is restricted from giving an exclusive license, then it may inefficiently vertically integrate with the potential licensee. In that case, it would be protected under patent law to work exclusively the license on its own. That is, vertical integration is an alternative to exclusive licensing; if antitrust authorities intervene with an innovator's right to grant an exclusive license, then it may attempt to circumvent this rule through a reorganisation of the firm. But there is no reason why exclusivity should be allowed in the case where the assets lie with one firm but not when they are distributed between two vertically-integrated firms. It would seem that a law that depends on where the assets lie is not a sound one.

Exclusive Territories

Under exclusive territories, licensees are restricted to certain areas where they are given exclusive rights to sell and/or produce the product. The benefits and costs of such exclusivity are well known.[157] Territorial restrictions that prevent the flow of parallel imports are generally tolerated domestically under competition law and internationally under patent law in Canada and the US. This contrasts with the EU, where market segmentation is viewed as antithetical to market integration. [158]

While the European Court of Justice's decision in *Maize Seed*,[159] reviewed in Section III, was pivotal from an economic perspective, it did not go far enough. The Court's predominant concern was to ensure that private agreements do not compartmentalise the common market, a concern that is very different from one based on economic efficiency in principle ***P3*** of the framework of Section II.

Although the Court did allow some territorial protection in cases where the initial cost was high in order to induce investment in the product, it did not allow full and absolute territorial protection from imports of the product. That is, the ruling allowed a licensee to be an exclusive *producer* in a country, but not an exclusive *seller* of the product. Unless transportation costs are high, this limited protection may not provide sufficient incentives for the potential licensee to carry the product, especially if large set-up costs of production are required or free-riding by rival firms on advertising and other investments is easy.

In its rule of reason analysis, the Court failed to acknowledge the significant competition that existed in the industry; the fact that there was a large number of other maize seed competitors did not factor into the decision. This points to an important distinction between the EU approach toward vertical constraints and that followed in other jurisdictions: the goal of market integration biases competition policy against restrictions on intrabrand competition, even when there is significant competition between brands (interbrand competition). Such a rule may not result in an efficient outcome.

The debate over the economics of exclusive territories is particularly interesting in an international context.

There are two concerns with market segmentation: first, it may be a mechanism for facilitating a cartel among patentees[160]; second, there may be a concern that the division of markets facilitates a price discrimination scheme. While it is well-known that price discrimination may be welfare-enhancing, in a global setting this result depends on whether the country is the high–price or low–price country, or whether it is a net importer or exporter of technology.[161] However, the costs of allowing price

discrimination on some high–priced items may be offset by the benefits from ensuring the transfer of low–price innovations to a particular country.[162] These trade-offs are discussed in depth in the Anderson, et. al. paper in this volume.

Exclusive Dealing

Under exclusive dealing restrictions, the innovator promises the exclusive licensee not to transfer the innovation to the licensee's competitors or, alternatively, the licensee agrees not to purchase its supplies from the licensor's competitors. In the first case, one might argue that the innovation should be available to all downstream firms so as not to harm competition, especially if IP is an essential good. However, a requirement of non-discriminatory licensing by a non-integrated licensor would conflict with the fact that, under patent law, a vertically-integrated patentee (or licensor integrated with a licensee) has the right to exclusive use of the innovation. That is, a rule that forces non-discriminatory licensing by a non-integrated firm but not be an integrated firm would depend on the distribution of assets. The rationale for such a policy is not clear,[163] and may possibly discriminate against relatively smaller innovators.

(iv) Tying and Extension of IPRs

Tie–ins require that another (patented or unpatented) product to be purchased with the licensed product or technology. The US law on ties–ins requires a showing of market power in the tying good; substantial commerce affected in the tied good market; and distinct products. The question of whether or not the first criterion is satisfied by a patent grant should now be clear: patents do not necessarily imply market power, as stated in principle ***P1*** of the framework in Section II.

Tying reduces transaction costs and many of the problems of uncertainty and contractual incompleteness that plague the exchange of new and relatively unknown technologies. For example, tying reduces the costs of monitoring to determine the use of the innovation; it also allows the licensor to measure the intensity at which the innovation is used so as to charge the appropriate royalty. Tying protects the innovator's reputation: when consumers have imperfect information and cannot identify the source of poor product performance (e.g., the product itself or repairs), suppliers of inputs may "free–ride" on the innovator's reputation by reducing the quality of the input. Hence, the innovator may want to tie a new process to its servicing of the machine.

If the value of a patented process is unknown, tying encourages a licensee to accept the license by allowing him to pay a lower price for the process but a royalty that depends on intensity of use. This is particularly important in the case of know–how, for which an innovator does not want to reveal too much information to the licensee. Alternatively, if the abilities of the licensees are unknown, tying allows a licensor to license several firms by setting a low price for the innovation and earning a high return from the successful firms through the tied product.[164]

The application of competition law should not be different for intellectual property in tying cases; as before, market power in the tying good and the proportion of the market "tied–up" in the tied market are important to consider. However, as noted above, many of the "benefits" of tying arise when new technology is concerned, e.g., uncertainty about the value of the innovation, monitoring costs, etc. Hence, although application of the competition laws would be the same, the contracts receiving relatively tolerant treatment would include those relating to intellectual property.[165]

For example, in the Hazeltine case[166], Hazeltine Research, Inc. gave Automatic Radio Manufacturing Co. the right to use a bundle of 570 patents and 200 patent applications at a charge calculated as a percentage of Automatic's selling price -- whether or not the patents were used -- with a minimal payment of $10,000 per year. When Automatic refused to pay on the grounds that it had not used any of the patents in the bundle, Hazeltine sued to recover the minimum royalty. In its submission Automatic claimed that the contractual restriction was a tie-in that based royalty payments on a percentage of sales on all the licensee's products, including non patented ones, and therefore was an invalid extension of the patent.

The majority of the Court held in favour of Hazeltine, finding that there was not a *per se* misuse of the patents. They concluded that the royalties stipulated were not unreasonable, were the most convenient way of fixing the business value of the privileges granted by the licensing agreement and that the agreement provided no unlawful extension of the area of the patent.

Applying the framework developed in Section II, it would appear that the majority decision in Hazeltine was correct. The determination of whether the decision was appropriate should be based on the usual anti-trust concerns applied in non-IP cases: Market power of the tying good and the proportion of the market "tied-up" in the tied market. However, there may be features of the IP, such as high costs of metering the usage of the output that uses the innovation, which justify more tolerant treatment.

Since Hazeltine was not a manufacturer, the license is most appropriately compared to an alternative pricing arrangement such as a per unit royalty on use rather than a "no licensing" scenario: If competition is reduced compared to a less harmful agreement, then the offsetting pro- competitive effects should be considered. Although the majority did not engage in a direct consideration of other types of licensing arrangements in endorsing the agreement, it recognised that it generated cost savings since it was the "most convenient method of fixing the business value of the privileges granted by the licensing agreement.[167]

A second economic argument for allowing the tie that was not recognised by the Court parallels a result advanced in the optimal taxation literature: a tax on total output is more efficient than a tax on intermediate inputs. A royalty is like a tax on the use of the innovation: If the royalty is placed on the patented input, the use of that input in production will be distorted; however, if placed on output, the licensee will have the incentive to employ an efficient mix of inputs. Hence, a royalty on total output may generate cost savings from efficient production.

Tying may be a contentious practice when aftermarkets exist, which is common for patented products in high technology industries. For example, a manufacturer of computer hardware may distribute its computers to retailers who are willing to employ the manufacturer's operating system, sell its software, or purchase a maintenance contract from the manufacturer. Complications that arise from aftermarkets are examined in detail in the Church-Ware paper in this volume. The law and economics of tying, more generally, is discussed in detail in the Baxter- Kessler paper.

(v) Horizontal Agreements

Cases in which horizontal agreements would not likely be allowed are situations in which horizontal competitors effectively combine their intellectual property assets and manage them jointly. If the goods are substitutes, then the joint assignment of the patents may result in higher prices for the two products than if they had been managed separately.[168]

Eswaran provides an interesting framework for analysing such a horizontal arrangement.[169] In a repeated game framework in which firms confront each other over time, he argues that cross–licensing creates *potential* competition which disciplines participants of the cross-licensing agreement to maintain the cartel price. The intuition is that cross-licensing (but not using each other's technologies) exacerbates the consequences of a breakdown in that each firm would have the incentive to produce all the products.[170] Hence, a higher degree of co-operation is ensured. Moreover, the incentive to cheat on the cartel is lessened when firms are producing distinct goods, rather than the full set of cross–licensed products.[171] In contrast to Priest[172]who suggests that cross-licensing may not be harmful if other restrictions are not included in the contract, Eswaran argues that cross-licensing alone may be enough to support a collusive outcome; restrictive clauses are redundant. Therefore, he recommends that cross–licensing agreements should be struck down when patents remain unused.

Eswaran applies his analysis to the *Hartford Empire* case,[173] in which the defendants were charged with conspiring and combining to monopolise and restrain commerce by acquiring patents covering the manufacture of glassmaking machinery, and by excluding others from a fair opportunity to freely engage in commerce in such machinery and in the manufacture and distribution of glass products. More than 800 competing patents were involved and all of the firms in the industry were licensing from a pool of patents which included field-of-use and output restrictions. The government sought a dissolution of the pool.

The US Supreme Court found that by co-operative arrangements and binding agreements, the defendant corporations regulated and suppressed competition in the innovation and use of glassmaking machinery,[174] and employed their joint patent position to allocate fields of manufacture and to maintain prices of unpatented glassware. Nevertheless, the Court did not dissolve the pool. Having found that the continuation of certain activities would be beneficial to the glass industry, the Court instead prohibited some of the practices, especially regarding pre-emptive patenting. That is, the Court attempted to balance the pro-competitive aspects of the pool while eliminating the pool's anti-competitive effects.

Eswaran would have taken a tougher stand than the Supreme Court: The Hartford pooling arrangement gave each member access to the others' technologies which empowered the cartel to impose severe punishments on deviating members; moreover, the division of fields discouraged cheating on the cartel relative to a situation in which all firms actually produced each others' products. Consequently, he argues, the anticompetitive effects of this arrangement most likely overwhelm any efficiency considerations and so the pool should have been dissolved.

Eswaran's recommendation is consistent with the framework proposed in Section II, particularly *Approach 3,* in that he focuses on price effects in the product market, rather than on the suppression of competition in innovation markets, which was a concern of the Court. However, in contrast to the usual argument that a reduction in innovation competition may result in a reduction in potential competition and higher prices in the product market, Eswaran argues that the deleterious price effects in the product market are attributable to an *increase,* rather than a reduction, in potential competition brought about by parties to the agreement arming themselves with each others' innovations. That is, price in the product market may increase from such arrangements even if there is no reduction in innovation.

As the Court recognised, technologies may be exchanged, but not used, for non–anticompetitive reasons. For example, technologies may be exchanged in order to avoid costly infringement litigation, but not used because economies of scale make multiple production inefficient. More generally, horizontal arrangements that reduce transaction costs (as in *Broadcast Music*[175]), reduce litigation costs, or that allow

for the combination of complementary inputs should be evaluated under a rule of reason standard. The precise nature of this rule of reason standard for joint ventures and other co-operative arrangements is examined more fully in Scotchmer's paper in this volume.

V. Conclusions

In this paper we reviewed the economics of competition policy toward intellectual property. We made several points. First, we recommend a policy that attempts to reconcile the fact that IP, as a public good, has an efficient *ex post* transfer price of zero with the fact that, without IPRs, *ex ante* investments would not be undertaken. Under the policy, we argue that competition policy should not be based on whether licensing generates too much or too little reward for the innovator's research efforts, but rather on the efficiency merits of the licensing practice, while respecting the basic exclusive rights provided by the patent grant.

Second, intellectual property differs from other property in its public goods nature, which may imply a different application of competition law in some cases. For example, a price-fixing agreement between horizontal competitors on its face would be *per se* illegal. In the case of IP licensing, while a price restriction between firms may dampen competition between the licensor and licensee, efficiency features of vertical restrictions (e.g., eliminating free-riding) may mean that the restriction is not as deleterious as it would be in strictly horizontal contracts. Moreover, the benefits of diffusion may be sufficient to offset the negative effects. These considerations of both diffusion and the allocative effects of a mixed vertical-horizontal contract imply that competition policy should be more lenient toward restrictions between horizontal competitors than for non-IP goods. That is, such considerations may alter the evaluation of a practice, for example, from *per se* (in the case of a horizontal arrangement among competitors) to a rule of reason standard if the transfer of the technology is deemed sufficiently important.

In many cases, the application of the law may be the same as in non–patent cases, for example for purely vertical arrangements, but certain criteria that are characteristic of innovations (such as uncertainty and specific investments) may justify the use of restrictive practices. Therefore, while the law may be the same, the percentage of cases involving IP that receive more lenient treatment will likely exceed that for non–IP cases. The usual efficiency arguments for vertical restrictions in contracts on unpatented products apply to IP,[176] as do the arguments against vertical restrictions that foreclose firms with competing technologies from downstream markets (e.g., exclusive dealing) or facilitate a cartel among competing patents.

Just as competition law should not attempt to take on the mandate of patent policy in encouraging innovation, patent law should not attempt to rule on anticompetitive practices. In many of the cases on patent misuse in the US[177], contractual provisions were found illegal, although neither an analysis of market power nor of the effect on competition was undertaken. Hovenkamp argues that allegations of IPR abuses should "be addressed under antitrust principles" rather than "some other set of principles that are presumably to be found in patent policy, although they are not articulated in the *Patent Act*".[178]

The division of tasks that we recommend in this paper[179] may seem reminiscent of the historical conflict between patent and antitrust policy. In fact, the division of tasks we propose differs in an important way. Based on the fact that the two policies (should) strive to strike the efficient balance between dynamic and allocative considerations, this framework recognises that patent rights promote, rather than hinder, competition. Consequently, in contrast to the old approach that undermined these

rights by constraints on contractual arrangements, this framework recommends that competition policy work with patent policy by providing adequate incentives for innovators to share their discoveries with others when this is efficient. In this sense, the division of tasks proposed here should not create tension between the two laws, but rather allocates complementary roles to patent and competition policy for striking the right balance between dynamic and allocative efficiencies.

NOTES

1. The authors thank Ariana Birnbaum and Anindya Sen for their research assistance, and the Social Science and Humanities Research Council of Canada and the Competition Bureau, Ottawa Canada for research support. We are particularly grateful to Rob Anderson for his insightful comments. The views expressed in this paper are those of the authors and not necessarily those of the Competition Bureau.

2. L. Kaplow, "Extension of Monopoly Power through Leverage", (1985) 85 Columbia Law Review 515

3. Since information is relatively costless to transmit, the efficient price of the information is zero. Exclusionary rights allows the patentee to set a positive price for the information, thus reducing output and the flow of that information.

4. See W. Nordhaus, *Invention, Growth and Welfare: a Theoretical Treatment of Technological Change*, Cambridge, MIT Press, 1969. Also, W. Bowman, *Patent and Antitrust Law: A Legal and Economic Appraisal*, 1973, Chicago: Univ of Chicago Press; W. Baxter, "Legal Restrictions on the Exploitation of the Patent Monopoly: An Economic Analysis", (1966) 76 Yale Law Journal 267; L. Kaplow, "Extension of Monopoly Power through Leverage", (1985) 85 Columbia Law Review 515; R. Merges and R. Nelson, "On the Complex Economics of Patent Scope", (1990) 90 Columbia Law Review 836; and G. Priest, "Cartels and Patent License Arrangements", (1977) 20 Journal of Law and Economics 309 for further analyses of the patent–competition interface

5. See L. Kaplow, *Ibid.*

6. See Barro, R. "Economic Growth in Cross-Section of Countries", Quarterly Journal of Economics, May 1991, 106:2, 407-444 and Demsetz, H. "How Many Cheers for Antitrust after 100 Years?" Journal of Economic Inquiry, April 1992, pp. 207-218.

7. Demsetz recognizes this tradeoff in "Barriers to Entry", (1982) 72 American Economic Review 47.

8. This view is stated clearly in an OECD report on *Competition Policy and Intellectual Property Rights*, Paris, 1989 and in *Atari Games Corp. v. Nintendo of America Inc*., 897 F. 2d 1572.

9. Intellectual property rights (IPRs) can take the form of a patent, copyright, trade secret, or trademark. Although the laws differ on the type of protection given, the economic issues regarding competition and incentives are similar.

10. A non–licensing abuse of dominant position is the accumulation of patents (patent pyramiding) with the intention of excluding entry. For example, see *US v. EI Dupont de Nemours and Company*, 351 US 377 (1956).

11. Other competition offenses related to IPRs, for example, patent accumulation and violations concerning copyrights are analyzed in other papers in this volume. See, for example, Rob Merges' paper on killer portfolios and Jeff Church and Roger Ware's paper on copyright protection.

12. Patent scope is defined as the range of products that are deemed to infringe the patent. The broader the patent, the more difficult it is for firms to "invent around" the patent, and therefore, the greater will be the return earned by the patentee.

13. W. Nordhaus, supra note 3.

14. For example, see P. Tandon, "Optimal Patents with Compulsory Licensing" 90 (1982) JPE 470, R. Gilbert and C. Shapiro, "Optimal Patent Length and Breadth, 21 (1990) Rand Journal of Economics 106; P.

Klemperer, "How Broad Should the Scope of Patent Be?", 21 (1990) Rand Journal of Economics 113; N. Gallini, "Patent Policy and Costly Imitation", 23 (1992) Rand Journal of Economics 52; J. Green and S. Scotchmer, "Novelty and Disclosure in Patent Law", 21 (1990) Rand Journal of Economics 131

15. *Ibid*

16. Patent scope is defined here as the flow of profits that accrue to the innovator; more practically, it is the range of products that would infringe the patent.

17. *Supra* note 13.

18. *Supra* note 13.

19. In the models, price is the equilibrium outcome of the innovator and imitators competing in the market, given patent scope. This contrasts to the framework in Gilbert and Shapiro where price (or profit) is administered by the antitrust (or patent) authorities.

20. J. Green and S. Scotchmer, "On the Division of Profits in Sequential Innovation" *Rand Journal of Economics*, Spring, 1995.

21. Chang, H. “Patent Scope, Antitrust Policy and Cumulative Innovation”, *Rand Journal of Economics*, vol. 26 (1995), pp. 34-57.

22. A large literature on strategic incentives for licensing exist (see, for example, Gallini (1984), “Deterence through Market Sharing: A Strategic Incentive for Licensing”, *American Economic Review*, 74, pp. 931-941; Rockett, K. (1990), “Choosing the Competition and Patent Policy”, *Rand Journal of Economics*, vol. 21, no. 1, Spring, pp. 161-171; Eswaran (1994)), but in most of the papers licensing contracts are assumed to include only a royalty or fixed fee, but no further restrictions that would be considered contentious under the antitrust laws.

23. OECD, *Competition Policy and Intellectual Property*, Paris, 1989.

24. *United States vs. the Aluminum Company of America* 148 F.2d 416 (2d Cir.1945).

25. US Department of Justice and Federal Trade Commission, *Antitrust Guidelines for the Licensing of Intellectual Property* (1995) [included in this publication - ed.]. See also, Gilbert, R. and Sunshine, S. “Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets”, *Antitrust Law Journal*, vol. 63, 1995, pp. 569-601.

26. More precisely, three markets have been identified in the *Guidelines* as being relevant: (a) product markets; (b) technology markets; (c) innovation markets. The first two markets are conventional concepts that include, respectively, all substitute products and technologies that compete with each other.

27. The notion of an innovation market was used in a recent proposed acquisition of General Motors' Allison Transmission Division by the German firm, ZF of Friedrichshafen was challenged by the DOJ on the grounds that it would have resulted in a concentration of R&D assets that may impact significantly on the future innovation in the market for heavy duty automatic transmissions. See "GM sees North Amercian Profit in '94; US to Block Sales of Allison Unit" Wall Street Journal (Eastern Edition), Nov. 17, 1993

28. For example, suppose the coordination of patent and competition policy results in a rule that allows firms to include price restrictions in licensing contracts when large R&D expenditures are required. Then the task of the competition courts would be to determine *ex post* whether or not the *ex ante* incentives to innovate

justify price restrictions. Such a rule, besides requiring expertise beyond that possessed by competition courts, would encourage firms to argue for contract restrictions on behalf of research, regardless of the innovation

29. *Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace*, Special Supplement, A Report by the Federal Trade Commission Staff, Ch. 7, volume 70, no. 1765, June 6, 1996.

30. A policy based on encouraging research may look very much like one based on encouraging diffusion in that both may require leniancy so as to increase the patentee's profits from engaging in those activities.

31. *Supra*, note 28, p. S-72.

32. The difference between the second and third approaches may appear to be one of semantics in that even potential competition analysis must evaluate effects from reduced competition in innovation. In fact, there is a subtle difference between the approaches: under the potential competition doctrine, antitrust authorities need only consider the impact on prices in the technology and product markets owing to reduced competition, rather than nonprice effects (i.e., the level, speed or diversity of R&D activity) evaluated under innovation market analysis.

33. *Supra*, note 28.

34. An alternative view toward the competition policy treatment of IP is that after property rights are guaranteed under patent law (thus eliminating the public good problem of R&D), IP becomes comparable to other assets; hence, the same rules of antitrust should apply to IP.

35. For further analysis of the interface between patent and competition policy in Canada, see S. Globerman and R. Schwindt, "Intellectual Property Rights: Anticompetitive Abuses and Competition Policy Antidotes" and R.D. Anderson, S.D. Khosla, and M.F Ronayne, "Canadian Competition Law and Policy at the Centenary", in Canadian Competition Law and Policy at the Centenary, eds. R.S. Khemani and W.T. Stanbury, The Institute for Research on Public Policy, Halifax, N.S., 1991

36. Under this doctrine, a contract will not be challenged if it is reasonable as between the parties and reasonable with reference to the public interest, but may be challenged even if no anticompetitive abuse has been identified. The doctrine has been held to be applicable to exclusive licensing arrangments, but they have usually survived scrutiny: see, for example, *Tank, Lining Corp. v. Dunlop Industrial Ltd.* (1982) 140 D.L.R. (3d) 659 (Ont.C.A.); *Barsch v. Avtex Airservices Ltd* (1992) 107 A.L.R. 539, aff'd Fed. No. 5&9, unreported, August 27, 1993 (Fed. Ct.) For further discussion see M.J. Trebilcock, *The Common Law of Restraint of Trade: A Legal and Economic Analysis* (Toronto: Carswell, 1986).

37. For a more complete discussion see Anderson et al., *supra* note 34.

38. There are no reported cases pertaining to these provisions.

39. See, for example, *Canada (Director of Investigation and Research) v. NutraSweet Co.* (1990) 32 C.P.R. (3d) 1 (Comp. Trib), discussed below.

40. A somewhat differently worded precursor to the current section 32 was introduced into anti-combines legislation in 1910. Apparently, the anti-competitive uses of patents were recognized very early in the evolution of competition policy. For more information no the specific forms of abuse see section 32, Competition Act; also see, Globerman and Schwindt, "Intellectual Property Rights: Anticompetitive Abuses and Competition Policy Antidotes" in *Canadian Competiton Law and Policy at the Centenary*, R.S. Khemani and W.T. Stanbury, eds. (The Institute for Rersearch on Public Policy: Halifax, 1991) 463

41. Compulsory licensing may be invoked under both the *Patent Act* and the *Competition Act*

42. In fact, it was not until 1967 that a case proceeded under the precursor to this section. For a discussion of this case, see *Union Carbide* discussed in the next section of this paper. Besides the *Union Carbide* cases which did not go to trial, no other proceedings have occurred under section 32. See R.D. Anderson et al., "The Competition Policy Treatment of Intellectual Property Rights in Canada: Retrospect and Prospect" in R. S. Khemani and W.T. Stanbury, eds., *Canadian Competition Law and Policy at the Centenary* (Halifax: Institues for Research on Public Policy, 1991) 497.

43. *R. v. Union Carbide Canada Limited*, minutes of settlement in the Exchequer Court of Canada, Dec. 9, 1969 and June 19, 1971, respectively. Also, Annual Reports of the Director of Investigation and Research for years ending March 31, 1970 and 1972.

44. *Supra* note 38.

45. *Supra* note 38.

46. The public interest may refer to prospective consumers.

47. See, for example, *International Cone Co. Ltd. v. Consolidated Wafer Co.* (1926) 2 D.L.R. 1015 (Ex.C.R.).

48. *Bement v. National Harrow Co.*, (1982) 186 US.S. 70.

49. Although not directly an IP case, *Canada (Director of Investigation and Research) v. Chrysler Canada Ltd.* (1989), 27 C.P.R. (3d) 1, aff'd (1991), 38 C.P.R. (3d) 25 (Fed.C.A.), the first refusal to supply case to be reviewed by the new Competition Tribunal, had some IP features that indicate how future cases may be resolved. In this case, Chrysler stopped supplying auto parts to a Canadian distributor on terms more favourable than those of distributors in the U.S. In its decision, the Tribunal suggested that the existence of a trademark, in particular, and an IPR, in general, will not necessarily imply the existence of a separate market.

50. Owners of trademark goods appear to have the same protection against "grey goods" or parallel imports that bear a legitimate trademark, but that have not been authorized for importation by the trademark owner in Canada. See, for example, *Remington Rand Ltd. v. Transworld Metal Co. Ltd.* (1960) 32 C.P.R. 99, *Mattel Canada Inc. v. GTS Acquisitions and Nintendo of America Inc.* (1989) 27 C.P.R. (3d) 358 (Federal Court, Trial Division), *H.J. Heinz of Canada Ltd. v. Edan Food Sales* (1991) 35 C.P.R. (3d), (Federal Court, Trial Division).

51. For an offense, it must be shown that the firm is (a) a major supplier of the product and (b) competition has been lessened substantially. There have been no exclusive territory cases regarding intellectual property.

52. (1953) 13 Fox Pat.C.190 (Commr.)

53. *Supra* note 38.

54. *Ibid* The Director alleged that NutraSweet had engaged in several other practices, including customer meet–or–release and most–favoured nation clauses.

55. *Ibid* at 52. This practice of removing a rebate from licensees that turned to other suppliers bears a resemblance to the practice of imposing a cost on licensees that used other suppliers in the Microsoft case.

56. The *Report of the Commissioner of Canada and International Cartels* had strong words for collusive arrangements involving IPRs: "If the members of a patent pool have agreed to eliminate competition between themselves, as by restricting production or fixing prices, the agreement is in no basic way different from any other agreement to eliminate competition, and is punishable as such when against public interest." (Commissioner, *Combines Investigation Act*, 1945, p. 52). It is important to note that an agreement that rationalizes output with efficiency results would benefit from the exemption for specialization agreements under section 86.

57. *Philco Products Ltd. v. Thermionics Ltd.* (1943) 3 D.L.R.

58. See, for example, *Philco Products Ltd. et al. v. Thermionics Ltd. et. al.* (1943), 3 D.L.R. at p. 455. For a detailed discussion of the case law on allegations of anticompetitive abuses as a defense in infringement cases see Anderson, et. al. (1991), *supra* 34.

59. See, for example, *Philco Products Ltd. et al. v. Thermionics Ltd. et. al.* (1943), 3 D.L.R. at p. 455. For a detailed discussion of the case law on allegations of anticompetitive abuses as a defense in infringement cases see Anderson, et. al. (1991), *supra* 34.

60. The most common abuse heard under this doctrine is tying a patented to an unpatented product, although other offenses have been cross–licensing, resale price maintenance, noncompetition clauses, and field–of–use restrictions.

61. For more information on this point see Herbert Hovenkamp, *Federal Antitrust Policy: The Law of Competition and Its Practice.* (St. Paul, Minn., West Publishing, 1994) at 218-219.

62. 35 U.S.C.A. § 271(d).

63. Section 3 pertains to tie–ins and exclusive dealing, section 7 covers mergers and acquisitions.

64. Section 261 of the Patent Act states that "the patentee...may...grant and convey an exclusive right under application for patent or patents, to the whole or any specified part of the United States."

65. U.S. Department of Justice, Antitrust Division, *Antitrust Enforcement Guidelines for International Operations*, (Nov. 10, 1988). Although not law, the 1988 Guidelines do identify situations which are likely to arise in courts in the future and discuss how the DOJ will apply competition policy to IP.

66. *Supra* note 24.

67. *Supra* note 24.

68. H. Hovenkamp, *supra* note 60 at 218-219.

69. *Motion Picture Patents Co. v. Universal Film Manufacturing Co.,* 243 US 502 (1916).

70. See, for example, *Morton Salt Co. v. G.S. Suppinger Co.*, 314 US 488 (1941); *B.B. Chemical v. Ellis*, 314 US 495 (1941); *Mercoid Corp. v. Mid–Continental Investment Co.*, 320 US 661 (1943); *Mercoid Corp. v. Minneapolis Honeywell Regulator Co.*, 320 US 680 (1943); *International Salt Co. v. United States*, 332 US 392 (1947); and *United States v. Loew's Inc.* 371 U.S. 38 (1962).

71. *Dawson Chemical Co. v. Rohm and Haas Co.*, 448 US 176 (1980).

72. *Ibid* at 221–22. It was also noted that the unpatented chemical had no alternative use and therefore producers of it would likely be found guilty of contributory infringement under section 271(c) of the Patent Code. There have been other instances in which ties were allowed between patented processes and unpatented components. In Electric *Pipeline Inc. v. Fluid Systems Inc.*, 1956 Trade Cases para 68,300, 231 F. 2d 370, the tie was allowed since the patentee designed the system and components to meet customers' needs and because it guaranteed performance of the system.

73. Jefferson Parsh Hospital District No. 2 v. Hyde, 466 US 176 (1984). In this case, a contract between a hospital and a anesthesiologist firm required that all services be performed by the firm. Respondent argued that this contract foreclosed the market (for this hospital). The Supreme Court reversed the Court of Appeal's decision that the contract was per se illegal and in violation of section 1 of the Sherman Act.

74. *Ibid* at 37 note 7.

75. The recent *Guidelines* make this clear. Also, there is evidence that court decisions are beginning to follow this rule: In *Spectrum Sports v. McQuillan 113 S. Ct. 884, 890 (1993)*, the Court noted that "one cannot presume that a patent itself defines a relevant market".

76. *American Security Co. v. Shatterproof Glass Corp.*, 268 F. 2d 769 (3d Cir. 1959). It is important to note that this misuse charge can be avoided by offering a subset of the package at a different price, or by lowering the royalty on the trade secret, after the patent expires, see, for example, *Western Electric Co. v. Stewart-Warner Corp;* 631 F. 2d 333 (4th Cir. 1980); *Brulotte v. Thys Co.* 379 US 29 (1964); and *Rocform Corp. v. Acitelli-Standard Concrete Wall*, 367 F 2d 678 56th Cir. 1966).

77. *Broadcast Music v. Columbia Broadcasting System*, 441 US 1, 99 S.Ct. 1551 (1979).

78. See, for example, *Automatic Radio Mfg. Co. v. Hazeltine Research Inc.*, 339 US 827 (1950); and *Miller Insituform, Inc. et al v. Insituform of N. America et al.* 830 F 2d 60 6 (1987).

79. See, for example, *Beckman Instruments Inc. v. Technical Development Corp.*, 433 F 2d 55 (7th Cir. 1970).

80. DOJ 1988 Guidelines, Case 10, p. 66.

81. This case is reviewed in more detail in the Rey-Winter paper of this volume.

82. *Transparent–Wrap Machine Corp. v. Stokes and Smith Co.*, 329 US 637 (1946).

83. Lenient treatment has been extended to non–exclusive grantbacks.

84. *Supra* note 24 at 23.

85. For examples of such cases see *Hartford Empire Co. et al. v. United States* 323 US 386 (1945), *SCM Corp. v. Xerox Corp*, 564 F rd 1195 (2d Cir. 1981).

86. *Xerox Corp.*, 86 FTC 364 (1975).

87. Suspicious agreements between licensor and licensee are examined under the rule of reason. *Moraine Products v. ICJ America, Inc.*, 1976–1 T.C. 60,935 (C7 1976). See "The Competition Policy Treatment of Intellectual Property Licensing in the U.S. and Canada", Bureau of Competition Policy, March 1987 for an excellent discussion of the U.S. law in this area.

88. See for example, *Blount Mfg. C.o. v. Yale & Towne Mfg. Co.*, 166 Fed. 555 (C.C.Mass. 1909).

89. United States v. General Electric Co., 272 US 476 (1926).

90. Although the result may not differ, the reasoning behind each type of award does. See Section IV for further analysis of this case.

91. United States v. Univis Lens Co., 316 US 241 (1941).

92. See, for example, *Royal Indus. v. St. Regis Paper Co.*, 420 F.2d 449, 452 (9th Cir. 1969).

93. See, for example, *Neuburgh Moire Co. v. Superior Moire* Co., 237 F. 2d 283, 293-4.

94. See, for example, *United States v. United States Gypsum Co,*. 333 US 361 (1947).

95. See, for example, *Barber-Colman Co., v. National Tool Co.*, 33 US 287 (1947).

96. See, for example, *United States v. Line Material Co.*, 333 US 287 (1947).

97. Most notably, *Monsanto Co. v. Spray–Rite Service Corp.*, 465 US 752 (1984) and *Business Electronics Corp. v. Sharp Electronics Corp.* 485 U.S. 717 (1988) suggest that the courts are becoming more lenient toward resale price maintenance in vertical cases. In contrast to price restrictions, output restrictions have been treated more leniently by the courts: see, for example, *Q– Tips Inc. v. Johnson and Johnson*, 109 F. Supp 657 (D.N.J. 1951).

98. A similar restriction is on the "field–of–use", where the licensee is restricted to a particular use of or market for the innovation. In a sense, the restriction is on the product (rather than geographic) market. Field–of–use restrictions are legal in the U.S. See *General Pictures* 304 US 175 (1937), aff'd on rehearing 305 US 124 (1938), as long as they are not used to extend the scope of the patent.

99. This is referred to as the "doctrine of the first sale" or the "exhaustion principle".

100. *Continental T.V. Inc. v. G.T.E. Sylvania, Inc.*, 443 U.S. 36 (1977).

101. For a comprehensive discussion of the balance between antitrust and patent remedies for restricting parallel imports of products embodying intellectual property, see R.D. Anderson, P.J. Hughes, S.D. Khosla, and M.F. Ronayne, "Intellectual Property Rights and International Market Segmentation: Implications of the Exhaustion Principle" (Hull, Quebec: Bureau of Competition Policy, Economics and International Affairs Branch, Working Paper, October 1990). Where the competition approach fails, patentees may take recourse against infringing imports under Section 337 of the U.S. Tariff Act. Trademark owners can receive some protection under section 42 of the Lanham Trademark Act or through the Tariff Act if the foreign and U.S. trademark owners are the same or are affiliated. Furthermore, the Process Patent Amendments Act of 1988 specifies that unauthorized imports of goods made by a process patent in the U.S. may constitute infringement.

102. parallel imports of products embodying intellectual property, see R.D. Anderson, P.J. Hughes, S.D. Khosla, and M.F. Ronayne, "Intellectual Property Rights and International Market Segmentation: Implications of the Exhaustion Principle" (Hull, Quebec: Bureau of Competition Policy, Economics and International Affairs Branch, Working Paper, October 1990). Where the competition approach fails, patentees may take recourse against infringing imports under Section 337 of the U.S. Tariff Act. Trademark owners can receive some protection under section 42 of the Lanham Trademark Act or through the Tariff Act if the foreign and U.S. trademark owners are the same or are affiliated. Furthermore, the Process Patent Amendments Act of 1988 specifies that unauthorized imports of goods made by a process patent in the U.S. may constitute infringement.

103. See, for example,*U.S. v. Studiengesellschaft Kohle* (1981–2, Trade Cases, para 64,394, 670 F2d 1122 (1981))

104. For example, see DOJ report, "Justice Department Files First Antitrust Suit Against Foreign Company Since 1992 Policy Change", 8858E, May 26, 1994 which describes a recent case where the DOJ alleged that a contract between S. C. Johnson and Bayer entrenched S.C. Johnson's dominance in a concentrated market.

105. See, for example, *Jefferson Parish Hospital Dist. No. 2 v. Hyde*, 466 US 2 (1984), although a patent was not at issue in this case.

106. *National Lockwasher Co. v. George K. Garrett Co.*, 137 F. 2d 255 (3rd cir. 1943).

107. See, for example, see DOJ, "Microsoft Agrees to End Unfair Monopolistic Practices", 94–387, July 16, 1994.

108. See G. Priest, supra note 3.

109. See, for example, *Standard Oil Co. v. United States*, 283 US 163 (1930) and *Hartford Empire Co. v. United States*, 323 US 386 (1945).

110. See example 8 in the *Guidelines.*

111. For example, *United States v. Automobile Manufacturers Association*, 307 F. Suppl, 617 (C.D. Cal 1969), *modified sub nom. United States v. Motor Vehicle Manufacturers Association*, 1982–83 Trade Case. (CCH) Par. 65,088 (CD Cal 1982), suppression of innovations was especially of concern since the agreement involved a large proportion of the market participants.

112. For example, a pooling arrangement that would be acceptable to the DOJ is an arrangement such as that in *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1 (1979) in which a blanket license for copyrighted musical compositions reduced transaction costs.

113. Since the latter is closer to the objective of competition policy in the U.S. and Canada, many of the policies in the EC diverge dramatically from the policies in these jurisdictions. For a comprehensive review of competition treatment of intellectual property in the European Community, in its member countries, and in other jurisdictions, see OECD, *Competition Policy and Intellectual Property*, Paris, 1989; and see Richard Whish, *Competition Law* (3rd ed.) (London: Butterworths: 1993).

114. OECD Report, *ibid* at 45.

115. Commission Regulation No. 2349/84, 23 July 1984, OJ No. L.219/15, 16th August 1984 and OJ No. L 61, 4th March 1989.

116. In Article 1(7) of the regulation, "know–how" is defined as "a body of technical information that is secret, substantial and identified in any appropriate form". The distinction between patent and know–how licenses is emphasized in the EC legislation more so than in either the U.S. or Canadian legislation. Since "know–how" is less public, a concern is that firms will use a know–how license to disguise a cartel. Consequently, the regulations require that the know–how transferred be substantial.

117. Exempted practices are only bilateral; multilateral agreements (including know–how pools, joint ventures, or reciprocal licensing agreements) fall outside of these exemptions. The exempted practices include exclusive territories that do not preclude parallel imports, tie–ins for technical purposes, minimum royalty requirements, reciprocal non–exclusive grantbacks, and field–of–use restrictions. In contrast, the "black–listed" practices that are not exempted because they lack the benefits required by Article 85(3) are no–

challenge clauses, extension of the life of a patent, restrictions on markets or customers, royalties that do not reflect the use of the IP, quantity or price restrictions, unilateral grant–back requirements, or practices that prevent parallel trade. The remaining practices are reviewed on a case–by–case basis and the Commission has 60 days within which to make a decision or the practice is deemed exempted The Commission provides an "escape clause" that allows it to withdraw the benefits of its exemption (for example, where competition is later found to be jeopardized.

118. Article 36 of the Treaty.

119. See, for example, Vaessen/Morris, OJ No L 19/32 (26th January 1979).

120. Article 2(1)(1) of patent regulation.

121. Article 3(9).

122. See, for example, in *AOIP/Beyrard*, OJ No. L 6/8 (13th January 1976) in licensing its patented electrical devices, Beyrard included improvement patents that extended the patent, and required payment on expired patents or patents not be used.

123. See, for example, see *Raymond/Nagoya*, OJ L 143/39 (23rd June 1972) and *Kabelmetal/Luchaire*, OJ No. L 222/34 (22nd August 1975). A concern in the latter case was that the original licensor had the exclusive right to sublicense the improvements to others.

124. Article 2(1)(10) of the patent block exemption provides "an obligation on the parties to communicate to one another any experience gained in exploiting the licensed invention and to grant one another a license in respect of inventions relating to improvements and new applications, provided that such communication or license is non–exclusive".

125. Volvo/Weng, Case 238/87, decided 5th October 1988.

126. As a result, it can be said that, in contrast to the U.S. (and to some extent Canada), a patentee has the exclusive right to "produce" the invention ("existence"), but it does not have the exclusive right to "use" the invention or products produced from it.

127. These conditions state that the know–how must be "designed (a) to limit the licensee to supply its own needs, (b) to prohibit the licensee from constructing facilities for third parties, and (iii) to provide a particular customer with a second source of supply." Know–how block exemptions, at Articles 3(7) and 4(2).

128. See, for example, *ENI/Montedison*, OJ No. L 5/13 (7th January 1987).

129. *Nungesser v. Commission* (hereinafter "*Maize Seed*"), Case 258/78, 1982 E.C.R. 2015.This is the argument often used in U.S. cases, i.e., that a decrease in intrabrand competition may have the effect of increasing interbrand competition. For a more detailed discussion on *Maize Seed* see case study section of this chapter.

130. Boussois/Interpane, OJ No. 13/204 (15th December 1986).

131. The policy towards territorial restrictions provides the starkest contrast between the policy of the EC and the policies of the U.S. and Canada.

132. In contrast, field–of–use restrictions are exempted from 85(1) under both patent and know–how block exemptions.

133. The doctrine of exhaustion provides that once an innovator has placed its invention on the market, it cannot restrict the resale of that good. See, for example, *Centrafarm BV v. Sterling Drug Inc*, Case 15/74, 1974 E.C.R. 1147. Free movement of goods follows from Articles 30 and 34 of the Treaty and from the Court of Justice's decisions on exhaustion. Negative clearances have been given for exclusive contracts when the parties to the contract were not restricted in their sales throughout the community. *Burroughs/Geha–Werke*, OJ L 13/53 (17 January 1972) and *Burroughs/Delplanque* OJ L 13/50 (17 January 1972).

134. Nungesser v. Commission, Case 258/78, 1982 E.C.R. 2015.

135. An open exclusive license does not completely limit the territory, in particular, parallel imports are not prevented. On the other hand, if it is an absolute exclusive license, the licensee has complete exclusive rights in the territory and parallel importantion is not allowed.

136. The defendant argued that the restrictions were necessary to encourage innovation because of local climate and soil conditions, that the product was fragile, or that interbrand competition in maize seeds existed

137. An "open" territory refers to the restriction in which a licensor commits itself not to sell in a designated territory and the licensee agrees not to "manufacture or use" the licensed product or process in the territories reserved for the licensor or other licensee.

138. An "absolute" territory restricts parallel imports.

139. In this case the goods are not considered to be "authorized" by the IPR holder

140. See, for example, as in *Raymond–Nagoya*, OJ L 143/39 (23rd June 1972), in which the licensee was restricted to the Japanese and neighboring markets for its licensed automobile parts.

141. See, for example, *Kabelmetal/Luchaire, OJ*, OJ No. L 222/34 (22nd August 1975). It is worthy of note that field–of–use restrictions, which are analogous to territorial restrictions except in product, rather than geographic space, are permitted under both block exemptions.

142. For example, Germany follows a case–by–case approach, prohibiting vertical restraints when market entry is restricted. Territorial restrictions are subject to sections 20 and 21 of GWB *Act Against Restraints on Competition*. The territory of first–sale by a manufacturing licensee can be specified under the patent right and restrictions on foreign licenses of German patent holders are allowed when the German market is not affected. Restrictions on German exports, however, are not sanctioned under the law. The UK approach toward vertical restraints is generally permissive.

143. For more information on this area seeValentine Korah, *Patent Licensing and EEC Competition Rules Regulation 2349/84*, 1985, ESC Publishing Limited, Oxford at 27. Korah defines a patent pool as the "bringing of patents together so that they may jointly be made available for use by all the parties, or licensed to outsiders for their joint benefit", whereas cross–licensing (or reciprocal exchange) involves "separate agreements" or "connected undertakings".

144. Patent block exemptions, Article 5(1)(3) and 5(2). See, for example, *ENI/Montedison, supra* note 128.

145. A refusal to license also becomes contentious when the innovator supplies the innovation to only one firm in the downstream market. Since this refusal is usually a condition of an exclusive contract, we examine a refusal to license in this context in the *Exclusivity* section below.

146. Supra note 89.

147. This problem is analyzed in M. Katz and C. Shapiro, "How to License Intangible Property", 101 (1986) Quarterly Journal of Economics 567.

148. D. Turner, "Basic Principles in Formulating Antitrust and Misuse Constraints on the Exploitation of Intellectual Property Rights", *Antitrust Law Journal*, vol. 53, no. 4, 1984.

149. See the U.S. law in Section III.

150. In his article, Priest (*supra* note 3), argues that there may well have been a restraint of trade, but the government was ill- prepared and presented a sloppy case. If this really was a sham agreement, then it would fail the test set out in our economic framework and the Court should have granted the injunction.

151. In this example, there are no benefits from diffusion; for example, there are no diseconomies in production or product differentiation in X that would make the production of good X by more than one firm socially desirable.

152. Supra note 96.

153. In that case, the cross–license agreement on blocking patents included price restrictions for each other and for sublicensees. The Court noted that such price restrictions violate the *Sherman Act* even when they may be "advantageous...to stimulate the broader use of patents."

154. This is attributed to the well–known principle that a monopolist of two complementary products sets lower prices than set by two separate duopolists of the products. See Tirole, *The Theory of Industrial Organization*, MIT Press, 1990 Chapter 4.

155. Although output and price restrictions may have a similar effect, the asymmetry of their treatment derives from the rights under the U.S. *Patent Code* which stipulates that a patentee can prevent the use or sale of its patented item (output restrictions) but does not stipulate the right to affect its value.

156. For example, see discussion in the previous section of the U.S. case filed against S.C. Johnson and Bayer, *supra* note 97.

157. For example, see J. Tirole, *Supra* 152, Chapter 4 and the references therein.

158. That is, the EU is more concerned about reductions in intrabrand competition than in the other two jurisdictions. However, an increase in intrabrand competition may not imply an increase in competition overall, since competition that reduces the profit that can be earned from a new product reduces the incentive to develop competing brands or products.

159. *Supra* note 129.

160. The use of exclusive territories to dampen competition between manufacturers is analyzed in P. Rey and J. Stiglitz, “The Role of Exclusive Territories in Producers’ Competition”, *Rand Journal of Economics*, vol. 26, no. 3, Autumn, 1995.

161. Only 7 percent of patents granted in Canada were developed in Canada. This contrasts with 20–50 percent in major industrialized countries. R. Anderson, et. al., *supra* note 101 argue that small countries should not necessarily adopt policies that are restrictive toward licensing agreements, noting that many such licenses have efficiency–enhancing benefits. Restrictions on licensing contracts may reduce the incentive for innovators to transfer technologies to those countries.

162. Anderson, et. al., *supra* note 101, argue that the cost of higher prices is almost entirely offset by the benefits from ensuring the transfer of "low–price" products. They make the interesting observation that if exhaustion is implemented on a wide–scale, IP laws would have to be harmonized since the lowest protection would become the realized protection as competition from the country in which the patent expired would flow into the countries in which the patent has not expired. See also N. Gallini and A. Hollis, "A Contractual Approach to the Gray Market", 1996 University of Toronto working paper.

163. One might recommend a tougher *ex ante* policy on the vertical integration of firms given that, *ex post*, patent law allows for more leniency of vertically-merged firms.

164. The “leverage theory” says that tie–ins may allow an innovator to extend its market power into other markets, although this "leverage theory" has generated considerable skepticism in the economics literature. For example, see Baxter, *supra* note 3 and Hovencamp, *supra* note 60. Moreover, tie–ins may foreclose the tied market from competitors, requiring potential competitors to enter both levels.

165. The benefits and costs of tying apply to output royalties, except that output royalties may be a mechanism for foreclosing the market in which the innovation competes. A royalty on total output, regardless of whether the product is made using the licensed technology or not increases the cost of using an alternative technology, as noted in the *Microsoft* case.

166. *Supra* note78.

167. *Supra* note 78

168. This may be achieved by trading technologies that will not be used and charging a per unit royalty rate in order to raise the perceived marginal cost and therefore the price at which the firms compete.

169. Eswaran, M., *Canadian Journal of Economics*, 1994.

170. That is, it is individually rational to produce from both technologies.

171. This is because, when the goods are imperfect substitutes, a given aggregate increase in a firm's output decreases the prices of goods it produces by less if that increase is allocated between two goods than for one good.

172. Priest, *supra* note 3.

173. *Supra* note 85.

174. The classic case is the alleged conspiracy to retard the development of new technology in *US Automobile Manufacturers Association*, *supra* note111which contended that the major automobile manufacturers engaged in a joint venture whose purpose was to retard investment in automobile pollution control equipment. The case ended in a consent judgment in which the automakers agreed to terminate their cooperative efforts without admitting that their prior conduct had violated the law.

175. Supra, note 112.

176. For example, see Mathewson and Winter, "The Economics of Vertical Restraints in Distribution", *New Developments in the Analysis of Market Structure*, ed., G.F. Mathewson and J. Stiglitz, Cambridge, MIT Press, 1986; and J. Tirole, *The Theory of Industrial Organization*, MIT Press, 1990.

177. For example the Court in *Morton Salt*, *supra* note 70, held that it was "unnessary to decide whether [the patent owner] has violated the Clayton Act". In *B.I.C. Leisure v. Windsurfing Int'l Inc.* (1991) 761 F. Supp. 1032, the Court noted that while the misuse defense must show that competition in the relevant market is restrained, it also notes that "less evidence of anticompetitive effect...than in antitrust cases" may be needed.

178. Hovenkamp, supra note 60, observes that in *Lasercomb America, Inc. v. Reynolds*, (1991) 911 F. 2d 970, in which misuse was shown since the licensor insisted that the licensee refrain from developing competing software for 99 years -- an antitrust violation was not at issue. He interprets this as a broader application for copyright defense than for patent defense. But since copyrights are easier to create than patents, the presumption of market power is weaker, and the possibility of anticompetitive behaviour is less likely. Canadian law does not revoke a patent if an abuse is found; the license contract is struck down, but the misuse will not invalidate the patent right of the patentholder

179. In particular, *Approach 3* of the framework presented in Section II.

COMPULSORY LICENCES AND INCENTIVES TO INVEST IN INNOVATION AND COMPULSORY LICENCES*

by Valentine Korah[1]

The roundtable panellists agreed that the goals of competition and intellectual property are congruent. Economists pursue consumer satisfaction by ensuring that incentives are in the right place to induce optimal investment.

Where significant sunk costs have to be incurred to enter a market, the investor must expect to recover more than marginal costs and to recoup its investment with a multiplier to compensate for risk. Otherwise the first mover is unlikely to invest. The problem is that no-one knows how much protection is required to induce the optimal investment in innovation. Clearly, the problem must be addressed *ex ante*, at the time when the incentive is still relevant.

Given the need to induce investment in R & D[2], one important question is whether the possibly excessive width of intellectual property rights should be determined when framing the intellectual property laws, by the patent or similar office when granting the right, or by the competition authorities or courts under competition law when a third party requires access. Should the patent office also be allowed to intervene *ex post* to reduce the scope of the grant?

Competition advocacy when intellectual property rights are being extended by legislation

Many competition authorities favour competition advocacy when the laws are framed. To provide an incentive, inventors should know before deciding whether to invest in innovation the amount of protection to expect. Advocacy about the legislative extension of intellectual property rights is much needed in the EC, but is DG IV the body to provide it?

We have been harmonising intellectual property laws by directive at the highest level of protection in any member state, because that is easier to get through the Council, Parliament and W.T.O. There are many harmonising directives relating to various elements of copyright, but who invests more in artistic work or software because the term of copyright was extended to life plus 70 years to follow German law when the other member states had accepted the Berne rule of life plus 50 years?

Harmonisation of patent law has not gone far. The European patent office provides a bundle of patents defined by national law and does not define the rights that it grants, although member states have voluntarily aligned the term of patents on the 20 years from application granted under the European Patent Convention. The term of patents for products that require marketing authorisation has effectively been

* This document, now expanded and updated, was submitted by Professor Korah for discussion at the OECD's Committee on Competition Law and Policy meeting on 23-24 October 1997.

extended by supplementary protection certificates for medicines and pesticides, but I have no reason to object to this compensation for the time lost in safety trials. I do not know whether the additional term should be related to their duration, nor whether the criteria should be identical.

Compulsory licensing by the competition authorities when an intellectual property right is too broad.

Professor Gallini said that the patent offices often do not know when a patent application is too broad, so it seems natural to turn to the competition authorities to require a compulsory licence long after the patent was granted and the investment leading to it is water under the bridge. Would the reader, however, want the Commission and courts of the European Communities to make difficult trade-offs between the need for incentives to the original research and those for follow up developments? It is unlikely that officials or judges would understand either the scientific background or the importance of incentives being in the right place.

Let me describe two recent cases in the European Court of Justice (E.C.J.) and in the Court of First Instance (C.F.I.) in Luxembourg. Consider whether these institutions would be good at deciding how wide intellectual property rights should be.

Magill

The Secretariat's background paper (para. 51) set out what the E.C.J. held in *Magill*.[3] The three TV stations whose programmes could be received in Ireland and Northern Ireland each published a weekly guide. When Magill used this information to prepare a comprehensive guide, each sued it successfully for copyright infringement. The Commission confirmed that this exercise of intellectual property rights was an abuse of a dominant position contrary to article 86.

The E.C.J. confirmed that mere ownership of an intellectual property right does not confer a dominant position when there are substitutes (paragraph 46), but since the TV stations were the only source of programme information to a company such as Magill that had started to publish a comprehensive guide, they each enjoyed a dominant position over that information.

The Court confirmed (in paragraph 49) that in the absence of standardisation or harmonisation, the scope of intellectual property rights was a matter for national law, but added that:

> "the exercise of an exclusive right by the proprietor may, in exceptional circumstances, involve abusive conduct."

The E.C.J. then went through the various criteria mentioned by the C.F.I. in *Magill* and found that the exercise of copyright against Magill was abusive because:

- there were no substitutes for the information. The C.F.I. had found that the weekly highlights and daily programmes or the individual guides published by the stations were not sufficient substitutes. This resulted in a very narrow market, but questions of fact are for the C.F.I.;

- the producer of a comprehensive weekly guide was dependent on the stations;

- by refusing a licence, the stations prevented the emergence of a new product for which there was potential consumer demand;

- the refusal was not justified, and enabled the stations to reserve the market for weekly TV guides to themselves.

In the light of all these circumstances, the Court held that the C.F.I. had not erred in law in finding an infringement of art. 86. The E.C.J. did not attribute particular weight to any of these considerations.

Ladbroke

The Commission's Legal Service has been construing *Magill* narrowly. In *Ladbroke*,[4] the holders of copyright in film and comment on French horse races refused to grant a licence to Ladbroke in Germany or Belgium, or to permit their licensees to relay the films.

In Tiercé Ladbroke v. Commission,[5] the C.F.I. confirmed the Commission's view that markets for the films were national since the films were ancillary to the betting shops. These were national because betters were not willing to travel far to place their bets and the copyright holders were national regulatory regimes, although the films were transmitted by satellite and could travel. I find this view that complementary products fall in the same market anomalous.[6]

It also held that the relevant product market was films of horse racing generally, and not confined to those of French races, which must have made it unlikely that the copyright holders were dominant even in France. Nevertheless, it did not decide but passed straight on to the question of abuse.

It observed that no licences had been granted for Belgium, that a refusal to license Ladbroke was, therefore, not discriminatory (para. 124) and did not restrict competition in Belgium (para. 130). It seems to me anomalous that the lack of discrimination should favour the refusal to license.[7] Consumers would be better off if there were some betting shops in Belgium where betters could enjoy the films.

The C.F.I.'s view that competition may not be distorted when there is no competition may be based on ideas of fair competition, that Ladbroke was not at a competitive disadvantage in the absence of discrimination.

It may be that the Court was looking at the list of abuses in article 86 without taking policy into account. Yet, as argued in the text to note 7 above, where an investment in sunk costs is to be recovered, society may be better off if the common overheads are allocated in such a way that those to whom the service is worth more pay more. As explained below, economists consider that where there are sunk costs discrimination in accordance with what markets can bear may lead to more of a product being supplied and benefits not only a monopolist, but also consumers as a whole.

The reasoning in the judgement is very poor. The copyright holders may well have been dominant over the supply of films of French horse races in any country where bets were taken on French races.

The C.F.I. refused to apply *Magill* on the grounds, first, that Ladbroke was already the largest provider of betting services in Belgium and did not need a licence to use the films to enter that market

(para. 130). Secondly, the availability of films of the races was not essential to a betting shop, although it might be helpful. So the refusal to licence did not prevent the supply of a new product for which there was a demand. Thirdly, films were not indispensable, since they are shown after the bets on the race have been placed (132).

The first reason places a great deal of weight on the definition of the market as ancillary to betting. Showing the films to betters in Belgium might have been thought of as a newer product there than the consolidated TV guide in *Magill*. The Commission is given a large margin of discretion by the C.F.I. In other cases, differences in national regulations have not excused the division of the common market.[8] The race course associations and its licensees were the only source of films of French horse races in the world. The CFI, however, did not analyse the existence of a dominant position, since it considered that their had been no abuse.

Secondly, why should the essential nature of the films to the organisation of betting shops be relevant? Is it not for punters to decide what they want and for suppliers to decide what they want to supply, rather than the Court?

Perhaps the C.F.I. is referring to the US doctrine of essential facilities, according to which the holder of such a facility may be under a duty to supply or licence in extreme circumstances. Philip Areeda of Harvard, however, concerned about reducing incentives to investment in creating the essential facility, has pressed for this doctrine to be applied very rarely, mainly in cases where a group of competitors has acquired a bottleneck facility that they did not have to create.[9] I would be delighted if this were the reason, but it is not articulated by the C.F.I.

The third reason is feeble - customers might be more likely to come and place bets if they expected to be able to watch the races afterwards.

Issue of law and policy

The issue of law and policy is how exceptional must the facts be before a dominant firm is required to license. The crunch questions are whether H, the holder of a patent important enough to create a dominant position, is required to license I, the holder of an improvement patent, and the terms on which such licences should be granted. The grant of a compulsory licence would reduce the incentive to the original investor, but would encourage other firms to develop the invention. That scenario comes within the circumstances listed by the Court in *Magill* save that I assume that the patent is very important, and the hope of obtaining it may have been necessary to induce a large and risky investment in the original innovation.

Policywise, there are three objections to requiring a licence:

1) it reduces the incentive to the original investment in innovation that led to the basic patent;
2) it reduces the incentive to invent around that innovation; and
3) it leads down the slippery slope to regulation as an authority or court will have to set the terms of the licence.

In the EC we do not have to invoke an essential facilities doctrine to obtain a licence - refusal by a dominant firm to supply goods in order to keep a secondary market to itself has been held to infringe

article 86 in several judgements since *Commercial Solvents*.[10] I regret that the narrow limitations of the US essential facilities doctrine are not being adopted in Europe.

The doctrine of refusal to supply is being invoked mainly for access to the infrastructure for transport[11] and other areas where considerable investment was made with tax payer's funds. Incentives to the original investment are less important to state investment, so the obligation to grant access may be less serious. The objection is far stronger in relation to patents obtained by firms in the private sector, although massive private investment is now being made in infrastructure for telecoms these days, and the issue of incentives may become more troublesome.

The second objection is less strong in the licensing context where there may be less public good served by inventing round a patent, than by finding or building alternative physical infrastructure, such as a port. The more serious problem is the lack of incentive to use the invention for further developments.

The third objection to regulation - the need to regulate the terms of a licence - remains.

We had hoped from *Volvo v. Veng*[12] that the right to exclude was an essential part of copyright, and that the obligation to license repairers to make protected front wing panels would arise only in the three circumstances listed by the E.C.J..[13] This qualification may have been a compromise between judges not permitted to dissent and unused to articulating reasons of policy.

In *Magill*, the E.C.J. went wider, but stated that the obligation to license was exceptional. It is hardly surprising that the holders of the copyright in the television listings were required to license. In the US or in civil law countries, there can be no copyright in information. At para. 48, following a long line of precedents, the Court held that it was for national law to determine the extent of copyright protection. To question the scope of the intellectual property right would have created difficulties for the E.C.J.

The education of many of the judges in the E.C.J. and C.F.I. is inadequate to decide questions of competition, although many of their legal secretaries have studied competition law and some practised in the field. Most of the judges have been appointed for their expertise as constitutional lawyers, or for considering whether bureaucrats have misused their powers. Others are generalists.

I believe that the Court may have been influenced by the unmeritorious copyright in question. The television stations required no intellectual property rights to persuade them to prepare their programmes or publish their listings.

I am not criticising the C.F.I. in *Ladbroke* for not applying *Magill* - quite the reverse! A duty to grant licences would reduce the incentive to make the films, although in *Ladbroke*, it seems that they were not being exploited in Belgium.

Postscript July 1998

Since the roundtable was held, Advocate General Jacobs drafted a very interesting opinion in *Oscar Bronner*[14] He mentioned all three of the objections to a wide interpretation of the essential facilities doctrine and shortly described the position in the US.

At para. 58 he said:

> "that the primary purpose of Article 86 is to prevent distortion of competition - and in particular to safeguard the interests of consumers - rather than the particular interests of competitors. It may therefore, for example, be unsatisfactory, in a case in which a competitor demands access to a raw material in order to be able to compete with the dominant undertaking on a downstream market in a final product, to focus solely on the latter's market power on the upstream market and conclude that its conduct in reserving to itself the downstream market is automatically an abuse. Such conduct will not have an adverse impact on consumers unless the dominant undertaking's final product is sufficiently insulated from competition to give it market power.

This is a welcome general affirmation that article 86 is not concerned primarily with the protection of competitors but that of consumers. There have been several such statements recently by senior officials in DG IV and I would be delighted if the Court were to affirm it. It is also welcome for limiting the essential facilities doctrine.

The Advocate General considered that it would only be in exceptional circumstances that access would be required where substantial private investment had been made in the essential facility, in particular in acquiring IPRs (para. 62). At 63, he stated why *Magill* was exceptional: 1) the existing listings were inadequate, so the exercise of copyright prevented a much needed new product coming to market, 2) copyright was not needed to induce the programmes or the listings, 3) The useful life of the programme guides was short, so the exercise of copyright amounted to a permanent barrier to entry. Usually IPRs protect the innovator only for a period.

The Advocate General added that intervention with an investment was justified only where the dominant undertaking has a genuine stranglehold on the related market, not when its facility merely gives it a competitive advantage. He was less hostile to using the essential facilities doctrine when the facility had been created partly through public funding. He concluded that there was no duty to admit Bronner to Mediaprint's home delivery network, since there were alternatives available even if they were less convenient. To require access would lead Community and national authorities and courts into detailed regulation of community markets, entailing the fixing of prices and conditions.

The Community doctrine of exhaustion in relation to medicines

The scope of patents in the EEA is limited by the doctrine of exhaustion under the principle of the free movement of goods. Once a protected product has been sold by or with the consent of the holder in one member state, its import and sale in another cannot be restrained.

Although much has been gained from the integration of the common market, the doctrine of exhaustion of intellectual property rights goes too far when there are significant sunk costs and serious distortion by national governments. This is not a great problem in the US where the dollar and intellectual property rights are federal, although there may be some distortion due to state regulation.

It is a huge problem in Europe, particularly for medicines. It is very expensive to discover medicines and take them through their safety trials. The price is controlled, directly or indirectly, in most member states, at different levels. Yet in Merck v. Primecrown,[15] the E.C.J. recently confirmed that the doctrine of exhaustion applies even when a product patent could not have been obtained in the country of

export and prices there were controlled at a very low level, so the holder in the country of import had had no chance to obtain a monopoly profit to induce pharmaceutical companies to spend on innovation.

Consequently, if the holder sells in a member state where prices have to be low,[16] it cannot prevent parallel trade into the member states where higher prices are obtainable. I am told that the price of most patented medicines in the US is three times that in Germany where they are more expensive than in France or Spain. In the EEA, it has become impossible to discriminate in price by more than the margin needed by a parallel trader, who has no expenses for R & D, or even for promoting a trademarked product.

It is the parallel trader who benefits, and often not the health service paid for by the government or an insurance company. Pharmaceutical companies are receiving little from Europe towards their common research costs.

Since most drugs are paid for by governments; it is hard to know how to abolish price controls: a monopsonist has market power. In any one country, a very considerable price rise might be needed to contribute significantly to the patentee's return and politicians have preferred to reduce their medical bills. Could member states be encouraged to harmonise price control, possibly at different levels, in annual negotiations? A smaller price rise might then be seen as necessary to encourage innovation. Such negotiations would be difficult, but might somewhat reduce the current beggar my neighbour attitudes.

Even if it be impossible to harmonise price controls, the position would be improved if the doctrine of exhaustion were abrogated where there was no chance to gain a free market profit in the country of export, but legislation by Parliament and Council to this effect might be contrary to the rules of free movement as construed by the Court in Merck v. Primecrown.

A more promising possibility is for DG IV to permit export bans or limitations when a really strong free rider argument is made out.

To develop new medicines often requires huge sunk costs and these must be recovered, together with a factor to compensate for the risk of failure, in addition to marginal costs from the various geographic markets where they are supplied. Ramsey analysed why it is desirable for the common sunk costs to be allocated in accordance with what the market will bear - in inverse proportion to the sensitivity of demand.[17] This should result in more of the product being sold. Discrimination may then help both the favoured and disfavoured customers.

If the marginal cost of production and sale is 100 and market A will bear a price of 500 and market B only 150, any price over 150 will result in hardly any being sold in market B. If the price in B is reduced to 150 every sale there will contribute 50 towards the sunk costs, and it may be possible and profitable to reduce the price in market A. Even when discrimination is large, everyone is better off - buyers in market B can buy the product, and those in market A will not have to bear the whole overhead.

Ramsey pricing should be relevant both under the doctrine of exhaustion and when appraising export bans for products where the sunk cost is large or risky, especially where national markets are distorted. Unfortunately, the Commission and the E.C.J. have set their minds against discrimination by dominant firms and against territorial protection between member states.

NOTES

1. Professor Emeritus of Competition Law, University College, London, Barrister.

2. See the Secretariat Background paper, n. 5, i.e., the quotation from Easterbrook about the importance of innovation.

3. Radio Telefis Eireann v. Commission (C-241 & 242/91P) [1995] E.C.R. I-743; [1995] 4 C.M.M.L.R. 718; [1995] 1 C.E.C. 400 (ECJ).

4. *Ladbroke Racing GmbH - P.M.I./D.S.V. O.J. 1995, L221/34 ;* [1996] 5 C.M.L.R. 320, para. 12. Commission decision rejecting a complaint on the ground that a licence limited to West Germany did not necessarily infringe article 85(1). This was in marked contrast to the Commission's earlier view.

5. [1997] 5 C.M.L.R. 309, T-504/93, June 12 1997, an appeal from a different decision that consisted of an unpublished letter rejecting Ladbroke's complaint that the copyright holders refused to license Ladbroke in Belgium, at paras 146 and 147. There are several cases of Ladbroke v. Commission. It is important to check the Court's file number.

   The judgement has been appealed, C-300/97P.

6. See my extended critical case note on it, [1998] E.C.L.R. 169.

7. It may be that the C.F.I. was responding to the Commission's decision not to pursue the complaint as regards Belgium to a substantive conclusion, but to make a formal decision under article 86 in relation to the complaint that no licence was granted to Ladbroke for Germany, where there was a licensee with a competitive advantage over Ladbroke.

   Contrast the C.F.I.'s view at paras 157 and 158 that the agreement alleged between the race course associations not to grant a licence to Ladbroke would have restricted potential competition in Belgium, and should have been examined by the Commission.

8. E.g., *Distillers*-A. Bulloch & Co. v. The Distillers Company Ltd. (78/163/EEC), 20 December 1977, O.J. 1978, L50/16, [1978] 1 C.M.L.R. 400, C.M.R. 10011. On appeal, The Distillers Co. Ltd. v. Commission (30/78), 10 July 1980, [1980] E.C.R. 2229, [1980] 3 C.M.L.R. 121, C.M.R. 8613, and

   Adalat-EC Commission v. Bayer AG (96/478/EEC), 10 January 1996, O.J. 1996 L201/1, [1996] E.C.R. II 381; [1996] 5 C.M.L.R. 416, [1996] C.E.C. 2241; on appeal sub nom. Bayer v. Commission (T-41/96R), interim order, [1996] 5 C.M.L.R. 290.

9. Essential Facilities: an Epithet in Need of Limiting Principles,' 58 Antitrust Law Journal 841.

10. Istituto Chemioterapico Italiano SpA and Commercial Solvents Corp. v. Commission (6 & 7/73), 6 March 1974, [1974] E.C.R. 223, [1974] 1 C.M.L.R. 309, C.M.R. 8209.

    See J. Temple Lang (p.415), J. Venit and J. Kallaugher p. 315) in [1994] Fordham Corporate Law Institute.

11. See the chapter by Richard Whish in eds. Hans Jacob Bull and Helge Stemshaug, *EC Shipping Policy - the 17th Nordic Maritime conference*, 2-4 September 1996, 1997, Jurisdisk Forlag Oslo.

12. Volvo AB v. Erik Veng (UK) Ltd. (238/87), 5 October 1988, [1988] E.C.R. 6211, [1989] 4 C.M.L.R. 122, C.M.R. 14498.

13. When spare parts were arbitrarily refused to repairers, excessive prices were being charged or when the spare parts were no longer being made when there remained a large number of vehicles of that model on the road.

14. Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG and Other, (C7/97) opinion May 28 1988. Judgement awaited. A copy is on the WWW and can be found through the home page of the Community courts.

15. Merck & Co Inc. v. Primecrown Limited (C-267 & 268/95), 5 December 1996, [1996] E.C.R. I-6285, [1997] 1 C.M.L.R. 83, [1997] 1 C.E.C. 261, criticised by me in [1997] 4 E.C.L.R. 265.

16. For this purpose, the non Community members of the EEA qualify, and I am told that Iceland still does not grant product licences for medicines.

17. See, for example, the independent report by nera, Market Segmentation: report commissioned by the Economic and Social Policy Committee of the European Federation of Pharmaceutical Industries' Associations into the effects of segmentation of the EU market for patented medicines. It explains Ramsey pricing both in terms easily understandable for lawyers and in a more sophisticated way for economists.

PATENTS AND ANTITRUST*

by Valentine Korah[1]

Policy issues

I want to raise an issue of policy about the relationship between antitrust and intellectual property rights, especially patents, I look forward to hearing your views today. It seems fairly clear that, very occasionally, some patents are being granted that are wider than necessary to induce the original investment, which delay incremental R & D and lead to high prices.

This is probably important in relation to only a few industries. In the last century, the internal combustion engine gave rise to some very wide patents. Computers might have done so, but at first, everyone thought about copyright, so when patents were thought relevant, the basic ideas were no longer novel. More recent problems have arisen in biotechnology, where some very wide patents are being granted to the first person to identify the polypeptide chain for a virus, although the very basic ideas were published by a university and are in the public domain.[2]

Should the law be changed to make the conditions of patentability stricter? Should inventions have to be closer to the market to be protected by patent? Should competition authorities be consulted before intellectual property legislation is enacted or changed? Should any legislative changes be limited to biotechnology where the current problems are arising?[3] Doubtless, over the next century, there will be some other sector where wide products emerge.

Where patents are unduly wide, are the current remedies appropriate? The scope of patent protection may be challenged first by opposition proceedings in the patent office and later in the courts, but challenge is very expensive, may take years and the outcome is often unpredictable so often not feasible for smaller firms.

Should compulsory licences at a reasonable royalty and on other reasonable terms also be required on antitrust grounds on an *ad hoc* basis at least where a subsequent inventor has made an important development? What terms are reasonable: the cost of issuing the licence or also a significant contribution to the cost and risk of the underlying basic R & D, or something in between?

I shall mention some of the case law in the European Community on the grant of compulsory licences on competition grounds after raising the other issues and hope that you, who know far more about patents than I do, will consider the policy of limiting the grounds of patentability.

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* An earlier version of this document was submitted by Professor Korah for discussion at the OECD's Committee on Competition Law and Policy's meeting on 23-24 October 1997. A substantially similar document was originally prepared for and presented at the "l'Association Internationale pour la Protection de la Propriété Industrielle (AIPPI)." Conference held in September 1996 at Interlaken, Switzerland. It was subsequently published in [1997] Intellectual Property Quarterly 395 and will soon be published as well by AIPPI (along with the other Conference documents).

Those in favour of strong patent protection argue that upholding the exclusive right under very broad patents increases the incentive to the investment that led to the original invention, and also that the hope of obtaining an important exclusive right leads to investments in many other aspects of R & D which may happen to result in less important innovations. To reduce the width of the patent protection or to compel licensing would marginally reduce the incentives, and might lead to less investment in basic research and to fewer inventions, basic and otherwise.

Those favouring intervention argue that maintaining the exclusive right in extreme cases may delay research into developments from the basic innovation for many years, as the incentives are lacking. The holder may have no further need to invest in innovation and third parties would not be able to exploit the results of their investment without a licence under the basic patent. Any monopoly profit resulting from the subsequent investment would have to be shared with the holder of the basic patent. Consequently, less than the optimal amount of investment might be expected. In some cases none.

The difficulty for policy makers is that it is not possible to quantify the value of the results that will be lost either if compulsory licences are not granted or if they are.

My immediate reaction was that the width of the claims would be better dealt with by patent offices as this would lead to greater certainty earlier and to less litigation than ad hoc intervention case by case through antitrust proceedings. Patent examiners are likely to have more of the relevant skills relating both to patent law and the particular technology than competition authorities.

The difficulty is that patent offices, faced with a blockbusting innovation, may not realise how wide the claims are. Consequently, the issue remains whether antitrust or competition law should act as a backstop to require licensing after the event, when a third party wants to exploit a very important innovation protected by patent or whether provision should be made for the patent office to grant compulsory licences in extreme cases.

The FTC hearings

The Federal Trade Commission in the US held some fascinating hearings into the desirability of the antitrust agencies intervening in these and other situations. Very able economists, business managers and lawyers contributed to the discussions in November 1995.[4] It devoted a day to the issue of compulsory licensing. Marshall Phelps and some of the foremost economists, lawyers and businessmen presented papers and answered questions from the Chairman and his officials.

John Barton,[5] raised the question of very broad patents, such as one granted in the US for 'all transgenic rice' and another for 'all human genetic therapy in which the actual genetic transformation of the cells is done outside the human body.' As a result of a small survey he conducted, he thought these were not exceptional, although I am told that such wide patents might not be granted in Europe. The decision what to do was difficult because the original innovation may be very important and have cost a lot. Yet the width of the protection may reduce the incentives to incremental and follow on research.

Wide patents may lead to cross licensing and patent pools limiting access by third parties even if the cross licences are not expressed to be exclusive. An inner group of firms may form with access through cross licensing, and a new entrant needs a sufficiently important improvement to balance the aggregate technology of the group to join it. This weakens the incentives of the inner group to invest in invention. The need for third parties to negotiate a cross licence after investing in the R & D adds an additional uncertainty

to the outcome of its research. Moreover, there will be only one monopoly profit for the third party to earn and it will have to share it with the holder of the basic patent. Consequently less than the optimal amount of investment in subsequent R & D is to be expected.

He went on to consider possible remedies under patent law to increase the incentives for a subsequent inventor:

1) expanding the experimental use exemption;

2) limiting patent protection to inventions closer to the market; or

3) requiring a compulsory licence to be given to the subsequent inventor of a very important development.

The alternative remedy is to invoke antitrust, and treat the refusal to license a very basic or very broad patent as monopolisation even in the absence of any other kind of fault.

Douglas Rosenthal stressed the importance of antitrust specialists contributing to the decision how wide intellectual property rights should be. He also raised the need to consider antitrust considerations in trade negotiations.

F.M. Scherer,[6] suggested that it was only in the pharmaceutical and agricultural chemical fields that the possibility of gaining a patent operated as one of the most important incentives to investment in innovation. He gave some examples of situations where he thought that patent protection deserved scrutiny:

1) where an idea was being widely discussed and one firm won the race to the patent office;[7]

2) when a firm acquired a patent from a competitor in order to prolong the protection when its own patents had expired; and

3) where there was exclusive licensing from the only two innovating firms upstream.

One might expect most systems of antitrust to intervene in the last two situations.[8]

In answer to a question, he advocated some form of mandatory licensing where there was a genuine bottleneck situation and a very strong public interest in breaking it. He advised hesitation in doing so, because of the reduction of incentives.

During the question session, several people stressed that some of the questions should be answered when establishing or interpreting the criteria for obtaining an intellectual property right. They advocated that the competition and intellectual property people concerned in legislation should enter into a dialogue. This might reduce the extent of intellectual property rights and would have the advantage of laying down rules in advance rather than intervening *ad hoc* after the event. This would result in greater certainty.

The consensus seems to have been that compulsory licences should be rare but that it might be appropriate to narrow the scope of patents.

I shall now turn to the possibility of *ad hoc* intervention under antitrust.

The case law may require compulsory licences from dominant firms

As David Gerber has explained, section 2 of the Sherman Act prohibits monopolisation and there is a doctrine of essential facilities resulting from case law -- the owners of an essential facility may monopolise contrary to s.2, unless they make the facility available to outsiders. Philip Areeda of Harvard, however, concerned about reducing incentives to investment in creating the essential facility, has pressed for this doctrine to be applied very rarely, mainly in cases where a group of competitors has acquired a bottle neck facility that they did not have to create.[9] The holder of a vital patent is likely to be at the other end of the spectrum of possibilities. One of Professor Barton's concerns, the insiders who cross license each other, comes at least in the middle of spectrum. The incumbents have made important contributions to technology, but it is the aggregate value of all their research that the new-comer may have to match to join the pool and compete.

In the European Communities, there is no need to invoke a doctrine of essential facilities to require a firm with far less market power than those to which section 2 of the Sherman Act applies to supply third parties, although the doctrine has been invoked by the Commission in several cases relating to transport.[10]

Article 86 EC forbids, as incompatible with the common market, the abusive exploitation of a dominant position within the common market. This has been construed far more broadly that section 2 in the US. Firms with no power over price have been held to be dominant over very narrow markets, such as bananas to the exclusion of Summer fruits,[11] or the supply of tyres for heavy vehicles, to the exclusion of retreads, to retailers in the Netherlands.[12]

The Community Court has frequently held that a firm enjoying a dominant position may be required to supply former customers,[13] and the doctrine was applied to new customers in GVL.[14] EC competition law, being far more desirous than US antitrust of enabling smaller firms to enter a market, is more likely to require the grant of a licence.

In the European Communities, the Court has been hostile to patents and other intellectual property rights and reduced their value very considerably in the 1970s.[15] They were perceived as barriers to entry depriving undertakings of their natural right to enter markets. In the 1980s, the Community Court became rather more sympathetic towards intellectual property rights and began to mention the need for rewards and incentives if investment were to be made.

In 1995, however, it confirmed the views of the Commission and Court of First Instance that in exceptional circumstances the television companies which held copyright in their individual listings might be required to supply the information to a third party and license publication in a comprehensive guide. The refusal to supply the information amounted to the abuse of a dominant position contrary to article 86 of the EC Treaty. The judgement is controversial and it is not clear whether it applies also to patents.

Although the Community authorities are more likely to intervene under Article 86, actions in national courts have not been frequent. Community law does not provide for multiple damages. Procedure is governed by national law. The common law countries do not permit the massive discovery known in US, most of which we would call 'a fishing expedition' and the civil law jurisdictions have nothing like it. In the common law jurisdictions within the common market, class actions are far more limited and contingency fees are not permitted. Nevertheless, there have been several cases arising out of Community competition law in England over the last year.

Volvo* and *Renault

When faced with a claim for a compulsory licence under Article 86 EC in *Volvo,*[16] the Court ruled that the exclusive right was part of the very subject matter of a design right and that to require a compulsory licence even for a reasonable royalty would deprive the holder of the very substance of his intellectual property right. It added, however, that a holder enjoying a dominant position who refused to license might be abusing that position in three situations:

1) where he refused to supply spare parts to independent repairers;

2) where he charged too high a price for those spare parts; and

3) where he ceased making spare parts for a particular model, when there were many cars still on the road.

These examples were suggested by Counsel during oral argument and since there was no reason to think that Volvo was doing these things, no-one had any reason to dispute that they would amount to an abuse. Article 86 lists specific examples of an abuse, including unfair pricing, so it would be difficult to argue that the second example was wrong, although it is not easy to apply[17] and Advocate General Mischo said at para. 32 that it the holder might charge a sum covering not only production costs and profit margin, but also a sum to cover a contribution to the original R and D. The other two examples seem to me to be far more questionable.

In *Renault*[18] the Court gave a virtually identical ruling.

Business was delighted, but the three examples came back to haunt it in the next case. Clearly, they are not exhaustive.

The Magill litigation[19]

Under the law of the UK[20] and Ireland, television companies were held to have copyright in the listings for their programmes. Each of the three companies that transmitted television programmes that could be received in Ireland and Northern Ireland published a weekly guide to its own programmes. Each also provided lists to daily and periodical newspapers on request and licensed them without charge to publish daily and weekend lists as well as weekly highlights.

When Magill first published a comprehensive weekly guide to the programmes of all three stations, each of the television companies sued it successfully for copyright infringement and restrained publication. Magill made a complaint to the EC Commission which decided that the refusal to licence amounted to an abuse of a dominant position contrary to Article 86 of the EEC Treaty and ordered the three television companies to terminate the infringement

> 'by supplying . . . third parties on request and on a non-discriminatory basis with their individual advance weekly programme listings and by permitting reproduction of those listing by such parties.'

This was confirmed by the Court of First Instance and, on points of law, by the Community Court.[21] At para. 46 the Community Court confirmed its earlier rulings that 'mere ownership of an intellectual

property right cannot confer' a dominant position. It added, however, that the three television companies enjoyed

> 'a *de facto* monopoly over the information used to compile listings for the television programmes received in most households in Ireland and 30 percent to 40 percent of the households in Northern Ireland. The appellants are thus in a position to prevent effective competition on the market in weekly television magazines. The Court of First Instance was therefore right in confirming the Commission's assessment that the appellants occupied a dominant position. . . .'

This was a narrow market, far narrower than the broad patents which Professor Barton discussed at the FTC hearings, but there is case law in the EC treating a firm on whom other undertakings are dependent as dominant. The Court went on to say that there were no substitutes for the information, and the unusual copyright operated as a barrier to entry.

At para. 49, the European Court of Justice confirmed that in the absence of standardisation or harmonisation it was for national law to define the scope of intellectual property law, and that a refusal to license did not necessarily amount to an abuse.[22]

It added at para. 50 that the exercise of the exclusive right, might however amount to abusive conduct in exceptional circumstances and referred to the circumstances relied on by the Court of First Instance:

a) [23]that there was no substitutes for the information (para 52);

b) that there was a specific constant and regular potential demand for a comprehensive guide; [24]

c) the refusal deprived consumers of the choice of a comprehensive guide; [25]

d) that the refusal prevented a third party from introducing a new product for which there was a potential demand; and

e) which the television companies did not offer (para. 54). [26]

Secondly, the refusal was not justified (para.55),[27] and thirdly, the appellants thereby reserved to themselves a secondary market in weekly TV guides (para 56).[28]

> '57. In the light of all those circumstances, the Court of First Instance did not err in law in holding that the appellants' conduct was an abuse of a dominant position within he meaning of Article 86 of the treaty. . . .'

The judgement has been highly controversial, but might have been expected. Few countries in Europe or the USA grant copyright to protect information.[29] Any Court would hesitate to enable the holder of such a disreputable right to prevent the activities of an entrant to a market downstream as a matter of policy.

The controversial questions are whether the precedent extends beyond unmeritorious copyright to respectable but broad patents that may have resulted from massive investment in R & D, whether and, if so, when is the holder of an improvement patent protecting a new product entitled to a compulsory licence under the basic patent and on what terms? The wording of the judgement of the Community Court seems to affirm that the precedent may extend beyond copyright[30] and require a compulsory licence in exceptional circumstances, but in other respects it is narrow and closely tied to the facts of the case.

The Commission's legal service is construing the precedent narrowly[31] but some officials in the Commission's department dealing with intellectual property are concerned that legal advisers may construe the Magill widely.[32] The judgement is very much shorter than the opinion of Advocate General Gulmann and it is thought that where it does not expressly overrule his opinion, the latter retains some authority.[33] In Oscar Bronner[34], Advocate General Jacobs treated Magill as highly exceptional with well articulated reasoning.

I would be concerned if the precedent were extended to other intellectual property rights that are intended to induce investment in innovation unless there is a real bottle neck and the new entrant has something really novel and valuable to offer.

Taken literally, the judgement in Magill could result in the holder of a basic patent in an invention for which there is no substitute, being under a duty to license the holder of an improvement patent which protects a new product.[35] The holder of the basic patent is restrained by the improvement patent from producing the improved product to satisfy demand. So all the conditions set out in paragraphs 52 - 57 of the Magill judgement would be fulfilled.

Is this wrong on grounds of policy? It would reduce the incentive to the investment leading to the basic patent. Copyright in information is most unusual. Civil lawyers tend to think of copyright primarily as protecting moral rights, and even common law jurisdictions, have limited copyright in listings. They are not protected in the US since the judgement in Feist nor, since the Act of 1988, in the UK where a compulsory licence is now obtainable as a matter of copyright law.

The Court repeated in para. 49 its earlier rulings that, in the absence of harmonisation or standardisation at a Community level, it is for national law to decide the limits of intellectual property. I would have preferred the Court to have held that there must be some limitations to the national intellectual property rights which can be invoked by dominant firms. One can sympathise with the gut reaction that there was no justification for copyright in the listings. It was not needed to encourage investment either in compiling the listings or in developing the programmes, but by leaving the scope of intellectual property rights to national law, the Court may have created a precedent that might later be extended to more respectable intellectual property rights for requiring compulsory licences.

The Court's reference to the role of national law, however, does make it easier to say that it is only rarely that Community law will interfere with it and require a compulsory licence.

The Court emphasised in para. 50 that it is only in 'exceptional circumstances' that the exercise of an exclusive right is abusive. The lack of substitutes mentioned in para. 52[36] was a question of fact of which the Court of First Instance was the final arbiter.

As Professor H. Hansen of Fordham University observes in a forthcoming contribution[37] the Court's language is narrow in several respects. It is tied closely to the unusual facts of the case. The conditions for its application described in para. 53 include not only that the appellants were the 'only source' of the information, but also that the information was 'indispensable' to create the product downstream, not merely helpful or better than anything else available.

The Court held, also at para. 53, that it was the basic information rather than the copyright over which the companies were dominant. Professor Hansen thinks that this enables one to argue that when copyright is more meritorious the answer would be different because information would not be being withheld.

The Court suggested at para 54 that when the third party wants to produce a new product he can claim damages or a compulsory licence. How 'new' must it be? It is hoped that this condition may be tightened, especially if the precedent be applied to patents. It is only when the new product amounts to an important innovation that Professor Barton and other witnesses at the FTC hearings advocated the possibility of a compulsory licence. Most of those bearing witness were wary of reducing the incentives to the basic R & D and advocated that intervention should be very restrained.

Professor Hansen suggests that the comprehensive guide Magill tried to publish was only an improvement and not a new product. The distinction must be one of degree and hard to draw.[38] It may be drawn at different places for different purposes. It is important that whoever draws it recognises the importance of incentives being in the right place to induce the right amount of investment in basic innovation and in its development. On that basis, compulsory licences should be rare.

Where a firm spends a fortune on developing the cure for a serious and wide-spread disease and obtains a patent, the circumstances might be thought not to be sufficiently exceptional within the meaning of para. 50 of the judgement in *Magill* to warrant intervention with the exclusive right. Moreover, there might also be a justification within the meaning of para. 55. It may be argued that the intellectual property right is not the justification of the exclusive right, but that the inducement of significant investment may be. It was not the copyright, but the information over which the television companies were held to be dominant.

I am not happy with *ex post* consideration of the inducement needed to the investment leading to a particular invention. Some important and valuable inventions may come cheaply, as one runs for a bus, or is relaxing in the bath. Usually, they result from having thought about the problem first, but this investment may be impossible to quantify. Developing the idea to the stage of applying for a patent may be expensive, but some firms choose to patent at an early stage of development.

I have been happy with the rule that one does not have to establish the cost of developing an invention to obtain a patent. The market decides on the value of the invention, rather than an official or judge deciding the merits of the inventor or firm paying for his services and equipment.

I hope that compulsory licensing from an individual firm required on grounds of competition by a competition authority or a civil court, nether of them likely to be expert in either the technology or patent philosophy, should be rare. There may, however, be reason to intervene *ad hoc* on antitrust grounds when competing firms come together in patent pools.[39]

One of the problems of requiring compulsory licences is that lawyers are usually brought up to think *ex post*, once the technology has been developed it would clearly be more competitive to have more firms using it. Production would probably be greater and prices lower. Perceived *ex ante*, however, as is habitual for businessmen and economists, the possibility of compulsory licensing reduces the incentives for investment in innovation. Unless a firm can reap where it has sown - can appropriate the benefit of its investment - it is less likely to make it.

No one knows what is the optimal incentive to produce the best level of investment in innovation. The great benefit of patent law as it has developed is that the market decides how investment is directed. Governments and research institutes do not make these decisions free from market constraints.

If the *Magill* judgement does apply beyond unmeritorious copyright to breakthrough patents, it is very important that the qualifying licensee should be limited to one able to provide an important innovation.

Terms of any compulsory licence

Where compulsory or statutory licensing of intellectual property rights is required, for instance for records, the royalty that may be required is usually far below the value of the licence. If compulsory licences are to be required for breakthrough patents, should the holder be entitled to hold out for the value of the licence: for the cost of the opportunity? Its value would not be easy to determine, but such a test would reduce the incentive to innovation very much less than an arbitrary 5 or 10 percent of the price obtained for the products made by use of the invention.

At the other end of the spectrum, should the fee be the cost of drafting the licence plus a profit margin? That would remove much of the incentive to the original investment and might lead to a proliferation of applications for minor improvement patents in the hope of obtaining a compulsory licence.

In *Volvo*, Advocate General Mischo said that the holder should be able to recover the cost of developing the innovation. That is helpful as far as it goes, but perceives the issue *ex post*, after the investment has been made. I would add that he should also be allowed at least to multiply this figure by a factor representing the risk of the investment.[40]

One of the terms that should be required by the holder of the basic patent if he be required to license should be a cross licence under any existing or future improvement patents or developments in the know-how, otherwise the holder, who took the risk of the basic research, would be at a competitive disadvantage to his compulsory licensee who probably accepted far less risk.

Article 90 in combination with Article 86

Another legal pathway for the Commission to require a compulsory licence in the European Communities would be Article 90 of the EC Treaty. It forbids member states from enacting or maintaining in force measures contrary to the rules of the Treaty in the case of undertakings to which they grant special or exclusive rights and, subject to an exception that has been narrowly construed, enables the Commission to address directives or decisions to member states who infringe the article.[41]

Intellectual property rights are exclusive, and there was some concern that the case law under article 90 in combination with article 86, which has been expansive, might result in the evaporation of the intellectual property right if the patentee were unable, or chose not, to meet demand[42] or, indeed, even if there were a danger that it might fail to meet demand.[43]

So far, neither Court nor Commission has shown any inclination to invoke Article 90 to limit intellectual property rights. I fervently hope that this continues. Any other view would be difficult to reconcile with the Court's case law where it recognises that the existence of national intellectual property rights is protected by Article 222 of the Treaty[44] and that their exercise may be justified under Article 36.

The purpose of patent and copyright law is to enable those devoting resources to innovation to obtain a reward as an incentive to creative activity. This can only be done by enabling them to raise price, i.e., not supplying those who are unwilling to pay the higher price made possible by the exclusive right.

Conclusion

Currently, there is pretty wide agreement that *Magill* should be construed narrowly.[45] It is important that it should be. As Hugh Hansen says,[46]

> 'Magill is *sui generis* and will have little effect of future EC competition-law judgements of the Court of Justice. There remains the danger that cautious attorneys will counsel clients in a way that gives broad effect to *Magill*, thus giving it a life not intended by the Court.'

In 1988, we thought we could ignore the three examples given in *Volvo*, but they came back to haunt us in *Magill.* As the composition of the Court changes frequently, there is danger that the Community Court may construe *Magill* more widely to extend to patents, designs and meritorious copyright. It is thought that there is little likelihood of Article 90 being used by the Commission to require access by third parties, but the Commission might be by-passed by a request for a preliminary ruling under Article 177 from a national court asked to enforce the right.

In many decisions, the Commission has treated as restricting competition contrary to Article 85(1) any restriction of conduct that is important on the market, even if necessary to encourage investment by conferring protection against third free riders.[47]

It has invoked Article 86 against firm with no power over price[48] for any conduct that excludes others otherwise than on the basis of performance and has not been very articulate in distinguishing competition on the merits from other exclusionary practices.

The antitrust agencies in the US are familiar with more sophisticated economic analysis and I would be less concerned if they were, very occasionally, to grant compulsory licences. I would, however, be concerned if the Commission or Court took power from the *Magill* judgement to intervene with the validity of patents even if they be too wide. I suspect that patent examiners would be more familiar with the technology and with the criteria of patentability and I would prefer the possibility of compulsory licences to be appraised by patent experts rather than by the European Competition Department. Should legislation be adopted to enable patent offices to require compulsory licences after the grant of patents that have proved to be over wide?

Currently, there is the possibility of challenging the validity of wide patents in the courts. I think that even in Europe competition authorities should make their view known and enter into debate with the intellectual property people whenever intellectual property law is being extended.[49] It may be appropriate to provide for compulsory licences to be granted by the patent offices of the world, at least for biotechnology, but this would require legislation.

Annex on the protection of pharmaceutical products from the principle of free movement

I have been asked also to mention some of the EC developments on intellectual property and the free movement of goods where in the past the Court has been unsympathetic to the holders of intellectual property rights. There will not be time to speak to this part of my paper, as we want to focus on the inter-face between intellectual property rights and competition rather than between intellectual property rights and free movement, which is a peculiarly European problem.

In the Community, there has been concern that pharmaceutical patents do not give adequate protection to induce investment in R & D in Europe. Sometimes as much as 12 years of the 20 year life of the patent is taken up with clinical tests required to satisfy the regulations for safety. So, the supplementary protection certificate for medicinal products has been introduced by legislation[50] to confer, usually, about an additional 5 years of protection. It would be very serious if the protection of the patent and supplementary protection certificate were seriously undermined by compulsory licensing under the competition rules.

In the 1970s, the Community Court drastically reduced the value of pharmaceutical patents through its development of the doctrine of Community exhaustion. In numerous judgements it has ruled that once a product has been put on the market by the holder of a patent or other intellectual property right or with its consent, the holder could not exercise its right to restrain commercial import to another member state.

This has proved particularly serious in relation to medicines where some member states impose maximum price control, or reimburse prescription charges only for a list of cures selected, amongst other criteria, for their cheapness,[51] or do not grant process patents. Different member states have used different means to reduce the costs of health care and medicines are sold at widely different prices in different member states. This makes parallel trade particularly profitable.

In *Merck & Co. Inc. v. Stephar BV*,[52] the Court applied the doctrine of exhaustion even though it accepted that Merck could not have obtained a patent for its drug in Italy at the time when the invention was still novel. The Community Court refused to reverse that judgement *in Merck & Co. Inc. and others v. Primecrown Ltd and others*.[53]

Some countries which seek to join the Common Market, do not grant product patents for pharmaceutical products. When Spain and Portugal joined, this was considered so serious that they were required to join the European Patent Convention and until three years after the date when product patents were available, there was no free movement of goods for pharmaceutical products between Spain and Portugal on the one hand and the rest of the Common Market on the other. This period is now over, but the Commission has rejected the applications of France and Belgium to adopt safeguard measures to restrain imports from Spain to other member states.[54]

Merck and Beecham have been trying to exercise their UK patent rights to restrain imports from Spain and Portugal into the UK and Jacob, J., invited the Community Court to rule that *Merck v. Stephar* is no longer good law. The problem may seem to be temporary in that Spain and Portugal now enforce product patents granted by the EPO for Spain, but the problem may continue for nearly 17 more years, and indeed, another 5 thereafter with supplementary protection certificates. As new countries join the Common Market from Eastern Europe, the problem will have to be addressed, I hope by more enduring provisions in their Acts of Accession.

The *Primecrown* case was excellently argued and Advocate General Fennelly asked the Court to rule that a patent may be used to restrain imports where there was no opportunity to obtain a product patent when the invention was still novel, but he was not prepared to go further and recommend that when the price of a product capable of patent protection is reduced by stringent control of maximum prices free movement should be restricted.

I would have liked the Community Court to rule that such price control distorts competition and is contrary to Articles 3(g) and 5(2) of the EC Treaty. This radical solution would have the advantage of not requiring an arbitrary decision as to which prices were too low, or what control of prices is excessively strict.

The Community Court however confirmed its earlier judgement in *Merck & Co. Inc. v. Stephar*: the doctrine of exhaustion applies even if there was no right to exhaust.

In *MPA Pharma GmbH v. Rhone-Poulenc Pharma GmbH* at para. 19 the Court said:

> 'distortions caused by divergent pricing rules in one Member State must be remedied by measures of the Community authorities and not by another Member State introducing measures which are incompatible with the rules for the free movement of goods.'

Unfortunately, it did not say which Community authorities, or include itself in the description. I doubt whether the Council has power to alter the doctrine of exhaustion, which the Court has said is derived from the Treaty itself. In these days of 'subsidiarity' the Court is less likely to attempt to control the conduct of member states.

The laws and customs of the various Member States require differing numbers of doses to be packed in a blister pack or other container, and the pharmaceutical companies comply with these differing traditions. Consequently, a parallel trader may have to cut open a blister pack and repackage the drug to correspond to the tradition in the country of import. This may well amount to an infringement of national trademark law.

The Court ruled *in Bristol-Myers Squibb and others v. Paranova*[55] *and Eurim-Pharm Arzneimittel GmbH and Beirsdorf and others*[56] that trademarks cannot be exercised when this has the effect[57] of restraining imports from Spain if :

1) the repackaging could not affect the original condition of the product;

2) the packaging clearly states who repacked the product;

3) the presentation of the repackaging is not such as to be liable to damage the reputation of the mark; and

4) notice be given to the trademark holder before the product was put on sale.

It is for the national court to decide whether cutting the blister packs so as to provide the number of doses required or traditional in the country of import would meet the first and third conditions.

The Court considered the justifications for using trademarks law under Article 36 EC in the judgement on *Eurim-Pharm* and under the trademark directive in *Bristol-Myers Squibb*. The function of marks has been held by the Community Court not to include the maintenance of high prices.

The Commission imposed a fine on Bayer for an alleged concerted practice between Bayer and its dealers in Spain and France restraining them from exporting Adalat to other Member States.[58] Bayer denied any such concerted practice, although it accepted that it had decided to supply only 10 percent more Adalat than had been ordered in the previous period in the hope that this might limit the parallel trade. It appealed to the Court of First Instance,[59] and asked for an order suspending the decision in so far as it might be construed as requiring Bayer to supply unlimited amount to its Spanish dealers. It claimed (para. 18) that its refusal to supply unlimited quantities was a unilateral act and not collusive. The President of the Court granted that order, but judgement is unlikely to be delivered before 1999.

It seems that some pharmaceutical companies are giving up the struggle to charge something nearer to what each market will bear. It might be worth notifying an agreement with a dealer in the countries where only low prices may be charged containing an export ban. Certainly, the pharmaceutical industry has a better case for permitting export bans than any other. The proportion of turnover devoted to R & D is exceptionally large and little of it is paid for by research contracts as it is in the defence industry. The Bangemann Committee has been suggesting that DG IV should permit such export bans. With such a notification, the company could not be fined for a concerted practice to deter exports if it rations the dealers in the low priced countries.

NOTES

1. Professor Emeritus of Competition Law at University College London, Author of several books including:

   - EC Competition Law and Practice, 6th. ed. 1997, Hart Publishing ;
   - Cases and Materials on EC Competition Law, Sweet & Maxwell, 1996, revised reprint by Hart Publishing 1998;
   - Technology Transfer and the EC Competition Rules, 1996, Oxford University Press.

2. I am grateful to John Richards of Ladas and Parry for conversations on the topic. He has not seen even a draft of this paper, so cannot be blamed for my mistakes.

3. In many industries, newcomers can invent around the patent, but this is not true of a polypeptide chain. The holder of the first patent may be able to control both tests and cures for an important disease for 25 years and remove the incentives to further innovation by others.

4. Summaries of the evidence were published in 69 the Antitrust and Trade Regulation Report, 670. The full papers and oral discussion were also placed on the internet. A summary was produced by the staff of the FTC, *Anticipating the 21st Century - Competition Policy in the New High Tech, Global Market Place*, May 1996.

5. George E. Osborne Professor of Law at Stanford University.

6. Larsen Professor of Public Policy at the John F. Kennedy School of Government at Harvard University, at the FTC hearings on Nov. 29

7. He gave an example where the invention had actually been published, but this was not noticed when the patent was granted.

8. The first is a horizontal agreement between competitors adding to the market power of the acquirer. It would probably be appraised under a rule of reason in the US. In the EC, bringing together the two sources of technology might be attacked under Article 85 or Article 86. See *IGR Stereo Television, Commission's Eleventh Report on Competition Policy*, point 63, *Commission's Fourteenth Report on Competition policy*, point 76; and *Tetra Pak I (BTG licence)* (88/501/EEC), 26 July 1988, [1988] OJ L272/27, [1990] 4 C.M.L.R. 47 and, on appeal, *Tetra Pak Rausing SA v. Commission* (T-51/89), July 10, 1990, [1990] E.C.R. II-309, [1991] 4 C.M.L.R. 334, [1990] 2 C.E.C. 409.

   In the second example, the second exclusive licence to a firm that already had one from the only other innovator, would not be a vertical agreement, also bringing together the only sources of the technology. The same problem is raised.

9. 'Essential Facilities: an Epithet in Need of Limiting Principles,' 58 Antitrust Law Journal 841.

10 *E.g., British Midland* OJ 1992, L96/34, [1993] 4 C.M.L.R. 596, [1992] 1 C.E.C. 2261, *French African shipping* OJ 1992, L121/45, [1993] 5 C.M.L.R. 632, [1992] 1 C.E.C. 2297, paras 68-69 *Rodby OJ* 1994, L55/52, para 12.

   See John Temple Lang 'Defining Legitimate Competition: Companies' Duties to Supply Competitors, and Access to Essential Facilities,' 1994 *Fordham Corporate Law Institute* 245, and reply by James S. Venit, and John J. Kallaugher 'Essential Facilities: a Comparative Law Approach,' *Ibid*. 315.

A useful analysis of the cases relating to ports etc. by Richard Whish was published by eds, Hans Jacob Bull and Helge Stemshaug, *EC Shipping Policy - the 17th Nordic Maritime Law Conference, 2 - 4 September 1996*, 1997, Juridisk Forlag Oslo.

11. *United Brands Co. and United Brands Continental BV v. Commission* (27/76), February 14, 1978, [1978] E.C.R. 207, [1978] 1 C.M.L.R. 429, C.M.R. 8429.

12. *Michelin--Nederlandsche Banden-Industrie Michelin v. Commission* (322/81), November 9, 1983, [1983] E.C.R. 3461, [1985] 1 C.M.L.R. 282, C.M.R. 14031. The retailers' customers were users of heavy trucks, and could have picked up a supply of the appropriate tyres when returning from making a delivery in other countries.

13. In *United Brands Co. and United Brands Continental BV v. Commission* the Community Court said:

'182 In view of these conflicting arguments it is advisable to assert positively from the outset that an undertaking in a dominant position for the purpose of marketing a product -- which cashes in on the reputation of a brand name known and valued by consumers -- cannot stop supplying a long standing customer who abides by regular commercial practice, if the orders placed by this customer are in no way out of the ordinary.

183. Such conduct is inconsistent with the objectives laid down in Article 3(f) of the Treaty, which are set out in detail in Article 86, especially in paragraphs (b) and (c), since the refusal to sell would limit markets to the prejudice of consumers and would amount to discrimination which might in the end eliminate a trading party from the relevant market.

184. It is therefore necessary to ascertain whether the discontinuance of supplies by UBC in October 1973 was justified. . . .'

14. (7/82) [1983] E.C.R. 483, [1983] 3 C.M.L.R. 645, C.M.R. 8910.

15. In an annex I describe briefly the doctrine of exhaustion and possible changes.

16. *Volvo AB v. Erik Veng (U.K.) Ltd.* (238/87), [1988] E.C.R. 6211, [1989] 4 C.M.L.R. 122, C.M.R. 14498, the Court said:

"7. It must first be observed, as the Court held in its judgement . . . (*Keurkoop v. Nancy Keen gifts* [1992] E.C.R. 2853) with respect to the protection of designs and models, that, as Community law stands at present and in the absence of Community standardisation and harmonisation of laws, the determination of the conditions and procedures under which protection of designs and models is granted is a matter for national rules. It is thus for the national legislature to determine which products are to benefit from protection, even where they form part of a unit which is already protected as such.

"8, it must also be emphasised that the right of the proprietor of a protected design to prevent third parties from manufacturing and selling or importing, without its consent, products incorporating the design constitutes the very subject-matter of his exclusive right. It follows that an obligation imposed upon the proprietor of a protected design to grant to third parties, even in return for a reasonable royalty, a licence for the supply of products incorporating the design would lead to the proprietor thereof being deprived of the substance of his exclusive right, and that a refusal to grant such a licence cannot in itself constitute an abuse of a dominant position.

"9. It must however be noted that the exercise of an exclusive right by the proprietor of a registered design in respect of car body panels may be prohibited by Article 86 if it involves, on the part of an undertaking holding a dominant position, certain abusive conduct such as the arbitrary refusal to supply spare parts to independent repairers, the fixing of prices for spare parts at an unfair level or a decision no longer to produce spare parts for

a particular model even though may cars of that model are still in circulation, provided that such conduct is liable to affect trade between member states.'

17. The Commission usually avoids the difficulty by leaving the appraisal to a national competition authority or a national court.

18. Consorzio Italiano della Componentistica di Ricambio per Autoveicoli et Maxicar v. Regie Nationale des Usines Renault (53/87), 5 October 1988, [1988] E.C.R. 6039, [1990] 4 C.M.L.R. 265, [1990] 1 C.E.C. 59.

19. Telefis Eireann (RTE) & Anor v. Commission (C-241 & 242/91P), April 6, 1995, [1995] E.C.R. I-743, [1995] 4 C.M.L.R. 718, [1995] 1 C.E.C. 400; appeal from the Commission decision, *Magill*, (89/205/EEC), December 21, 1988, [1989] O.J. L78/43, [1989] 4 C.M.L.R. 757, [1989] 1 C.E.C. 2223.

20. Until 1988, when compulsory licensing was introduced.

21. By this time, Magill had gone out of business and the only issue in the end was who was liable for the costs of the litigation

22. 'in the absence of Community standardisation or harmonisation of laws, determination of the conditions and procedure for granting protection of an intellectual property right is a matter for national rules. Further, the exclusive right of reproduction forms part of the author's rights, so that the refusal to grant a licence, even if it is the act of an undertaking holding a dominant position, cannot in itself constitute abuse of a dominant position.'

The Court referred to the passages from Volvo cited in note 16 above.

23. The Court mentioned 5 circumstances in what it called its first point.

24. 50. However, it is also clear from that judgement (para. 9) that the exercise of an exclusive right by the proprietor may, in exceptional circumstances involve abusive conduct. . . .

52. Among the circumstances taken in account by the Court of First Instance in concluding that such conduct was abusive was, first, the fact that there was, according to the findings of the Court of First Instance, no actual or potential substitute for a weekly television guide offering information on the programmes for the week ahead. On this point, the Court of First Instance confirmed the Commission's finding that the complete lists of programmes for a 24-hour period - and for a 48- hour period at weekends and before public holidays - published in certain daily and Sunday newspapers and the television sections of certain magazines covering, in addition, 'highlights' of the week's programs, were only to a limited extent substitutable for advance information to viewers on all the week's programmes. Only weekly television guides containing comprehensive listings for the week ahead would enable users to decide in advance which programmes they wished to follow and arrange their leisure activities for the week accordingly. The Court of First Instance also established that there was a specific constant and regular potential demand on the part of consumers. . . .'

25. '53. Thus the appellants - who were, by force of circumstance, the only sources of the basic information on programme scheduling which is the indispensable raw material for compiling a weekly television guide - gave viewers wishing to obtain information on the choice of programmes for the week ahead no choice but to buy the weekly guides for each station and draw from each of them the information they needed to make comparisons.'

26. '54. The appellants' refusal to provide basic information by relying on national copyright provisions thus prevented the appearance of a new product, a comprehensive weekly guide to television programmes which the appellants did not offer and for which there was a potential consumer demand. Such refusal constitutes a abuse under heading (b) of the second paragraph of Article 86 of the Treaty.'

27. 55. Second, there was no justification for such refusal either in the activity of television broadcasting or in that of publishing television magazines. . . .'

28. '56. Third, and finally, as the Court of First Instance also held, the appellants, by their conduct, reserved to themselves the secondary market of weekly television guides by excluding all competition on that market [The Court cited *Commercial Solvents - Istituto Chemioterapico Italiano SpA and Commercial Solvents Corp. v. Commission* (6 & 7/73), 6 March 1974, [1974] E.C.R. 223, [1974] 1 C.M.L.R. 309, C.M.R. 8209. para. 25], since they denied access to the basic information which is the raw material indispensable for the compilation of such a guide.'

29. The draft directive in the EC on data bases, provided that information not otherwise available should not be the subject of an intellectual property right. Since the judgement in *Magill*, however, this provision has been deleted from the version of the data base directive actually adopted. Dir. 96/9/EC, 11 March 1996, O.J. L77/20. Some say this is because reliance can be placed on *Magill*, others to meet the objections of industry.

30. At paras 49 and 50, the Court refers to intellectual property rights generally and not just to copyright. At para. 50 it asserts that each television company was dominant over the information, not that it had copyright in it.

31. In PMI-DSV, O.J. 1995, L221/34, [1996] 5 C.M.L.R. 320, the Commission rejected the complaint made to it by Ladbroke Racing Deutschland that the direct and indirect refusals to grant it a licence for Germany infringed Article 86.

In Tiercé Ladbroke v. Commission, [1997] 5 C.M.L.R. 309, T-504/93, June 12 1997, an appeal from a different decision that consisted of an unpublished letter rejecting Ladbroke's complaint that the holders of copyright in French horse race films had refused to license it, the C.F.I. confirmed that even if the copyright holders were dominant, there was no duty to license Ladbroke which was already dominant in the Belgian market for betting shops. A new entrant was not being kept out.

There are several cases of *Ladbroke v. Commission.* It is important to check the Court's file number.

The judgement in Tiercé Ladbroke has been appealed, C-300/97P. See my critical comment in [1998] E.C.L.R. 169 and Enrique Gonzalez Diaz, comments in Ed. Hugh Hansen, 2 *International Intellectual Property Law and Policy*, chapter 36 at pp.1 and 3. Mr. Gonzalez Diaz was then a member of the Commission's legal service, but spoke in his personal capacity.

32. Paul Waterschoot said that *Magill* cannot be limited to its facts, `Recent Developments in Intellectual Property', to be published in *III International Intellectual Property Law and Policy*, Ed. Hugh Hansen, Juris Publications and Sweet & Maxwell. See also the views of Counsel to the Commission in the case, Ian Forrester `"A famous victory"? Third Party Access to intellectual Property Rights.' *II International Intellectual Property Law and Policy*, Ed. Hugh Hansen, Juris Publications and Sweet & Maxwell, chapter 35 and his answers to comments in chapter 36. At 35.15, he said `the Court could have limited its judgement to the very unusual facts of the case, but chose not to do so. It squarely addressed the issues before it, and, in effect, has created a framework for dealing with those cases where there is a refusal to grant a licence. This judgement is a very potent weapon. The Commission has said that it will use this power carefully.'

33. He referred to the specific subject matter of the copyright right which would include the right to refuse a licence, and its specific function: moral rights and a reward. Where a licence would interfere with that function, he considered that intervention under the competition rules should be very limited.

34. Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG and Other, (C7/97) opinion May 28 1988, judgement awaited.

35. the meaning of `new' is discussed below at text to note 38

36. It seems to me that there were substitutes both from the limited licences given royalty free to newspapers and from the individual guides. The comprehensive guide was not very'new'. See below text to note 38.

37. To be published by Sweet & Maxwell, probably in 1998.

38. In *Maize Seed -- Breeders' rights/Maize Seed* (78/823/EEC), 21 September 1978, [1978] OJ L286/23, [1978] 3 C.M.L.R. 434, C.M.R. 10,083, the Commission said that maize seed was not a new product warranting an open exclusive licence limited territorially. On appeal, however, in Nungesser *(*L.G.*)* KG and Kurt Eisele *v. Commission*, (258/78), [1982] E.C.R. 2015, [1983] 1 C.M.L.R. 278, C.M.R. 8805, the Court referred to the variety of maize 'newly developed' by Mr. Eisele which could be grown in the cold clays of Northern Europe and was a major innovation justifying an open exclusive licence.

39. These may provide positive benefits by enabling the parties to carry on with r & d and production without having to check whether some operation is restrained by intellectual property rights. Patent pools may also enable incumbents to amass patents which they refuse to license to outsiders, who are thereby prevented from competing unless they can buy their way in or have patents as useful as the aggregate owned by all the incumbents. See note 5 above and text thereto. In the US they are analysed under the rule of reason and exclusive licensing between the members of a patent or know-how pool is excepted from the EC automatic block exemption for technology licensing agreements.

40. The risk of designing a vehicle may not have been as great as that accepted when carrying out the r & d that led to a break through patent.

41. There is no right for third parties to require the Commission to adopt such an act. It retains discretion, *Ladbroke Racing Ltd., v. Commission*, T-548/93, [1995] E.C.R. II 2565. Nevertheless, the question might come before the Community Court on a reference from a national court asked to enforce the exclusive right as in the cases cited in the next two footnotes.

42. See Nicholas Green, 'Intellectual Property and the abuse of a dominant position under European Union Law: Existence, exercise and the evaporation of rights,' (1993) XX Brooklyn Journal of International Law, 141, after considering the Advocate General's opinion in Höfner v. Macrotron GmbH, (C41/90) [1991] E.C.R. I 1979, [1993] 4 C.M.L.R. 303.

    I replied critically *ibid.* at 161 and, in particular, at 168.

    One of the problems is that exclusive rights are given to enable holders to reap monopoly profits. It is presupposed that a patentee will produce less and obtain a higher price - in other words, that he will not supply the demand that would exist in a more competitive market. This sort of consideration was not spelled out in the Court's judgements on Article 90 in combination with Article 86 where the exclusive right was normally granted not to encourage investment in innovation, but to bring an activity into the public sector.

43. See Green's reference at p. 151 to the Court's judgement in ERT v. DEP (C-260/89) [1991] E.C.R. I-2925.

44. Consten SA and Grundig-Verkaufs GmbH v. Commission (56 & 58/64), [1966] E.C.R. 299, [1966] C.M.L.R. 418, C.M.R. 8046, *Volvo AB v. Erik Veng (U.K.) Ltd.* (238/87), [1988] E.C.R. 6211, [1989] 4 C.M.L.R. 122, C.M.R. 14498, and most of the cases on exhaustion.

45. Immediately after the judgement, the Court's information service provided a summary of the judgement stressing that the circumstances were exceptional.

46. It is reproduced in slightly different words in Ed. Hugh Hansen, *II International Intellectual Law and Policy*, 36.4.

47. Davidson Rubber Company (Re the Agreement of) (72/237/EEC), 9 June 1972, [1972] JO L143/31, [1972] C.M.L.R. D52, C.M.R. 9512.

I have never understood what this means, but Giuliano Marenco, the head of the competition team in the legal service of the Commission, is writing a contribution on the concept for the liber amicorum Michel Waelbroeck, which we hope will be published early next year by Bruyant.

48. *United Brands Co. and United Brands Continental BV v. Commission* (27/76), [1978] E.C.R. 207, [1978] 1 C.M.L.R. 429, C.M.R. 8429.

49. Some of the Community directives requiring member states to expand the scope of their intellectual property rights have been absurdly wide and ill considered. Council Directive 93/98 has extended the term of copyright to the life of the author plus 70 years, merely because this was the term protected in Germany, without any consideration of whether this was sensible for the many works now protected by copyright, such as computer software, nor what should happen to works that had already entered the public domain. Is more valuable literature or art likely to result from a term that may last 130 years rather than 110?

In relation to the wide extent and strong remedies for copyright in the UK, see The hon. Mr Justice Laddie,'Copyright: Over-strength, Over-regulated, Over-rated?' [1996] 5 EIPR 253.

Although copyright protects only from copying and not from newly innovating, it may well be more important to limit it and design law than patents, but that is not my subject today.

50. Council Reg. 1768/92, O.J. 1992, L182/1. There are similar provisions for pesticides and herbicides.

51. See, *e.g.*, Mr. Van Miert's answer to the Parliamentary question of Amedeo Amadeo, O.J. 1996, C161/59, [1996] 5 C.M.L.R. 22 about Adalat that was coming into the UK from France, where prices are controlled and Spain, where product patents could not be obtained at the time the drug remained novel.

See also Derek Ridyard and David lewis, 'Parallel Trade in Patented Medicines - Economics in Defence of Market Segmentation,' (1998) 4 *International Trade Law and Regulation* 14. They explain the various ways that different government limit the expenditure on medicines, and the economic theory that would favour charging more in some areas than others.

52. (187/80), [1981] E.C.R. 2063, [1981] 3 C.M.L.R. 463, C.M.R. 8707.

53. And in Beecham Group plc *v.* Europharm of Worthing Ltd (C–267 & 268/95), 5 December 1996, [1997] 1 C.M.L.R. 83, [1997] 1 C.E.C. 261.

54. O.J. 1996, L122/20 and 21. Merck has appealed against these decisions, *Merck & Co. & others v. Commission* (T-60/96).

55. (C-427, 429 and 436/93).

56. (C-71 - 73/94), judgements 11 July 1996. See also *MPA* Pharma GmbH v. Rhone-Poulenc Pharma GmbH, C232/94, judgement 11 July 1996.

57 Note that the Court has returned to the criterion of `effect' it had adopted in Hoffmann-La Roche & Co. AG v. Centrafarm Vertriebsgesellschaft Pharmazeutischer Erzeugnisse GmbH (102/77), [1978] E.C.R. 1139, [1978] 3 C.M.L.R. 217, C.M.R. 8466, rather than that of `intention' which it used shortly afterwards in Centrafarm BV v. American Home Products Corp. (3/78), [1978] E.C.R. 1823, [1979] 1 C.M.L.R. 326, C.M.R. 8475.

58. ADALAT, (IV/34.279/F3) O.J. 1996, L201/1.

59. T41/96. Order in T-41/96 R, on June 3, 1996.

AIDE-MEMOIRE

I. Chairman's Introduction

The Chairman of the Competition Law and Policy Committee, Mr. Frédéric Jenny, began by noting the complexity and increasing importance to competition authorities of issues involving intellectual property rights (IPR). He proposed to examine the interface between IPR and competition laws by beginning with a general look at the IPR/Competition Policy interface, then seeking to formulate some general competition law enforcement approaches in cases involving IPR, and finally focusing on some specific areas of overlap between IPR and competition law.

II. General Analysis - Intellectual Property Rights and Competition Policy - Complements, Substitutes, or Opposed?

A. Special features of intellectual property which affect how competition law should be applied to IPR

Panellist Will Tom (attorney with the U.S. Federal Trade Commission) highlighted four special features:

1. Ease of misappropriation

IPR perform a vital incentive function by helping to protect innovators against misappropriation of the fruits of their labour. They do not offer perfect protection however, so innovators can be expected to look for ways to reinforce, perhaps even extend them. Sometimes such efforts will produce anticompetitive effects that competition authorities may wish to address.

2. Public good nature of IPR

Though costing a great deal to create, the marginal costs of applying IPR are close to zero. Marginal cost pricing, a normal benchmark for competition agencies, is therefore infeasible in this domain.

3. Conflict between short run and long run efficiency

Carrying on from the previous point, requiring IPR to be priced close to zero would maximise short run economic welfare but would also reduce innovation and long run long run economic welfare. Applying policies, including competition policy, with an eye on the long run is clearly more difficult than confining attention to the short run.

4. The need to distinguish between horizontal and vertical effects

IPR must usually be combined with other IPR in order to produce a useful result. Agreements to exploit such complementarity are essentially "vertical" in nature and should be subject to a more flexible and inherently more difficult to apply competition standard than is appropriate for horizontal agreements, i.e. between competitors.

B. Relationship between breadth of IPR and competition

It is important to maintain a proper balance between encouraging innovation and promoting competitive markets, a point Professor John Barton (Stanford Law School) illustrated using three examples:

1. Express sequence tags (EST)

An EST is a short sequence of a human gene. The U.S. Patent Office is currently debating how broad a patent to give to someone who identifies an EST. Should it be narrowed to the exact sequence itself and gene identification based on the use of that sequence, or should it be broadened perhaps to include any gene sequence including the EST. The power to foreclose competition depends critically on patent breadth. For instance, a broad patent grant would give the patentee a blocking patent over a company which later finds the whole gene and may be able to develop a pharmaceutical protein on the basis of that gene.

2. Agricultural bio-technology

There have been a number of instances in agriculture where patents appear to be dangerously broad. An example arises in the case of Bacillus thuringiensis (Bt) used as an insecticide in crop plants. Four firms are asserting broad rights over this area. The first company's patent application disclosed the use of Bt in plants (as well as recoding), but provided specific details only of cloning Bt rather than of actual insertion into plants. The resulting patents include very broad claims over use. Based on a later disclosure describing insertion of Bt into tobacco plants, another company holds broad claims on "transformation vectors" that enable expression of Bt toxins. A third company bases its claims for use of Bt in corn on a still later disclosure describing several techniques of inserting a Bt gene into corn itself. And a final company is making claims based on a still later disclosure describing insertion of a Bt gene into corn using "microprojectile" methods. The four patentees may each have what amounts to a blocking patent to the use of Bt technology in all crop plants. If this is in fact so, each has the power to exclude new entrants plus an incentive to engage in cross-licensing. Overly broad patents are producing higher than necessary barriers to entry, and encouraging more cross-licensing (and information sharing) than is optimal. This contrasts with the pharmaceutical industry where firms tend to have a patent on a particular product giving the protection needed to justify the large investments required to prepare the product for market. Competition from other new products is not foreclosed to nearly the same degree as seems to be happening in genetically engineered agriculture.

3. Software - Microsoft

There are concerns about how Microsoft's dominance in the operating system standard (i.e. Windows) may give it the power to suppress competition in providing new operating systems and new software applications closely linked with Windows (e.g. Internet browsers). The significance of these possible threats to competition depend somewhat on the breadth of copyright protection Microsoft enjoys (e.g. how free are competitors to reverse engineer Microsoft's sofware; how much protection does Microsoft enjoy regarding certain interface aspects of its software).

In sum, it is clear that broader IPR is a two edged sword, increasing both the gains to innovation and the likelihood that IPR can be used to stifle competition.

C. Effect of Patent Breadth on Innovation

Acknowledging that the breadth of IPR might affect their anticompetitive potential, the Chairman called on Professor Nancy Gallini (Department of Economics, University of Toronto) to provide more information about the other side of the possible trade-off, i.e. the effects of patent breadth on innovation.

Professor Gallini reviewed the negative and positive effects that patent breadth might have on the incentive to innovate. As to the former, she noted that wider patent breadth:

1. increases the probability that rivals will be found to have infringed the patent and bestows greater power on the patentee in negotiating licences with other firms - both effects reduce incentives for other firms to engage in follow-on (secondary) innovation; and

2. may also reduce owners' incentives to undertake secondary innovation by granting them significant market power behind which they would feel less pressure to continue to innovate (empirical investigations of this theory have been inconclusive).

Turning to the possible positive effects of greater patent breadth, Professor Gallini noted:

1. greater stimulus to do research;

2. greater incentive to patent, hence divulge information which could help foster additional innovation - the narrower are patents, the more likely is an innovator to try to find alternative mechanisms for appropriating its rents including keeping the innovation a secret; and

3. increased incentive to license and a consequent boost to others' innovation - when firms are licensed they get more hands on knowledge of how an innovation works and therefore find it easier to develop improvements down the line.

Professor Gallini then turned to the empirical evidence to see whether the negative or positive effects of greater patent breadth predominate in terms of impact on primary and secondary innovation taken together. She noted that the empirical literature actually starts with the question, do patents matter at all? On that point the research shows that while patents are very important in pharmaceutical industries and some chemical industries, they are less so in many other industries. One study by Mansfield shows

that something like 90 per cent of his sample of pharmaceutical innovations and 20 per cent of the chemical innovations would not have been made without patents. In other industries where claims are made that patents are not all that useful, the greatest complaint appears to be that it is too easy to invent around the innovation, i.e. patents are too narrow.

Returning then to what would happen if patents were broadened, Professor Gallini noted a set of empirical studies which measured the importance of spillovers to encouraging R & D by other firms. The results clearly indicated that when patents are narrow and spillovers plentiful, R & D and patents will increase for firms benefiting from the spillovers.

The whole picture however must also include impacts on primary innovation, i.e. impacts on the firms generating the spillovers. Here Professor Gallini reported that the empirical work is quite sparse and inconclusive. Bernstein and Nadiri (1989), found that low appropriability, that is to say narrow patents, had a negative effect on R & D in each of four United States industries (the incentive effect on the primary innovator dominated). In another article using Canadian data, Bernstein found evidence that the spillover effect dominated. A third author, Richard Levin, found that various survey-based measures of appropriability were insignificant in regressions explaining R & D intensity at the industry level.

Professor Gallini noted that one or more conclusions could be drawn from the empirical work:

1. there are two predominant effects offsetting each other - a broad patent encourages primary R & D activity but reduces spillovers and consequent improvements or substitute products. Society must seek to balance these two effects depending on whether primary or secondary innovation is deemed to be the more important;

2. the models are mis-specified in that they do not include the endogenous decisions by the innovator to patent/license, the costs of patent searches or of wasteful imitation, thus making the results inconclusive. More empirical work is needed to control for these effects;

3. in terms of immediate practical policy guidance, it is clear that both intellectual property and competition policy matter. The intellectual property right is important for encouraging innovation activity and competition policy has a critical role to play in ensuring that the holder of the right does not cross the line, defined by the scope of the patent, and enter into anticompetitive territory.

Developing the last point, Professor Gallini cautioned competition agencies against effectively altering patent breadth to reduce the incidence of anticompetitive behaviour. She felt they lacked the information required to estimate the impact that might have on innovation. In any case, uncertainty about future actions by a competition agency would almost certainly reduce innovative activity

At this point the Chairman gave the floor to a third panellist, Professor Valentine Korah (Faculty of Law, University College, London) for her views on competition authorities tampering with patent breadth.

Professor Korah began by noting that care must be taken not to undermine investor certainty that innovation will be rewarded. When the competition authorities try to grant compulsory licences or say it is an abuse not to license, that all happens *ex post*. It is pretty unpredictable and it must reduce the incentive to make the original innovation. Professor Korah believed that the Patent Office is much more able to decide appropriate patent breadth than is the Competition Authority in Europe. She conceded though that this may be quite different in America where competition authorities are well staffed with economists.

She noted as well that economists are beginning to play a much bigger part in the EEC in DGIV, and feared that what she was saying might be a bit dated.

Professor Korah went on to say that courts too make decisions about reducing patent breadth, and offered an explanation of two comparatively recent cases at the European Court of Justice and the Court of First Instance, challenging the listeners to draw their own conclusions about whether these courts really understand the issues.

The first case was "Magill" (Telefis Eireann (RTE) & Anor v. Commission, C-241 & 242/91P, April 6, 1995, [1995] E.C.R. I-743, [1995] 4 C.M.L.R. 718, 1 C.E.C. 400), which Professor Korah described as follows. Three television stations could be received throughout Ireland and Northern Ireland and each of them earned very good profits from publishing a weekly list of programs. Magill tried to publish a comprehensive guide covering all three channels, but was successfully sued by each of the three copyright holders and effectively went out of business. The Commission, followed by the Court of First Instance and the Top Court, said that a refusal to license in this situation amounted to an abuse of a dominant position by each of the three stations. The courts confirmed that, in the absence of standardisation or harmonisation, the scope of intellectual property rights is a matter for national law but that the exercise of an exclusive right by the proprietor may in exceptional circumstances involve abusive conduct.

Professor Korah opined that academics are allowed to have 'on the one hand, on the other hand', but it is rather tough when the courts do it. She saw no difference between the existence of the right and its exercise, and believed the court had effectively found a way to do whatever it wanted. The decision outlined various criteria under which the refusal to license was found to be abusive: there were no substitutes for the information (Korah disputed this - there were substitutes inasmuch as the stations produced their own individual guides and they allowed newspapers to use comparative guides, consolidating guides for the next day or for the next weekend); the producer of a comprehensive weekly guide was dependent on the stations (nothing wrong with that in Professor Korah's eyes); and by refusing a licence the stations prevented the emergence of a new product (Professor Korah wondered how really "new" a comprehensive TV guide was). In sum, the Court found the refusal was not justified and wrongfully enabled the stations to reserve the market for weekly TV guides to themselves. Professor Korah believed that the underlying reason for this decision was a conviction that there should not be copyright on information (the situation in most countries) and Magill had somehow to be helped. Professor Korah stated that it would of course be a very difficult road to go down trying to second guess how wide intellectual property rights should be and that it would take away from certainty. In sum, she thought the case was wrongly decided but predictable.

Professor Korah's other case example was drawn from the Court of First Instance and concerned the rejection of a complaint. This was the Ladbroke's case (Ladbroke Racing v. Commission (T548/93) [1996] CMLR 549). Professor Korah began her description of the case by noting that the associations of race horse meetings had copyright in the film and commentary on the races Ladbrokes in Belgium complained to the Court of First Instance about their inability to obtain a licence. In dismissing Ladbrokes' complaint, Professor Korah believed the Court made several mistakes and mentioned two. The first was the notion that the films were "ancillary" to carrying on a betting shop business. In addition to wondering what exactly was meant by "ancillary", Professor Korah questioned both the pertinence and accuracy of that finding. Her second criticism was levelled at the Court's determination that there was no discrimination against Ladbrokes because the copyright holder did not itself operate in Belgium, nor did it license anyone else there. Professor Korah strongly disagreed and opined that it would have been better to have one set of films available to bettors than to have none. [More detail can be found on this case in

Professor Korah's paper included in this publication, entitled "Compulsory Licences and Incentives to Invest in Innovation".]

Professor Korah summed up by noting that the crunch issue arises when someone has a really valuable patent - a cure, for example for AIDS. Suppose that this cure has an unfortunate side effect, i.e. it induces deafness, but someone finds a way to solve that. Should the secondary innovator be entitled to a compulsory licence? Under Magill the answer appears to be yes, but Professor Korah hoped that a Court would balk at that because of the way it would reduce incentives for very valuable primary innovation. Noting that most judges are inadequately trained to make this kind of trade-off, Professor Korah strongly recommended that the matter be settled in the Patent Office *ex ante* rather than in the courts *ex post*.

The Chairman noted that, as expected, Professor Korah had expressed some strong views and that the issue of compulsory licensing would be reviewed later in the Roundtable. He then asked Mr. Rosen (representing the OECD's Business and Industry Advisory Committee) to present his views.

Mr. Rosen continued to develop the themes explored by Professors Gallini and Korah. He characterised the basic issue as how to maximise continued innovation while at the same time ensuring that innovators do not engage in anticompetitive abuses. He emphasised that innovation is a costly, risky undertaking, and this must not be forgotten when analysing the workings of the patent system and competition law.

Mr. Rosen noted that a study by the United States Federal Trade Commission (FTC), cited in the Roundtable's background paper, found that some business persons believed that competition is the primary incentive for innovation, and continued innovation is critical for success in increasingly global markets. Mr. Rosen agreed with that view, but said it applied to business people operating in an environment which includes the right under the patent system to exclude others and to obtain income from their inventions.

Mr. Rosen subscribed to what several previous speakers had said concerning the effect of uncertainty of government action on innovation. Even in the patent offices where there are people who diligently try to focus on what inventions should be granted, it is difficult to determine where the scope of patents should be. Certainly competition authorities should, according to Mr. Rosen, be wary of becoming involved in determining the scope of patents. He disagreed with Professor Barton that broad patents are a problem, saying that this had not been the case historically in telephones, automobiles and many other areas. Those with broad patents have either licensed others or worked them themselves. He conceded though that attention should be devoted to ensuring that patent protection is not broader than the invention. But if the invention is broad, such as in Professor Korah's cure for AIDS example, the coverage should be broad enough to permit the licensing of it.

That raised a second related question for Mr. Rosen, i.e. how to treat secondary innovation such as Professor Korah mentioned in her AIDS example. According to Mr. Rosen there should not be an absolute right to a license to facilitate marketing an improvement innovation. Such a right would inevitably and perhaps unduly reduce incentives to make the critical primary innovation. The present system of permitting the first inventor to exclude others is what gives patents their essential value in encouraging innovation. Mr. Rosen believed this system should not be tampered with in the guise of promoting other benefits. The result of going down that path could well be to dissuade persons from applying for patents. Moreover, it would introduce a lot of investment-reducing uncertainty into the innovation process.

At this point, the Chairman called for comment from delegations on the introductory issues covered.

A United States delegate led off by questioning Professor Gallini's use of Mansfield's research to support the idea that insufficient patent breadth explains why, in some industries, patents were not seen to be important. The delegate instead thought the results simply showed that in some industries other methods of protecting appropriability were superior to patents. That superiority may or may not be related to inadequate patent breadth. Professor Gallini admitted in response that it was a bit of a stretch to attribute Mansfield's finding to inadequate patent breadth. She took the opportunity to add that the literature makes it clear that non-patent alternatives were not equally available to small and large firms. Patents are disproportionately important to small start up firms and the contribution of such firms to innovation varies across industries.

A German delegate stated that although competition authorities are naturally wary of market power rooted in patents, they should remember that competition is a process and today's monopoly could be undermined by tomorrow's new innovation. Moreover, length of patent life is an important element of patent breadth that should be addressed. Perhaps a broad patent that lasts for a short time is better for promoting welfare than a narrow patent lasting a long time.

A European Union delegate objected to Professor Korah's use of Magill to infer that competition authorities might be willing to protect minor secondary innovation over more important primary innovation. He also pointed out that intellectual property laws have since changed in the United Kingdom, and possibly in Ireland as well, so that the kind of magazine Magill sought to offer is now freely available in those countries.

At a later point in the discussion, Professor Korah expressed delight that the European Union delegate gave a much narrower interpretation to the Magill judgement than some other commentators. Mr. Tom offered the view that Magill may have involved irrational behaviour. He then wondered how far competition authorities should go in seeking to rectify what appears to be irrational decision-making.

An Australian delegate was pleased to note that the Roundtable would later consider highly important international issues involving links between distribution and IPR issues. He also wanted to register the view that much of IPR law seems to be based on rather arbitrary decision-making which he suspected might be due to producer capture. For example, copyright law does not protect people's original ideas, as one might expect. Instead it protects the expression of ideas. The Chairman reinforced that thought by noting that the Australian submission mentioned that even when IPR was based on economic rather than moral principles, the economic interests promoted often tended to be those of IPR owners rather than the public at large.

In response to the Chairman's invitation for closing comments, Professor Gallini remarked that regarding the possibility of producer capture, it would be difficult to determine *ex ante* how industry players might want to influence patent breadth. Her guess though was that most participants would see themselves as having a better chance to be followers rather than primary innovators, so they would likely favour narrow patents. There seem to be a lot of software companies complaining about patent breadth and pressuring patent authorities to reduce it. This casts doubt on the capture theory.

Professor Barton offered the view that regardless of what one believes about capture there is still a need to find a reasonable basis for deciding how broad a particular new category of patents should be. He also re-emphasised that some patents are so broad, in agriculture bio-technology for example, that entry to entire industries is being blocked.

Mr. Tom stated that the patent breadth question should be set in a realistic context that the AIDS example tended to obscure. The typical case is not one where someone has made a breakthrough innovation and others are offering follow-on improvements. More commonly, the first marketable invention results from the little breakthroughs of many contributors building on each other's work. How much protection should that first invention receive? What will be the effects of that first patent and the associated uncertainty of patent infringement litigation on subsequent improvement work?

Mr. Rosen agreed with Mr. Tom's view that isolated inventions are very rare, and there will commonly be uncertainty concerning the rewards to improvement innovations once a patent has been granted. He observed however that this problem is not well resolved by giving greater protection to follow-on as opposed to primary inventions - caution is called for in moving away from the current system's favouring the initial invention and the certainty that provides.

A United States delegate interjected to make two points, the first being focused on the relative abilities of competition authorities and courts versus patent offices to evaluate scope of claims. Bio-technology and computer software are two examples, at least in the United States, where the patent offices themselves are saying they lack the databases and the research capacity to determine the novelty of claims and how broad a patent should be. In such a situation, especially if the Patent Office is drafting guidelines on patent rights, the competition authorities should provide comments on the competitive consequences of patent scope. That would be quite different than trumping the Patent Office after the patent has been granted. It could nevertheless have important welfare consequences and seems particularly appropriate in cases where patent authorities themselves confess that they are unsure how to proceed.

The delegate's second point focused on the capture issue. As a general policy matter Professor Gallini is right to expect most players may prefer narrow patents, but anyone actually applying for a patent seeks the broadest protection possible. At any rate, United States experience suggests that capture may indeed be a problem. Before the Court of Patent Appeals was created, inventors won only about one third of the infringement cases. Afterwards, that increased to about two thirds.

The Chairman registered his amazement that few if any country submissions mention the possibility of competition agents seeking to instil in patent authorities a greater concern for protecting and promoting competition.

III. General Principles Concerning the Application of Competition Law to IPR

The Chairman began this section by calling on Professor Gallini to present her views on alternative approaches that competition agencies might follow.

Professor Gallini prefaced her remarks by noting that competition policy influences economic welfare stemming from innovation through its effects on: *ex ante* incentives to innovate (the innovation market); *ex post* incentives to license or transfer innovations (the technology market); and the degree of price competition prevailing in output markets. She noted that competition policy traditionally focuses on the output market, though most agencies would also accept the need to review technology market effects. As regards seeking to influence innovation markets, this is controversial territory. Professor Gallini offered three general pathways through it.

The first and most radical suggestion was to use competition policy to correct perceived excesses or deficiencies in patent rights. Where such rights are deemed to be insufficiently broad to foster an appropriate level of innovation, competition policy could be applied in a deliberately lenient fashion.

For example, it could allow tying arrangements which indirectly extend the scope of patent. On the other hand, where protection is deemed to be too generous, competition authorities could make liberal use of the essential facilities doctrine to promote licensing on more favourable terms.

Professor Gallini labelled her second alternative the "innovation market approach", i.e. attention centers on competition in innovation markets. She believed this is basically the approach adopted in the United States Department of Justice/Federal Trade Commission Guidelines ["Antitrust Guidelines for the Licensing of Intellectual Property", issued in April 1995] (DOJ/FTC Guidelines) where the innovation market is a forward-looking concept defined as: "...the research and development directed to particular new or improved goods or processes, and the close substitutes for that research and development." As with the first approach, R & D considerations are taken into account. The difference though is that anticompetitive license restrictions could not be justified on the ground that they are necessary to ensure appropriability of returns from R & D.

The third suggested approach would abandon the use of competition policy to affect the volume of innovation. It would restrict competition policy to the product and technology markets. In contrast to the previous two approaches, diffusion of technology and pricing, not R & D, would be the paramount concern.

Professor Gallini used a "hypothetical" example to illustrate each approach's particular considerations - namely the case of a computer firm tying the sales of its operating system to software needed to access the World Wide Web. Such a tying arrangement could have the effect of foreclosing rivals in the software market. Under the third approach, R & D considerations would be ignored. Instead the focus would be on how competition and prices in the software market might be negatively affected. Attention would also be paid to possible effects on software diffusion and on price changes in the output, i.e. computer market. The second or innovation market approach, would ask all of those questions and add another - would there be a reduction in the pace of innovation and possibly in the number of software products that would be available as a result of the foreclosure of rivals in the software market. The first approach, would extend things still another step by asking whether the tying contract was necessary to make appropriate adjustments in what the copyright system was supplying in the way of incentives to innovate. Depending on the answer, the competition agency would either lean towards or away from allowing the tying arrangement.

Professor Gallini argued that the third approach would be the safest one for competition agencies to follow. The first approach risks significantly reducing R & D incentives by introducing important uncertainties as to when and where competition authorities might attempt to re-draw patent breadth *ex post*. The second approach is probably not really necessary since a more flexible potential competition analysis might suffice to address legitimate innovation market concerns. Moreover, the problems are already addressed by a certain degree of automatic fine-tuning. This arises because the greater is patent breadth and associated R & D incentives, the greater also are the chances that licensors will enjoy the kind of market power that motivates competition offices to strike down certain licensing restrictions. Restricting how patents may be used is much the same thing as reducing the breadth of the patents themselves.

Professor Gallini stated that a first best policy on patent breadth would require close coordination between patent and competition policies to work out the optimal balance between dynamic and static efficiency. This, she thought, extended beyond what was actually possible. She believed that the recommended third approach had the twin advantages of being practicable and of assigning tasks according to institutional comparative advantage. In her view patent offices should be left to define the rights that encourage innovation, i.e. scope and length of patent protection, and competition offices should

concentrate on preventing anticompetitive technology transfers and ensuring efficient use of technology in output markets. While competition authorities should respect patent office decisions on patent breadth *ex post*, Professor Gallini also thought that they should get more involved in policy debates with patent authorities to help determine optimal patent breadth *ex ante.*

Professor Gallini noted the view that patent policy is a blunt instrument - it does not distinguish that well among different industries and products. There is a certain logic then that competition policy should undertake the fine tuning that patent policy seems incapable of doing. She concluded nevertheless that this is much better done *ex ante* rather than *ex post* with all the uncertainty the latter entails (unless competition authorities can get judges to be very clear about what rules would be followed in doing an *ex post* fine tuning).

Professor Gallini made her recommendations more concrete by elucidating three principles which she maintained were embraced by the DOJ/FTC Guidelines and applied both her second and third approaches:

1. there should not be a presumption that intellectual property rights create market power;

2. licensing restrictions that do not reduce competition relative to a "no licensing" situation should be allowed; if a licensing restriction reduces competition from the "no licensing" situation, then an evaluation of offsetting pro-competitive effects from the restrictions and from the diffusion of the intellectual property should be made; and

3. competition policies should acknowledge the basic rights granted under patent law (i.e. take them as given) and concern themselves only with firms crossing over the line into anticompetitive territory (defined with or without reference to effects on future innovation).

Professor Gallini acknowledged that all three of her rules were easy to agree to in principle but challenging to put into practice.

Concerning the second principle, Professor Gallini explained that a patentee may be reluctant to license its innovation if it cannot include restrictions in the licensing contract. Proscribing such restrictions may effectively mean no licensing takes place. It follows that in deciding whether restrictions should be permitted, the benefits on diffusion and the effects on prices should be compared to a situation in which there is no licensing at all.

The third principle is probably the most difficult to apply because there is no obvious way to determine where the right of the patent ends and anticompetitive offences begin. Professor Gallini offered a rule of thumb advanced in a paper by Cameron and Scott - the further removed the lessening of competition is from the subject matter of the right, the stronger is the case for competition law intervention.. She also gave three examples of practices that should attract serious attention from competition offices:

1. tying patented with un-patented products;

2. extending royalties beyond the life of a patent; and

3. developing incompatible product designs.

Professor Gallini did not feel that the principles she elucidated called for different competition laws. Instead, as discussed in the DOJ/FTC Guidelines, they pointed to the desirability of a modified application of the law to cases involving IPR. A good example can be found in the case of licenses including price fixing terms. Outside the IPR context, horizontal price restrictions are normally treated as *per se* illegal. It might be wise to apply a more flexible approach when IPR is involved, however, because without the power to control a licensee's pricing, a licensor may simply refuse to license and this would be even worse for consumers. A *per se* illegality approach may also be inappropriate because technology licensing usually has both horizontal and vertical effects.

There might also be certain characteristics of innovation that would support a more lenient antitrust treatment. For example, innovations or goods incorporating innovations are often difficult to evaluate, especially by a potential licensee. Uncertainty and asymmetrical information problems could make tying or other restrictions strongly efficiency enhancing. Or there might be large, specific investments required for a licensee to adopt an innovation, making exclusive territories or exclusive dealing an efficient response.

Professor Gallini qualified her remarks by noting that they were motivated by conditions prevailing in the United States and Canada, so might not be applicable in other countries.

At this point the Chairman called on various countries to explore the degree of convergence with the principles advanced by Professor Gallini.

An Australian delegate noted that his country's approach was indeed close to what had been outlined. The competition authority takes as a given the intellectual property rights laid down by patent offices, under copyright law and so on, and there is no assumption that IPR automatically confers market power. The Trade Practices Act applies to restrict the anticompetitive use of IPR, with a limited exemption being supplied in Section 51. Beyond that exemption the normal competition provisions apply, including possible authorization of anticompetitive practices having efficiency justifications.

Another Australian delegate stated that his country's competition law had recently been amended to give the Australian Competition and Consumer Commission (ACCC) the power to review trademarks, more exactly certification marks, for anticompetitive effect. That represented a move towards enhancing cooperation between trademark and competition authorities.

The Australian intervention was followed by the United States which was asked to comment on Professor Gallini's reading of the DOJ/FTC Guidelines and to say something about innovation markets. In response a United States delegate outlined three core principles. The first was simply that licensing is pro-competitive and the second, there is no presumption in U.S. law that intellectual property creates market power. The third was that the same flexible antitrust rules are applied to conduct involving intellectual property as pertains to other kinds of conduct.

The delegate also noted that the guidelines say antitrust concerns may arise when a licensing arrangement harms competition among entities that, in the absence of licensing, would have been actual or likely potential competitors in a relevant market. This does not mean the legality of the licensing arrangement is determined by comparing its benefits with what would have happened had the licensing not taken place. This is something that the United States is explicitly not doing.

Since licensing is viewed under the guidelines as generally pro-competitive, it is normally subject to a rule of reason analysis.

Regarding the U.S. approach to innovation markets, there are two important thresholds that need to be borne in mind. First, an innovation market approach is only used where the effects of the arrangement cannot be fully assessed by looking at the technology and product markets. Second, this approach is confined to cases where the capability to engage in the relevant research and development (R & D) can be associated with specialised assets or characteristics of particular firms, i.e. core R & D competencies. In addition there is a type of 'safe harbour' which applies if there are a sufficient number of firms having the same capability and incentives to undertake certain R & D. The basic idea is to apply innovation market analysis where there is a competition problem that cannot be addressed at the product market stage. It is most commonly applied in pharmaceuticals where there is a long pipeline required to bring a product to market, and a merger, for example, could mean increasing the time consumers wait for a new product or significantly reduce potential product variety. Innovation markets might also be relevant in situations where firms are not competing in the same geographic markets but are competing in innovation technology.

Another U.S. delegate illustrated the application of innovation markets using the DOJ's GM/ZF case. This involved a merger between the only two firms in the world that were in a position to innovate in the area of heavy duty bus and truck transmissions. Innovation in this domain required access to a full line production plant. The delegate again emphasised the innovation markets would not be examined where anticompetitive effects are found in the technology or goods markets. Given that R & D performers are also usually licensors and producers, if there are anticompetitive effects in the innovation market there will be additional problems in the downstream technology and goods markets. It is worth remembering however that innovation markets are increasingly important because there are a growing number of sectors where the really decisive competition occurs at the innovation stage.

The next country called on was Mexico whose delegate pointed out that while competition policy aims to ensure free competition so as to contribute to an efficient and flexible economy largely regulated by market forces, IPR policy has a larger set of objectives. They include promoting and encouraging inventive activity, attracting and facilitating foreign investment, promoting research and development activities, and encouraging technology transfer and dissemination. The Mexican competition law provides an exception for IPR based monopolies.

The European Union delegation followed and began its intervention by noting that the existence of IPR is not prejudiced by the Treaty of Rome. However the exercise of those rights is subject to and limited by rules supporting the free movement of goods and services, including the Treaty's competition rules and the block exemption applying to technology transfer agreements in particular. Increasing attention is being paid to the impact of transactions, including mergers, on innovation.

At this point the Chairman stated that most countries heard from seemed to be applying Professor Gallini's recommended approach. He opened a general discussion by asking whether there were countries which were using competition policy to redress excesses or deficiencies in IPR policies and whether countries are comparing the effect of licences to what would happen if the licences were proscribed.

A Japanese delegate remarked that his country is taking a more pragmatic approach than what was suggested, and described three sources of policy applying to IPR and competition. Section 23 of the Antimonopoly Act exempts conduct recognised as a legitimate exercise of copyright and patent rights, but this is left undefined in the statute. In addition, there are the Fair Trade Commission's 1989 guidelines dealing with unfair trading practices involving license agreements, and its 1993 guidelines applying to joint research and development. Both sets of guidelines are meant to be applied on a case by case basis

and classify restraints into three types depending on the probability that they amount to unfair trade practices.

A United States delegate made the point that although the US shies away from fine tuning IPR, competition authorities should reserve the right to do so in certain cases, just as they do regarding the use of other property (i.e. application in rare instances of the essential facilities doctrine). Since IPR tends to have a shorter life span than things like railway bridges or mountains developed as ski resorts, there will probably be even fewer IPR compared to physical property cases where competition agencies feel the need to interfere with the property rights owners' pursuit of profit.

In response to the Chairman's query about alleged differences in IPR constituting a reason for not treating it like any other property, a United States delegate clarified that the basic stance is the same but recognised that in practice IPR licences may be more inherently efficient than other types of property transactions.

A United Kingdom delegate stated that at present the U.K. follows the three principles set out in the paper by Professors Gallini and Trebilcock (included in this publication, ed.), and mentioned as well that a major review of competition law was underway which aimed to adopt provisions analogous to the European Union's Articles 85 and 86. The Office of Fair Trading will probably be obligated to produce new guidelines in connection with the reform and the business community has already expressed concern about how IPR will be treated. Very likely the OFT will continue its present approach in this area.

The Polish competition law apparently guarantees the existence of IPR, but includes them in its purview. A Polish delegate also explained that a rule of reason approach is applied and it is not presumed that IPR grant a monopoly or a dominant position.

In Turkey a competition law was adopted in 1994 but still had not been applied at the time of the roundtable. The law contains provisions similar to the European Union's Article 85 including the exemption system. The Turkish delegate explained that work was underway to adopt something like the European Union's block exemption relating to technology transfer agreements and also noted that in future there will be a strong need to educate judges in the application of competition law.

Before closing the morning session, the Chairman expressed skepticism that countries are actually following the principles that Professor Gallini elaborated and said he was looking forward to the afternoon's discussion of actual cases.

IV. Enforcement Practice

The Chairman organised the session around a list of practices which may cause problems at the interface between intellectual property rights and competition policy.

1. Patent Pooling and Cross-licensing (including their use in settling patent infringement litigation)

The Chairman turned first to a Japanese delegate who began by mentioning a clause in his country's "Patent and Know-how Guidelines" [i.e. Guidelines for the Regulation of Unfair Trade Practices with respect to Patent and Know-how Licensing Agreements]. It states that where cross-licencing and patent pools constitute an unreasonable restraint of trade they could offend Section 3 of the Antimonopoly

Act (AMA). To better elaborate Japanese law, he discussed an actual case involving Pachinko machines (see also page 7 of the Japanese submission).

Pachinko is a type of slot machine. Ten Pachinko machine manufacturers, together accounting for approximately 90 per cent of Japanese Pachinko sales, have large numbers of patents related to the machines. Joint management of their intellectual property rights was entrusted to a management company. The ten companies plus the management company in one case refused to grant non-exclusive licensing rights to some new entrants thus blocking their manufacture of the machines.

The Japanese Fair Trade Commission (JFTC) examined this conduct and found it to be contrary to the public interest because it substantially restricted competition. Moreover the conduct was not recognised as a proper exercise of rights under the Patent Act or the Utility Model Act. As a result, the JFTC took action against the practice.

Another Japanese delegate (not from the JFTC) noted that in the Pachinko case, the JFTC intentionally or unintentionally applied the essential facilities doctrine, because its decision stated that the accumulated patents were essential for the newcomers to manufacture Pachinko machines. He also stated that regulation of the industry limited the alternatives new entrants had to the industry leaders' IPR, a point that was further developed by a third delegate who noted that pooling arrangements are often accompanied by standardisation.

At this point, the Chairman gave the floor to a delegate from the United States Department of Justice (DOJ), who argued that analysis of the competitive issues posed by patent pooling and cross-licensing had not changed since 1917 and recognized the basically pro-competitive nature of many patent pools. There was a time however in the 1930s and 1940s when patent pools were regarded as inherently pernicious vehicles used not so much for integrating and disseminating technology as for regimenting entire industries and ensuring that no one firm got out of step with the others.

In a May 1997 speech to the American Intellectual Property Association, the head of the DOJ's Antitrust Division explained in some detail how his agency analyses patent pools and how thinking had evolved away from the unusual 1930s and 1940s cases. Current policy bears a strong resemblance to the analysis used in 1917 for a government created patent pool applying to airplane manufacture. At the time, each of the original American inventors owned patents blocking the production of aircraft and there was a great deal of patent infringement litigation which threatened to block war-time expansion of supply.

The DOJ gave the pool a glowing review finding that its competitive potential far outweighed any possible threats posed to competition. The DOJ first examined the relationship among pool members who were obviously competitors, and found that their patents were complements in the sense that each manufacturer could block all the others from producing airplanes. Their patents thus stood in a vertical rather than horizontal relationship. The DOJ then proceeded to consider: the particular nature of the products involved; the extent to which the pool would control access to the IPR being contributed to the pool; whether or not if someone wanted a licence to manufacture aeroplanes independently from one of the technology owners it would be able to obtain such a licence; the openness of the pool to outsiders; the position of other owners of technology who might want to take part in the joint licensing; the possibility that the pool might foreclose competition in other related markets due to requirements contained in the pool licence; and the possibility that the pool might in some way facilitate collusion among members, which of course was related to whether or not the pool members were horizontally related to each other as competitors.

Though this was some 80 years before the concept of innovation markets was discussed in the United States intellectual property guidelines, the DOJ had the foresight to wonder whether or not the formation of the airplane patent pool would dull its members' incentives to continue to innovate. This was especially pertinent because the pool required all members to contribute any future developments into the pool despite it being very unlikely that further innovations would result in additional compensation to the developer of the innovation.

The United States delegate then proceeded to examine a much more recent case where nine firms had formed a joint licensing entity to convey a package licence to their patents. In particular access to these patents was represented as essential to meet a standard set by the Motion Picture Experts Group for compressing video information (the MPEG2 standard).

Before seeking the DOJ's opinion regarding the legality of their pool under U.S. antitrust law, pool members retained a patent expert, a lawyer familiar with United States patent law and the pertinent technology itself. It was his job to consider various patents and determine whether or not they were indeed essential for compliance with the MPEG2 standard. He subsequently worked through a list of eight thousand possible patents to arrive at the 27 patents belonging to the firms requesting a business review from the DOJ.

Each of the pool members agreed to license their patents to a joint agent which they had created. Pursuant to the agreement, the joint agent would in turn be under an obligation to grant a licence on non-discriminatory terms to anyone requesting a licence to make MPEG2 products. The pool members have no voice in the licensing decisions of the joint agent, so there is no potential that the joint agent could choose, for instance, to disadvantage a potential licensee at the behest of a particular member of the pool. They agreed to share the royalties with each other essentially on a pro-rata per patent basis. So each patent entitles its owner to approximately 1/27th of the pool's collective royalties.

Most interesting of all, the pool agreed to assign a continuing role to the independent expert. Anyone with a patent he believes is essential for compliance with the MPEG2 standard, can bring it to the joint licensing agent who passes it on to the independent expert for assessment. In the event the expert finds it is indeed essential, pool members have committed themselves to admit the patent to the pool and assign it a pro-rata share of the royalties. In the same way, the patents in the pool are subject to challenge by the members and by outsiders and can be excluded from the pool upon the expert finding that they are in fact inessential for MPEG2 standard compliance. Because the royalties are being divided on a pro-rata per patent basis each of the members of the pool has a strong interest in limiting the pool to only truly essential patents, i.e. there is no incentive for the members of the pool to keep each other in. What that means for antitrust analysis is that the pool contains only complementary, vertically related patents. If the expert is doing his job, the pool is simply integrating technology which is useful only in conjunction with all the other essential patents.

The DOJ considered that the MPEG patent pool is exactly the kind of pool that serves pro-competitive ends. It allows users of the standard to get a licence on complementary inputs at lower transaction costs than would have applied if they had negotiated individually with each of the other owners and avoids hold-up problems.

The factor that gave the DOJ the most trouble with the MPEG pool was its grantback requirement. In effect, pool licensees are required to grant back to the original nine pool members, a licence at a reasonable royalty on any related technology that they invent. The way the pool is set up, the royalty is probably going to be quite small. Happily this only applies vis à vis the original nine members. For others who might be interested in using the related technology, a market determined royalty must be

paid. So although the grantback provision looks like expropriation of future innovations, the effect of it is quite limited. It is a useful way of compensating the original nine members for the value that they have brought to the industry by creating the pool and making their technology available at a fairly low royalty.

Interestingly the grantback provision may amount to a way of engaging in pro-competitive price discrimination. Pool members may be able to charge a lower royalty overall to licensees than they would if they were not able to get back a licence on attractive technology at a low rate. The low royalty should be attractive to a firm which is not going to engage in any innovation, but simply wants to use the technology to make products. On the other hand a firm which wants access to the patents in order to further innovate will effectively pay a higher rate because it is limited in what it can receive in royalties from the pool members. Because of this the DOJ decided that the obligations as to future innovations were not likely to cause a competitive problem.

Mr. Tom expressed great interest in the MPEG business review letter and in particular drew attention to a number of undertakings that the pool members had made. He was curious as to which of those were considered essential by the DOJ to the grant of a favourable business review. He also noted that the members had no say in the licence terms and wondered if the DOJ would have reached a different result if, for example, each of the pool members had had the right to veto licensing to third parties and could set the royalty rate at a level they considered to be jointly profit maximising.

The delegate from the DOJ responded that there might indeed have been a different conclusion if any member of the pool or a combination of members of the pool had enjoyed control over the decision of whether or not to grant a licence or exercised the power to set the price of a licence at a rate that might have disadvantaged a licensee. Just the names of the pool members is sufficient to give an idea why there could conceivably have been a problem. They are: Fujitsu, Phillips, Sony, Matsushita, Mitsubishi, Lucent Technologies, General Instrument Corporation, and a number of firms that are very active manufacturers in downstream product markets.

The Chairman called attention to a number of other countries whose written submissions contained interesting points relating to patent pooling. In particular, the Mexican contribution stated that patent pooling can be positive or negative. France also referred to a patent pooling case. In addition, in its section on patent pooling the European Union's submission stated that patent pools can have potential competitive effects when they are a means to discriminate against third parties. The Chairman expressed interest in knowing whether the kind of positive or pro-competitive discrimination mentioned in the MPEG case would have met European Union standards on patent pooling.

Later in the discussion a European Union delegate stated that Article 5 patent pools are specifically excluded from the benefits of the block exemption applying to technology transfer agreements. The reason for this is that the effects of such a patent pool are not unambiguously clear. There have been cases in the European Union where companies have complained of exclusion, without any objective reason, from standard setting pools. As regards price discrimination among non-members of a pool, the net effect is again not clear so it is subject to a case by case analysis. Though excluded from the block exemption, a patent pool still might qualify for an individual exemption based essentially on a rule of reason analysis.

A Korean delegate stated that IPR enjoys various exemptions to competition law, but this does not extend to improper application of IPR. He illustrated this with an interesting case involving the two competing traditional markets in Seoul. In one of them about 100 persons dealing in children's wear use a common trademark and they try to fix the price of the trademarked goods. They also refuse to sell to

merchants located in the other market. The Korean Fair Trade Commission struck down this practice as lying outside the exemption.

A Mexican delegate noted that the Mexican competition authority has yet to deal with a case involving a patent right, but it has considered cases involving trademarks. It is clear, however, that IPR owners can abuse their rights by engaging in anticompetitive practices going beyond the natural scope of their IPR. It is rather difficult though to determine where intellectual property rights end and unlawful restraints begin. As for pooling, this does not necessarily violate Mexican competition law, though pools do have potential anticompetitive effects through arising for example from discrimination against certain firms.

Professor Barton stated that there can be instances where a series of formal or informal bilateral cross-licences function much like a patent pool. He thought this was the case in the U.S. semiconductor industry for example where there have been a number of explicit cross licences of current and future technologies. He also noted that the most difficult aspect of a patent pool is the formal and informal relationships between the pool members and outsiders. His intervention finished with two open questions: to what extent do pools simply exercise intellectual property rights they properly have against outsiders in favour of insiders in ways that benefit innovation; and, just as important, do pools make it significantly harder for outsiders to enter the system or somehow negatively impact future research?

An Italian delegate asked the American delegation about the possible risk of collusion developing among the MPEG2 pool members.

A United States delegate stated that the Italian delegate was absolutely right that collusion possibilities are critically important in analysing pools. In the MPEG2 case, the DOJ concluded that there was very little danger of collusion for a couple of reasons. One was that the pool royalty was so small that the royalty itself was unlikely to be a good basis for setting a price on any downstream products. Second, there were very clear barriers between the individual members and the joint agent having the authority to audit licensees and require information that should not be seen by competitors.

The same United States delegate commented that Professor Barton raised important but complex points. It is always difficult to estimate future conduct. The MPEG2 analysis was based on what the DOJ was told. If that information turns out to be false or the effect on innovation ends up being very different from what the DOJ expects, there will obviously be serious concern about the pool.

2. Exclusive Territories and Parallel Imports

The Chairman introduced this topic by noting that the European Union submission stated that the basic rationale behind exclusive territories and exclusive dealing is to improve distribution and they can sometimes facilitate new entry into a market. He was unsure whether this was the European Union view on distribution agreements not having an IPR aspect.

The European Union delegate kicked off discussion by affirming that the benefits stemming from exclusive distribution clauses or in patents/technology transfer agreements are well known in European Union competition policy doctrine. The basic rationale is that the technology owner or the manufacturer secures the assistance of distributors who are aware of local specificities and are encouraged to concentrate their efforts free from concern that the rewards will be appropriated by other dealers. The European Union must balance these advantages along with a concern to promote market integration, an objective not necessarily shared by other competition authorities.

Professor Korah intervened at this point to discuss parallel imports beginning by outlining the exhaustion doctrine which, in the 1974 case of Merck v. Stephar {(187/80), [1981] ECR 2063, [1981] 3 CMLR 463, CMR 8707} was extended to the point where a patent holder could not prevent the import of goods from countries where he was unable to obtain patent protection. Unfortunately the Community Court has very recently confirmed this in Merck v. Primecrown {(C-267 & 268/95), 5 December 1996, [1997] 1 C.M.L.R. 83, [1997] 1 C.E.C. 261}. This is raising great difficulties for the pharmaceutical industry which especially needs patent protection because since everything about a drug is disclosed under the health regulations, it is very easy to copy.

The situation in the pharmaceutical industry is complicated by various state controls designed to reduce the cost of medicines. Professor Korah opined that though the rules for free movement have done wonderful things for the European Union in amalgamating 15 separate markets, remaining market distortions mean that parallel importers can enjoy a free ride and thereby reduce incentives to innovation. There is not much that competition authorities can do about this, but Professor Korah thought that greater leniency towards exclusive territories might help. It was her view, however, that the EC's green paper on vertical restraints reflected continued hostility to absolute territorial protection.

An Australian delegate expressed views which were quite different concerning parallel imports, though he did say that price controls made the pharmaceutical industry a special case. He further qualified his remarks by noting that they applied only to statutory restrictions (via copyright and sometimes patent laws) not to commercial restrictions on parallel imports. He noted very substantial price differences across countries on products like compact discs, books, computer software, farm chemicals, and pharmaceuticals. In Australia, copyright in labels protects exclusive distributors of products such as vintage wine and clothing from anyone else bringing in such products for resale.

In the Australian delegate's opinion, there is clearly a fairly big distortion right around the world in international trade caused by parallel import restrictions. Broadly speaking CD and book prices are lowest in the rather competitive United States market. They are about 25% higher in Europe and about 40% higher in Australia. It seemed obvious to the delegate that these massive price differences could not possibly persist in a world of free trade. The transport cost of moving CDs from one country to another is minimal and so the difference between Europe and the United States for new CDs of several dollars could not possible persist in a world of free trade. Instead the explanation must be found in restrictions on parallel import laws, better described as import monopoly laws. The Australian delegate felt that such laws reflected a clear case of producer capture. He also noted a comment made in the morning session to the effect that the further one gets from the original source of an invention or originality, the more one should be concerned about anticompetitive elements in intellectual property law. Laws against parallel imports invite application of this principle. While there is a market failure in production, and this is rectified by the copyright protection, there is no such failure in the distribution sphere so parallel import restrictions seem unjustified.

The Australian delegate took comfort in the evolution of European Union law because statutory import restrictions within the European Union have been found to be inconsistent with the requirements of the Common Market and are largely gone for most products. He noted, however, that the European Union continues to have parallel import restriction vis-à-vis the rest of the world, and that is why Europeans pay a lot more than Americans for CDs, books etc.. There has been some attempts over the years to get an international agreement to have all countries adopt parallel import restrictions but that has been rejected at GATT and the World Trade Organisation, Uruguay Round as well as in relation to the Berne Copyright Convention. If there ever is such an international agreement, it will amount to a charter for world wide monopolies.

There is of course the piracy argument supporting parallel import restrictions, but this seemed to the Australian delegate to be a red herring since it should be tackled directly by measures against piracy, higher fines, penalties and so on. Countries naturally differ in their attitudes to this matter depending on whether they are net importers or net exporters of intellectual property.

Mr. Tom raised a note of caution concerning price discrimination in the intellectual property field maintaining that the phenomenon is simply a reflection of the very low marginal cost of intellectual property. As he suggested in the roundtable's background paper, the intellectual property holder needs to charge a price above marginal cost. In these circumstances price discrimination tends to expand output and consumer welfare.

An Italian delegate asked Australia whether the international price differences it complained of were better explained by collusion among its importers than by laws against parallel importers. An Australian delegate agreed that distribution arrangements in Australia do in fact facilitate tacit collusion, but he also stated that the clear reason for higher prices in Australia compared with Canada, for example, is that the opportunities for charging high prices are much greater in Australia. Demand is far more inelastic there because of its distance from other markets. Studies show that if Canadian book publishers take advantage of import restrictions to raise prices they face a large loss of sales as Canadians start buying books from across the border. What remains mysterious, however, is why tax adjusted prices in Europe remain systematically well above those in the U.S.

The Australian delegate accepted Mr. Tom's point that optimal price discrimination requires further examination, but he remained convinced that once a CD is legally on the market there is insufficient market failure beyond that point to warrant the existing very strong restrictions on international trade.

To the Chairman's question concerning price levels in New Zealand, an Australian delegate stated that book prices appear to be higher in New Zealand, and the reasons seem consistent with what was said about Australia. He also noted that New Zealand has had lower levels of per capita income which would also impact on demand and price conditions.

3. Exclusive Licences

The Chairman introduced this topic by saying that such licences transfer a monopoly right to the licensee and very often eliminate competition between the licensor and the licensee. Most of what he read presents a relatively favourable view of such exclusive licences. There was, however, an intriguing Italian case where the competition authority struck down an exclusivity clause on competition grounds.

The Italian delegate took the floor to elaborate on the October 1996 Panini case (see Italy's submission). The case arose after an Italian association of professional soccer players obtained from Italian soccer teams the copyright in photographs of soccer players wearing their team colours. The association then sold for a fixed sum an exclusive right to produce and commercialise collectible stickers of soccer player photos. Two years before, two other producers had shared that right. The Authority first of all said that the relevant market in this case was indeed the soccer players' picture collection market rather than a larger market for all collectible stickers. Everyone interviewed supported the view that there were no good substitutes for this product.

The association's intellectual property derived from all the soccer players agreeing to transfer to it, for zero remuneration, the right to market collectively their photos on collectible stickers. In this way the association would be able to finance its activities without contributions from the players.

If the market definition is correct, Panini was put in a position to charge a monopoly price and the association should have been able to pocket the monopoly rents. The competition authority naturally favoured lower prices to consumers and took the view that downstream competition would have lowered prices. On the other hand, there was the question of long term dynamic effects from prohibiting the exclusive licence. The competition authority considered how incentives might be adversely affected beginning with the incentive to become a soccer player. The effect here was believed to be negligible. Next, the product market was considered. If the exclusivity persisted, a potential competitor would see there are huge profits to be made on collectible stickers and be motivated to invent some new substitute product.

The decision to prohibit the exclusivity was very controversial, but the Italian delegate found it interesting that the competition authority had considered how incentives would be affected and invited other delegates to comment on this point.

Professor Gallini said that this case presented an interesting issue in that though IPR normally entails the right to license exclusively, it does not grant the right to do this jointly with other firms or IPR owners. The Panini case involved a joint decision to exclusively licence one firm downstream which should have raised concerns unless there were some offsetting cost efficiencies.

Carrying on the discussion, a German delegate noted that the Panini case had some parallels in the transfer of TV broadcasting rights for football games to national associations who then market them. Many countries are dealing with the problem as is the European Union. As for Panini itself, the case raises the general question of discriminatory behaviour. In Germany, absent good reasons supporting the practice, a monopolist is not permitted to grant an exclusive licence.

An Italian delegate informed the roundtable that the only reason behind the exclusive licence was profits. The soccer association prefers to deal with just one company downstream and Panini wants the exclusivity to avoid any strategic type of behaviour on the part of the monopoly holder. After the case was decided the soccer association was very willing to leave conditions with Panini the way they were and license someone else as well. The case is very similar case to the broadcasting case mentioned by the German delegate. Whenever competition agencies eliminate exclusivity clauses they should be very careful to make a correct market definition and to consider effects on incentives available to future IPR holders.

An Australian delegate agreed that market definition was critical in such cases. The Australian competition authority had experienced significant difficulty in determining whether there are separate market for various sports or whether something wider is appropriate. In the Panini case, if Australia too had reached the conclusion that soccer collectible stickers was a separate market, then it would also have been inclined to reach the conclusion that this is a form of exclusive dealing which could substantially lessen competition, hence be illegal. An argument could have been made, however, to grant an authorisation on public benefit grounds and that would have led into issues about the promotion of the sport, possible exploitation of the players and what happens to juniors, spillover effects, etc..

At this point, a BIAC delegate made the point that the Panini case and broadcasting rights for football events illustrate that certain items are much more valuable as a collection than as individual goods. This must be borne in mind when assessing the element of "collusion" incorporated in the

pertinent agreements. Moreover, at least in the broadcasting situation it is really the football association, perhaps collectively with the clubs, which has the IPR so collusion may not in fact exist. The delegate also stressed that exclusivity may sometimes be necessary to preserve adequate incentives.

4. Acquisitions Involving IPR

The Chairman noted that there was just one submission dealing with this issue and called on the United States to describe the Ciba-Geigy/Sandoz merger.

A delegate from the United States Federal Trade Commission (FTC) noted that Ciba-Geigy and Sandoz were two of the largest pharmaceutical companies in the world and early in 1996 they proposed to merge. They had very substantial sales and some assets in the United States and therefore the FTC had the right to review the transaction. The most interesting aspect of the case by far turned on the fact that each company was the premier research company in the area of gene therapy which holds great promise for treatment of hard-to-cure diseases such as cancer, hemophilia and AIDS.

It was known (because of the health authority regulatory approval system) that neither company would have a product to sell for at least five years, but it was also quite clear, and the companies did not disagree, that they were the two leading firms in the world and their combination of patents, know-how, technology, and trade secrets, put them far ahead of their competitors. There were others who were doing research in this field but none at the same level as these two companies.

The question was whether they should be allowed to merge into a single firm, with respect to gene therapy, even though the products would not reach the market for a minimum of five years. The case fell squarely within what the U.S. refers to as an innovation market. The arguments for allowing the merger were essentially that the anticompetitive potential was too speculative (i.e. would not even arise for five years), barriers to entry for ideas are very low and respect no borders; the theory of anti-competitive effects linked to restraints of innovation is not very well developed (and is not really like the theory about price effects through cartel behaviour), and finally, that the safer course of action was to allow the merger and take steps later if a problem developed. On the other hand, it was clear that this is quintessentially an area where success is determined at the research and development stage, and a head start would be very difficult to reverse by later competitors. If the competition authority waits five years there may be no way to rectify any eventual problem.

The FTC eventually decided, with difficulty, that allowing these two companies to combine their vast technological know how and experience would be anticompetitive. Therefore the merged entity was required to put together a basket of patents, trade-marks, know-how and so forth and spin it off to a second independent party so that there would be at least two firms in the relevant market. So far, the second firm appears to be doing rather well, but it is still too early to gauge whether the divestiture was a good idea.

The delegate from the FTC believed that there will be a growing number of cases like this where the most important competition takes place at the research phase.

Mr. Tom later commented that this case did not involve parties possessing such complementary inputs that combining them would lead to better products, more research, and so on. Instead, there were two companies who each owned inputs that other researchers would need in order to commercialise a product. Any one of the dozen or so other researchers doing very important work in the gene therapy field had the opportunity, pre-merger to play Ciba-Geigy and Sandoz off against each other. Allowing the two

companies to merge meant closing that option with the possible result that many of these other smaller research firms hoping to use these two companies as magnets and potential joint venture partners would simply shut down their research efforts. Bearing that in mind, the merger would probably have slowed down research in this area.

Professor Gallini stated her agreement with the decision, but questioned why appeal had to be made to the innovation market idea instead of using the more conventional potential competition approach. As described in the morning, innovation markets are considered only when there is evidence that assets have been committed to R & D and that certainly applied here. In addition to being actual competitors in the innovation market, the two firms could certainly have been regarded as potential competitors in either the technology or the product market. The FTC description was that the two firms were so far ahead of the others that with a merger there would be effectively just one firm that will eventually dominate the technology market (i.e. be in a position to license other producers).

A United States delegate gave two reasons for preferring the innovation market over conglomerate or potential competitor analysis. One was that the market in which the anticompetitive effect was immediately visible was in R & D. The second reason is rooted in the British Oxygen case where it was held that if the anticompetitive effect in a conglomerate merger is not reasonably near term then potential competition analysis cannot be applied. The courts would probably find that five years did not qualify as near term. A second United States delegate supported the view that greater clarity for the competition agency and the courts can be obtained by focusing on where the anticompetitive effects actually are (i.e. a possible slowing in the race to innovate plus a loss of quality and variety of R & D). He also reiterated that the potential competition doctrine is somewhat fuzzy and would be difficult to sell to a court. Moreover, some of the concerns Professor Barton raised about patent breadth applied in this case, i.e. a very broad patent which would have made it difficult to sub-license other researchers and was the reason for some compulsory licensing which had already occurred.

Professor Gallini stated that if the reason for introducing innovation markets was to make the potential competition concept clear to judges then she had less trouble with it. She also wanted to point out an interesting complexity mentioned in the FTC presentation, i.e. that if these two firms merged they would be so far ahead that it would be difficult for other firms to catch up. The merger therefore had the potential both to speed up innovation and cause competition problems. Professor Gallini encouraged antitrust authorities to urge patent offices to reduce patent breadth so as to reduce as well the need to make these difficult trade-offs.

A United States delegate agreed with the lobbying idea but was not sure the patent office would listen. He also agreed that merger analysis does have to address possible effects in speeding up innovation. That was probably not the case, however, in this merger. The United States merger guidelines opened the door somewhat wider to consider efficiency claims but they also stated that these would rarely justify a merger to monopoly which is essentially what was happening in the Ciba-Geigy/Sandoz merger.

A German delegate found this to be a very interesting case and noted that competition in R & D is one of the most important dimensions of competition. Germany was having some problems with R & D co-operations. From a rule of reason approach, it does not make much sense, however, to block any sensible R & D co-operation where no product and no product markets are directly concerned. It depends on how close the R & D is to product markets - the more remote the less are the competitive effects. Nevertheless this is an important parameter and to co-operate on it might well amount to a restriction of competition. As to merger control, this cannot be applied without defining an appropriate market and assessing whether there is market dominance (a necessary condition for prohibition under German law).

The innovation market approach could prove quite useful in cases where there is as yet no product market in which to be dominant.

5. Grantbacks

Since this topic had been touched on earlier, the Chairman decided to shorten the treatment here by simply noting that the Japanese submission took a rather reserved view of grantbacks, and the Australian contribution seemed to say that grantbacks probably present no problem under Australian law unless they are exclusive. He then called on Professor Barton to give his appraisal of grantback provisions.

Professor Barton began by saying that the potential problem with grantbacks lies in their reducing incentives for the licensee to continue to innovate. But if grantbacks are subject to a blanket prohibition there will be circumstances where licensing will be refused out of fear that the licensee will advance the technology and knock the initial licensor out of the market. The typical reasonable response to this is to permit non-exclusive grantbacks which leaves the licensee with an incentive to innovate and gives the initial licensor confidence that it will be able to remain in the market. A Japanese delegate underscored the importance of these issues in the case of software copyrights where grantbacks appear to be essential to licensing.

6. Tying, Full-line Forcing, Leveraging

The Chairman noted that the French submission contained an interesting example of leveraging in the pharmaceutical industry, which a French delegate then developed. The case concerned a pharmaceutical company having two patents, the first of which was about to lapse. The other was for a drug extensively used in hospitals. The producer decided to give hospitals a discount on their purchases of the latter drug conditional on purchase as well of the first drug. The Conseil de la Concurrence prohibited the practice and its decision was affirmed by the Paris Court of Appeal. The issue here was not so much the existence of IPR as its being the basis for an offensive commercial practice.

Next, the Chairman called on the European Union whose submission also expressed reservations about tying, this time in the telecommunications sector.

A European Union delegate noted that generally speaking tying agreements are not prohibited under the technology transfer agreement block exemption. They are subject to an opposition procedure whereby the Commission is given notice and an opportunity to examine the practice. The Commission has done this on many occasions, most notably in the Hilti nail gun case. In telecommunications there is the problem that incumbents are uniquely well placed to supply the whole range of demanded services. Allowing them to bundle services effectively means undoing some of the effects of liberalising markets, i.e. new entrants are at a substantial disadvantage. This is why in many cases of telecommunications alliances, the Commission has requested companies not to bundle liberalised and non-liberalised services, or at least to quote customers separate prices for the bundled services.

7. Standards-setting and Networks

Due to a shortage of time the Chairman decided to drop this topic but drew delegate attention to the United States Federal Trade Commission's submission and in particular its discussion of the Dell computer case.

8. Price Restrictions in Licences

A French delegate noted that these are subject to the general analysis applying to vertical agreements including the general prohibition on resale price maintenance (RPM). The Chairman believed this was the position taken by most countries. The Japanese submission, for example, indicated that some restrictions on licensee pricing could significantly limit competition and would be prohibited. The European Union seems to take a hard line against RPM involving the use of IPR especially where they also entail territorial restrictions. On the other hand, he thought the Australian approach might be somewhat different (an Australian delegate later pointed out that views had changed on this in Australia so that a more critical approach is now being taken).

The Chairman asked for comment from the panel of experts.

Professor Gallini pointed out that the analysis must begin by determining whether the price restraint is vertical or horizontal in its effects. In the case, for example, of a process innovation that reduces the cost of production substantially, and a fixed royalty must be used because it is too difficult to collect per unit royalty, a licence will increase competition in the market. That could be quite unattractive to a potential licensor, who is legally entitled to exploit exclusively its process technology, unless it can control the licensee's pricing. Even with such pricing constraints there could be cost efficiencies in licensing, so such restraints could in fact be welfare enhancing.

Delegates were reminded by Mr. Tom that there is an important distinction to make between minimum and maximum price limitations. The latter could prove welfare enhancing when the licensee has important complementary technology and the licensor wishes to use a per unit royalty. In such situations the licensor might wish to put a ceiling on the licensee's prices to avoid the risk that the licensee would otherwise price excessively high and thereby reduce the number of units sold and royalty payable.

9. Refusal to License and Compulsory Licensing

The Chairman remarked that in the morning discussion many countries expressed reluctance to tamper with licenses. Nevertheless, a number of countries have required licensing. For example, the British submission states this was done through a consent order in the now-dated American Xerox case and made it unnecessary for the British authorities to engage in similar compulsion. At about the same time the United Kingdom also had an interesting case involving Ford Motor where it found an anticompetitive unwillingness to license replacement part production. He also referred to the Boeing-McDonnell-Douglas case where the European Union required compulsory licensing by the new entity of technology acquired through Douglas' defense business.

Mr. Tom initiated discussion with a description of the Xerox case, circa 1975, which came out of a different set of principles than currently apply. The problem in the case was that Xerox had amassed a massive patent portfolio that essentially precluded any other firm from entering the copy machine

business. Many of the patents were not even used by Xerox but they covered alternative means of accomplishing photocopying.

In the Xerox case the FTC decided that Xerox had gone too far when it assured its monopoly by patenting things that it was not going to use. As already mentioned, the case ended with a consent order under which Xerox agreed to grant critical licenses. The result, according to Mr. Tom, was an increase in competition and output and a spur to Xerox to engage in more innovation. To keep up with its competitors, mostly from Japan at that point, but also from companies like Kodak, Xerox had to be more aggressive, more inventive than it would have been had it been allowed to pre-empt the whole field with its massive patent portfolio (one which included successive improvement patents, thereby allowing Xerox to monopolise the field for well over the 17 year period United States law gave to patent holders).

Mr. Tom recalled witnessing a June 1996 Ottawa conference on IPR sponsored by the Canadian government, a very interesting dialogue between Professor Scherer who was the head of the economics unit at the FTC at the time of the Xerox case and Professor Baxter the former head of the DOJ's Antitrust Division. The upshot of that dialogue was that this kind of action clearly works if nobody is expecting it, but could otherwise act as a serious disincentive to innovate.

While on the topic of "killer patent portfolios", Mr. Tom commented on instances where such portfolios are assembled through acquisition rather than through internal invention. The argument for restraint on the part of competition authorities is that such mergers may efficiently combine complementary patents thus offsetting any anticompetitive effects or perhaps even making the combinations pro-competitive. On the other hand there could be situations in which merging party patents are not really that strong, and where maintaining two separate companies could permit new entrants to license from one and either challenge or invent around the other. Such a situation would merit a close look by antitrust authorities.

The Chairman asked whether the Xerox case would be analysed differently today and a United States delegate responded by underscoring Mr. Tom's distinction between in-house innovation and acquisitions. The possible disincentives to innovation that could arise by blocking the acquisition of an anticompetitive patent portfolio should generally be weaker than what could happen if companies fear that their current research work could produce antitrust sanctions if their future patents overlap with current holdings.

The United Kingdom was asked to comment on the earlier mentioned Ford case as well as the Exhaust Gas Analyser case (described in the United Kingdom's submission). A United Kingdom delegate in fact referred to five cases, the first being the 1976 Rank Xerox case. As already pointed out, nothing was done in the case because although the public interest was found to be adversely affected, the previous FTC consent order was believed sufficient to remedy the situation. The 1985 Ford case arose through a refusal to license competitors to manufacture or sell certain replacement body parts. That was also found by the Monopolies and Mergers Commission (MMC) to be anticompetitive and against the public interest. The government then discovered it lacked the power to deal with the findings of the case. Another 1985 case involved a refusal by the BBC and ITP to make their program listings available to magazine publishers. The refusal was found to be anticompetitive but not against the public interest. Even had it been found to be against the public interest, the government could not have done anything about it. The two 1985 cases inspired legislation in 1988 granting the government power to compel licensing.

The Exhaust Gas Analysers case arose in 1993 and here the MMC found that the refusal to licence collective manuals constituted a barrier to entry, but in the actual situation there was no adverse effect on the public interest and no action was taken. The only case where the 1988 compulsory licensing

powers were actually used involved the 1995 investigation of video games. Since DGIV took the lead in this case, the United Kingdom left it to the European Union to comment.

A European Union delegate instead turned to the Boeing-McDonnell-Douglas merger, a situation where there was a pre-existing dominant position on the part of Boeing and very high barriers to entry. One of the principal issues in this case was whether the merged entity's IPR, partly acquired through defence contracting, would strengthen Boeing's dominant position in the civil aircraft market. The focus was principally on the merged company's civil aircraft business because, applying comity principles, the European Union decided not to interfere with the military aspects of the merger. However, the two aspects coincided in one particular respect because there had been considerable interaction between military and civilian R & D related to aircraft production.

The European Union was eventually given undertakings regarding the licensing of intellectual property rights resulting from military funded R & D which was one reason the merger was eventually unopposed. It was stressed that this was a very unusual case, quite unlike Magill because it did not turn on anything the companies had done and also involved consideration of public funding. A United States delegate asked for clarification about the importance of the government funding and a European Union delegate responded that the nature of the spending was important because it was restricted to supporting R & D taking place in one specific territory and was also very large.

The Chairman also requested clarification as to whether the portfolio effect was crucial in the Boeing-McDonnell-Douglas case just as it had been in the Xerox case. A European Union delegate commented that the European Union has indeed had cases, for example in branded goods, where a portfolio effect is critical. In the Grand Metropolitan-Guinness merger for instance, the European Union insisted on a divestiture of certain brands (which through copyright included an IPR element). This was done despite the argument that new entrants should have access to the capital markets and be able to borrow enough to create new brands to challenge incumbents. Such an argument is even less persuasive in a case like Boeing-McDonnell-Douglas where access to large sums of tax payers' money was critical.

At this point two other countries entered the discussion beginning with Turkey whose delegate noted that license provisions can be refused by the Turkish patent institute if they violate IPR or other laws and regulations. He illustrated this by referring to a case involving filling and selling LPG tanks used for energy supply to private dwellings. Some private licensing terms were struck down because they violated regulations related to LPG tanks. As to compulsory licensing, this is provided for in Turkish patent law, but such licences cannot be granted unless that is in the public interest and there has been a failure to use a patent for three years following its registration. The delegate was unaware of any instances where a compulsory licence had been granted.

A Japanese delegate drew attention to recent attempts to introduce greater database protection which could have implications for both compulsory licensing and for antitrust law.

The Chairman wound up the roundtable by asking the panellists for their closing remarks. Professor Barton led off by expressing regret that the roundtable had not spent more time on leveraging issues which he thought were especially important given significant first mover advantages often enjoyed by firms making technological breakthroughs. He also underlined the growing international nature of innovative activity and the need to work on an international approach by competition agencies to IPR issues.

Professor Korah highlighted the need for competition advocacy as regards IPR policy and cited the example of the Community giving copyright protection for life plus 70 years in order to accord with

German law. For many member states that effectively meant extending copyrights by an additional twenty years. Some attempt should be made, Professor Korah felt, to tailor IPR to the minimum required to promote sufficient innovation, thereby making anticompetitive effect somewhat less likely. She also wanted to stress the importance of the horizontal versus vertical distinction in the roundtable's background paper. It should be clearly understood that an agreement is not horizontal in its effects among a licensor and its licensees unless the latter would have been competitors even without licensing.

Professor Gallini began by extending to competition principles Professor Korah's earlier distinction between the existence and exercise of a patent. During the roundtable's examination of actual enforcement practices, Professor Gallini noticed a great deal of competition policy divergence, which was not in itself regrettable. What was of paramount importance, she thought, was that competition rules should be reasonably clear and predictable. She noted that certain policies may lead to convergence of intellectual property rights because of the international nature of innovation as discussed by Professor Barton. As an example, she cited the WTO delegate's observation (expressed at another conference) that if parallel importation is permitted, IPR protection may be reduced to that of the country having the least amount of it.. Professor Gallini's second general point was that prohibition of one type of licensing restriction can usually be circumvented using other approaches. For example, where exclusive dealing is prohibited, requirements tying, meeting competition clauses, or output royalties could instead be employed. Such alternatives should be kept in mind when deciding about outlawing any particular restriction.

Mr. Tom noted that the discussion of enforcement issues plus his own experience in this field made clear that we have only begun to tackle the difficult issues at the interface between competition and IPR policies. The principles the roundtable began with were fairly simple and clear, which probably facilitated the widespread support they appeared to enjoy. Case by case application though, shows that things are far from clear. Take, for example, the critical distinction between complements and substitutes or, otherwise stated, between horizontal and vertical effects. Usually in order to produce anything a firm will need a wide variety of complements and today's complement supplier could well be tomorrow's source of substitutes. In dynamic markets where IPR is particularly important, there is a strong tendency to extend, to invent around, to rely on other people's knowledge and produce the next generation's product. There is a similarly strong tendency, which competition agencies are naturally suspicious of, to try to prevent that kind of future competition. A highly restrictive competition policy is not necessarily the answer, however, because it could result in foregoing efficiencies available from combining today's complements. To the Chairman's request for possible policy prescriptions to deal with the dilemma he outlined, Mr. Tom replied that he did not have any, except to urge continued dialogue among enforcers and with the academic community to try to reduce the abstract principles to much more specific day to day situations.

Mr. Rosen stated that in the last 10-15 years the relation between competition and intellectual property rights had come a long way. Intellectual property was being treated more like any other property and limits on its exercise were being restricted to clear cases where the innovative process is itself endangered. He doubted however the wisdom of requiring, as some delegates suggested, notification of every settlement involving IPR to be made to the competition authority.

V. Chairman's Closing Remarks

The Chairman stated that there was no way to summarise a discussion as broad as had taken place at this roundtable. He agreed with Mr. Tom's comment that only a bare beginning had been made in this complex area, and thought this was reflected in the fact that throughout the day people were much

more comfortable with specifics than with generalisations. There was little homogeneity of views, but there were indications of increased understanding across countries and policy communities and more convergence than the Chairman had expected.

In many cases, the Chairman had noted a regulatory issue in the background which changed the nature of the IPR competition and indicated another interface requiring greater study.

The Chairman closed by thanking everyone for their participation and hard work.

AIDE-MÉMOIRE

I. Introduction du Président

M. Frédéric Jenny, Président du Comité du droit et de la politique de la concurrence, commence par souligner la complexité et l'importance croissantes que prennent pour les autorités responsables de la concurrence les questions concernant le droit de propriété intellectuelle (DPI). Il propose que la table ronde étudie l'interface entre les DPI et le droit de la concurrence en commençant par un examen général des points de contact entre ces deux domaines, puis formule certaines méthodes d'application du droit de la concurrence dans les affaires qui touchent aux DPI, pour finalement se concentrer sur quelques points particuliers de recoupement entre DPI et droit de la concurrence.

II. Analyse générale - droit de propriété intellectuelle et politique de la concurrence - sont-ils complémentaires, substituables ou opposés ?

A. Caractéristiques de la propriété intellectuelle qui influencent la manière dont le droit de la concurrence doit s'appliquer aux DPI

Dans son intervention, M. Will Tom (avocat auprès de la Federal Trade Commission des Etats-Unis) dégage quatre caractéristiques :

1. Facilité de détournement

Les DPI accomplissent une fonction vitale de stimulation en aidant à protéger les innovateurs contre le détournement des fruits de leurs travaux. Ils n'offrent toutefois pas une protection parfaite, et l'on peut attendre des inventeurs qu'ils cherchent des moyens de les renforcer, et peut-être même de les élargir. Ces efforts ont parfois des effets anticoncurrentiels auxquels les autorités compétentes peuvent vouloir s'attaquer.

2. Caractère de bien public du DPI

Bien que la création de la propriété intellectuelle coûte très cher, le coût marginal de l'application du DPI est proche de zéro. En conséquence, la détermination du prix au coût marginal, référence normale pour les organismes chargés de la concurrence, est impossible dans ce domaine.

3. Conflit entre efficience à court terme et à long terme

En continuant le raisonnement précédent, si l'on exigeait que le prix du DPI soit proche de zéro, on maximiserait le bien être à court terme, mais on réduirait en même temps l'innovation et le bien-être à long terme. Or, de toute évidence, il est plus difficile de mener une politique, orientée sur la durée, y compris dans le domaine de la concurrence, que de se limiter au court terme.

4. Nécessité de distinguer entre effets horizontaux et verticaux

Il faut généralement combiner plusieurs DPI pour obtenir un résultat utile. Les accords en vue d'exploiter cette complémentarité sont pour l'essentiel de nature "verticale" et doivent donc être soumis à une norme concurrentielle plus flexible et par définition plus difficile à appliquer que dans le cas d'arrangements horizontaux, c'est-à-dire entre concurrents.

B. Relation entre l'étendue des DPI et la concurrence

Il est essentiel de conserver un bon équilibre entre l'encouragement à l'innovation et le développement de marchés concurrentiels, idée que le Professeur John Barton (Faculté de droit de Stanford) illustre par trois exemples :

1. Etiquettes de séquence exprimée (Express sequence tags - EST)

L'EST est une courte séquence d'un gène humain. L'Office des brevets des Etats-Unis discute actuellement de l'étendue du brevet que l'on peut accorder aux chercheurs qui identifient une EST. Faut-il la restreindre à la séquence elle-même et à l'identification des gènes à partir de son utilisation, ou l'élargir pour inclure toute séquence comprenant cet EST ? Le pouvoir d'évincer la concurrence dépend très étroitement de l'étendue du brevet. Par exemple, un brevet étendu donnerait au propriétaire un droit de blocage sur une société qui découvrirait plus tard la totalité du gène entier et pourrait en conséquence mettre au point une protéine pharmaceutique à partir de ce gène.

2. Biotechnologie agricole

L'agriculture offre un certain nombre d'exemples de brevets qui paraissent dangereusement étendus. C'est le cas du *Bacillus thuringiensus* (Bt) utilisé comme insecticide dans les cultures. Quatre entreprises revendiquent des droits étendus sur ce domaine. La demande de brevets de la première exposait l'utilisation du Bt dans les plantes (et le recodage) mais ne donnait de détails précis que sur le clonage du Bt et non sur son insertion dans les végétaux. Les brevets qui en sont résultés comportent une revendication très large sur l'utilisation. A partir d'un exposé postérieur décrivant l'insertion du Bt dans les plants de tabac, une autre société détient des droits étendus sur les "vecteurs de transformation" qui permettent l'expression des toxines Bt. Une troisième fonde ses revendications pour l'utilisation du Bt dans le maïs sur un exposé encore postérieur décrivant plusieurs techniques d'insertion du gène du Bt dans cette plante. Enfin, une quatrième se base sur une découverte encore plus tardive décrivant l'insertion d'un gène Bt dans le maïs en utilisant la méthode des "micro-projectiles". Ainsi, chacun des quatre détenteurs peut avoir ce qui revient à un brevet de blocage sur l'utilisation de la technologie Bt dans les cultures. S'il en est ainsi, chacun a le pouvoir d'évincer les nouveaux arrivants et de plus un motif pour pratiquer des licences croisées. Les brevets trop larges créent donc des obstacles à l'entrée plus difficiles qu'il n'est nécessaire et encouragent les licences croisées (et le partage d'informations) plus qu'il ne le faudrait. Cette situation contraste avec celle de l'industrie pharmaceutique où les entreprises ont en général un brevet sur un produit particulier qui leur donne la protection nécessaire pour justifier les investissements considérables qu'implique la mise sur le marché d'un médicament. La concurrence d'autres produits nouveaux n'est donc pas évincée dans des proportions comparables à celles qui semblent exister dans la biotechnologie agricole.

3. Logiciels - Microsoft

On s'inquiète du pouvoir que la domination de Microsoft sur la norme de système d'exploitation (c'est-à-dire Windows) peut donner à cette société pour évincer la concurrence dans la fourniture de nouveaux systèmes d'exploitation et de nouvelles applications étroitement liés à Windows (par exemple, les navigateurs Internet). L'importance de ces menaces éventuelles à la concurrence dépend dans une certaine mesure de l'étendue de la protection du copyright dont bénéficie Microsoft (en particulier, la liberté dont disposent les concurrents pour "désosser" ses logiciels, ou la protection de certaines caractéristiques d'interface de ses logiciels).

En somme, il est clair que l'extension du DPI est une arme à double tranchant, puisqu'elle augmente à la fois les gains tirés de l'innovation et la probabilité que l'on utilise ce droit pour étouffer la concurrence.

C. Effet de l'étendue des brevets sur l'innovation

Le Président reconnaît que l'étendue des DPI peut accentuer leur caractère potentiellement anticoncurrentiel et demande au Professeur Nancy Gallini (Département d'économie, Université de Toronto) d'informer les participants sur l'autre face du dilemme, à savoir l'effet de l'étendue des brevets sur l'innovation.

Le Professeur Gallini analyse les effets négatifs et positifs que ce facteur peut avoir sur l'incitation à innover. Quant aux premiers, elle indique qu'un brevet très étendu :

1. augmente la probabilité que des rivaux soient convaincus de contrefaçon et donne au détenteur un plus grand pouvoir pour négocier une licence avec d'autres entreprises -- ces deux effets réduisent les incitations qui peuvent pousser d'autres firmes à se lancer dans une innovation secondaire ;

2. peut aussi réduire cette incitation chez le propriétaire en lui assurant un important pouvoir de marché qui atténue l'obligation de continuer à innover (les recherches empiriques sur cette théorie ne sont pas concluantes).

Passant aux effets positifs éventuels de l'étendue des brevets, le Professeur Gallini cite :

1. un plus grand stimulant à la recherche ;

2. une plus forte incitation à prendre un brevet, donc à divulguer des informations qui peuvent préparer le terrain à de nouvelles innovations -- plus les brevets sont étroits, plus l'inventeur essaie de trouver d'autres systèmes pour assurer sa rente, y compris en gardant son invention secrète ;

3. une incitation plus grande à octroyer une licence et donc un stimulant à l'innovation chez d'autres -- les entreprises licenciées apprennent davantage sur le fonctionnement des innovations et peuvent plus facilement apporter des perfectionnements en aval.

Le Professeur Gallini examine ensuite les données empiriques pour voir si l'étendue des brevets a une incidence nettement positive ou négative sur l'ensemble de l'innovation primaire et secondaire. Elle fait observer que les études se demandent d'abord si les brevets servent à quelque chose. Sur ce point, les

recherches montrent que, si les brevets jouent un rôle très important dans l'industrie pharmaceutique et certaines branches de la chimie, il n'en va pas de même dans beaucoup d'autres industries. Une étude de Mansfield montre que, dans son échantillon, 90 pour cent environ des innovations pharmaceutiques et 20 pour cent des innovations chimiques n'auraient pas eu lieu sans brevet. Dans d'autres branches, où certains prétendent que les brevets ne sont pas très utiles, le reproche le plus courant est qu'il est trop facile de contourner l'innovation, c'est-à-dire qu'ils sont trop étroits.

Revenant à la question de ce qui se passerait si les brevets étaient élargis, le Professeur Gallini signale une série d'études empiriques qui mesurent l'importance des effets d'entraînement pour encourager la R-D dans d'autres entreprises. Les résultats montrent clairement que, si les brevets sont étroits et les effets d'entraînement nombreux, la R-D et les dépôts de brevets augmentent pour les entreprises qui bénéficient de ces effets d'entraînement.

Toutefois, pour avoir une image exacte, il faut prendre en compte les effets sur l'innovation primaire, c'est-à-dire sur l'entreprise qui déclenche les effets d'entraînement. Sur ce point, d'après le Professeur Gallini, les travaux empiriques sont rares et peu concluants. Bernstein et Nadiri (1989) constatent qu'une faible capacité d'appropriation, c'est-à-dire des brevets étroits, a un effet négatif sur la R-D dans chacune des quatre industries des Etats-Unis étudiées (c'est l'effet d'incitation sur l'innovateur primaire qui domine). Dans un autre article partant de données canadiennes, Bernstein observe au contraire que l'effet d'entraînement domine. Un troisième auteur, Richard Levin, relève que les diverses mesures de la capacité d'appropriation fondées sur des enquêtes ne sont pas significatives dans les régressions qui expliquent l'intensité de R-D au niveau de l'industrie.

Le Professeur Gallini remarque que l'on peut tirer plusieurs conclusions des travaux empiriques :

1. il existe deux effets prédominants qui se compensent mutuellement -- un brevet étendu encourage l'activité primaire de R-D mais réduit l'entraînement et les perfectionnements ou produits de substitution par la suite. La collectivité doit donc essayer d'équilibrer ces deux effets selon qu'elle considère l'innovation primaire ou secondaire comme plus importante ;

2. les équations des modèles sont mal spécifiées dans la mesure où elles ne prennent pas en compte les décisions endogènes de l'innovateur en matière de brevet ou de licence, le coût de la recherche des brevets existants ou les tentatives infructueuses d'imitation, ce qui rend les résultats peu concluants. Il faut d'autres travaux empiriques pour contrôler ces effets ;

3. en termes d'orientation pratique de la politique dans l'immédiat, il est évident que la propriété intellectuelle et le développement de la concurrence sont tous deux essentiels. Le droit de propriété intellectuelle est important pour encourager l'activité d'innovation ; quant à la politique de la concurrence, elle a un rôle capital à jouer pour veiller à ce que le détenteur du droit ne franchisse pas l'espace défini par l'étendue du brevet pour pénétrer sur un terrain anticoncurrentiel.

En développant ce dernier point, le Professeur Gallini met en garde les autorités chargées de la concurrence contre la tentation de modifier l'étendue du brevet pour limiter l'incidence des comportements anticoncurrentiels. Elle estime en effet que ces organismes ne disposent pas des informations nécessaires pour estimer l'impact qu'une telle politique pourrait avoir sur l'innovation. De toute façon, toute incertitude qui pourrait peser sur leur action future réduirait presque certainement l'activité d'innovation.

Le Président donne la parole à un troisième membre de la table ronde, le Professeur Valentine Korah (Faculté de droit, University College, Londres) pour qu'elle donne son point de vue sur l'intervention des autorités de la concurrence en matière d'étendue des brevets.

Le Professeur Korah indique d'abord qu'il faut prendre garde à ne pas amener les investisseurs à douter de la rentabilité de l'innovation. Quand les autorités essaient d'octroyer des licences obligatoires ou déclarent que c'est un abus de ne pas accorder de licences, elles le font *ex post*. Comme leurs réactions sont pratiquement imprévisibles, elles réduisent vraisemblablement l'incitation à l'innovation. Le Professeur Korah estime qu'en Europe l'office des brevets est beaucoup mieux placé que l'autorité responsable de la concurrence pour décider de l'étendue. Elle admet cependant que la situation peut être très différente en Amérique où les autorités chargées de la concurrence comptent de nombreux économistes. Elle indique également que les économistes commencent à jouer un rôle beaucoup plus important dans l'UE par l'intermédiaire de la DGIV et exprime la crainte que ses remarques ne soient quelque peu dépassées.

Le Professeur Korah poursuit en affirmant que les tribunaux eux aussi prennent des décisions qui réduisent l'étendue des brevets et propose une explication de deux cas relativement récents soumis à la Cour européenne de justice et au Tribunal de première instance, en demandant aux auditeurs de décider eux-mêmes si ces juridictions comprennent vraiment le problème.

Le premier est l'affaire "Magill" (Telefis Eireann (RTE) & Anor c. Commission, C-241 et 242/91P, 6 avril 1995 [1995] E.C.R. 1-743, [1995] 4 C.M.I.R. 718, 1 C.E.C. 400), que le Professeur Korah décrit comme suit. Trois stations de télévision, qui pouvaient être reçues dans l'ensemble de la République d'Irlande et de l'Irlande du Nord, réalisaient de confortables bénéfices en publiant chacune un programme hebdomadaire. L'éditeur Magill a voulu produire un programme complet couvrant ces trois chaînes mais, poursuivi par chacun des trois détenteurs de copyright, a perdu et a dû mettre fin à son activité. La Commission, suivie par le Tribunal de première instance et la Cour de Justice, a statué que le refus d'accorder une licence dans ces conditions était assimilable à un abus de position dominante de la part de chacune des trois stations. Les tribunaux ont confirmé que, faute de standardisation ou d'harmonisation, la portée des droits de propriété intellectuelle relève de la législation nationale mais que l'exercice d'un droit exclusif par le détenteur peut, dans des circonstances exceptionnelles, donner lieu à une conduite abusive.

Le Professeur Korah admet que les universitaires ont le droit à des opinions subtilement nuancées, mais estime que c'est plus difficile à accepter de la part des tribunaux. Elle ne voit pas de différence entre l'existence du droit et son exercice et pense que le tribunal a en fait trouvé le moyen de faire ce qu'il voulait. La décision faisait ressortir plusieurs critères en vertu desquels le refus d'accorder une licence a été jugée abusif : il n'y avait pas de produit de substitution à cette information (le Professeur Korah conteste cette opinion -- il y avait des substituts dans la mesure où les stations produisaient chacune leur programme et permettaient aux journaux de publier des guides comparatifs, en réunissant les programmes du lendemain ou du prochain week-end) ; le producteur d'un programme hebdomadaire complet dépendait des stations (le Professeur Korah ne voit rien d'illégal à cela) ; enfin, en refusant la licence, les stations empêchaient l'apparition d'un nouveau produit (le Professeur Korah se demande dans quelle mesure un programme complet de TV est vraiment "nouveau"). En somme, la Cour a jugé que le refus n'était pas justifié et permettait à tort aux stations de se réserver le marché des programmes hebdomadaires de télévision. Le Professeur Korah estime que la raison profonde de cette décision est la conviction qu'il ne doit pas exister de copyright sur l'information (c'est la situation dans la plupart des pays) et qu'il fallait donc pour une raison ou une autre aider Magill. Le Professeur Korah déclare qu'il serait particulièrement ardu d'essayer de deviner les intentions des autorités quant à l'étendue souhaitable des droits de propriété et que cela créerait une situation d'incertitude. En somme, elle pense que la décision était injustifiée mais prévisible.

L'autre exemple concerne le rejet d'une plainte par le Tribunal de première instance. Il s'agit de l'affaire Ladbroke (Ladbroke Racing c. Commission (T548/93)[1996] CMLR 549). Le Professeur Korah commence sa description en précisant que les sociétés de courses de chevaux avaient un copyright pour le film et le commentaire des courses. La société Ladbroke en Belgique a porté plainte auprès du Tribunal de première instance du fait qu'on lui refusait une licence. En rejetant la plainte de Ladbroke, le Tribunal a fait selon le Professeur Korah plusieurs erreurs dont elle en mentionne deux. La première est de considérer que les films ne sont qu'une activité "auxiliaire" par rapport à une entreprise de paris. En plus de se demander ce que le Tribunal entendait exactement par "auxiliaire", le Professeur Korah met en question la pertinence et l'exactitude de cette constatation. Sa seconde critique vise la décision du Tribunal selon laquelle il n'y a pas eu discrimination contre Ladbroke du fait que le détenteur du copyright n'avait pas d'activité en Belgique et qu'il n'octroyait de licence à personne dans ce pays. Le Professeur Korah exprime son vif désaccord et estime qu'il aurait mieux valu que les parieurs aient une seule série de films que rien. [On trouvera plus de détails sur cette affaire dans une communication du Professeur Korah, incluse dans la présente publication, intitulée “Compulsory Licences and Incentives to Invest in Innovation”].

Le Professeur Korah résume son propos en indiquant que le problème crucial se pose dans le cas d'un brevet vraiment précieux -- par exemple, un remède pour le SIDA. Supposons que ce remède ait un effet secondaire nocif, c'est-à-dire qu'il provoque la surdité, mais que quelqu'un d'autre trouve le moyen de résoudre ce problème. L'innovateur secondaire devrait-il avoir droit à une licence obligatoire ? Selon la décision Magill il semblerait que oui, mais le Professeur Korah espère que les tribunaux reculeraient devant un tel jugement parce qu'il réduirait les incitations à chercher des innovations primaires très utiles. Constatant que la plupart des juges n'ont pas une information suffisante pour résoudre ce genre de dilemme, le Professeur Korah recommande vivement que ces questions soient réglées par l'office des brevets *ex ante* plutôt que par les tribunaux *ex post*.

Le Président constate que, comme prévu, le Professeur Korah a exprimé son point de vue avec beaucoup de vigueur et que la question des licences obligatoires sera reprise plus tard au cours de la table ronde. Il demande ensuite à M. Rosen (représentant le Comité consultatif économique et industriel auprès de l'OCDE) de donner son point de vue.

M. Rosen développe les thèmes étudiés par les Professeurs Gallini et Korah. Selon lui, le problème essentiel est de maximiser l'innovation de façon continue tout en veillant à ce que les innovateurs ne se livrent pas à des pratiques anticoncurrentielles. Il souligne que l'innovation est une entreprise coûteuse et risquée, caractère qu'il ne faut pas oublier quand on analyse le fonctionnement du système des brevets et du droit de la concurrence.

M. Rosen indique que d'après une étude de la Federal Trade Commission (FTC) des Etats-Unis, citée dans le document de référence de la table ronde, certains responsables d'entreprises estiment que la concurrence est le principal moteur de l'innovation, et que celle-ci est un élément vital de la réussite dans des marchés de plus en plus mondiaux. M. Rosen est d'accord avec ce point de vue, mais selon lui il s'applique aux entreprises opérant dans un environnement qui leur permet d'exclure les autres grâce au système des brevets et de tirer un revenu de leurs inventions.

M. Rosen souscrit aux opinions émises par plusieurs orateurs précédents quant à l'effet que l'incertitude entourant l'action du gouvernement peut avoir sur l'innovation. Même au sein des offices des brevets, où l'on fait de gros efforts pour définir les droits que l'on doit accorder aux inventions, il est difficile de déterminer leur étendue optimale des brevets. Il est certain, d'après M. Rosen, que les autorités chargées de la concurrence doivent prendre garde à ne pas intervenir dans cette détermination. Il n'est pas d'accord avec le Professeur Barton sur le point que les brevets étendus posent problème, car cela ne s'est pas produit dans le passé pour le téléphone, l'automobile et beaucoup d'autres domaines. Les inventeurs

ayant des brevets étendus les ont soit donnés en licence, soit exploités eux-mêmes. Il reconnaît cependant qu'il faut veiller à ce que la protection du brevet ne soit pas plus large que l'invention elle-même. Mais si l'invention a une grande portée, comme dans l'exemple de la guérison du SIDA pris par le Professeur Korah, il faut que l'étendue du brevet soit suffisamment grande pour permettre l'octroi de licences.

A ce sujet, M. Rosen se pose une deuxième question, à savoir comment traiter une innovation secondaire comme celle que le Professeur Korah a mentionnée dans son exemple du SIDA. Pour M. Rosen, il ne doit pas y avoir de droit absolu à licence pour faciliter la commercialisation du perfectionnement d'une invention. Un droit de ce type diminuerait inévitablement, et peut-être indûment, l'incitation à découvrir l'innovation primaire qui est essentielle. Le système actuel qui permet au premier inventeur d'exclure les autres est ce qui donne aux brevets leur grande valeur d'encouragement à l'innovation. M. Rosen estime donc qu'il ne faut pas toucher à ce système sous prétexte de procurer d'autres avantages. Si l'on s'engageait dans cette voie, on risquerait de dissuader les inventeurs de demander un brevet. En outre, cela rendrait encore plus incertain le processus d'innovation, ce qui réduirait les investissements.

Le Président sollicite les commentaires des délégations sur les questions qui viennent d'être soulevées.

Un délégué des Etats-Unis entame la discussion en contestant l'utilisation que le Professeur Gallini a faite des recherches de Mansfield pour appuyer l'idée que l'étendue insuffisante des brevets explique pourquoi, dans certaines industries, ceux-ci ne sont pas considérés comme importants. Selon le délégué, les résultats montrent au contraire que dans certaines branches, d'autres méthodes de protection de la capacité d'appropriation sont supérieures aux brevets. Cette supériorité n'est pas nécessairement liée à l'insuffisance de l'étendue du brevet. Dans sa réponse, le Professeur Gallini reconnaît qu'elle a un peu forcé la réalité en attribuant les constatations de Mansfield à une étendue insuffisante des brevets. Elle profite de l'occasion pour ajouter que les études sur le sujet montrent clairement une inégalité entre petites et grandes entreprises dans l'accès aux solutions de substitution aux brevets. Ceux-ci ont une importance disproportionnée pour les petites entreprises naissantes et la contribution de ce type de firme à l'innovation varie selon les branches.

Un délégué allemand déclare que, si les autorités de la concurrence sont naturellement méfiantes à l'égard du pouvoir de marché inhérent aux brevets, elles doivent se rappeler que la concurrence est un processus continu et que le monopole d'aujourd'hui peut être entamé par l'innovation de demain. En outre, la durée de vie des brevets est un élément important de leur étendue qu'il faudrait étudier. Un brevet étendu qui dure peu de temps est peut-être plus générateur de bien-être qu'un brevet étroit qui se prolonge sur une longue durée.

Un délégué de l'Union européenne conteste la façon dont le Professeur Korah utilise l'affaire Magill pour en déduire que les autorités de la concurrence seraient prêtes à protéger une innovation secondaire mineure contre une invention primaire plus importante. Il souligne également que le droit de la propriété a changé depuis au Royaume-Uni et probablement aussi en Irlande, et que donc le type de magazine que Magill voulait offrir est désormais disponible dans ces pays.

Un peu plus tard, le Professeur Korah se déclare ravie que le délégué de l'Union européenne donne de la décision Magill une interprétation beaucoup plus étroite que certains autres commentateurs. M. Tom émet l'idée que la décision Magill a pu résulter d'un comportement irrationnel. Il se demande alors jusqu'où les autorités chargées de la concurrence devraient aller pour corriger ce qui apparaît comme un processus de décision irrationnel.

Un délégué australien constate avec plaisir que la table ronde va plus tard examiner des problèmes internationaux extrêmement importants concernant les liens entre la distribution et les DPI. Il veut également exprimer l'opinion que la législation en matière de DPI semble en grande partie fondée sur un processus de décision assez arbitraire qui, selon lui, pourrait être dû à la volonté de capture des producteurs. Par exemple, le droit du copyright ne protège pas les idées originales, comme on pourrait s'y attendre, mais l'expression de ces idées. Le Président appuie ce point de vue en notant que, d'après le document présenté par l'Australie, même quand le DPI est fondé sur un principe économique et non moral, les intérêts matériels défendus sont souvent ceux des détenteurs plutôt que ceux du grand public.

Le Président ayant sollicité des conclusions sur cette partie des débats, le Professeur Gallini fait observer que, sous l'angle de la possibilité de capture par le producteur, il serait difficile de déterminer *ex ante* dans quel sens les responsables des industries pourraient vouloir influencer l'étendue des brevets. Elle pense cependant que la plupart d'entre eux se verraient mieux dans la situation de suiveur que dans celle de premier innovateur et que donc ils seraient probablement favorables aux brevets étroits. Apparemment, un grand nombre de sociétés de logiciel se plaignent de l'étendue des brevets et font pression sur les autorités pour qu'elles la réduisent. Ce fait remet en question la théorie de la capture.

Selon le Professeur Barton, indépendamment de ce que l'on pense au sujet de la capture, il faut toujours trouver une base raisonnable pour décider de l'étendue d'une nouvelle catégorie de brevets. Il rappelle également que certains sont si étendus, en particulier dans la biotechnologie agricole, que l'entrée de secteurs entiers est actuellement bloquée.

M. Tom affirme que la question de l'étendue des brevets doit être replacée dans un contexte réaliste que l'exemple du SIDA embrouille quelque peu. Le cas type n'est pas la découverte réalisée par un inventeur, que d'autres vont ensuite perfectionner. Plus souvent, la première invention commercialisable résulte de petites avancées faites par de nombreux inventeurs qui partent du travail des précédents. Dans ce cas, quelle protection la première invention doit-elle recevoir ? Quels seront les effets de ce premier brevet, et du risque de procès pour contrefaçon qu'il implique, sur les perfectionnements à venir ?

M. Rosen est d'accord avec M. Tom sur le point que les inventions sont très rarement isolées et qu'une fois un brevet octroyé, l'incertitude règne quant aux perspectives de tirer le bénéfice d'un perfectionnement. Il fait toutefois remarquer qu'on ne peut résoudre ce problème en donnant une plus grande protection aux innovations secondaires qu'à la découverte primaire -- il faut faire preuve de prudence si l'on veut changer le système actuel qui favorise la première invention, avec toute la certitude que cela donne.

Un délégué des Etats-Unis intervient pour faire deux remarques. La première concerne les capacités relatives des autorités chargées de la concurrence ou des tribunaux par rapport à celles des offices des brevets pour évaluer la portée des revendications. Les biotechnologies et les logiciels d'ordinateur sont deux exemples, au moins aux Etats-Unis, où l'office des brevets reconnaît lui-même qu'il n'a pas les bases de données et la capacité de recherche suffisantes pour déterminer la nouveauté des revendications et l'étendue souhaitable du brevet. Dans une telle situation, surtout si l'office des brevets élabore des directives en la matière, les responsables de la concurrence devraient lui adresser des commentaires sur les conséquences pour la concurrence de l'étendue du brevet. Cela vaudrait mieux que d'attaquer l'office une fois le brevet octroyé. Ce processus pourrait avoir d'importantes conséquences pour le bien-être et il semble particulièrement indiqué dans les cas où l'office des brevets avoue lui-même qu'il ne sait pas trop comment procéder.

La deuxième remarque du délégué concerne le problème de la capture. Dans un cadre de politique générale, le Professeur Gallini a raison de penser que la plupart des acteurs préféreraient des

brevets étroits, mais toute personne qui demande un brevet cherche la plus grande protection possible. En tout cas, l'expérience des Etats-Unis donne à entendre que la capture pose un véritable problème. Avant que la Cour d'appel en matière de brevets ait été créée, les inventeurs ne gagnaient qu'environ un tiers des procès en contrefaçon. Après cette création, ils en ont gagné les deux tiers.

Le Président manifeste son étonnement devant le fait que parmi les documents présentés par les pays, très peu, voire aucun, ne mentionnent la possibilité que les responsables de la concurrence essaient d'inciter l'office des brevets à s'intéresser davantage à la protection et à la promotion de celle-ci.

III. Principes généraux concernant l'application du droit de la concurrence au DPI

Le Président ouvre cette partie des débats en demandant au Professeur Gallini de présenter son point de vue sur les différentes démarches que les autorités de la concurrence pourraient adopter.

En introduction, le Professeur Gallini fait remarquer que la politique de la concurrence influence le bien-être économique dû à l'innovation par ses effets sur les incitations *ex ante* (marché de l'innovation), les incitations *ex post* à donner en licence ou à transférer les innovations (marché de la technologie) et le degré de concurrence au niveau des prix dans les marchés des produits. Elle observe que la politique de la concurrence se concentre sur ces derniers, bien que la plupart des autorités compétentes reconnaissent aussi la nécessité de suivre les effets sur le marché de la technologie. Quant aux tentatives d'influencer le marché de l'innovation, on entre dans un domaine périlleux. Le Professeur Gallini propose trois grands itinéraires pour franchir ce pas.

La première proposition, la plus radicale, consiste à utiliser la politique de la concurrence pour corriger les excès ou lacunes constatés dans les droits conférés par le brevet. Quand ces droits sont considérés comme insuffisamment étendus pour favoriser un niveau suffisant d'innovation, on pourrait appliquer la politique de la concurrence avec une certaine indulgence. On pourrait par exemple, tolérer les accords de vente liée qui étendent indirectement la portée du brevet. A l'inverse, si l'on considère la protection comme trop généreuse, les autorités pourraient utiliser largement la "doctrine de la facilité essentielle" pour favoriser un octroi de licence à des conditions plus favorables.

Dans la deuxième méthode, que le Professeur Gallini appelle "approche par le marché de l'innovation", l'attention des autorités est centrée sur la concurrence dans ce marché. Selon elle, c'est au fond la démarche adoptée dans les Directives communes du Department of Justice et de la Federal Trade Commission des Etats-Unis ["Antitrust Guidelines for the Licensing of Intellectual Property", publiées en avril 1995] (Directives DOJ/FTC), selon lesquelles le marché de l'innovation est un concept prospectif défini comme : "la recherche-développement orientée vers des biens ou processus nouveaux ou perfectionnés, et les solutions qui peuvent se substituer à ces activités de recherche-développement". Comme pour la première approche, les considérations de R-D sont prises en compte. La différence est que les restrictions anticoncurrentielles contenues dans les licences ne pourraient pas être justifiées au motif qu'elles sont nécessaires pour assurer l'appropriation des bénéfices tirés de la R-D.

La troisième démarche proposée consisterait à s'abstenir d'utiliser la politique de la concurrence pour influencer le développement de l'innovation. Cette politique se limiterait aux marchés des produits et de la technologie. Contrairement aux deux approches précédentes, on se préoccuperait essentiellement de la diffusion de la technologie et de l'évolution des prix, et non plus de la R-D.

Le Professeur Gallini emploie un exemple "hypothétique" pour illustrer les caractéristiques de chacune de ces méthodes, à savoir le cas d'une société d'ordinateurs qui lie les ventes de son système

d'exploitation aux logiciels nécessaires pour accéder à la "toile" mondiale. Un tel accord pourrait avoir pour effet d'évincer les concurrents sur le marché des logiciels. Selon la troisième approche, on ne tiendrait pas compte des considérations de R-D et l'on s'occuperait surtout des effets négatifs éventuels sur la concurrence et les prix dans le marché des logiciels. Les autorités prêteraient aussi attention à l'incidence possible sur la diffusion des logiciels et sur l'évolution des prix dans le marché des produits, c'est-à-dire des ordinateurs. La deuxième méthode, celle du marché de l'innovation, poserait toutes ces questions et en ajouterait une autre : y aura-t-il une réduction du rythme de l'innovation et peut-être du nombre de logiciels disponibles à la suite de l'éviction de la concurrence sur ce marché ? La première démarche irait encore plus loin en demandant si le contrat de vente liée est nécessaire pour améliorer les incitations à l'innovation que donne le système du copyright. Selon la réponse, l'organisme responsable de la concurrence pencherait vers l'acceptation ou le rejet de l'accord de vente liée.

Le Professeur Gallini affirme que la troisième méthode serait la plus sûre pour les autorités chargées de la concurrence. En effet, la première risque de beaucoup diminuer les incitations à la R-D en faisant planer de graves incertitudes quant aux tentatives que les autorités pourraient faire pour modifier *ex post* l'étendue des brevets. La seconde n'est probablement pas vraiment nécessaire dans la mesure où une analyse plus souple de la concurrence potentielle pourrait suffire à apaiser les préoccupations légitimes quant au marché de l'innovation. De plus, ces problèmes sont déjà résolus par une sorte de réglage automatique. En effet, plus sont grandes l'étendue des brevets et les incitations à la R-D qui en découlent, plus grandes aussi sont les chances que les détenteurs de brevets bénéficient du type de pouvoir de marché qui pousse les autorités de la concurrence à interdire certaines restrictions à l'octroi de licences. Limiter les possibilités d'utilisation des brevets revient à peu près au même que réduire leur portée.

Selon le Professeur Gallini, la meilleure solution nécessiterait une coordination étroite entre la politique des brevets et celle de la concurrence pour atteindre l'équilibre optimal entre efficience dynamique et statique. Elle estime cependant que cela dépasse les possibilités actuelles. Elle pense que la troisième approche proposée a le double avantage d'être praticable et de définir les tâches en fonction de l'avantage comparatif des deux types d'institution. A son avis, les offices des brevets devraient avoir la mission de définir les droits qui encouragent l'innovation, c'est-à-dire l'étendue et la durée de la protection ; quant aux organismes chargés de la concurrence, ils devraient avoir pour objectif d'empêcher les transferts de technologie anticoncurrentiels et de veiller à l'utilisation efficiente de la technologie dans les marchés des produits. S'il est souhaitable que les autorités responsables de la concurrence respectent *ex post* les décisions de l'office des brevets quant à l'étendue de ceux-ci, le Professeur Gallini estime également qu'elles devraient discuter davantage avec lui *ex ante* pour déterminer la portée optimale.

Le Professeur Gallini fait observer que la politique des brevets est un instrument trop imprécis -- elle ne fait pas une distinction suffisante entre industries et entre produits. Il est donc assez logique que la politique de la concurrence se charge du réglage fin que celle des brevets semble incapable d'assurer. Elle conclut néanmoins qu'il vaut mieux opérer ce réglage *ex ante* qu'*ex post* avec toutes les incertitudes que cette dernière méthode implique (sauf si les autorités de la concurrence peuvent obtenir des juges qu'ils énoncent clairement les règles qu'ils suivront dans leur réglage *ex post*).

Le Professeur Gallini concrétise ses recommandations en énonçant trois principes qui à son avis sont inscrits dans les Directives DOJ/FTC et appliquent à la fois la deuxième et la troisième des démarches qu'elle a proposées :

1. on ne doit pas présumer que les droits de propriété intellectuelle donnent un pouvoir de marché ;

2. les restrictions à l'octroi d'une licence qui ne diminuent pas la concurrence par rapport à une situation d'absence de licence doivent être tolérées ; si une restriction réduit la concurrence par rapport à la situation de non-licence, il convient de mettre en regard les effets favorables à la concurrence produits par les restrictions et à la diffusion de la propriété intellectuelle ;

3. la politique de la concurrence doit reconnaître les droits fondamentaux conférés par la législation des brevets (c'est-à-dire les considérer comme donnés) pour s'occuper uniquement des entreprises qui s'engagent dans un comportement anticoncurrentiel (défini ou non par référence aux effets sur l'innovation future).

Le Professeur Gallini reconnaît que ses trois règles sont faciles à accepter en théorie mais représente un défi à mettre en pratique.

A propos du deuxième principe, le Professeur Gallini explique que le titulaire d'un brevet peut hésiter à donner une licence s'il ne peut pas inclure des restrictions dans le contrat. Interdire ces limitations pourrait en fait signifier qu'il n'y aura pas de licence. En conséquence, quand on décide si l'on doit permettre des restrictions, il faut comparer les avantages en matière de diffusion et les effets sur les prix à ce qui se passerait s'il n'y avait pas de licence.

Le troisième principe est probablement le plus difficile à appliquer, du fait qu'il n'y a pas de moyen évident de déterminer où se termine le droit donné par le brevet et où commencent les pratiques anticoncurrentielles. Le Professeur Gallini propose une règle pratique expliquée dans une étude de Cameron et Scott : plus le domaine de l'atteinte à la concurrence est éloigné de celui du DPI, plus l'intervention du droit de la concurrence est justifiée Elle donne aussi trois exemples de pratiques qui devraient susciter une attention particulière de la part des services de la concurrence :

1. le fait de lier produits brevetés et non brevetés ;

2. l'extension de redevances au-delà de la durée du brevet ;

3. le développement de produits conçus pour être incompatibles.

Le Professeur Gallini ne pense pas que les principes qu'elle vient de commenter exigent une modification des lois sur la concurrence. Ils montent seulement, comme il ressort des Directives DOJ/FTC, qu'il est souhaitable d'appliquer la loi d’une différente manière dans les affaires impliquant le DPI. On peut trouver un bon exemple dans le cas des licences qui comportent des conditions de fixation des prix. En dehors du contexte des DPI, les restrictions horizontales des prix sont normalement traitées comme illégales en soi. Or, il serait peut-être judicieux d'appliquer une démarche plus souple quand un DPI est en jeu, étant donné que sans la possibilité de contrôler le prix du licencié, le donneur peut simplement refuser la licence, avec des résultats encore plus défavorables pour les consommateurs. Poser l'illégalité en principe peut aussi s'avérer gênant du fait que les licences en matière de technologie ont généralement des effets tant verticaux qu'horizontaux.

L'innovation présente peut être aussi certaines caractéristiques qui plaideraient en faveur d'un traitement antitrust plus tolérant. Par exemple, les innovations ou les produits contenant des innovations sont souvent difficiles à évaluer, surtout pour celui qui demande une licence. Etant donné l'incertitude et les problèmes d'information asymétrique, le système de vente liée ou autre restriction pourrait donc favoriser beaucoup l'efficience. Dans un autre cas, l'adoption d'une innovation sous licence peut exiger de gros investissements spécialisés, qui rendent efficient le recours aux territoires ou concessions exclusifs.

Le Professeur Gallini nuance ses remarques en reconnaissant qu'elles sont inspirées par la situation actuelle aux Etats-Unis et au Canada et peuvent ne pas s'appliquer aux autres pays.

Le Président invite alors les représentants de divers pays à exprimer leur point de vue par rapport aux principes avancés par le Professeur Gallini.

Un délégué australien indique que la démarche de son pays est proche des recommandations qui viennent d'être exposées. L'autorité en matière de concurrence considère comme donnés les droits de propriété intellectuelle définis par les offices des brevets, par la loi sur le copyright entre autres, et elle ne présume pas que le DPI confère un pouvoir de marché. Le Trade Practices Act est appliqué pour limiter l'usage anticoncurrentiel du DPI, avec une exemption limitée mentionnée dans la Section 51. A part cette exception, les dispositions normales sur la concurrence s'appliquent, y compris la possibilité d'autoriser des pratiques anticoncurrentielles qui sont justifiées par des raisons d'efficience.

Un autre délégué australien annonce que le droit de la concurrence de son pays a récemment été amendé pour donner à l'Australian Competition and Consumer Commission (ACCC) le pouvoir de réexaminer les marques commerciales, ou plus exactement les marques de certification, en fonction de leur effet anticoncurrentiel. Cette mesure va dans le sens du renforcement de la coopération entre les autorités chargées des marques et celles responsables de la concurrence.

L'intervention australienne est suivie par celle des Etats-Unis, invités à commenter l'interprétation donnée par le Professeur Gallini des Directives DOJ/FTC et à parler des marchés d'innovation. Un délégué des Etats-Unis dégage trois principes de base. Le premier est simplement que l'octroi de licences est favorable à la concurrence et le second que le droit des Etats-Unis ne présume pas que la propriété intellectuelle donne un pouvoir de marché. Selon le troisième, les mêmes règles antitrust s'appliquent aux pratiques touchant la propriété intellectuelle qu'aux autres types de comportement.

Le délégué ajoute que, selon les Directives, la question d'une action antitrust peut se poser quand un accord de licence porte atteinte à la concurrence entre des entités qui, en l'absence de licence, seraient des concurrentes effectives ou probables dans le marché en question. Cela ne veut pas dire que la légalité de l'accord de licence est déterminée en comparant ses avantages avec ce qui se serait produit si la licence n'avait pas été accordée. Cette démarche est formellement exclue par les autorités des Etats-Unis.

Comme l'octroi de licences est considéré par les Directives comme généralement favorable à la concurrence, il est normalement soumis à la règle de raison.

Quant à l'attitude des Etats-Unis envers les marchés d'innovation, il y a deux limites importantes qu'il faut garder présentes à l'esprit. Premièrement, l'analyse sous l'angle des marchés d'innovation est seulement utilisée quand on ne peut pas évaluer totalement les effets de l'accord en examinant les marchés de la technologie et des produits. Deuxièmement, cette approche est limitée aux cas où la capacité à s'engager dans l'activité de recherche-développement (R-D) peut être liée à l'existence d'actifs spécialisés ou de caractéristiques propres à certaines firmes, c'est-à-dire aux compétences de base en matière de R-D. De plus, il existe une "zone de sécurité" qui s'applique s'il existe un nombre suffisant d'entreprises ayant la même capacité et les mêmes incitations pour entreprendre certaines activités de R-D. L'idée de base est d'appliquer le concept du marché de l'innovation dans le cas d'un problème de concurrence qui ne peut pas être traité au niveau du marché des produits. Il est surtout utilisé dans le cas des produits pharmaceutiques où la commercialisation nécessite un long délai, et où une fusion, par exemple, pourrait allonger le temps nécessaire pour que les consommateurs accèdent au nouveau médicament ou réduire beaucoup la gamme des produits offerts. Le concept du marché de l'innovation peut être aussi pertinent dans les situations où

les entreprises ne se concurrencent pas dans une même zone géographique, mais au niveau des avancées technologiques.

Un autre délégué des Etats-Unis illustre l'application de ce concept en utilisant l'affaire GM/ZF du DOJ. Il s'agit d'une fusion entre les deux seules entreprises du monde qui sont en situation d'innover dans le domaine des transmissions automatiques pour bus et camions. En effet, l'innovation dans ce domaine exige de pouvoir accéder à toute une chaîne de production. Le délégué souligne à nouveau que les autorités n'examinent pas les marchés d'innovation quand elles constatent des effets anticoncurrentiels dans les marchés de la technologie ou des produits. Etant donné que les acteurs de R-D sont généralement aussi donneurs de licences et des producteurs, s'il existe des effets anticoncurrentiels dans le marché de l'innovation, il y aura de nouveaux problèmes en aval dans les marchés de la technologie et des produits. Il faut toutefois rappeler que les marchés d'innovation sont de plus en plus importants, du fait que dans un nombre croissant de secteurs, la concurrence vraiment décisive se produit à ce stade.

Le pays invité ensuite à donner son avis est le Mexique dont le délégué souligne que, si la politique de la concurrence vise à assurer une libre compétition afin de contribuer à une économie efficiente et flexible dominée par les forces du marché, la politique du DPI a des objectifs plus larges. Elle se donne en particulier pour but de développer l'activité d'invention, d'attirer et faciliter les investissements étrangers, de promouvoir la recherche-développement et d'encourager le transfert et la diffusion des technologies. Le droit de la concurrence mexicain admet une exception pour les monopoles basés sur le DPI.

La délégation de l'Union européenne lui succède et commence son intervention en faisant observer que l'existence du DPI n'est pas remise en cause par le traité de Rome. Toutefois l'exercice de ce droit est limité par les règles qui appuient la libre circulation des biens et des services, y compris les dispositions du traité concernant la concurrence et l'exemption globale qui s'applique en particulier aux accords de transfert de technologies. Les autorités s'intéressent de plus en plus à l'incidence des transactions, notamment des fusions, sur l'innovation.

A ce stade de la discussion, le Président intervient pour déclarer que la plupart des pays qui se sont fait entendre semblent appliquer la démarche recommandée par le Professeur Gallini. Il ouvre un débat général en demandant si les pays utilisent la politique de la concurrence pour remédier aux excès ou lacunes de la politique du DPI et s'ils comparent l'effet des licences à ce qui se produirait si elles étaient interdites.

Un délégué japonais fait remarquer que son pays adopte une démarche plus pragmatique que celle proposée et décrit trois sources de droit qui concernent le DPI et la concurrence. La section 23 de la loi antimonopole exempte les pratiques reconnues comme exercices légitimes du copyright et des droits donnés par les brevets, mais cette notion n'est pas définie dans le texte. Il existe en outre les directives de la Commission pour la loyauté des pratiques commerciales qui traitent des comportements déloyaux comportant des accords de licence, et les directives prises par le même organisme en 1993 qui concernent les activités conjointes de recherche-développement. Ces deux textes sont conçus pour s'appliquer au cas par cas et classent les restrictions en trois types en fonction de la probabilité qu'elles constituent des pratiques commerciales déloyales.

Un délégué des Etats-Unis fait valoir que, si son pays se garde de moduler les DPI, les autorités de la concurrence doivent se réserver le droit de le faire dans certains cas, comme elles agissent pour l'utilisation des autres types de propriété (c'est-à-dire d'appliquer dans de rares circonstances la doctrine de la facilité essentielle). Comme les DPI durent généralement moins longtemps que des biens comme les ponts de chemins de fer ou les montagnes transformées en stations de ski, les cas dans lesquels les

organismes responsables de la concurrence ressentiront le besoin de s'ingérer dans la recherche du profit par le propriétaire [des droits de propriété]seront encore moins nombreux pour les DPI que pour les propriétés physiques de ce genre.

En réponse à la question du Président sur les particularités prétendues du DPI qui constitueraient une raison pour ne pas le traiter comme toute autre propriété, un délégué des Etats-Unis précise que la position de base est la même mais reconnaît qu'en pratique, les licences de DPI sont peut-être plus efficientes en soi que d'autres types de cession de propriété.

Un délégué du Royaume-Uni déclare qu'à l'heure actuelle, son pays suit les trois principes énoncés dans la communication du Professeur Gallini et du Professeur Trebilcock (incluse dans cette publication, réd.) et signale qu'une révision majeure du droit de la concurrence, visant à adopter des dispositions analogues aux articles 85 et 86 du traité de Rome, est en cours. L'Office of Fair Trading sera probablement obligé de publier de nouvelles directives dans le cadre de la réforme et les milieux d'affaires ont déjà exprimé des inquiétudes quant au traitement du DPI. Il est vraisemblable que l'OFT maintiendra sa démarche actuelle dans ce domaine.

Le droit de la concurrence en Pologne garantit apparemment l'existence du DPI, mais l'inclut dans son domaine de compétence. Un délégué polonais explique aussi que son pays applique la règle de raison et ne présume pas que le DPI donne un monopole ou une position dominante.

En Turquie, une loi sur la concurrence a été adoptée en 1994, mais elle n'est pas encore appliquée à la date de la table ronde. Cette loi contient des dispositions similaires à l'article 85 du traité de Rome, y compris le système d'exemption. Le délégué turc explique que des travaux sont en cours pour adopter une disposition comparable à l'exemption globale de l'Union européenne en matière d'accords de transfert de technologies, et il ajoute que dans l'avenir, le besoin se fera fortement sentir de former les juges à l'application du droit de la concurrence.

Avant de clore la séance de la matinée, le Président se montre sceptique quant à l'application effective par les pays des principes énoncés par le Professeur Gallini et déclare qu'il compte beaucoup sur la discussion de cas réels qui doit avoir lieu l'après-midi.

IV. Pratiques en matière d'application de la loi

Le Président organise la séance en fonction d'une liste de pratiques qui peuvent causer des problèmes à l'interface entre le droit de propriété intellectuelle et la politique de la concurrence.

1. Mise en commun des brevets et licences croisées (y compris leur utilisation dans le règlement des litiges pour contrefaçon)

Le Président donne d'abord la parole à un délégué japonais qui commence par mentionner une disposition des "Directives sur les brevets et le savoir-faire" de son pays [Directives pour la réglementation des pratiques commerciales déloyales en matière d'accords de licence relatifs aux brevets et au savoir-faire]. D'après ce texte, quand les licences croisées et les mises en commun de brevets constituent une restriction injustifiée au commerce, elles peuvent violer la Section 3 de la Loi antimonopole. Pour mieux expliquer la loi japonaise, ils présentent un cas réel portant sur les machines de pachinko (voir aussi page 7 du document japonais).

Le pachinko est une machine de jeu. Dix fabricants de ces appareils, représentant ensemble approximativement 90 pour cent du marché, possèdent un grand nombre de brevets. Ils ont confié l'administration de leurs droits de propriété intellectuelle à une société de gestion. Ces dix entreprises plus dans un cas, la société de gestion, ont refusé d'accorder des licences non exclusives à certains nouveaux entrants, les empêchant donc de fabriquer les machines.

La Commission japonaise pour la réglementation des pratiques commerciales (JFTC) a examiné ce comportement et l'a jugé contraire à l'intérêt public du fait qu'il restreignait considérablement la concurrence. De plus, l'attitude des fabricants n'a pas été considérée comme un exercice légitime de leurs droits aux termes de la loi sur les brevets ou de la loi relative aux modèles d'utilité. En conséquence, la JFTC a pris des mesures contre cette pratique.

Un autre délégué japonais (n'appartenant pas à la JFTC) signale que dans l'affaire Pachinko, la Commission a, intentionnellement ou non, appliqué la doctrine de la facilité essentielle puisque la décision définissait l'ensemble des brevets comme essentiels pour que les nouveaux venus puissent fabriquer ces machines. Il ajoute que la réglementation de cette branche limitait les possibilités pour les nouveaux arrivants de trouver une solution de rechange au DPI des entreprises dominantes, point repris par un troisième délégué selon lequel les accords de mise en commun s'accompagnent souvent d'une standardisation.

Le Président donne alors la parole à un délégué du Département de la Justice (DOJ) des Etats-Unis, selon qui l'analyse des problèmes de concurrence posés par la mise en commun de brevets et les licences croisées n'a pas changé depuis 1917. Elle reconnaît que beaucoup de mises en commun sont foncièrement favorables à la concurrence. Il y a cependant eu une époque pendant les années 30 et 40 où ces accords étaient considérés comme des procédés dommageables en soi, utilisés moins pour intégrer et diffuser la technologie que pour enrégimenter toute une industrie en veillant à ce qu'aucune firme ne sorte du rang.

Dans un discours de mai 1997 à l'Americain Intellectual Property Association, le directeur de la Division antitrust du DOJ explique en détail comment son organisation analyse les mises en commun de brevets et comment l'attitude de cet organisme a évolué depuis les affaires exceptionnelles des années 30 et 40. La politique actuelle ressemble beaucoup à celle qui avait été appliquée en 1917 pour une mise en commun de brevets à l'initiative du gouvernement dans le domaine de la construction aéronautique. A l'époque, chacun des premiers inventeurs américains détenait des brevets qui bloquaient la fabrication d'avions et le nombre de procès en contrefaçon menaçait d'empêcher l'expansion de la production de guerre.

Dans son examen de l'accord, le DOJ se montra extrêmement favorable, jugeant qu'il comportait plus d'avantages pour la concurrence que de menaces. Il examina d'abord la relation entre les membres du groupe qui étaient de toute évidence des concurrents et constata que leurs brevets étaient complémentaires dans le sens où chaque fabricant pouvait empêcher tous les autres de produire des avions. La relation entre leurs brevets était donc verticale et non horizontale. Le DOJ considéra ensuite la nature particulière des produits en question la possibilité que le groupe avait de contrôler l'accès aux DPI mis en commun par les participants ; l'éventualité qu'une personne désirant acquérir une licence pour fabriquer des avions indépendamment de l'un des propriétaires de cette technologie puisse l'obtenir, l'ouverture du groupe à de nouveaux membres, la position d'autres propriétaires de technologies qui pourraient vouloir participer à la concession commune de licences, la possibilité que le groupe évince la concurrence dans des marchés voisins par suite des exigences contenues dans la licence collective, enfin le risque qu'il puisse, d'une façon ou d'une autre, faciliter la collusion entre ses membres, ce qui évidemment posait la question de savoir si ces derniers avaient entre eux des liens horizontaux en tant que concurrents.

Bien que cette décision ait été prise quelque 80 années avant que le concept de marché de l'innovation soit analysé dans les Directives des Etats-Unis, le DOJ s'était montré assez perspicace pour se demander si cette mise en commun de brevets aéronautiques risquait d'atténuer les incitations des participants à continuer d'innover. Cette question était particulièrement pertinente du fait que le groupe demandait à tous ses membres de mettre en commun les perfectionnements futurs bien que le créateur de ces innovations n'eût guère de chances d'en tirer un bénéfice supplémentaire.

Le délégué des Etats-Unis passe à un cas beaucoup plus récent dans lequel neuf entreprises ont créé une société commune pour concéder une licence globale d'exploitation de leurs brevets. L'accès à ceux-ci était en particulier présenté comme essentiel pour satisfaire à une norme définie par le Motion Picture Experts Group (groupe d'experts spécialistes du cinéma) pour la compression des données vidéo (norme MPEG2).

Avant de demander l'opinion du DOJ sur la légalité de leur mise en commun en vertu de la loi antitrust des Etats-Unis, les membres du groupe ont eu recours aux services d'un expert en brevets, un avocat connaissant bien ce domaine du droit américain et la technologie en question. Sa tâche a consisté à examiner les divers brevets et à décider s'ils étaient vraiment essentiels pour la conformité à la norme MPEG2. Il a étudié une liste de 8 000 brevets possibles pour arriver aux 27 appartenant aux entreprises qui sollicitaient un examen d'activité du DOJ.

Les membres du groupe ont tous accepté de donner une licence pour leurs brevets à une entité commune qu'ils avaient formée. Selon l'accord, cette entité est à son tour obligée de concéder une licence dans des conditions non discriminatoires à tous ceux qui en feraient la demande pour créer des produits MPEG2. Les membres du groupe n'ont aucun pouvoir sur les décisions d'octroi de licence prises par l'entité commune, donc il n'y a aucun risque que celle-ci choisisse, par exemple, de désavantager un éventuel licencié sur l'ordre d'un membre du groupe. Ils ont accepté de partager les redevances, pour l'essentiel au prorata. Ainsi, chaque brevet donne à son propriétaire droit à environ un vingt-septième des redevances collectives.

Le point le plus intéressant est que la communauté a accepté de donner un rôle permanent à l'expert indépendant. Toute personne titulaire d'un brevet qui l'estime essentiel pour se conformer à la norme MPEG2 peut le soumettre à l'entité commune qui la transmet à l'expert indépendant pour examen. Pour le cas où l'expert considérerait le brevet comme vraiment essentiel, les membres se sont engagés à l'admettre au fonds commun et à lui assigner une part des redevances au prorata. De même, les brevets mis en commun sont soumis à contestation de la part des membres et des personnes extérieures ; ils peuvent être exclus du fonds si l'expert constate qu'ils ne sont pas vraiment essentiels pour la conformité à la norme MPEG2. Comme les redevances sont partagées au prorata des brevets, les membres ont tout intérêt à limiter la propriété commune aux seuls brevets vraiment essentiels, c'est-à-dire qu'ils ne sont pas incités à conserver les participants actuels. Sous l'angle de l'analyse antitrust, cela signifie que la communauté ne contient que des brevets complémentaires et donc reliés verticalement. Si l'expert fait bien son travail, la mise en commun ne fait qu'intégrer une technologie qui est seulement utilisable que si elle est combinée à tous les autres brevets essentiels.

Le DOJ a considéré que l'accord sur les brevets MPEG correspondait exactement au type de mise en commun qui favorise la concurrence. Il permet aux utilisateurs de ce standard d'obtenir une licence pour des intrants complémentaires à un coût plus bas que s'ils devaient négocier séparément avec chacun des autres propriétaires et leur évite les problèmes de retards.

L'élément de l'accord MPEG qui a posé le plus de problème au DOJ est l'exigence de rétrocession. En fait, les titulaires des licences accordées par la communauté doivent rétrocéder aux neuf

membres originaux une licence pour une redevance raisonnable sur tout perfectionnement qu'ils apportent à la technologie initiale. Etant donné le mode d'organisation du groupe, cette redevance sera probablement très faible. Heureusement, ce principe ne s'applique qu'aux neuf premiers membres ; les autres personnes qui s'intéresseraient au perfectionnement en question devront payer une redevance déterminée par le marché. Ainsi, bien que la clause de rétrocession ait l'air d'une expropriation des innovations à venir, son effet est assez limité. C'est un moyen utile de rémunérer les neuf membres initiaux pour la valeur qu'ils ont apportée à l'industrie en créant la communauté et en permettant d'accéder à leur technologie pour une redevance relativement basse.

Il est intéressant de noter que la clause de rétrocession peut en fait être un moyen de se livrer à une discrimination par les prix favorable à la concurrence. En effet, les membres de la communauté peuvent faire payer aux licenciés une redevance globalement inférieure à celle qu'ils auraient demandé s'ils n'avaient pas pu eux-mêmes obtenir à un faible coût une licence pour un perfectionnement intéressant. Le niveau modeste de la redevance devrait aussi intéresser une entreprise qui n'a pas l'intention de s'engager dans l'innovation, mais veut simplement utiliser la technologie pour fabriquer ses produits. En revanche, une entreprise qui veut accéder aux brevets pour développer les innovations paiera en fait plus cher puisque les redevances qu'elle peut recevoir de la communauté sont limitées. Compte tenu de cette situation, le DOJ a jugé que les obligations concernant les innovations futures n'étaient pas susceptibles de poser un problème de concurrence.

M. Tom manifeste un grand intérêt pour la lettre relative à l'examen d'activité concernant le MPEG et attire en particulier l'attention sur un nombre d'engagements que les membres de la communauté ont pris. Il aimerait savoir lesquels ont été considérés par le DOJ comme essentiels dans sa décision d'accorder un avis favorable. Il remarque aussi que les membres n'ont pas leur mot à dire dans les conditions d'octroi des licences et demande si le DOJ aurait pris une décision différente dans le cas, par exemple, où chacun des membres aurait eu un droit de veto sur la concession de licence à des tiers et aurait pu fixer la redevance à un niveau qu'il considérait comme susceptible de maximiser le profit commun.

Le délégué du DOJ répond que la conclusion aurait pu certes être différente si un membre de la communauté ou un groupe de membres avait eu le contrôle de la décision d'octroyer la licence ou le pouvoir de fixer le prix de celle-ci à un niveau qui aurait pu désavantager le licencié. Il suffit de donner les noms des membres pour avoir une idée des problèmes qui auraient pu se poser : Fujitsu, Philips, Sony, Matsushita, Mitsubishi, Lucent Technologies, General Instrument Corporation, et d'autres sociétés très actives dans la fabrication de produits en aval.

Le Président attire l'attention sur un certain nombre d'autres pays dont les documents écrits renferment des points intéressants relatifs à la mise en commun des brevets. En particulier, la contribution du Mexique estime que ce procédé peut être positif ou négatif. La France aussi se réfère à un cas de mise en commun. En outre, l'Union européenne, dans la section de son document consacrée à ce sujet, déclare que ce procédé peut avoir des effets sur la concurrence quand il constitue un moyen d'opérer une discrimination à l'égard des tiers. Le Président aimerait savoir si le type de discrimination positive, ou favorable à la concurrence, mentionné dans l'affaire MPEG aurait satisfait aux critères de l'Union européenne en la matière.

Intervenant plus tard, un délégué de l'Union européenne déclare les mises en commun de brevets prévues par l'article 5 sont spécifiquement exclues de l'exemption globale appliquée aux accords de transfert de technologies. La raison en est que les effets de ce type d'arrangements ne sont pas totalement clairs. On a en effet enregistré dans l'Union européenne des cas où des entreprises se sont plaintes d'être exclues sans aucune justification objective de groupes constitués pour fixer des normes. Quant à la

discrimination par les prix vis-à-vis des non-membres, là encore, l'effet net n'est pas évident et est analysé au cas par cas. Bien que les mises en commun de brevets soient exclues de l'exemption globale, elles peuvent cependant bénéficier d'une exemption individuelle fondée essentiellement sur l'application de la règle de raison.

Un délégué coréen déclare que dans son pays, le DPI bénéficie de diverses exemptions au droit de la concurrence, mais qu'elles ne s'appliquent pas à l'utilisation indue du droit de propriété. Il prend comme illustration un cas intéressant impliquant les deux marchés traditionnels rivaux de Séoul. Dans l'un d'eux, une centaine de personnes qui vendent des vêtements d'enfants utilisent une marque commerciale commune et s'efforcent de fixer le prix des biens portant cette marque. Ils refusent aussi de vendre aux détaillants de l'autre marché. La Commission coréenne pour la loyauté des pratiques commerciales a condamné cette pratique comme se situant hors du cadre de l'exemption.

Un délégué mexicain signale que l'autorité responsable de la concurrence dans son pays n'a pas encore eu à connaître de cas impliquant un droit de brevet, mais a traité des affaires de marques commerciales. Il est cependant évident que les propriétaires de DPI peuvent abuser de leurs droits en se livrant à des pratiques anticoncurrentielles qui vont au-delà de la portée naturelle de leur DPI. Il est toutefois assez difficile de déterminer où se terminent ces droits et où commencent les restrictions illégales. Quant à la mise en commun, elle ne viole pas nécessairement le droit mexicain de la concurrence, bien que ces accords puissent avoir des effets anticoncurrentiels, dus par exemple à une discrimination envers certaines entreprises.

Le Professeur Barton signale qu'il peut exister des exemples où une série d'accords bilatéraux formels ou informels de licences croisées fonctionne pratiquement comme une mise en commun de brevets. Il estime que c'est le cas dans l'industrie des semi-conducteurs aux Etats-Unis, par exemple, qui a connu plusieurs licences croisées explicites couvrant des techniques actuelles et futures. Il remarque aussi que l'aspect le plus difficile de ces dispositifs est la question des relations formelles et informelles entre les membres et l'extérieur. Il termine son intervention par deux questions ouvertes. Dans quelle mesure ces groupes exercent-ils simplement le droit de propriété intellectuelle qu'ils détiennent à juste titre contre l'extérieur au bénéfice de leurs membres dans un sens favorable à l'innovation ? Point aussi important, ces groupes rendent-ils nettement plus difficile l'entrée dans le système où exercent-ils un quelconque effet négatif sur la recherche future ?

Un délégué italien interroge la délégation américain sur le risque de collusion qui pourrait apparaître entre les membres de la communauté MPEG2.

Un délégué des Etats-Unis répond que le délégué italien a tout à fait raison de souligner que les risques de collusion jouent un rôle capital dans l'analyse des mises en commun. Dans l'affaire MPEG2, le DOJ a conclu que ce risque était minime pour deux raisons. Premièrement, la redevance perçue par la communauté était si faible qu'elle ne pouvait guère constituer une bonne base pour fixer le prix d'un produit en aval. Deuxièmement, il existait des cloisons très nettes entre les membres et l'entité de gestion qui est seule habilitée à examiner les demandes de licence et à demander des informations qui ne doivent pas être communiquées à la concurrence.

Le même délégué des Etats-Unis indique que le Professeur Barton a soulevé des questions importantes mais complexes. En effet, il est toujours difficile de prévoir le comportement des agents. L'analyse de l'affaire MPEG2 était fondée sur les informations communiquées au DOJ. Si ces informations se révèlent inexactes ou si l'effet sur l'innovation s'avère très différent de ce que le DOJ attend, il manifestera évidemment de graves préoccupations à l'égard de cet accord.

2. Territoires exclusifs et importations parallèles

Le Président ouvre la discussion sur ce sujet en indiquant que selon le document de l'Union européenne, les territoires et concessions exclusifs ont pour raison d'être d'améliorer la distribution et facilitent parfois l'entrée sur un marché. Il n'est pas sûr que ce soit bien là l'avis de l'Union européenne sur les accords de distribution qui ne concernent pas le DPI.

Le délégué de l'Union européenne lance la discussion en affirmant que la doctrine de l'Union européenne en matière de politique de la concurrence connaît les avantages des accords de distribution exclusive pour le transfert de brevets et/ou de technologie. Le raisonnement de base est que le propriétaire de la technologie ou le fabricant s'assure l'assistance de distributeurs qui connaissent les particularités locales et sont encouragés à concentrer leurs efforts sans craindre que la rémunération soit encaissée par d'autres commerçants. L'Union européenne doit mettre en balance cet avantage avec le souci de favoriser l'intégration du marché, objectif que les autres autorités de la concurrence ne partagent pas nécessairement.

Le Professeur Korah intervient alors pour débattre des importations parallèles en exposant la doctrine de l'extinction qui, dans l'affaire de Merck c/Stephar en 1974 {(187/80), [1981] ECR 2063, [1981]3 CMLR 463, CMR 8707}, a été poussée à un tel point que le détenteur d'un brevet n'a pas pu empêcher l'importation de biens venant de pays où il ne pouvait pas obtenir la protection de son brevet. Malheureusement, la Cour de Justice européenne a tout récemment confirmé ce jugement dans l'affaire Merck c/Primecrown {(C-267 & 268/95) 5 décembre 1996, [1997] 1 CMLR 83, [1997] 1 CEC 261}. Ces décisions posent de grands problèmes à l'industrie pharmaceutique qui a particulièrement besoin de protection pour ses brevets du fait qu'ils sont très faciles à copier, étant donné que la réglementation oblige à rendre publique la composition des médicaments.

La situation dans ce secteur est encore compliquée par les divers contrôles des autorités visant à abaisser le coût des médicaments. Selon le Professeur Korah, si les règles concernant la libre circulation ont fait des merveilles dans l'Union européenne en unissant 15 marchés séparés, les distorsions qui subsistent laissent le champ libre aux importateurs parallèles et réduisent d'autant les incitations à innover. Les autorités responsables de la concurrence n'y peuvent pas grand chose, mais le Professeur Korah estime souhaitable qu'elles fassent preuve de plus d'indulgence envers les territoires exclusifs. Elle pense toutefois que le livre vert de l'UE sur les restrictions verticales manifeste une hostilité persistante envers la protection territoriale absolue.

Un délégué australien exprime une opinion très différente quant aux importations parallèles, tout en reconnaissant qu'à cause du contrôle des prix, l'industrie pharmaceutique représente un cas à part. Il nuance encore ses remarques en soulignant qu'elles s'appliquent seulement aux restrictions d'ordre juridique (par les lois sur le copyright et quelquefois sur les brevets), et non aux mesures commerciales. Il signale des différences de prix très sensibles entre pays pour des produits comme les disques compacts, les livres, les logiciels, les produits chimiques agricoles et les produits pharmaceutiques. En Australie, le copyright matérialisé par l'étiquetage des vins et des vêtements protège les distributeurs exclusifs de ces produits contre quiconque les proposerait à la revente.

Selon le délégué australien, le commerce est gravement faussé dans le monde entier par les restrictions sur les importations parallèles. En gros, c'est sur le marché très concurrentiel des Etats-Unis que le prix des CD et des livres est le plus bas. Il est supérieur d'environ 20 pour cent en Europe et 40 pour cent en Australie. Il paraît évident au délégué que ces grosses différences de prix ne pourront pas subsister dans un monde de libre-échange. Le coût de transport des CD est minime, donc la différence de plusieurs dollars entre leur prix en Europe et aux Etats-Unis ne se justifie pas. Il faut chercher l'explication dans les

restrictions fixées par les lois sur les importations parallèles, qu'il vaudrait mieux appeler lois pour le monopole des importations. Le délégué australien estime que ces lois sont un exemple évident de capture par le producteur. Il reprend également une remarque énoncée lors de la séance du matin selon laquelle plus l'on s'éloigne de la source d'une invention ou d'une idée originale, plus il faut se préoccuper des effets anticoncurrentiels de la loi sur la propriété intellectuelle. Or, les lois contre les importations parallèles incitent à appliquer ce principe. Alors qu'il existe une défaillance du marché au niveau de la production, de fait corrigé par la protection du copyright, il n'y a pas de défaillance analogue dans le système de distribution et par conséquent, les restrictions aux importations parallèles paraissent injustifiées.

Le délégué australien se félicite de l'évolution du droit européen étant donné que les restrictions imposées par la législation aux importations à l'intérieur de l'Union ont été jugées incompatibles avec les exigences du Marché commun et ont en grande partie disparu pour la plupart des produits. Il indique toutefois que l'Union européenne maintient des restrictions aux importations parallèles provenant du reste du monde, raison pour laquelle les Européens paient beaucoup plus cher que les Américains les CD, livres, etc. Il y a eu au cours des ans des tentatives en vue d'un accord par lequel tous les pays adopteraient des restrictions aux importations parallèles, mais cette possibilité a été rejetée au GATT et à l'Organisation Mondiale du Commerce, lors du cycle d'Uruguay, ainsi qu'au cours de la Convention des droits de reproduction de Berne. Si jamais un tel accord est conclu, il reviendra à légaliser les monopoles mondiaux.

On utilise évidemment l'argument du piratage pour défendre les restrictions aux importations parallèles, mais aux yeux du délégué australien, cela ne fait que brouiller les pistes puisque le problème devrait être traité directement par des mesures spécifiques, amendes plus élevées, pénalités et autres. Naturellement, l'attitude des pays en la matière diffère selon qu'ils sont importateurs nets ou exportateurs nets de propriété intellectuelle.

M. Tom apporte une nuance à la notion de discrimination par les prix dans le domaine de la propriété intellectuelle, en soutenant que ce phénomène ne fait que refléter le très faible coût marginal de celle-ci. Comme il l'a indiqué dans le document de référence, le détenteur de DPI est obligé de prendre un prix supérieur à son coût marginal. Dans ces conditions, la discrimination par les prix a tendance à accroître la production et le bien-être des consommateurs.

Un délégué italien demande au délégué australien si les différences de prix entre pays dont il se plaint ne s'expliquent pas plutôt par une collusion entre importateurs que par les lois interdisant les importations parallèles. Un délégué australien reconnaît que le système de distribution en Australie facilite une collusion tacite, mais il ajoute que la raison évidente du niveau supérieur des prix en Australie par rapport à ceux du Canada, par exemple, est que dans son pays il est beaucoup plus facile de faire payer des prix élevés. En effet, la demande y est beaucoup plus inélastique à cause de l'éloignement des autres marchés. D'ailleurs, certaines études montrent que, si les éditeurs canadiens de livres profitent des restrictions aux importations pour relever leurs prix, ils perdent beaucoup de ventes dans la mesure où les Canadiens vont acheter leurs livres de l'autre côté de la frontière. Ce qui reste toutefois mystérieux, c'est la raison pour laquelle les prix ajustés en fonction des impôts restent systématiquement très supérieurs en Europe à ceux des Etats-Unis.

Le délégué australien souscrit à la remarque de M. Tom quant à la nécessité de pousser davantage l'étude de la discrimination optimale par les prix, mais il reste convaincu qu'une fois un CD mis légalement en vente, les défaillances du marché à ce niveau ne suffisent pas à justifier les restrictions très strictes imposées actuellement au commerce international.

A une question du Président concernant le niveau des prix en Nouvelle-Zélande, un délégué australien précise que le prix des livres est plus élevé en Nouvelle-Zélande, pour des raisons qui semblent concorder avec les remarques précédentes sur l'Australie. Il indique aussi que le revenu par habitant est plus bas en Nouvelle-Zélande, ce qui a aussi un effet sur les conditions de la demande et des prix.

3. Licences exclusives

Le Président ouvre le débat sur cette question en affirmant que ces licences transfèrent un droit de monopole aux licenciés et éliminent très souvent la concurrence entre le donneur et le licencié. La majorité des documents qu'il a consultés portent un jugement relativement favorable sur ces licences exclusives. Il y a eu toutefois en Italie un cas très intéressant où l'autorité de la concurrence a condamné une clause d'exclusivité pour des raisons de concurrence.

Le délégué italien prend la parole pour développer le cas Panini d'octobre 1996 (voir le document présenté par l'Italie). Une association de footballeurs professionnels italiens avait obtenu des équipes du pays le copyright pour des photographies des joueurs arborant les couleurs de leur club. L'association avait ensuite vendu pour une somme fixe le droit exclusif de produire et commercialiser des figurines autocollantes de collection représentant ces footballeurs. Deux ans auparavant, deux autres fabricants avaient partagé ce droit. L'autorité compétente a d'abord déclaré que le marché pertinent était celui des collectionneurs de photographies de footballeurs, et non le marché plus large des images de collection en général. Toutes les personnes interrogées ont soutenu l'idée qu'il n'existait pas de véritables produits de substitution.

Le droit de propriété intellectuelle de l'association tenait au fait que tous les footballeurs avaient accepté de lui concéder, sans aucune rémunération, le droit de commercialiser collectivement leurs photos sur des figurines. Cela devait permettre à l'association de financer ses activités sans contribution des joueurs.

Si la définition donnée du marché est exacte, Panini était en situation de prélever un prix de monopole et l'association aurait dû pouvoir encaisser la rente de ce monopole. Naturellement, l'autorité compétente, soucieuse de défendre l'intérêt des consommateurs, a estimé qu'une concurrence en aval aurait abaissé les prix. D'autre part se posait la question des effets dynamiques à long terme qu'entraînerait l'interdiction de cette licence exclusive. L'autorité chargée de la concurrence a donc examiné l'effet négatif éventuel sur les incitations, à commencer par celle qui pousse un jeune à devenir footballeur. Elle a estimé que l'effet était négligeable à ce niveau et a ensuite analysé l'incidence sur le marché des produits. Si l'exclusivité était maintenue, un concurrent potentiel éventuel verrait les énormes profits qu'il pouvait faire en vendant des figurines de collection et serait motivé à inventer un produit de substitution.

La décision d'interdire l'exclusivité a été très contestée, mais, d'après le délégué italien, il est intéressant que l'autorité compétente ait examiné l'effet sur les incitations et il invite les autres délégués à donner leur avis sur ce point.

Le Professeur Gallini déclare que ce cas pose un problème intéressant dans la mesure où, si le DPI implique normalement le droit à donner une licence exclusive, il n'autorise pas à le faire en commun avec d'autres entreprises ou détenteurs de DPI. L'affaire Panini impliquait une décision collective de donner une licence exclusive à une firme en aval et cela devait attirer l'attention des autorités sauf si ce défaut était compensé par une efficience au niveau du coût.

Un délégué allemand poursuit la discussion en remarquant que le cas Panini évoque celui du transfert des droits de retransmission télévisée des matches de football aux associations nationales qui les vendent ensuite. Beaucoup de pays, et aussi l'Union européenne, se préoccupent de ce problème. Quant à l'affaire Panini elle-même, elle pose la question générale du comportement discriminatoire. En Allemagne, les monopolistes n'ont pas le droit d'accorder une licence exclusive, à moins d'une raison valable.

Un délégué italien informe la table ronde que la volonté de faire des bénéfices est la seule raison de la licence exclusive dans l'affaire Panini. L'association de footballeurs préférerait traiter avec une seule entreprise en aval et Panini voulait l'exclusivité pour éviter toute manoeuvre stratégique du monopoliste. Après la décision des autorités, l'association de footballeurs était tout à fait disposée à maintenir son accord avec Panini, tout en accordant aussi la licence à une autre entreprise. Le cas ressemble en effet beaucoup à celui des matches télévisés mentionnés par le délégué allemand. Quand les organismes responsables de la concurrence suppriment les clauses d'exclusivité, ils devraient prêter une grande attention à la définition du marché et envisager les effets que cette décision peut avoir sur les incitations pour les futurs détenteurs de DPI.

Un délégué australien estime aussi que la définition du marché a un rôle critique dans ce genre d'affaire. L'autorité responsable de la concurrence dans son pays a éprouvé de grandes difficultés pour déterminer s'il existe des marchés séparés pour les divers sports ou s'il vaut mieux partir d'une définition plus large. Dans le cas Panini, si l'Australie avait elle aussi jugé que les figurines de footballeurs représentaient un marché séparé, elle aurait également eu tendance à juger qu'il s'agissait d'une forme de concession exclusive risquant de limiter beaucoup la concurrence, donc illégale. On aurait pu toutefois soutenir qu'il fallait accorder l'autorisation pour le bien du public et cela aurait débouché sur des questions concernant la promotion du sport, le risque d'exploitation des joueurs et la situation des jeunes footballeurs, les effets d'entraînement, etc.

Un délégué du Comité consultatif économique et industriel (BIAC) remarque que le cas Panini et celui des droits de retransmission des matchs de football montrent que certains articles ont beaucoup plus de valeur collectivement qu'isolément. Il ne faut pas oublier cette notion quand on évalue l'élément de "collusion" inclus dans les accords en question. En outre, du moins dans le cas de la télévision, c'est vraiment l'association, peut-être en commun avec les clubs, qui détient le DPI et il n'y a peut-être pas collusion. Le délégué souligne aussi que l'exclusivité peut parfois être nécessaire pour préserver les incitations.

4. Acquisitions impliquant des DPI

Le Président indique qu'un seul document traite de cette question et invite les Etats-Unis à décrire la fusion Ciba-Geigy/Sandoz.

Un délégué de la Federal Trade Commission (FTC) des Etats-Unis explique que Ciba-Geigy et Sandoz, deux des plus grandes sociétés pharmaceutiques du monde, ont voulu fusionner au début de 1996. Comme elles réalisaient des ventes considérables et quelques capitaux aux Etats-Unis, la FTC avait le droit d'examiner la transaction. L'aspect de loin le plus important de ce cas était que les deux sociétés étaient les plus avancées dans le domaine de la thérapie génique qui promet beaucoup pour le traitement de maladies jusqu'ici difficiles à guérir comme le cancer, l'hémophilie et le SIDA.

On savait, (à cause du système d'homologation de réglementation des autorités sanitaires) qu'aucune des deux sociétés ne pourrait mettre en vente un produit de ce type avant au moins cinq ans,

mais il était aussi évident, et les entreprises le reconnaissaient, qu'elles étaient les leaders mondiaux et que la réunion de leurs brevets, savoir-faire, technologie et secrets de fabrication les mettait très loin devant la concurrence. D'autres entreprises menaient des recherches dans ce domaine, mais aucune ne se plaçait au même niveau que ces deux sociétés.

La question était donc de savoir si l'on devait les autoriser à fusionner dans le domaine de la thérapie génique, bien que leurs produits ne puissent pas être mis sur le marché avant cinq ans minimum. Ce cas se situait parfaitement dans le cadre de ce que les autorités des Etats-Unis appellent marché de l'innovation. Les principaux arguments en faveur de la fusion étaient les suivants : le risque d'atteinte à la concurrence était trop hypothétique (il n'apparaîtrait pas avant cinq ans), les idées franchissent facilement les obstacles et les frontières, la théorie des effets anticoncurrentiels liés à la restriction d'innovations n'est pas très développée (et ne se situe pas vraiment au même niveau que celle des effets de prix dus au comportement de cartel), enfin, il était plus sûr d'autoriser la fusion quitte à prendre des mesures plus tard si un problème apparaissait. En revanche, il était évident qu'il s'agissait du type même de domaine où le succès se détermine au stade de la recherche-développement et que l'avance prise serait très difficile à rattraper pour les concurrents partis plus tard. Donc, si les responsables de la concurrence attendaient cinq ans, il serait peut-être impossible de remédier à un problème éventuel.

En l'occurrence, la FTC a décidé, non sans difficulté, qu'autoriser ces deux sociétés à conjuguer leurs vastes ressources et savoir-faire et d'expérience serait contraire à la concurrence. Elle a donc demandé donc à la société créée par la fusion de transférer un ensemble de brevets, marques, techniques et autres à une seconde contrepartie indépendante, de sorte qu'il y ait au moins deux firmes sur le marché pertinent. Jusqu'à présent, la seconde a obtenu de bons résultats, mais il est encore trop tôt pour dire si la scission était une bonne idée.

Le délégué de la FTC estime que l'on va assister à un nombre croissant de cas de ce type dans lesquels la concurrence la plus intense se passe au niveau de la recherche.

Plus tard, M. Tom commente ce cas. Il n'impliquait pas selon lui des parties dont les apports seraient suffisamment complémentaires pour qu'en les combinant on obtienne de meilleurs produits ; des recherches plus poussées, et autres résultats. On était au contraire en présence de deux sociétés qui détenaient chacune des intrants nécessaires aux autres chercheurs qui voudraient commercialiser un produit. Les dix ou vingt chercheurs qui faisaient des travaux très importants en thérapie génique avaient, avant la fusion, la possibilité de faire jouer la concurrence entre Ciba-Geigy et Sandoz. Autoriser la fusion signifiait donc supprimer cette option avec la conséquence éventuelle que beaucoup de ces petites firmes espérant utiliser les deux grandes sociétés comme pôles d'attraction et partenaires potentiels dans une entreprise commune n'auraient plus qu'à cesser toute recherche. Dans ces conditions, la fusion aurait probablement ralenti les progrès dans ce domaine.

Le Professeur Gallini approuve la décision mais se demande pourquoi l'on a appliqué le concept de marché de l'innovation au lieu d'utiliser l'approche plus classique par la concurrence potentielle. Comme on l'a vu dans la matinée, on ne considère les marchés d'innovation que s'il est prouvé que des actifs spécialisés ont été engagés dans la R-D, ce qui s'appliquait certainement dans le cas présent. D'autre part, en plus du fait que les deux sociétés étaient effectivement en concurrence sur le marché de l'innovation, on aurait pu certainement aussi les considérer comme des concurrents potentiels dans le marché de la technologie ou celui des produits. Selon la description de la FTC, les deux entreprises étaient tellement en avance sur les autres que la fusion ne laisserait en fait qu'une firme qui finirait par dominer le marché de la technologie (c'est-à-dire serait en mesure de donner licence aux autres producteurs).

Un délégué des Etats-Unis donne deux raisons pour lesquelles le concept de marché de l'innovation a été préféré à l'analyse sous l'angle du conglomérat ou de la concurrence potentielle. La première est que le marché dans lequel l'effet anticoncurrentiel était immédiatement perceptible était celui de la R-D. La seconde prend sa source dans le cas de British Oxygen où il a été jugé que si l'effet anticoncurrentiel d'une fusion conglomérale ne s'exerce pas dans un délai raisonnablement court, on ne peut appliquer l'analyse de la concurrence potentielle. Or, les tribunaux estimeraient probablement qu'une période de cinq ans ne constitue pas un délai court. Un second délégué des Etats-Unis soutient que la question serait plus claire pour l'organisme chargé de la concurrence et les tribunaux si l'on se centrait sur les domaines où les effets anticoncurrentiels se font vraiment sentir (c'est-à-dire un éventuel ralentissement de la course à l'innovation, plus une diminution de la qualité et de la variété de la R-D). Il rappelle aussi que la doctrine de la concurrence potentielle est quelque peu floue et qu'il serait difficile de la faire valoir devant un tribunal. En outre, certaines des préoccupations exprimées par le Professeur Barton sur l'étendue des brevets s'appliquent également au cas présent, à savoir un brevet très étendu qui aurait rendu difficile de donner une sous-licence à d'autres chercheurs et justifiait qu'on ait déjà octroyé des licences obligatoires.

Le Professeur Gallini déclare que, si le recours à la notion de marché de l'innovation s'explique par la volonté de faire comprendre clairement aux juges le concept de concurrence potentielle, elle y voit moins d'inconvénients. Elle veut aussi souligner une complication intéressante mentionnée dans la communication de la FTC, à savoir que si les deux sociétés fusionnaient, elles seraient tellement en avance qu'il serait difficile aux autres firmes de les rattraper. En conséquence, la fusion était susceptible à la fois d'accélérer l'innovation et de provoquer des problèmes de concurrence. Le Professeur Gallini encourage les autorités chargées de la lutte antitrust à agir auprès des offices des brevets pour qu'ils réduisent l'étendue de ceux-ci afin de diminuer en même temps la nécessité d'opérer des choix délicats.

Un délégué des Etats-Unis est d'accord avec cette idée mais n'est pas sûr que l'office des brevets écouterait les conseils. Il reconnaît également que l'analyse des fusions doit prendre en compte les effets éventuels d'accélération de l'innovation. Ce n'était toutefois probablement pas le cas dans la fusion en cause. Les Directives des Etats-Unis en la matière élargissent quelque peu la notion pour prendre en considération les gains d'efficience prétendus mais elles stipulent aussi que ceux-ci peuvent rarement justifier une fusion monopolistique ; or, c'était essentiellement de cela qu'il s'agissait dans l'affaire Ciba-Geigy/Sandoz.

Un délégué allemand trouve ce cas très intéressant et souligne que la concurrence dans le domaine de la R-D est l'une des dimensions capitales du problème. L'Allemagne a actuellement quelques difficultés avec la coopération en matière de R-D. Toutefois, si l'on adopte la règle de raison, il paraît absurde de bloquer une tentative justifiée de coopération dans la R-D quand aucun produit ou marché de produit n'est directement concerné. Tout dépend de la proximité entre la R-D et les marchés des produits : plus la distance est grande, moins les effets anticoncurrentiels sont forts. Néanmoins, vu l'importance de la recherche-développement, la coopération dans ce domaine pourrait bien constituer une restriction de la concurrence. Quant au contrôle des fusions on ne peut l'appliquer sans définir le marché et évaluer s'il y a position dominante (condition nécessaire pour l'interdiction en vertu de la loi allemande). Le concept de marché de l'innovation pourrait donc s'avérer très utile dans les cas où il n'existe pas encore de marché de produits, donc pas de possibilités de position dominante.

5. Rétrocessions

Comme le sujet a déjà été abordé, le Président décide d'abréger le débat sur ce point. Il indique simplement que le document japonais adopte une position assez réservée sur les rétrocessions et que la

contribution australienne semble montrer que celles-ci ne présentent probablement aucun problème pour la loi du pays à moins d'être exclusives. Il invite alors le Professeur Barton à donner son avis sur les clauses de rétrocession.

Le Professeur Barton commence son intervention en déclarant que le problème potentiel des rétrocessions tient au risque qu'elles ne réduisent les incitations du licencié à poursuivre l'innovation. D'autre part, si elles sont soumises à une interdiction générale, il y aura des cas où la licence sera refusée par crainte que le licencié ne fasse progresser la technologie au point de chasser du marché le donneur détenteur du brevet initial. La solution générale raisonnable à ce problème est de permettre des rétrocessions non exclusives qui laissent au licencié une incitation à l'innovation tout en rassurant l'inventeur initial quant à ses chances de rester sur le marché. Un délégué japonais souligne l'importance de ces questions dans le cas des copyrights de logiciel où les rétrocessions apparaissent jouer un rôle essentiel dans l'octroi de licences.

6. Vente liée, vente forcée d'une gamme entière, subordination

Le Président fait observer que le document français contient un exemple intéressant de subordination de vente dans l'industrie pharmaceutique, qui est alors développé par un délégué français. Il s'agissait d'une société pharmaceutique qui détenait deux brevets, dont le premier allait bientôt expirer. L'autre portait sur un médicament très utilisé dans les hôpitaux. La société avait décidé d'accorder aux hôpitaux une remise sur leurs achats du second produit à condition qu'ils achètent aussi la première. Le Conseil de la concurrence a interdit cette pratique et sa décision a été confirmée par la Cour d'appel de Paris. Le problème en l'occurrence ne concernait pas tant l'existence du DPI que son utilisation en vue d'une pratique commerciale abusive.

Le Président donne ensuite la parole à l'Union européenne dont le document exprime aussi des réserves sur la vente liée, cette fois dans le secteur des télécommunications.

Un délégué de l'Union européenne précise qu'en général les accords de vente liée ne sont pas interdits en vertu de l'exemption globale concernant le transfert de technologies. Ils sont en revanche soumis à une procédure d'opposition par laquelle la Commission doit être notifiée et a la possibilité d'examiner la pratique. La Commission a eu recours à cette procédure à maintes reprises, notamment dans l'affaire du pistolet cloueur Hilti. Le problème dans les télécommunications vient du fait que les entreprises en place jouissent d'un avantage unique pour fournir toute la gamme des services demandés. Si on les autorise à lier la vente de leurs services, cela revient à annuler une partie des effets de la libéralisation puisque les entrants sont très désavantagés. C'est pourquoi dans de nombreux cas d'alliance concernant le secteur des télécommunications, la Commission a exigé que les sociétés ne lient pas les services libéralisés et non libéralisés, ou du moins proposent aux consommateurs des tarifs différenciés selon le type de service.

7. Fixation de normes et réseaux

Le Président décide, faute de temps, de renoncer à ce sujet, mais attire l'attention des délégués sur le document de la Federal Trade Commission des Etats-Unis et en particulier sur son analyse du cas des ordinateurs Dell.

8. Restrictions sur les prix incluses dans les licences

Un délégué français indique que celles-ci sont soumises à l'analyse générale qui s'applique aux accords verticaux, notamment l'interdiction globale des prix imposés. Le Président estime que c'est la position de la plupart des pays. Le document japonais, par exemple, indique que certaines restrictions sur les prix peuvent beaucoup limiter la concurrence et sont donc interdites. L'Union européenne paraît très hostile aux prix imposés qui impliquent l'usage du DPI, surtout quand ils comportent aussi des restrictions territoriales. En revanche, le Président pense que l'attitude de l'Australie est peut-être assez différente (un délégué australien interviendra plus tard pour signaler que les autorités de son pays ont évolué à ce sujet et qu'elles adoptent maintenant une approche plus critique).

Le Président sollicite l'avis des experts panellistes.

Le Professeur Gallini souligne que l'analyse doit commencer par déterminer si la restriction sur les prix a des effets verticaux ou horizontaux. Dans le cas, par exemple, d'une innovation portant sur un processus qui réduit notablement le coût de production et pour laquelle il faut utiliser une redevance fixe étant donné qu'il est trop difficile de la percevoir à l'unité, la licence augmentera la concurrence sur le marché. Ce fait pourrait être très dissuasif pour un donneur éventuel de licence, qui est légalement en droit d'exploiter son processus de façon exclusive sauf s'il peut contrôler le prix du licencié. Même avec de telles contraintes sur les prix, l'octroi de licences pourrait apporter des efficiences en matière de coût, donc les restrictions pourraient en fait améliorer le bien-être.

M. Tom rappelle aux délégués qu'il est important de faire la distinction entre prix minimum et maximum. Ce dernier peut accroître le bien-être quand le licencié détient une technologie complémentaire importante et que le donneur souhaite utiliser une redevance à l'unité. Dans une telle situation, le donneur peut vouloir imposer un plafond aux prix du licencié pour éviter que celui-ci ne fixe son tarif à un niveau trop élevé et réduise par là même le nombre d'unités vendues et le montant des redevances.

9. Refus de licence et licences obligatoires

1. Le Président fait remarquer que pendant les débats de la matinée, un grand nombre de pays se sont montrés réticents à l'idée d'intervenir dans le domaine des licences. Néanmoins, certains appliquent les licences obligatoires. Par exemple, le document britannique indique que dans le cas déjà ancien d'American Xerox, l'obligation avait été imposée par un règlement à l'amiable de la FTC et qu'il n'était donc pas nécessaire pour les autorités britanniques d'appliquer la même mesure. Vers la même époque, le Royaume-Uni a lui aussi eu affaire à un cas intéressant concernant la société Ford, dans lequel les autorités ont constaté un refus anticoncurrentiel d'accorder une licence pour la production de pièces de rechange. Il mentionne également l'affaire Boeing McDonnell-Douglas où l'Union européenne a imposé à la nouvelle société d'accorder une licence pour la technologie acquise grâce aux activités de défense de Douglas.

M. Tom entame la discussion par une discussion du cas Xerox, vers 1975, dont le traitement a été inspiré par des principes différents de ceux appliqués aujourd'hui. Le problème était que Xerox avait amassé un gros portefeuille de brevets qui, pour l'essentiel, empêchait toute autre entreprise d'entrer dans le marché des photocopieuses. Un grand nombre de ces brevets n'étaient même pas utilisés par la société, mais ils protégeaient d'autres méthodes de photocopie.

Dans l'affaire Xerox, la FTC a décidé que la société avait été trop loin en assurant son monopole par le dépôt de brevets qu'elle n'allait pas utiliser. Comme on l'a vu, l'affaire s'est terminée par un

règlement à l'amiable en vertu duquel Xerox acceptait d'octroyer des licences d'une importance déterminante. Le résultat, selon M. Tom, a été une augmentation de la concurrence et de la production, ainsi qu'une incitation pour Xerox à continuer d'innover. En effet, pour rester au niveau de ses concurrents, principalement japonais à l'époque, mais aussi de sociétés comme Kodak, Xerox a dû se montrer plus combative et plus inventive qu'elle ne l'aurait été sielle avait été autorisée à accaparer le marché grâce à son portefeuille (qui comportait des brevets sur des perfectionnements successifs, permettant ainsi à la société de monopoliser le marché pendant une période bien plus longue que les 17 ans accordés par la loi américaine aux détenteurs de brevets).

M. Tom se souvient que lors d'une conférence sur le DPI tenue à Ottawa en juin 1996 sous le patronage du gouvernement canadien, un dialogue très intéressant avait eu lieu entre le Professeur Scherer, qui était chef de l'unité économique à la FTC à l'époque de l'affaire Xerox, et le Professeur Baxter, ancien chef de la Division antitrust du DOJ. La conclusion de ce dialogue était que ce type d'action fonctionne bien quand personne ne s'y attend mais qu'il risque sinon de freiner gravement l'innovation.

Pour rester sur le sujet des portefeuilles de brevets qui tuent la concurrence, M. Tom commente certains exemples dans lesquels ces ensembles sont constitués par acquisition et non par invention interne. L'argument qui pousse les autorités chargées de la concurrence à ne pas intervenir est que les fusions peuvent combiner de façon efficiente des brevets complémentaires, ce qui compense tout effet anticoncurrentiel ou peut-être même a des effets positifs. En revanche, il peut exister des situations dans lesquelles les partenaires de la fusion ne détiennent pas de brevets aussi déterminants et où le maintien de deux sociétés séparées pourrait permettre aux entrants de prendre une licence à l'une d'elles et soit de s'attaquer le brevet de l'autre, soit de le tourner. Une telle situation mériterait une attention particulière de la part des autorités antitrust.

Le président demande si l'affaire Xerox serait analysée d'une façon différente aujourd'hui et un délégué des Etats-Unis répond en soulignant la distinction faite par M. Tom entre innovations internes et les acquisitions. Les contre-incitations à l'innovation qui pourraient survenir si l'on bloque l'acquisition d'un portefeuille de brevets anticoncurrentiel doivent être en général faibles comparées à celles qui apparaîtraient si les entreprises craignent que leurs recherche actuelles ne donnent lieu à des sanctions antitrust, au cas où leurs brevets futurs déborderaient du cadre de ceux qu'ils détiennent déjà.

Le Royaume-Uni est invité à commenter le cas Ford déjà mentionné, ainsi que le cas des analyseurs de gaz d'échappement (décrit dans le document de ce pays). Un délégué du Royaume-Uni présente en fait cinq cas, le premier étant l'affaire Rank Xerox de 1976. Comme on l'a déjà indiqué, aucune action n'a été prise, bien que les autorités aient constaté une nette atteinte à l'intérêt public, car elles ont estimé que le règlement à l'amiable de la FTC suffisait pour remédier à la situation. L'affaire Ford de 1985 était due au refus par cette société d'octroyer une licence à ses concurrents pour la fabrication ou la vente de certaines pièces de carrosserie. La Monopolies and Mergers Commission (MMC) a également jugé ce comportement anticoncurrentiel et contraire à l'intérêt public. Le gouvernement s'est alors aperçu qu'il n'avait pas le pouvoir d'intervenir en la matière. Une autre affaire survenue en 1985 portait sur un refus par la BBC et l'ITP de permettre la publication de leurs programmes par des magazines. La Commission a jugé que ce refus était contraire à la concurrence, mais non à l'intérêt public. Même si elle avait conclu dans le sens inverse, le gouvernement n'aurait rien pu faire. Les deux cas de 1985 ont amené en 1988 le vote d'une législation qui donne au gouvernement le pouvoir de rendre la licence obligatoire.

Dans l'affaire des analyseurs de gaz d'échappement en 1993, la MMC a jugé que le refus d'octroyer une licence pour des manuels techniques communs constituait un obstacle à l'entrée mais que

dans les faits, il ne portait pas atteinte à l'intérêt public ; donc aucune mesure n'a été prise. Le seul cas où le pouvoir d'imposer une licence institué par la loi de 1988 a été appliqué concerne une enquête de 1995 sur les jeux vidéo. Comme c'est la DGIV qui a pris l'initiative dans cette affaire, le Royaume-Uni laisse l'Union européenne commenter les événements.

Un délégué de L'Union européenne insiste plutôt sur la fusion Boeing McDonnell-Douglas, situation dans laquelle il y avait déjà une position dominante de la part de Boeing et des barrières très élevées à l'entrée. Une des principales questions qui se posaient était de savoir si le DPI de la nouvelle entité, acquis en partie par des contrats de défense, allait renforcer la position dominante de Boeing sur le marché de l'aviation civile. C'était surtout cette activité de la nouvelle société qui préoccupait les autorités de l'Union européenne, étant donné qu'en vertu des règles de la courtoisie internationale, elles avaient décidé de ne pas intervenir dans les aspects militaires de la fusion. Les deux activités coïncidaient sur un point, à savoir que la production d'avions avait impliqué une interaction considérable entre R-D civile et militaire.

Finalement, l'Union européenne a reçu des engagements sur l'octroi de licences pour le droit de propriété intellectuelle relatif à la R-D financée par des crédits militaires, et c'est l'une des raisons pour lesquelles elle ne s'est pas opposée à la fusion. L'affaire a été considérée comme très inhabituelle, tout à fait différente du cas Magill, du fait qu'elle ne portait pas sur une action intérieure des entreprises et qu'elle faisait appel à des considérations de financement public. Un délégué des Etats-Unis demande des précisions sur l'importance de ce financement et un délégué de l'Union européenne répond que la nature même des dépenses était essentielle, étant donné qu'elles servaient à financer la R-D dans un seul pays mais aussi qu'elles étaient très élevées.

Le Président voudrait savoir dans quelle mesure l'effet de portefeuille a joué dans l'affaire Boeing-McDonnell-Douglas comme dans le cas Xerox. Un délégué de l'Union européenne répond que l'Union a eu en effet à connaître d'affaires, par exemple pour des produits de marque, dans lesquels l'effet de portefeuille jouait un rôle critique. Dans la fusion Grand Metropolitan-Guinness, par exemple, l'Union européenne a exigé le dessaisissement de certaines marques (qui du fait d'un copyright emportaient un élément de DPI). La décision a été prise malgré l'argument selon lequel les entrants doivent avoir accès aux marchés des capitaux et pouvoir emprunter suffisamment pour créer leurs marques et concurrencer les entreprises en place. Cet argument est encore moins convaincant dans une affaire comme Boeing-McDonnell-Douglas où le fait de pouvoir disposer de grosses sommes d'argent payées par les contribuables a joué un rôle critique.

Deux autres pays interviennent dans la discussion, à commencer par la Turquie dont le délégué signale que les dispositions des licences peuvent être rejetées par l'office des brevets de son pays si elles violent les DPI ou les lois et règlements. Il donne comme exemple une affaire qui portait sur le remplissage et la vente de citernes de GPL utilisés pour la fourniture de gaz aux habitations. Certaines conditions de la licence ont été annulées du fait qu'elles violaient la réglementation relative aux citernes de GPL. Quant à la licence obligatoire, elle est prévue par la loi type des brevets, mais on ne peut l'imposer que si c'est dans l'intérêt public et si le brevet n'a pas été exploité dans les trois années qui suivent le dépôt. Le délégué ne connaît aucun exemple d'utilisation de la licence obligatoire.

Un délégué japonais attire l'attention sur les tentatives récentes qui visent à accroître la protection des bases de données, ce qui pourrait avoir des conséquences à la fois pour les licences obligatoires et pour les lois sur la concurrence.

Le Président met fin aux débats et demande aux experts panellistes de donner leurs conclusions. Le Professeur Barton regrette que la table ronde n'ait pas passé plus de temps sur la vente subordonnée,

problème qu'il considère comme particulièrement important étant donné le grand avantage dont bénéficient souvent les entreprises qui réussissent des percées technologiques. Il insiste aussi sur l'internationalisation de l'innovation et la nécessité que les organismes responsables de la concurrence placent les questions de DPI dans une perspective mondiale.

Le Professeur Korah souligne la nécessité de défendre la cause de la concurrence en matière de politique du DPI et cite l'exemple de la Communauté qui a accordé la protection du copyright pendant 70 ans après la mort du détenteur afin de se mettre en accord avec la loi allemande. Pour un grand nombre d'Etats membres, cela signifie allonger la durée de leur copyright de 20 ans. D'après le Professeur Korah, il faudrait s'efforcer de ramener le DPI au minimum nécessaire pour favoriser l'innovation, ce qui rendrait ses effets anticoncurrentiels un peu moins probables. Elle veut aussi insister sur l'importance de la distinction faite entre effets horizontaux et verticaux dans le document de référence. Il faut en effet bien comprendre qu'un accord n'a pas d'effets horizontaux entre le donneur de licences et les licenciés, sauf dans le cas où ils auraient été concurrents en l'absence d'une licence.

Le Professeur Gallini commence par étendre aux principes de la concurrence la distinction faite auparavant par le Professeur Korah entre l'existence d'un droit et son exercice. Au cours de l'examen fait par la table ronde des pratiques en matière d'application de la loi, le Professeur Gallini a remarqué de nombreuses divergences dans les politiques de la concurrence, ce qui n'est pas regrettable en soi. Selon elle, l'essentiel est que les règles de la concurrence soient suffisamment claires et prévisibles. Elle note que certaines politiques peuvent mener à la convergence des droits de propriété intellectuelle étant-donné la nature internationale de l'innovation comme l'a relevé le Professeur Barton. Elle a cité en exemple la remarque du délégué de l'OMC (exprimée à une autre conférence) disant que si l'importation parallèle est permise, la protection des DPI tombera au niveau du pays qui la garantit le moins bien.. La seconde remarque générale du Professeur Gallini est que l'interdiction d'un type de restriction à l'octroi de licences peut généralement être tournée par l'utilisation d'autres pratiques. Par exemple, quand la concession exclusive est interdite, on peut les remplacer par la vente liée à certaines exigences, par des clauses concernant la concurrence ou par des redevances à la production. Il faut garder à l'esprit ces procédés possibles quand on prend une décision ou prescrit une restriction donnée.

Pour M. Tom, la discussion sur l'application de la loi et sa propre expérience dans ce domaine montrent clairement que nous commençons seulement à aborder les problèmes délicats posés par l'interface entre la politique de la concurrence et celle du DPI. Les principes énoncés au début de la table ronde étaient assez simples et clairs, ce qui a probablement facilité la large approbation qu'ils ont paru recueillir. Toutefois, l'application au cas par cas montre que la situation est loin d'être claire. On peut prendre comme exemple la distinction critique entre complémentarité et substitution ou en d'autres termes entre effets horizontaux et verticaux. En général, pour produire quelque chose, l'entreprise a besoin d'une large gamme de compléments et le fournisseur des compléments d'aujourd'hui pourrait bien être la source des substituts de demain. Dans les marchés dynamiques où le DPI joue un rôle particulièrement important, les entreprises ont fortement tendance à développer le savoir des autres, à trouver une invention pour le tourner ou à l'utiliser pour fabriquer le produit de la prochaine génération. Elles ont en même temps une tendance aussi forte, dont les organismes responsables de la concurrence se méfient naturellement, à essayer d'empêcher ce type de concurrence future; Toutefois, une politique de la concurrence très restrictive n'est pas forcément la solution puisqu'elle risque d'amener à renoncer à des efficiences que l'on pourrait obtenir en combinant les compléments d'aujourd'hui. Au Président qui l'invite à formuler des recommandations pour résoudre ce dilemme, M. Tom répond qu'il n'en a pas, sauf d'inciter à la poursuite du dialogue entre les organismes responsables et le monde universitaire, pour s'efforcer de ramener les principes abstraits à des situations quotidiennes plus concrètes.

M. Rosen signale qu'au cours des 10 ou 15 dernières années, la relation entre la concurrence et le droit de propriété intellectuelle a beaucoup progressé. Le traitement de cette dernière se rapproche désormais de celui des autres types de propriété et les restrictions à l'exercice de ce droit se sont limitées aux cas où le processus d'innovation lui même est manifestement menacé. Il estime toutefois qu'il ne serait pas judicieux d'exiger, comme l'ont proposé certains délégués, que tout règlement impliquant le DPI soit notifié à l'organisme chargé de la concurrence.

V. Conclusions du Président

Le Président déclare qu'il est impossible de résumer une discussion aussi large que celle qui s'est déroulée pendant cette table ronde. Il est d'accord avec M. Tom pour reconnaître que l'on a seulement commencé à aborder ce domaine complexe, comme le prouve, selon lui, le fait que pendant toute la journée, les participants ont manié les détails concrets avec beaucoup plus d'aisance que les généralisations. Les points de vue ont beaucoup divergé, mais certains indices montrent une meilleure compréhension entre pays et autorités responsables, et même une convergence plus forte qu'il ne le prévoyait.

Dans de nombreux cas, le Président, a perçu en arrière-plan un problème de réglementation qui change le caractère de la concurrence en matière de DPI et indique l'existence d'une autre interface qui nécessite une étude approfondie.

Le Président clôt la table ronde en remerciant tous les participants pour leurs interactions et pour la rigueur de leur travail.

SUMMARY

by John Barton[*]

Most important and noteworthy points

Innovation can increase the growth rate of the global net product and thus become an accelerator that increase the global gains of trade. Therefore, it is in the interest of all nations to increase the rate of technological evolution. Because each scientific or technological innovation builds on previous innovations, technological protectionism is as harmful as product protectionism, decreasing such protectionism will be a crucial negotiating task for the next decades.

At the same time, a firm cannot long support research and development unless it gains economic rents from proprietary positions in its products. Intellectual property (along with rapid product cycles and barriers to entry) provide a basis for such proprietary positions. Thus, there is necessarily a tension between intellectual property, which seeks to create rents through proprietary positions, and competition law, which seeks to maintain a competition that decreases rents and moves prices toward marginal cost. Each nation's legal and regulatory system must maintain a balance between these factors, looking to the benefits to consumers of lower current prices as compared with the benefits of future improved technology.

Very broad protection of intellectual property rights can sometimes disrupt this balance and discourage future innovation. This impact on future innovation must be taken into account in developing sound policy. For example, giving strong rights to an initial inventor, e.g. a firm that identifies "ESTs" (expressed sequence tags) can weaken incentives for subsequent inventors building on the initial invention, e.g., a firm that identifies genes containing the ESTs. A balance is needed. Strong intellectual property positions can sometimes help a firm transfer market power from one sector to another, as in the possible leverage of power in the market for computer operating systems to power in the market for internet access software -- when is this beneficial, especially in sectors in which network externalities can create substantial barriers to entry? And very broad rights can lead to significant litigation or cross-licensing among the leaders of an industry (as in the case of certain biotechnology sectors). This may increase transaction costs and may also build barriers to entry -- when are the cross-licensing structure and barriers to entry a reasonable way of maintaining competition among and protecting the overall returns to the industry insiders and when do they instead decrease incentives to innovation or deter new innovative firms?

These issues are becoming international. Technology-intensive firms of one nation are in competition with such firms in other nations. Network externalities arise on a global scale. And the cross-licenses among firms have long since transgressed national boundaries. These points are exemplified by the cases discussed at the workshop: Boeing-McDonnell Douglas, involving competitive relationships with Airbus; Microsoft and global internet issues; the Ciba-Geigy merger and its

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implications for specific research areas in the United States; and MPEG, involving a standards-setting mechanism among globally-leading firms in the television sector.

Prescriptions

In the immediate future, it is important for competition authorities to act wisely in making the balances described above, as they determine market power in technologically-intensive areas for purposes of evaluating a tying or exclusivity arrangement, or as they evaluate a cross-license or a merger.

In the mid-term, it will also be essential to reconsider the definitions of intellectual property rights, examining, for example, the scope of patent claims in particular areas of technology, the precise package of rights associated with copyright protection of a computer program, or the extent to which a firm can demand stronger protections through trade-secrecy provisions associated with its marketed products. The actual scope of intellectual property rights can deeply affect the balances described above; to define them well will require a stronger dialogue between the competition-law community and the intellectual-property community.

It will also be necessary to consider appropriate new international arrangements. Some will be needed to help nations mutually renounce technological protectionism in their national arrangements for balancing intellectual property incentives and competition law incentives. Others will be needed to help evaluate licensing arrangements or mergers that transcend national boundaries.

Further work for OECD

At this point, we most need information. I'd suggest the following kinds of studies as adapted to the OECD modus operandi:

Comparative analysis of the way different nations apply competition law in high-technology sectors, taking into account actual cases and experience, as well as formal doctrines.

Economic studies of specific industries, to examine the effective working of intellectual property and licensing mechanisms and their relation to research and development incentives, paying particular attention to the international structures of the industries.

SUMMARY

by Willard Tom[*]

Both competition policy and intellectual property policy face a common set of straits to navigate, though they approach the passage from opposite ends. The intellectual property regime, which provides incentive for innovation to occur in the first place, must take pains to ensure that intellectual property rights are not unnecessarily broad and too all-encompassing, for excessively broad IPRs can have a dampening effect on subsequent innovation. Competition policy, which seeks to maintain competition, including the competition that spurs further innovation, must take care that its policies do not dampen the incentive for the initial innovation. The day's topics were thus two sides of the same coin. The morning's topics focused on the breadth of IPRs, while the afternoon's focused on competition enforcement. The underlying issue in each, however, was how to define policies that ensured vigorous innovation.

Breadth of IPRs

The morning's discussion yielded no easy solution as to the appropriate breadth of IPRs. The theoretical and empirical literature is sparse, and does not point in a consistent direction. The positive effects of broad patents are that they provide an incentive to innovate and an incentive to disclose information that would otherwise be kept secret. The negative effect is that they may stand in the way of further innovation. Which of these effects predominates is sometimes difficult to discern. Substantial concern was expressed about awarding patents far out of proportion to the inventor's contribution—for example, granting a patent for all cotton containing altered genetic material to the first inventor that inserts a gene into a cotton plant, even if the basic ideas were well known and many researchers were working on different forms of genetic alteration. On the other hand, there was general agreement that patent protection was extremely important in industries such as chemicals and pharmaceuticals, where the fixed costs of research are extremely high and alternative means of preventing copying, such as trade secret protection, were generally impracticable.

Perhaps the best that can be done on the current state of knowledge is to ensure that patents are awarded only when the stringent standards of the patent law are met, and that they are no broader than warranted under the prior art. Competition authorities can play a useful role as advocates for appropriate vigilance in this respect. Furthermore, where a patentee's fraud or other misconduct not only has led to the improper grant of a patent, but also threatens to create an economic monopoly, competition authorities may intervene directly through remedies such as compelling dedication of the patent to public use.

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Competition Enforcement Issues

The afternoon's discussion revealed that there is broad agreement that competition authorities should try to maintain competition without dampening the incentive for the initial innovation. The afternoon marked the beginning, rather than the end, of dialogue on how to do so, however. Despite the fact that the European Commission, the United States competition authorities, and the Japanese Fair Trade Commission have recently completed examinations of the relationship between intellectual property and competition policy, and the Canadian Bureau of Competition Policy is in the midst of such an evaluation, many of the specific issues have not yet been fully confronted, let alone resolved, in all member states.

Among the issues that sparked the most discussion were (1) the use of copyright to control parallel imports, (2) innovation markets, (3) patent pooling, and (4) refusals to license intellectual property.

Parallel Imports

With respect to parallel imports, the Australian delegation noted concern about the use of copyrights on package labels to prevent parallel imports. It stated that, as a result, prices were substantially higher in Australia than in the United States for compact discs, books, and farm chemicals.

Whether this conduct is indeed anticompetitive is probably controversial, but not because intellectual property is involved. Applying the principle that one should treat intellectual property like other forms of property, the use of copyright to control parallel imports should be treated in the same way one would treat contracts banning parallel imports. In the United States, exclusive territories, with concomitant bans on parallel imports, are generally treated leniently as having potential procompetitive effects. Only where the practices produce significant anticompetitive effects—for example, where industry-wide exclusive arrangements promote co-ordinated interaction among the members of an oligopoly—are such arrangements condemned under US law. In the European Union, by contrast, such arrangements are disfavoured because they are believed to hinder integration into a unified market. It has been suggested, however, that such arrangements could actually promote market integration in those instances in which a manufacturer wishes to penetrate a new territory with low introductory prices, or where, because of differences of wealth, taste, or degree of competition encountered, a manufacturer would not be able to charge the same price in a particular territory that it is able to sustain elsewhere. Whatever one's view of that argument, however, the presence or absence of intellectual property has no relevance to its validity.

Innovation Markets

The concept of innovation markets came under some criticism on the grounds that it was speculative. It was also argued that barriers to entry into innovation are generally low, and that surer results can be had by focusing on the actual goods that result from the innovation. The US delegation, which had adopted the innovation market concept in its Intellectual Property Guidelines issued in 1995, defended the concept. They pointed to the example of the merger of Ciba-Geigy and Sandoz, the two leading companies in the gene therapy field. In that case, marketable products were several years off; hence a focus on goods markets would not have suggested a competitive problem. The merger, however, would have had direct and immediate effects on the research efforts of over a dozen companies doing research in the gene therapy field. Only Ciba and Sandoz had the intellectual property and other assets

necessary to commercialise a gene therapy product. The other companies nonetheless found it profitable to conduct research in this field, as long as they had both Ciba and Sandoz in the market as potential partners in their research efforts. If their research efforts were successful, they would be so valuable that they could count on Ciba and Sandoz to compete with each other, either to acquire these research companies or to enter into joint ventures with them. After the merger, however, the combined firm would be a monopsonist in the innovation market. As a result, many of the other research firms in the field began to make plans to close down their operations after the merger was announced. Such an outcome would have been seriously anticompetitive. The concept of innovation markets was thus not only useful but critically important.

Patent Pooling

As to patent pooling, there appeared to be widespread agreement that pooling could be procompetitive when blocking or complementary patents were pooled, and anticompetitive when the pool included competing patents. The US delegation described the MPEG-2 Business Review Letter, recently issued by the US Department of Justice, as an illustration of this principle. That letter authorised the formation of a patent pool to implement the MPEG-2 standard for encoding and displaying video images on a personal computer. Because a number of different companies owned patents necessary to implement the standards, none of the companies could produce products using the standard without obtaining licenses from the other companies. Thus, absent the pool or a similar cross-licensing arrangement, there would have been no product. Those necessary patents, in other words, were mutually blocking: none of them could be practised without infringing the others. Thus, the companies did not restrict any competition by contributing such essential patents to the pool.

Not all of the patents owned by the pool participants stood in this blocking relationship, however. Some of the companies owned patents that covered alternative ways of completing particular steps in the process. In order to secure the favourable Business Review, the pool participants promised not to include such non-blocking patents in the pool. To ensure that non-essential patents would stay out of the pool, the parties promised to hire an independent expert that would review the patent claims and make a determination as to whether the patent was essential or not to the implementation of the MPEG-2 standard. The exclusion of competing patents from the pool guarded against the chief danger of patent pools: that they can constitute a mechanism for fixing prices among companies that would otherwise have been able to compete.

Another danger in patent pools comes not from the formation of the pool, but from some of the terms agreed to by its members. For example, where a pool includes most of the likely innovators, competition would be seriously harmed by a provision that any pool member that develops additional innovations must give a royalty-free grantback to all the members of the pool. This is because such an innovator would have nothing to gain from its innovation—all members of the pool would be able to "free-ride" on its innovation.

Refusals to License

No firm conclusions were reached concerning refusals to license intellectual property. While delegates generally agreed with the proposition that an intellectual property owner should be free to license or not to license its property as it sees fit, some felt that there might be exceptions when the intellectual property owner was thereby preventing consumers from obtaining a desirable product. The *Magill* case was cited as an example. Others, particularly the industry observers, sharply criticized this approach.

Here again, the principle that intellectual property is like other forms of property for antitrust purposes provides guidance. In general, there is no great difficulty using compulsory licensing as a remedy to restore competitive conditions that have been harmed by conduct other than the bare refusal to license IPRs. For example, licensing of patents, along with other assets, is a frequent way to restore competition that would otherwise be lost because of an acquisition combines two of the only firms that market drugs for a particular medical condition. Similarly, just as access to joint ventures may sometimes be compelled when a group of competitors has collectively acquired tangible assets that are necessary to compete, so access to a portfolio of patents might be compelled where those are the necessary assets. (Note, however, that competition is probably harmed more often by *including* too many competitors in a joint venture than by *excluding* too many, just as competition is probably harmed more often by inappropriate patent pools than be refusals to license.)

Treating a refusal to license as an act that is anticompetitive in itself poses more conceptual difficulties; These difficulties suggest that the essential facility doctrine has been applied sparingly to tangible assets. The principal difficulty is that the monopoly position has been acquired legitimately. (Were it not, there would be no need for the essential facility doctrine, because one could simply attack the misconduct that was used to achieve the monopoly.) The monopoly rents from exploiting the monopoly are the rewards for the research efforts and other investments used to achieve that status. Thus, competition authorities considering application of the essential facility doctrine to intellectual property must take care that its policies do not dampen the incentive for the initial innovation.

Conclusion

The importance of competition policy, intellectual property, and the relation between the two should ensure continued dialogue and exploration. By identifying some of the most difficult issues and suggesting some principles that could assist in resolving them, the roundtable has made a significant contribution to that exploration.