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FOREWORD

This document comprises proceedings in the original languages of the Roundtable on Competition, Patents and Innovation (II) held by the Competition Committee in June 2009.

It is published under the responsibility of the Secretary General of the OECD to bring information on this topic to the attention of a wider audience.

This compilation is one of a series of publications entitled "Competition Policy Roundtables".

PRÉFACE

Ce document rassemble la documentation dans la langue d'origine dans laquelle elle a été soumise, relative à une table ronde sur la Concurrence, les brevets et l'innovation (II), qui s'est tenue en juin 2009 dans le cadre du Comité de la concurrence.

Il est publié sous la responsabilité du Secrétaire général de l'OCDE, afin de porter à la connaissance d'un large public les éléments d'information qui ont été réunis à cette occasion.

Cette compilation fait partie de la série intitulée "Les tables rondes sur la politique de la concurrence".

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EXECUTIVE SUMMARY

By the Secretariat

Considering the discussion at the roundtable, the delegates' written submissions and the Secretariat's background paper, several key points emerge:

(1) There has been a significant increase in the number and complexity of patent applications filed in the world's major patent agencies, resulting in a greater backlog and substantially longer pendency periods. More applications pending for longer periods have led to greater uncertainty about which inventions are and will be protected by patent rights.

The number of patents applied for and granted has grown sharply in the past 20 years, with the backlog of unprocessed applications now estimated to be 5 -10 million. This is in part due to globalisation and the expansion of geographic markets requiring multiple country filings, with the same invention frequently being examined by several different patent offices. In addition, economies such as China and Korea are advancing, creating patentable inventions of their own while becoming increasingly desirable places to hold patent rights. Finally, many of the types of technology for which patents can be granted are developing and becoming more complicated. All of these factors have led to a much greater number of pending patents remaining pending for longer than ever before.

(2) A number of strategies that are potentially harmful to both competition and innovation have been adopted to take advantage of the uncertainty created by growing backlogs and longer pendency periods, including strategic uses of divisionals.

There are several ways in which patent applicants may use pending patents to their advantage. Most of those strategies can be enhanced or enabled through the use of a procedural device known as a divisional application in some jurisdictions and a continuation application in others. Some of these "divisionals" are mandatory and others are filed voluntarily, but they all derive from an earlier, related application and they all take on a life of their own once they come into existence. This means they are examined separately and have their own, separate publication schedules. It is also possible to file divisionals repeatedly, such that a whole series of them may spring from a single original application. Among other things, divisionals make it possible for companies to keep their patent applications pending longer than would otherwise be the case. They also make it possible to keep those pending patents hidden from public view for longer. That, in turn, makes them potentially valuable tools for a company that wishes to engage in anticompetitive conduct. This may include behaviour such as (i) ambushing a standard-setting organisation (discussed below in 4), (ii) forcing a rival to cross licence its technology for free, or on more favourable terms, by using the leverage obtained from a patent flooding strategy (discussed below in 5), and (iii) keeping applications pending and unpublished through divisionals, then modifying the application in an additional filing so that it perfectly describes a rival's new product, thereby ensuring that the rival will be liable for infringement.

(3) *Standard setting organisations (SSOs) facilitate the design of interoperable products by developing and issuing technical standards and are generally regarded as pro-competitive.*

SSOs issue technical standards, such as DVD, MP3 and GSM, that help companies to design interoperable products. SSOs have pro-competitive effects because they give consumers more choices (rather than having to select one source for an entire product line), reduce the costs of producing goods, and reassure customers that compatible products will be available and supported in the future. Therefore, competition authorities, while remaining alert to the risks associated with collective actions by competitors who participate in SSOs, generally perceive competitive benefits from standard setting.

(4) *SSOs can be 'ambushed' by a company that conceals relevant granted or pending patents until a standard has been set and then sues for infringement. Competition agencies can combat patent ambushes by allowing and advocating certain ex ante measures by SSOs, such as rules on disclosures, negotiations of licensing terms, and by taking enforcement action against ambushers, when necessary.*

Several competition agencies have noted the potential danger of patent ambushes. A patent ambush occurs when a member company of an SSO conceals granted or pending patents that are relevant to the standard being developed. At the same time, that company may be moulding the claims in its pending patent applications to fit the emerging standard. Once the standard has been widely adopted and implemented, switching to another standard tends to become very costly. At that point, the company reveals its hidden IP and threatens legal action for infringement. In this manner, companies might acquire dominant positions that they would not otherwise have had and, as a result, they may be able to collect royalties that are higher than they would have otherwise been. The result can be a chilling effect on further standard-setting, a resulting decline in interoperability of products, higher prices for consumers, and delays, or even a complete halt in further implementation of the ambushed standard.

(5) Cross-licensing agreements are not usually anticompetitive, but the uncertainty associated with pending patents can be used strategically in cross-licensing contexts in ways that harm competition.

Cross-licensing agreements give two parties the rights to use each other's patents. Sometimes the agreements also include rights to pending patents. Furthermore, cross-licensing agreements may be grouped together to form a licensing pool for the purpose of sharing complementary technologies held by several parties. Cross-licensing agreements and licensing pools are usually efficient and pro-competitive. There are, however, a number of ways in which pending patents could be used anti-competitively in these arrangements. These include entry deterrence and patent flooding scenarios where a dominant firm files a large number of poor quality patent applications that are at the margins of the original company's patent, with the aim of either keeping a rival out of the market or forcing it to cross-license its valuable technology, often on a royalty free basis. These strategies depend on the fact that even weak pending patents can have powerful effects on competition. The victim will probably not have the time or resources to determine the validity of so many pending patents, and there is a very good chance that at least some fraction of them will be granted. Furthermore, the risk of infringing even a weak pending or granted patent can be extremely high because if its validity is upheld, the owner may obtain very substantial damages or injunctive relief.

(6) Competition and patent agencies have complementary roles in promoting innovation. Increased dialogue and a greater flow of information between the two types of agencies could be beneficial.

Traditionally, the patent and competition law enforcement processes have been viewed as distinct, and therefore carried out separately. However, both processes share the goal of promoting innovation. Co-operation between competition agencies and patent offices has improved in some jurisdictions over the last few years. This has triggered increased dialogue and cross-agency activities aimed at improving information exchange and understanding. Examples include specific competition advocacy programs targeted at the IP community, the issuing of joint agency reports, establishment of monitoring networks, high level symposiums on the interface between IP and competition and secondment of experienced patent office staff to competition agencies to assist in the preparation of sector specific reports. Another potential harmonising strategy would be reciprocal training programs carried out by officials from both agencies on the basics of the respective disciplines. More concretely, statutory changes could be sought to enable a greater flow of information between the patent offices and competition authorities.

SYNTHESE

Par le Secrétariat

La discussion de la table ronde, les soumissions écrites des délégués et le document de référence du Secrétariat ont permis de dégager plusieurs éléments clés :

(1) *Le nombre et la complexité des demandes de brevets déposées auprès des principaux offices des brevets dans le monde ont fortement augmenté, d'où une accumulation de dossiers en attente et un allongement sensible des délais de traitement. L'allongement de ces délais pour un nombre croissant de demandes a renforcé l'incertitude quant aux inventions qui sont et seront protégées par des droits de propriété intellectuelle.*

Le nombre de brevets déposés et accordés a considérablement augmenté ces vingt dernières années et, selon les estimations, les retards accumulés représenteraient aujourd'hui 5 à 10 millions de dossiers en attente. Cela s'explique en partie par la mondialisation et l'expansion des marchés géographiques, qui nécessitent le dépôt d'un même brevet dans de multiples pays et, souvent, l'examen d'une même invention par plusieurs offices des brevets. Qui plus est, des économies comme la Chine et la Corée sont en plein développement : elles créent donc des inventions brevetables de leur propre cru et deviennent parallèlement des juridictions où il est de plus en plus souhaitable de détenir des droits de propriété intellectuelle. Enfin, bon nombre des types de technologies susceptibles d'être protégées par des brevets évoluent et deviennent de plus en plus complexes. Tous ces facteurs se sont traduits par une forte hausse du nombre de demandes en attente et par des délais plus longs que jamais.

(2) *Un certain nombre de stratégies préjudiciables à la fois pour la concurrence et l'innovation ont été adoptées dans le but de tirer parti de l'incertitude liée à l'accumulation des demandes et à l'allongement des délais. Parmi ces stratégies, on notera le recours à des demandes divisionnaires.*

Les déposants de brevets peuvent de diverses manières tourner à leur avantage la longueur des délais d'examen de leurs demandes. La plupart de ces stratégies sont facilitées ou rendues possibles grâce à une astuce de procédure connue, d'une juridiction à l'autre, sous le nom de demande divisionnaire ou de demande de continuation. Certaines de ces demandes divisionnaires sont obligatoires, tandis que d'autres sont facultatives, mais dans tous les cas, elles découlent d'une demande antérieure et acquièrent dès leur dépôt le statut de demande à part entière. Elles sont donc examinées de manière individuelle, et ont chacune un calendrier de publication qui leur est propre. Il est également possible de déposer de telles demandes à diverses reprises, de sorte qu'une seule demande originale donne lieu à toute une série de demandes divisionnaires. Entre autres choses, les demandes divisionnaires permettent aux entreprises de prolonger artificiellement le délai d'examen de leurs demandes. Elles sont aussi un moyen de retarder la divulgation de ces brevets au public et peuvent constituer à cet égard un précieux outil pour toute entreprise qui souhaiterait adopter un comportement anticoncurrentiel. Ceci peut comprendre des comportements tel (i) piéger un organisme de normalisation (discuté ci-dessous dans la section 4), (ii) forcer un rival à faire des licences croisées de sa technologie gratuitement ou à des conditions plus favorables en utilisant un moyen de pression obtenu par une stratégie dite d'inondation (discuté ci-dessous dans la section 5), et (iii) garder les brevets en attente ou non publiés par des divisionnaires, et puis modifier le dépôt dans une demande supplémentaire pour

qu'il décrive parfaitement le nouveau produit du rival, garantissant ainsi que celui-ci est passible d'infraction.

(3) Les organismes de normalisation facilitent la conception de produits interopérables en mettant au point et en publiant des normes techniques, et leur action est généralement jugée bénéfique pour la concurrence.

Les organismes de normalisation publient des normes techniques, telles que les normes DVD, MP3 et GSM, qui aident les entreprises à mettre au point des produits interopérables. Les organismes de normalisation favorisent la concurrence en ce qu'ils élargissent l'éventail de choix du consommateur (qui n'est alors pas tenu de se limiter à un seul fournisseur pour toute une ligne de produits), réduisent les coûts de fabrication des produits et apportent au consommateur l'assurance que des produits compatibles seront disponibles et pris en charge à l'avenir. Par conséquent, les autorités de la concurrence restent attentives aux risques liés aux actions collectives que pourraient mener des concurrents parties prenantes des organismes de normalisation, mais elles estiment que, de manière générale, l'élaboration de normes présente des avantages pour la concurrence.

(4) Les organismes de normalisation peuvent être piégés par des entreprises qui dissimulent intentionnellement des brevets d'ores et déjà obtenus ou en cours d'examen jusqu'à ce qu'une norme soit adoptée et engagent ensuite des poursuites pour violation de leurs droits de propriété. Les autorités de la concurrence peuvent déjouer de tels pièges en permettant et en préconisant l'application de certaines mesures préalables par les organismes de normalisation, comme les règles de divulgation ou les négociations des conditions d'octroi de licences, ou encore en prenant le cas échéant des mesures coercitives à l'encontre des poseurs de pièges.

Plusieurs autorités de la concurrence ont souligné le danger que peuvent représenter les pièges tendus au moyen d'un brevet. On parle de piège tendu au moyen d'un brevet lorsqu'une entreprise partie prenante d'un organisme de normalisation dissimule des brevets enregistrés ou en cours d'examen qui ont trait à la norme en cours d'adoption. En effet, cette entreprise peut ajuster au fur et à mesure les revendications de ses demandes de brevets en cours d'examen afin de les adapter à la norme à venir. Une fois la norme largement adoptée et mise en œuvre, sa modification devient très onéreuse. C'est à ce stade que l'entreprise révèle son brevet caché et menace d'engager des poursuites devant les tribunaux pour violation de ses droits de propriété intellectuelle. Des entreprises peuvent par ce biais acquérir des positions dominantes qu'elles n'auraient pas pu acquérir autrement et percevoir par conséquent des redevances plus élevées. Cette pratique peut décourager l'adoption de nouvelles normes, diminuer l'interopérabilité des produits, faire augmenter les prix pour le consommateur et entraîner des retards, voire l'arrêt pur et simple de la mise en œuvre de la norme visée par le piège.

(5) En règle générale, les accords de licences croisées ne sont pas anticoncurrentiels, mais l'incertitude associée aux brevets en attente peut être exploitée de manière stratégique dans le cadre de licences croisées et porter préjudice à la concurrence.

Les accords de licences croisées entre deux parties donnent à chacune le droit d'utiliser les brevets de l'autre. Dans certains cas, ces accords prévoient également des droits sur des brevets en attente. En outre, des accords de licences croisées peuvent être regroupés pour constituer un pool de licences afin de mettre en commun un ensemble de technologies complémentaires détenues par diverses parties. Les accords de licences croisées et les pools de licences sont en général efficaces et bénéfiques pour la concurrence. Cela étant, il est possible d'utiliser les brevets en cours d'examen de manière anticoncurrentielle dans le cadre de ces accords, et ce, de

différentes façons. On retiendra, entre autres choses, la dissuasion à l'entrée et les scénarios dits d'inondation, dans lesquels une entreprise dominante dépose un grand nombre de demandes de brevets de mauvaise qualité très similaires à son brevet original, dans le but soit de maintenir un rival à l'extérieur du marché, soit de le contraindre à passer un accord de licences croisées portant sur une technologie précieuse, le plus souvent sans redevance. Ces stratégies reposent sur le fait que des brevets en attente, même s'ils sont médiocres, peuvent avoir des conséquences non négligeables en termes de concurrence. La victime ne disposera probablement ni du temps ni des ressources nécessaires pour évaluer la validité d'un aussi grand nombre de brevets en attente, et il est fort à parier qu'une partie au moins de ces derniers seront obtenus. En outre, le risque de violer un brevet en attente ou un brevet effectivement enregistré, quand bien même il serait de qualité médiocre, peut s'avérer très coûteux. En effet, si sa validité est confirmée, son propriétaire peut obtenir des dommages-intérêts ou des mesures de réparation par voie d'injonction tout à fait considérables.

(6) *Les autorités de la concurrence et les offices des brevets jouent des rôles complémentaires dans la promotion de l'innovation. Le renforcement du dialogue et du partage de l'information entre ces deux types d'instances pourraient être bénéfiques.*

Traditionnellement, les mécanismes d'application du droit de la concurrence et du droit des brevets ont été considérés comme distincts, et par conséquent mis en œuvre séparément. Pourtant, ces deux processus partagent un même objectif, celui d'assurer la promotion de l'innovation. Dans certaines juridictions, la coopération entre les autorités de la concurrence et les offices des brevets s'est améliorée ces dernières années. Cela a permis de renforcer le dialogue et les initiatives visant à améliorer le partage et l'interprétation des informations entre autorités. Parmi ces initiatives figurent les programmes spécifiques de sensibilisation à la concurrence destinés aux milieux de la propriété intellectuelle, la publication de rapports communs aux deux types d'autorités, la création de réseaux de surveillance, l'organisation de symposiums de haut niveau sur l'interface entre la propriété intellectuelle et la concurrence et, enfin, le détachement de membres expérimentés du personnel des offices des brevets auprès des autorités de la concurrence pour prêter assistance à ces dernières dans l'élaboration de rapports sectoriels spécifiques. Une autre stratégie d'harmonisation pourrait consister à mettre en place des programmes de formation réciproques animés par des responsables des autorités des deux secteurs concernant les notions de base respectives des deux disciplines. Plus concrètement, des modifications législatives pourraient être introduites afin de permettre un plus grand partage d'informations entre les offices des brevets et les autorités de la concurrence.

BACKGROUND NOTE

By the Secretariat

1. Introduction

This roundtable addresses the relationships among competition, patents and innovation. In doing so, it serves several purposes: continuing a discussion that the Competition Committee began in October 2006 but did not have enough time to complete; advancing the Innovation Strategy Project mandated by the OECD Ministerial Council in 2007; and exploring issues brought before the Committee by the European Patent Office (EPO) in 2008.

Innovation is an even timelier subject now than it was in 2006 because it is widely viewed as part of the solution to several important challenges presently faced by OECD and non-OECD countries alike. Those challenges include the global economic crisis and climate change. Many of the stimulus packages that governments have recently implemented or proposed contain measures designed to bolster innovation – R&D support, incentives for green inventions, and policies designed to spur the development of "smart" infrastructure including broadband Internet networks.

As the 2006 roundtable showed, both competition and patents can stimulate innovation, too. These are complex relationships, however, and they cannot be generalised in brief, simple statements. The Secretariat's paper from the 2006 roundtable, which goes into some detail about the influences that competition and patents can have on innovation as well as on each other, is incorporated by reference into this note.[1]

The new material presented here focuses on issues raised by the EPO. Those issues revolve around the uncertainty created by pending patents and how it can be used for strategic purposes, some of which may be harmful to competition and innovation. Part 2 sets the stage by reviewing the growth in the volume and complexity of patent applications. That growth has led not only to longer pendency periods, but also to larger backlogs of applications in patent offices. More patent applications remaining in pendency for more time create more uncertainty, and that uncertainty can be used strategically. Part 3 examines how divisional patent applications can be used to enhance uncertainty and facilitate strategies that can harm competition and innovation. Parts 4 and 5 discuss two of those strategies in detail: using pending patents to ambush standard-setting processes, and using pending patents to gain leverage in cross-licensing negotiations. Part 6 offers some thoughts on what competition agencies might be able to do to counteract these strategies. Finally, Part 7 contains some concluding remarks.

This paper concentrates on competition policy rather than patent policy. Therefore, it does not dwell on ways in which reforming patent laws might solve competition problems caused by abuses of the patent system. This is not to suggest that there is no need to reform the patent system. There may be. If so, then fixing the problems from within the patent system may be the best long term solution. As William Nordhaus once observed, "[t]he best way to prevent abuse is to ensure that trivial inventions do not receive

[1] OECD, Competition, Patents and Innovation (DAF/COMP(2007)40), Background Note, available at www.oecd.org/dataoecd/26/10/39888509.pdf.

patents."[2] But where abuses of the patent system are harming competition, it must be considered whether and how competition law enforcement can address those abuses.

The main points of this paper are:

- There has been sharp growth over the past several years in the number of patent applications filed at the world's major patent agencies. At the same time, the average level of complexity in the applications has grown, too. Consequently, the backlog of applications has increased, as well. There are a great many more pending patents today and on average they are remaining in pendency for longer periods as compared with the situation five or ten years ago. This environment has encouraged several strategies for using pending patents that take advantage of the uncertainty they generate. Some of those strategies are harmful to competition and innovation.

- Most of those strategies can be enhanced or enabled through the use of a procedural device known as a divisional application in some jurisdictions and a continuation application in others. Some of these "divisionals" are mandatory and others are filed voluntarily, but they all derive from an earlier, related application and they all take on a life of their own once they come into existence. That means they are examined separately and have their own, separate publication schedules. It is also possible to file divisionals repeatedly, such that a whole series of them may spring from a single original application. Among other things, divisionals make it possible for companies to keep their patent applications pending longer than would otherwise be the case. They also make it possible to keep those pending patents hidden from public view longer. That, in turn, makes them potentially valuable tools for a company that wishes to engage in conduct such as ambushing a standard-setting organisation, exerting leverage in cross-licensing negotiations, and intentionally designing patents so that they will be infringed.

- Standard-setting organisations make it easier for different companies to design interoperable products such as DVDs and mobile phones. They generally have pro-competitive effects. It is possible, however, for the standard-setting process to be "ambushed" by a company that intentionally hides its relevant pending or granted patents until the standard is set and implemented. At that point it reveals its IP and sues, or threatens to sue, for infringement. In this manner, companies might acquire dominant positions that they would not otherwise have had and, as a result, they may be able to collect royalties that are much higher than anything they would have otherwise received. The result can be a chilling effect on further standard-setting, a resulting decline in interoperability of products, higher prices for consumers, and delays or even a complete halt in further implementation of the ambushed standard. Competition agencies can counteract ambushes by allowing and advocating certain *ex ante* measures such as rules on disclosures and negotiation of licensing terms, and by litigating where necessary.

- Cross-licensing agreements give two parties the rights to use each other's patents. Sometimes the agreements include rights to pending patents, as well. Furthermore, cross-licensing agreements may be grouped together to form a licensing pool for the purpose of sharing complementary technologies held by several parties. Cross-licensing agreements and licensing pools are usually efficient and pro-competitive. There are a number of ways in which pending patents could be used anti-competitively in these arrangements, though. These include entry deterrence and patent flooding scenarios where a dominant firm files a large number of poor quality patent applications with the aim of either keeping a rival out of the market or forcing it to cross-license its valuable

[2] William Nordhaus, "The Optimum Life of a Patent: Reply"; *62 American Economic Review 428, 430-31* (1972).

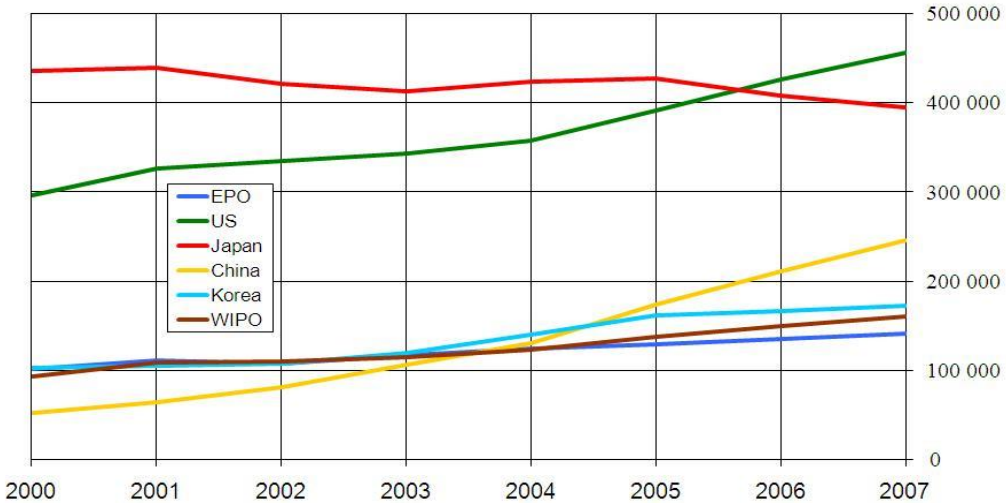
technology. These strategies depend on the fact that even weak pending patents can have powerful effects on competition. The victim will probably not have the time or resources to determine the validity of so many pending patents, and there is a very good chance that at least some fraction of them will be granted. Furthermore, the risk of infringing even a weak pending or granted patent can be extremely high because if its validity is upheld, the owner may obtain very substantial damages or injunctive relief.

- Competition agencies can take a number of steps to fight the abuse of pending patents in general. These include conducting or commissioning studies and sector inquiries that look closely at how companies are using patent applications in their jurisdictions and how competition statutes might apply to that behaviour; developing cross-training programs with patent officials so that each type of agency becomes more familiar with the other's discipline and they can co-operate more closely; and seeking statutory changes, if necessary, to improve the flow of information between patent agencies and competition authorities.

2. Pending Patent Trends and their Implications

It is well known that the number of patents granted around the world has grown sharply during the past 20 years or so.[3] Marked growth can also be observed in the number of patent applications filed at several major patent agencies. The recent part of that trend is reflected in Figure 1, which tracks the number of filings at the world's five largest patent offices from 2000 through 2007.[4]

Figure 1. Patent Filings at Major Offices



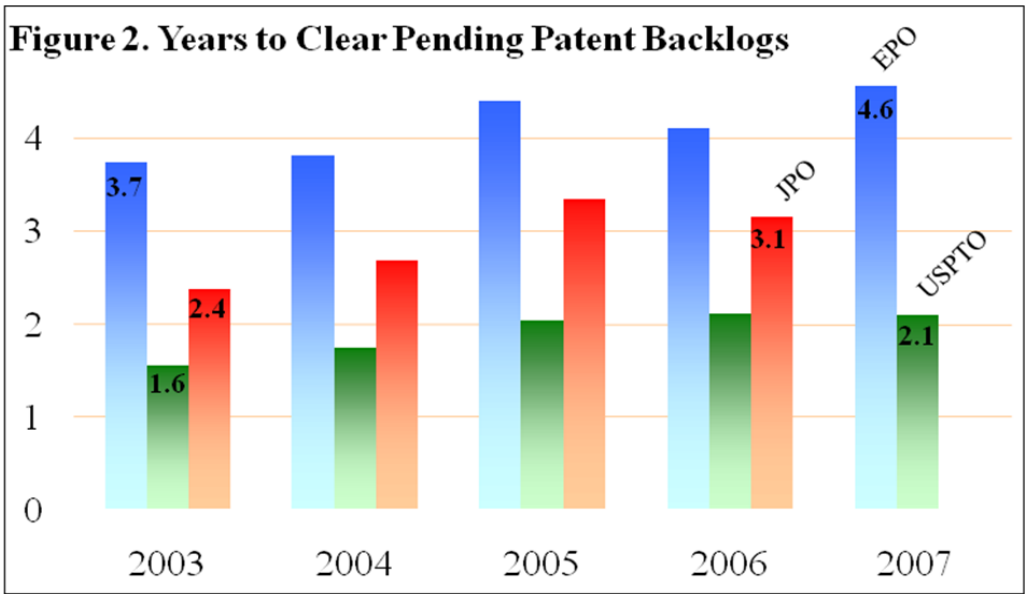
Source: EPO.

3 See *e.g.* OECD, Intellectual Property Rights, DAF/COMP(2004)24, available at www.oecd.org/dataoecd/61/48/34306055.pdf; OECD, Competition, Patents and Innovation, *supra* n.1.

4 The WIPO data reflects patents filed under the Patent Co-operation Treaty ("PCT") system. The PCT allows patent applicants to seek protection for an invention in a large number of countries by filing one "international application." The filing can be submitted to the national patent office of the State of which the applicant is a national or resident, or to the World Intellectual Property Organisation's International Bureau. Technically, a PCT filing is not a patent application, but rather it gives the filer the option to file patent applications in any PCT signatory country or countries within 30 months of the filing date.

Higher volumes of patent applications have been driven in part by globalisation. As companies expanded into more geographic markets, their need for geographically broader patent protection expanded with them. Consequently, it became more common for companies to file patent applications in several countries instead of just one or two. In addition, as the economies of countries like China and Korea advanced, so did the propensity for inventors who do business there to file for patent protection. Another driver is an expansion (in some jurisdictions) of the types of technologies for which patents can be granted.

Even if patent offices are able to increase their efficiency and capacity to such a degree that their average pendency periods remain constant despite the increasing volume of applications, the backlog of pending patents will increase. For example, in Figure 1, a hypothetical three-year pendency period at the US Patent and Trademark Office (USPTO) in 2000 translates into roughly 900,000 pending patents. Given the application volume in 2007, the same pendency period implies about 1.35 million pending patents. Of course, if pendency periods grow, as well, then the backlog of pending patents will be even greater. In that regard, patent offices face a stiff challenge because the technologies they are reviewing have become more and more complex.[5]



Source: EPO.

Figure 2 depicts actual backlogs at the Japan Patent Office, the EPO, and the USPTO in terms of the length of time it would take to complete the examination process for all pending patents if new applications were suddenly to stop coming in, taking into account each agency's average processing speed and the number of applications they actually received up to a given year. Thus, for example, it would have taken

5 Dietmar Harhoff, *et al., The Strategic Use of Patents and Its Implications for Enterprise and Competition Policies*, Report Commissioned by the European Commission (8 July 2007), pp. 91, 128-29, 136-141, available at: www.en.inno-tec.bwl.uni-muenchen.de/research/proj/laufendeprojekte/patents/stratpat2007.pdf; National Research Council of the National Academies, A Patent System for the 21st Century (Stephen Merrill, Richard Levin & Mark Myers, eds.) 79 (2004); John *Allison* & Mark *Lemley, The Growing Complexity of the United States Patent System, 82 Boston University Law Review 77* (2002).

the USPTO 2.1 years to work through its backlog as of 2007 if it could have concentrated only on the backlog and not on any new applications. It can be seen that, in general, backlogs have grown over time.[6]

The Director of the USPTO reported in 2006 that "the volume of patent applications continues to outpace our capacity to examine them." He added that the USPTO currently has "a pending application backlog of historic proportions."[7] In 2008 he reported that "The Patent organisation's biggest challenge is to address the growth of pendency and the backlog of patent applications waiting to be examined while maintaining high quality."[8]

The trends in applications and backlogs have led the EPO to conclude that the volume of pending patents is now probably greater than the volume of patents that have been granted and are still valid.[9] That, in turn, is one reason why anticompetitive behaviour involving pending patents may be occurring more frequently than anticompetitive behaviour involving granted patents. In terms of sheer numbers, there are simply more opportunities.

Although a patent can be enforced only if it is granted, pending patents still have value. Not only can they offer some provisional protection to the filer until the patent office makes a decision, but naturally there is also a chance that they will eventually become granted patents. If that happens, infringement claims may be successful even against conduct that took place during the pendency period rather than after the patent was awarded. In fact, pending patents may be even more powerful than issued patents because there is so much that is unknown about them: whether they will be granted, when they will be granted, what their scope will be and, sometimes, whether they even exist.

In short, rising volumes in patent applications and backlogs mean greater uncertainty in the patent system, and greater uncertainty means greater risk to market participants. Such uncertainty and risk can be used in ways that harm competition and innovation.

3. Using Divisional Patent Applications to Enhance Uncertainty

3.1 The Basics of Divisional Applications

Virtually every industrialised country requires patent applications to be published (publicly disclosed) within 18 months after the filing date.[10] There are some exceptions to that general rule, though. One of the

6 It is best to use this chart to compare the results for each individual office over time rather than to make inter-office comparisons because circumstances vary among the offices. For instance, whereas EPO procedures have large dropout rates (in addition to actual grant/refusal decisions), the same cannot be said of the USPTO where almost all of the office's work eventually results in a refusal or a grant.

7 Performance and Accountability Report Fiscal Year 2006, USPTO, Message from the Director at 2, available at www.uspto.gov/web/offices/com/annual/2006/200_message_director.html.

8 USPTO, Performance and Accountability Report Fiscal Year 2008, available at www.uspto.gov/web/offices/com/annual/2008/2008annualreport.pdf.

9 EPO, *Patenting and Competition*, paper submitted to the OECD Competition Committee (23 October 2008); Ciarán McGinley, "Taking the Heat Out of the Global Patent System," *31 Intellectual Asset Management 11* (2009).

10 Reiko Aoki & Yossi Spiegel, "Pre-Grant Patent Publication and Cumulative Innovation," *27 International Journal of Industrial Organisation 333, 333* (2009).

major ones has to do with the fact that applicants may be required or permitted to file a "divisional" or "continuation" application.[11, 12]

During the examination of patent applications, examiners sometimes find that the application describes more than one invention. In such cases, the applicant may be asked to file one or more divisional applications so that there is no more than one inventive concept per filing. Those applications are called "mandatory divisionals." Applicants may also be allowed to file divisionals on their own initiative ("voluntary divisionals"). A divisional must not add any content to what was disclosed in its predecessor or "parent" application, though that restriction still leaves a great deal of leeway.[13] Furthermore, divisionals are not costless to the applicant, as new fees must be paid for each one of them.

Divisional applications have the same priority and filing dates as their parent application, but procedurally they are treated like new applications.[14] That means, among other things, that the 18 month clock is reset for the purpose of publishing the divisional application. Furthermore, even if its parent application is eventually refused or withdrawn, the divisional continues to exist as a separate entity. If the divisional patent is granted, it will expire on the same date that its parent patent would expire if the latter is granted. The rules in most jurisdictions state that a patent application must still be pending if a divisional is to be filed in connection with it.[15]

3.2 How Divisionals can be Abused

The possibility to file divisionals repeatedly, along with the fact that they are not immediately published, creates the potential for abuse. Most patent agencies allow applicants to file divisional applications on a voluntary basis. This divisional process can be repeated, so that there may be second generation divisionals, third generations, etc., all spreading like the branches of a family tree. These are known as cascading divisionals. To create them, applicants need only narrow or alter – or in some

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11 As noted, there are other exceptions. For example, the USPTO requires publication only for applicants who file both domestically and overseas – not for those who file applications only in the US.

12 For the sake of convenience, except where noted the word "divisional" is used in this paper even though different jurisdictions use different terms and there are some procedural disparities between them.

13 See *e.g.* European Patent Convention, Art. 76(1) ("A European divisional application... may be filed only in respect of subject matter which does not extend beyond the content of the earlier application as filed"). However, "content" means not only the claims themselves, but the description of the invention, as well. That makes it much easier to find support for subsequent claims that differ in some regard from the boundaries delineated by the prior application's claims. Thus, in the US, for example, it is possible for divisionals to seek additional or broader claims than those in the parent application, provided there is adequate support for them somewhere in that application. 35 U.S.C. s. 120.

14 The priority date is the date on which a patent application was filed for the first time at a patent office. Under the system established by the Paris Convention, applications can also be filed up to one year after the priority date at the patent office of any other nation that has ratified the Paris Convention. Therefore, the priority date can be different from the date on which the application was filed in a particular office (the "application date").

15 Once again, the US is an exception. There, divisionals can be filed even after the parent application has been granted or rejected. 35 U.S.C. s. 120. Thus, "[o]ne of the oddest things to an outsider about the United States patent system is that it is impossible for the [USPTO] ever to finally reject a patent application... Even stranger, perhaps, is that the PTO can't even finally *grant* a patent." Mark Lemley & Kimberly Moore, "Ending Abuse of Patent Continuations," Working Paper (2003), p. 1 (emphasis in original), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=462404.

jurisdictions simply reproduce – their claims repeatedly, put them into new applications and pay new filing fees.[16]

Because the 18-month publication clock starts anew for each divisional, it is possible for applicants to keep their true invention secret for up to 20 years by continually filing divisionals within 18 months of each other and withdrawing the older one. As one generic drug manufacturer succinctly stated in the EC's recent pharmaceutical sector inquiry, "[f]iling of divisional applications also enables the originators to maintain the uncertainty generated by parent patent application[s.]"[17]

Even if the older generation applications are not withdrawn, some measure of secrecy is still possible beyond the 18 month period. In this context, "secret" does not mean totally hidden from view, but rather that even if an observer sees a next-generation application, he might have trouble recognising it as one that arises from a previous filing because the description and claims can change so much from generation to generation. That is the case because the progression from generation to generation is not necessarily linear. In other words, each round of divisionals is not necessarily an obvious sub-set of the previous one.

Sometimes companies request divisionals after having "discovered" that their "real" invention is an altogether different set of claims based on another part of the description in the application. As long as the divisional is somehow derived from its immediate predecessor (including both the claims and the description), it will be allowed. Descriptions are typically around 30 pages but they can be as long as hundreds or even thousands of pages. Therefore, the first set of claims may not turn out to be the key invention. This fact gives a company the ability to make it quite difficult for others to discern what it is ultimately going to try to patent. In other words, divisionals allow applicants to maintain a moving target. Furthermore, it is virtually impossible for a patent office to distinguish bone fide "discoveries" from planned ones.

Although voluntary divisionals may be used strategically more often than mandatory divisionals, companies can intentionally use the latter type to prolong pendency periods, too. To do so, all they need to do is describe multiple different inventions in the same patent application. It might be as few as two or it could be in the hundreds. Eventually, the patent office will require the applicant to split its application into two or more applications.

The share of divisional applications is growing. Harhoff, *et al.*, interpret this as a sign that firms are using the patent system strategically. They conclude that applicants seem to be abusing the divisional process by manipulating it to create uncertainty about the scope of their pending patents.[18] This can harm not only competition, but innovation, as well. "Knowing what might be patented is not the same as knowing what will be and therefore the use of divisionals may force rival firms to use less efficient technologies because they wish to rule out that they could be affected by a pending patent application."[19]

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16 For example, the EPO's Enlarged Board of Appeal confirmed in decisions G1/05 and G1/06 of 28 June 2007 that filing a divisional that is identical to its parent application is permissible.

17 European Commission, Pharmaceutical Sector Inquiry Preliminary Report (28 November 2008), available at http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/index.html at 161; see also Lemley & Moore, *supra* note 15 at 2, 9 (noting that during the period 1976-2000, while original patent applications took 1.96 years on average to issue in the US, patents with at least one divisional took 4.16 years to issue).

18 Harhoff, *et al.*, *supra* note 5 at 128, 166; see also Lemley & Moore, *supra* note 15 at 6-7 (noting a steady increase in the share of divisionals in the US).

19 Harhoff, *et al.*, *supra* note 5 at 166.

An applicant might use divisionals when its applications are weak and likely to be rejected but the applicant wants to delay or prevent a possible negative decision because it finds the uncertainty of pending patents useful. That uncertainty, for example, might be used to facilitate a patent ambush (discussed in Part 4). Or it might strengthen the applicant's ability to exert leverage on its competitors or deter entry (discussed in Part 5 in the context of cross-licensing negotiations).

Alternatively, a company might use divisionals in a "tailor-made infringement" scheme. In that ingenious strategy, a company keeps its applications pending and unpublished through divisionals until a competitor has developed its own related technology. The company might even wait until the competitor's technology has been widely implemented. The first company then modifies its own pending patents through additional divisionals to make them cover the rival's technology. In some cases companies have been known to put the very same language used in the rival's patent applications into their own divisionals, thereby all but guaranteeing a finding of infringement in their own favour. Because the priority date of the divisionals is backdated to the original application, the first company is treated as though it filed first. It can then obtain an injunction to prevent its rival from using the technology, or it can threaten to do so unless the rival pays a certain amount.

There are defensive versions of that strategy, too. Here is an example:

> *[P]atent lawyers often file a continuation application just prior to the issuance of a patent, so that prosecution based on the original disclosure may continue. This is valuable where a competitor may attempt to design around a patent by adopting minor variants. In that event, it may be possible to revise the continuation application claims to cover the competitor's new variant, considerably enhancing the effective scope of the patent.*[20]

In the eyes of at least some patent systems, these offensive and defensive tailor-made infringement strategies are perfectly legitimate as long as the divisionals they rely upon have sufficient support in their parent applications. But if that is the correct policy, it means that even if the ideas in a rival's technology never occurred to the applicant, it can obtain patent rights over them if its own pending patent descriptions are written broadly enough.[21] Lemley and Moore argue that this is counterproductive to the aim of promoting innovation:

> *Permitting patentees to change claims to track competitors' products invites abuse of the system. It seems fundamentally unfair, since even a competitor who was legitimately the first to invent a particular device or process may be held to have infringed on a patent claim written after (and indeed because of) that invention. It also seems inconsistent with the fundamental economic justification for the patent system, which is to encourage new inventions. As commentators have noted, the patent system must balance between encouraging pioneering inventions and encouraging improvements. Strategic claim changes may hold up legitimate improvers or independent inventors, reducing their ability and incentive to innovate.*[22]

For competition officials, the major point to take away regarding divisionals is that they make it possible to prolong the period in which an application is pending and in which it remains unpublished. That creates opportunities for strategic and possibly anti-competitive behaviour. This is not to suggest that

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20 Robert Merges, *et al.*, *Intellectual Property in the New Technological Age 116* (3d ed. 2003).

21 This principle has been upheld, for example, by the U.S. Court of Appeals for the Federal Circuit, the leading patent court in the US. See *Kingsdown Medical Consultants v. Hollister*, 863 F.2d 867 (Fed. Cir. 1988).

22 Lemley & Moore, *supra* note 15 at 16.

all divisionals should automatically be viewed sceptically by either competition or patent authorities. There are some perfectly legitimate reasons why divisionals can be desirable or necessary. For example, applicants may simply need more time to refine their invention. Alternatively, the filer may want to expedite the prosecution of less problematic components of its original application by separating them from components that are more likely to draw resistance from examiners. Nevertheless, as discussed above, there are plenty of opportunities for abuse.

3.3 Fixing the Divisionals Problem

From a competition policy perspective, it is hard to understand why behaviour such as keeping a patent pending for 10 or 20 years with cascading divisionals is tolerated. Currently, the major patent agencies have no effective procedural tools available to control it. The sensible thing to do would be to make changes within the patent regime itself, allowing patent offices to take steps like placing limits on the number of times and the period in which applicants are allowed to use divisionals.

In fact, divisionals have been a very hot topic on both sides of the Atlantic lately, as at least two major patent agencies have made serious efforts to limit the abuses that have been occurring. Both the USPTO and the EPO recently implemented rule changes that restrict applicants' freedom to file cascading divisionals. Unfortunately, those rule changes were invalidated by the judiciary in the US and the same thing may happen in Europe.

The USPTO had implemented a new rule that entitled applicants to file two continuation applications as a matter of right, but no more than that. Applicants who wished to pursue more than two continuation applications were required to file a petition showing that the amendment, argument, or evidence sought to be entered could not have been submitted during the prosecution of the prior-filed application. That rule was challenged in a lawsuit and in March 2009, an appellate court struck it down on the basis that the USPTO does not have substantive rulemaking authority.[23] The court's decision strengthens the argument that as long as Congress declines to make the necessary changes, there is a need for competition law intervention to control anticompetitive conduct involving continuations because the USPTO cannot do so.

The EPO's Administrative Council decided – also in March 2009 – to impose a 24-month time limit on the filing of both voluntary and mandatory divisionals.[24] The new rules are scheduled to go into effect in April 2010. Although these new constraints are commendable, they may run into the same difficulties that the USPTO's proposed rule changes did. A legal challenge is possible, it would seem, because the governing statute (the European Patent Convention) does not say anything about imposing limits on the right to file for divisionals.

4. Using Pending Patents to Ambush Standard-setting

4.1 Standard Setting Organisations (SSOs)

Many industries have created SSOs that issue technical standards for the purpose of making it easier for different companies to design interoperable products. Standard setting activities generally have pro-competitive effects because they can increase the number of suppliers in the market, reduce the cost of producing goods, allow customers to use the components they want from different suppliers instead of

23 *Tafas v. Doll*, 559 F.3d 1345 (Fed. Cir. 2009).

24 For voluntary divisionals, the 24-month period starts on the date of the first communication of the Examining Division regarding the earliest application for which any communication has been issued. For mandatory divisionals, the 24-month period begins to run on the date of the first communication in which the non-unity objection is raised by the examining division.

having to single source an entire product line, and reassure customers that compatible products will be available and supported in the future. Examples of widely successful standards include those for DVDs, MP3 and GSM.

Standards are not always set by organisations engaged in formal development activities. Sometimes standards arise on a *de facto* basis after a proprietary standard "wins the market." A *de facto* standard may emerge, for example, because it had a first-mover advantage. Or it might emerge because it proves to be superior to its rivals. From a policy perspective, it would seem to be appealing to allow normal market competition to decide what the best standard is. On the other hand, "the efficiency benefits of consensus standard setting easily can outweigh that loss of competition."[25] In other words, one benefit of setting standards formally is that it can avoid the waste that can come with ad hoc development. Imagine, for example, the expense that would be involved in changing a non-standardised regional railroad system's rails over to a standard gauge rail. Nevertheless, formal development of a standard by an SSO does not guarantee market acceptance, or even implementation.

SSOs typically rely upon the participation of industry players when developing their standards. Standards generally define interfaces, not how those interfaces are implemented. Therefore, although competitors collaborate to achieve interoperability, they usually continue to compete during implementation of the standard by differentiating the features of their products and services.

4.2 Pending Patent Ambushes

By participating in the standard-setting process, a company can keep itself informed about how a standard is developing. The company can also take advantage of delays and flexibility in the patent examination system to optimise the timing and nature of changes to the scope of any pending patent claims it may have that are related to the standard. When carrying out a patent ambush strategy with pending patents, the company does not inform the SSO that it has patent applications which are relevant to the standard being developed. At the same time, the company moulds the claims in those applications to fit the emerging standard. Furthermore, the company may be able to influence the standard, too, making it resemble its pending claims more closely. The company might therefore be able to modify both the standard and its own pending patents so that they match as closely as possible.

If things go according to plan, the SSO will promulgate a standard that is covered by the company's undisclosed pending patents, which the company will then push through the examination process until they are granted. In the meantime, other companies will implement the standard in their products and customers will buy them. Substantial sunk investments that rely on the standard will be made. When the ambusher is confident that enough resources have been sunk to make switching to another standard too costly, it will reveal its patents and pounce, threatening infringement lawsuits. It might demand very profitable licensing fees, or it might decide to block the implementation of the technology altogether.

If the company had revealed its pending patents while the standard was still under development, the SSO might have had the option of using a different, less expensive technology (if any were available), or the SSO might have tried to secure the company's agreement to limit its licensing fees. But by keeping its pending patents secret until the standard they cover becomes so widely implemented that developing and implementing another standard is not feasible, the company may give itself a dominant position that it might not have had otherwise. "In short, a patentee that comes into view only after a firm has invested in a

[25] US Federal Trade Commission, *In the Matter of Rambus*, Docket No. 9302 at 33, available at www.ftc.gov/os/adjpro/d9302/060802commissionopinion.pdf.

given standard can hold hostage the firm's standard-specific investments. The result may be a royalty payment that far exceeds the inherent value of the underlying patented technology."[26]

This assumes that there are no competing standards. That was the case, for example, in a recent decision by Germany's Federal Court of Justice. In *Orange-Book-Standard*, the Court ruled that because Philips owns a patent that is essential to the standard for producing CDR and CDRW compact discs and everyone who produces compact discs necessarily uses that patent, Philips is in a dominant position.[27] In contrast, in a market where there are competing standards, a company with a patent that is essential to one of them still may not have a dominant position in the overall market.

A number of harmful effects can follow when a company becomes dominant by ambushing an SSO. There may be a general chilling effect on standard setting activities if manufacturers become more worried about exposing themselves to patent ambushes. That, in turn, could lead to inefficient fragmentation and lack of interoperability in other markets that would have benefited from formal standard setting. In addition, some or all of the ambusher's monopoly-level licensing fees may be passed on to consumers in the market where the ambush occurred. Or there may be serious delays in the implementation of the ambushed standard while the victims search for workarounds or ways to invalidate the ambusher's IP. Any follow-on innovations that the victims are developing based on the standard may slow down or come to a halt during that time.

4.3 What Competition Authorities can do to Fight Pending Patent Ambushes

4.3.1 Advocacy

Because patent (and pending patent) ambushes on SSOs can delay standards, raise the cost of implementing them, and chill standard setting efforts in general, SSOs should be interested in implementing policies that reduce the risk of ambush. Most SSOs have already put such policies in place, but not all of them have. Even among those that have adopted anti-ambush policies, there may be room for improvement. Competition authorities can help SSOs to design and improve their procedural rules so that they minimise opportunities for patent ambushes without offending competition laws against co-ordinated conduct. Three types of rules have been proposed for that purpose: disclosures, FRAND terms, and joint *ex ante* negotiations. A fourth possibility – improving the flow of information between SSOs and patent offices – is also discussed below.

Disclosures

Two main types of disclosures could be required or encouraged. First, SSOs may find it helpful to create rules that impose obligations on their members to make accurate disclosures of any patents and pending patents they have that could overlap with the standard under development. The disclosures would have to be made both before and during the standard setting process. Second, SSOs could oblige their members to disclose the maximum fees and most restrictive licensing terms they would demand for such patents if the technology they cover were to become part of the standard. Commissioner Kroes recently endorsed both of these approaches as a way for SSOs to avoid "being manipulated by narrow commercial interests."[28]

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26 Douglas Lichtman, *Patent Holdouts and the Standard-Setting Process*, University of Chicago, Olin Working Paper No. 292, (May 2006), available at http://ssrn.com/abstract=902646.

27 FCJ, KZR 39/06 (6 May 2009).

28 Neelie Kroes, European Commissioner for Competition Policy, *Being Open about Standards*, Speech 08/317 before OpenForum Europe (10 June 2008), p.4.

A variation on those policies is to give members the option to commit to making such disclosures, rather than making the commitments mandatory. If there is any *ex ante* competition, though, the effect should be the same. A company would probably raise the SSO's suspicions and put itself at a competitive disadvantage if it refused to undertake such a commitment when its rivals did commit themselves. Not only might the SSO be more likely to choose the rival's technology, but there would also be a risk that the SSO might limit the company's ability to continue participating in the standards development process.

Either version of these disclosure policies will improve an SSO's ability to compare the technical and financial merits of the technologies covered by granted or pending patents with each other and with any IPR-free alternatives *before* committing to a particular formulation of a standard.[29] That, in turn, will enable the SSO to take advantage of any *ex ante* competition that exists, instead of exposing itself to being held up after the standard is chosen and it is too late to switch to another technology.

Of course, if there is no other competitive technology then the IP owner may feel confident enough to set a *supra*-competitive royalty rate even before a formal decision is made to incorporate its IP into the standard. That is a legitimate outcome from a competition policy perspective. In other words, if the required disclosures are made and they do not cause the SSO to avoid putting a certain patented (or patent pending) technology into its standard, then there should not be a presumption that it is anticompetitive for the IP owner to charge a *supra*-competitive licensing fee for that technology. Under those circumstances, the IP owner simply has the best technology when both its (*supra*-competitive) price and quality are taken into account – or maybe it has the only feasible technology. In either case, according to economic theory, it *should* charge more than the competitive price. So the competition policy objective must not be to force licensing fees down to a hypothetical perfectly competitive level, but rather to prevent IP owners from receiving more by using an ambush strategy than they would have received if they had not used that strategy.

FRAND Terms

Another strategy for fighting ambushes, which has already proven to be popular among SSOs, is to require members to make an *ex ante* commitment that if any technologies on which they hold patents or pending patents are included in the SSO's standard, they will license those technologies on "FRAND" or "RAND" terms. FRAND means "fair, reasonable, and non-discriminatory." (RAND simply omits the word "fair." For convenience's sake, only the term "FRAND" is used here.) FRAND commitments are typically worded in a broad fashion and do not specify actual license terms. The precise terms of each license are usually negotiated bilaterally outside the SSO setting.

The "non-discriminatory" component of FRAND is generally deemed to be useful. Although FRAND does not necessarily require that all licensees receive identical license terms, it does give similarly situated licensees some reassurance that they will be treated alike by the licensor. It can also prevent the licensor from potentially harming competition by charging higher royalties to its horizontal competitors than it does to everyone else.[30]

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29 But see Thomas Cotter, "Reflections on the Antitrust Modernisation Commission's Report and Recommendations Relating to the Antitrust/IP Interface", *53 Antitrust Bulletin 745, 762 n.50* (noting possibility that SSO members might disclose too many granted or pending patents, leading to unnecessary delays in the standard setting process as the SSO wades through irrelevant disclosures).

30 Gerald Masoudi, Deputy Assistant Attorney General, USDOJ, *Efficiency in Analysis of Antitrust, Standard Setting, and Intellectual Property*, Speech at Tilburg University Workshop on Standardisation, IP Licensing, and Antitrust (January 18, 2007), p. 6.

On the other hand, the "fair" and "reasonable" part of FRAND has been controversial. Proponents argue that FRAND license obligations provide some reassurance that would-be ambushers will not be able to hold up the standard by refusing to license their patents or by offering a license only on unreasonable terms.[31] Others find that expectation to be naïve. While FRAND commitments may prevent licensors from threatening outright refusals to deal since they require the patent owner to license its patents (at some price), they offer little or no protection against gouging.

The root of the problem with "fair" and "reasonable" is that those terms are not tied to an objective principle or definition. Instead, they are just free-floating words that people conceptualise in different ways. Therefore, a firm with a patent that is essential to a standard could, in principle, fulfil its FRAND obligation to offer a license but do so at an asking price that no potential licensees consider reasonable. Without something to anchor the argument besides the words "fair" and "reasonable" themselves, however, it is not clear how FRAND can help to settle the parties' differences.

A court might be called upon to decide what "fair" and "reasonable" mean in the context of a particular dispute, but it will receive no help from the bare term FRAND, which simply presumes that everyone knows or will be able to determine what "fair" and "reasonable" mean. Different courts are likely to have different ideas about what "fair" and "reasonable" mean, and not only in particular cases but in general. Therefore, FRAND offers little or no predictability to either licensors or licensees. "[T]he expression 'FRAND terms' is so indeterminate as to be devoid of any meaning in practice."[32]

The difficulty of deciding what "fair" means may leave courts with little appetite for the task. That point was illustrated in *Orange-Book-Standard*. The Court upheld a ruling that a company had infringed a patent that was essential to the standard for recordable and rewriteable compact discs. In its defence, the infringing company argued that the patent holder had abused its dominant position by refusing to provide a license unless it received a fee that the company considered "excessive" and "unreasonable." While acknowledging that such a defence was possible, the Court nevertheless refused to be put in the position of having to determine what the words "excessive" and "reasonable" mean, noting that "[i]n most cases the clarification of the amount of a licence fee admissible under antitrust law proves to be very difficult." Therefore, the Court decided, the infringer would first have to prove that it tried to obtain a license on reasonable terms, without success, if it wanted to use a defence that relied on a refusal to deal. What qualifies as "reasonable terms"? The Court told the parties to figure that out themselves. The infringer must "offer a not-yet specified licence fee instead of a definite licence fee to the patent owner and leave it to his fair judgment to determine the fee and at the same time provide a security with a sum which matches an objectively reasonable license fee, and possibly even lies above such fee. *This way, patent infringement proceedings do not have to deal with the dispute about the license fee's amount*."[33]

It is understandable that courts wish to avoid this issue, and that may be for the best. Even if there were an objective means of determining what "fair" and "reasonable" mean, it would be a complicated exercise for a court because it would have to take the merits of individual patents and pending patents into

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31 See *e.g.* Dean Dunlavey & Michael Schallop, *Lessons from Rambus – Play by the Rules in Standard Setting Organisations*, Intellectual Property Today (June 2007), p. 35 n.2.

32 Gil Ohana, Marc Hansen & Omar Shah, *"Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush?" 24 European Competition Law Review 644, 648* (2003); see also Mark Lemley, "Intellectual Property Rights and Standard-Setting Organisations," *90 California Law Review 1889, 1964* ("without some idea of what [FRAND] terms are, reasonable and non-discriminatory licensing loses much of its meaning").

33 *Orange-Book-Standard*, FCJ, KZR 39/06 (6 May 2009) and Bundesgerichtshof, Report of the Press Office, '*Objection of Compulsory License' Is Generally Admissible in a Patent Infringement Proceeding,* Number 95/2009 (6 May 2009) (translated from German) (emphasis added).

account and compare them with other technologies. A one-size-fits-all approach would not work. It is not clear, for example, that the owner of a patent for a breakthrough technology should be subject to a FRAND commitment if the FR is always interpreted to mean something like "cheap," "inexpensive," or even something more definite such as "no more than what any of the other licensors are receiving." If that were to happen, breakthrough innovators would soon decide to opt out of SSOs, making the SSOs less effective.

Some objective meanings for "fair" and "reasonable" have been proposed, but they all have drawbacks. One idea is strict proportionality: one simply tallies up the number of relevant patents that a company owns and divides by the total number of patents in the standard. The resulting fraction is multiplied by the overall FRAND royalty rate for using the standard. This suggestion is meritless. True, it does not rely on any subjective concepts, but that advantage comes at the price of ignoring the fact that some patents are worth more than others – a simplified approach that places the same value on breakthrough inventions that it does on barely incremental ones. This approach will also trigger patent races (and perhaps poor quality patents) because it values quantity, not quality. In addition, this method ignores the crucial question of how to decide what the overall fair and reasonable royalty rate for using the standard should be. Finally, it ignores the issue of pending patents – do they count or not?

Another idea is to put a ceiling on the licensing fees for a particular patent equal to the amount that its owner was charging before the standard was adopted. This method will not work for IP that was not being licensed before the standard was approved because there will be no fee benchmark in such cases. Another problem is that it is rational to seed a market by giving early adopters a lower fee than will be demanded later if it becomes clear that the patented technology is a commercial success. Furthermore, licensing terms will likely differ from one licensee to another. It may not be clear which agreement is the right one to use for purposes of using this method. For example, the fees demanded from some licensees will be lower if those licensees give the patent holder a cross-license to their technologies.

Baumol and Swanson proposed another method based on determining the fee that would have emerged from *ex ante* competition (if there was any).[34] This method has been the most well-received so far, but it is also controversial. It has been criticised as being biased toward plaintiffs who simply want low licensing fees as well as being difficult and expensive to apply.[35] It is significant that the talents of one of the most prominent economists in the world are required to come up with a method for determining what FRAND means and that even his method has not resolved the matter.

Despite its weaknesses, proponents of FRAND point out that there have been relatively few disputes over what it means and that it therefore seems to be working. However, the fact that there are relatively few disputes may have little or nothing to do with FRAND's merit. Licensing parties may be getting along with each other in spite of FRAND rather than because of it. If the companies involved in setting a given standard are usually competitors and they tend to have patent portfolios, they may be functioning well because they have reached a state of détente with one another, not because of their vague FRAND commitments. When the stakes are high enough, though (as in cases like *Rambus* and *Qualcomm),*[36] that détente may be overridden.

Professor Thomas Cotter has sounded a note of scepticism toward both disclosure and FRAND requirements, noting that they "may not be altogether effective" because "a disclosure obligation, standing

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34 Daniel Swanson & William Baumol, "Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power," *73 Antitrust Law Journal 1* (2005).

35 Damien Geradin & Anne Layne-Farrar, "The Logic and Limits of Ex Ante Competition in a Standard-Setting Environment," *3 Competition Policy International 79* (2007).

36 See discussion of these cases below in Part 4.3.4.

alone, does not entail any commitment on the part of the patent owner [or pending patent owner] to charge less than a *supra*competitive price *ex post*; and an agreement to charge only a [F]RAND royalty can be vague."[37] In other words, Cotter argues that neither a company's disclosures about its patents and the maximum amount it will charge for them nor its agreement to license on FRAND terms will, by themselves, prevent the company from ignoring those commitments in the future and charging whatever price it wants to charge.

While there are reasons to doubt the effectiveness of FRAND commitments, disclosure requirements do not have the vagueness problem that FRAND has. SSOs could enforce compliance with disclosure rules, if necessary, by relying on contract law. They would require all participants in the standard setting process to sign a contract in which the participant promises to make the disclosures above before and during the standard setting process.[38] The contracts could also stipulate that breaches will result in certain defined remedies, such as forfeiture of the patent holder's right to enforce its relevant patents against either the SSO or anyone relying on the SSO's standard. Alternatively, a breach of the contract could obligate the breaching party to grant "low" license fees to any party relying on the standard ("low" would have to be defined in advance).

Opponents of these contractual obligations argue that they deter participation in SSOs and therefore harm innovation. They note that companies with large portfolios of granted and/or pending patents face a formidable and expensive task in trying to comply with IP disclosure obligations. Companies might fail to disclose relevant IP not because they are planning an ambush, but simply because they failed to find it. Nevertheless, a "strict liability" disclosure policy would punish the companies. Rather than run that risk, the companies might simply decide to opt out of the standard setting process.

Proponents of enforcing disclosure requirements with contract law remedies counter with the argument that the anticompetitive impact of a failure to disclose can be the same whether the failure was intentional or not. Furthermore, making exceptions for "inadvertent" failures would encourage companies to designate an SSO representative who is deliberately kept uninformed about the company's patents and pending applications.[39] But there is another weakness in the opponents' argument: Requiring firms who say they cannot find their relevant IP to license it for low or no licensing fees leaves them no worse off than if they had never found it. Furthermore, if the firms are able to do a search that locates their relevant IP after a standard is set, then they ought to have been able to do that search before the standard was set, too.

Ex ante Negotiations

The third anti-ambush strategy that has been proposed builds on the disclosure requirements and calls for joint *ex ante* negotiations between all the SSO members who are prospective licensees of a technology and the member who is a prospective licensor of that technology over the royalties that the latter would charge if the technology were to be incorporated in the SSO's standard.

As with rules requiring the disclosure of maximum fees, part of the purpose of holding joint *ex ante* negotiations is to get potential licensors to set their royalty rates before the standard is selected, *i.e.*, while the licensors still face some competitive pressure (assuming the SSO has a realistic option of choosing an alternative technology). The other component of this strategy aims to create some countervailing buyer

37 Cotter, *supra* note 29 at 763 & n.55.

38 *Id*. at 760; Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting* in Adam Jaffe, Josh Lerner & Scott Stern (eds.), 1 Innovation Policy and the Economy 121, 138 (2001).

39 Dunlavey & Schallop, *supra* note 31 at 34-35.

power by combining the demand generated by all the potential licensees in the SSO. Together, the *ex ante* effect and the joint negotiation/monopsony effect can help the SSO members who will implement the standard to procure more reasonable terms from owners of essential IP, leading to lower marginal costs and possibly to lower consumer prices. It might also result in a speedier standard setting process and a reduced likelihood that litigation will be necessary to resolve disputes about licensing fees and terms.

On the other hand, economic theory says that countervailing buyer power leads to an indeterminate outcome when pitted against monopoly power. Output and consumer welfare could both decline even further than they would in a pure monopoly scenario. Furthermore, it will not necessarily always be the case that the licensor has monopoly power, especially before the standard is set. The buyer power therefore might not be countervailing against monopoly power but rather it might just push fees that are already competitive even lower. That could force royalty rates down so much that the leading innovators would respond by reducing their investments in R&D. Several commentators have dismissed the idea that buyer power in SSO settings would lead to output reductions, though.[40]

As the point about countervailing buyer power suggests, a potential obstacle to *ex ante* commitments and discussions is that, even though they may be appealing as a means of combating ambushes, they may also raise competition concerns of their own. SSO members are often competitors and discussions among competitors about the prices they are willing to pay or the terms they are willing to give sellers obviously have the potential to be deemed unlawful. For that reason, some SSOs' policies forbid discussions of royalty rates and terms among their members. This issue is explored further in Part 4.3.2.

Improving Communications between SSOs and Patent Offices

Another defensive strategy that competition authorities could suggest to SSOs is to enhance their communication with patent offices. One aim would be to enable SSOs to keep track of all granted and pending patents held by companies that participate in the standard setting process. Ideally, SSOs would also be able to see or be notified of any changes that participants make to the scope of their pending patents. If the patent regime gives applicants legal rights entitling them to keep such information out of the hands of third parties like the SSOs, then participation in the standard setting process could be made conditional on the waiver of such rights with respect to the SSO. That waiver alone could provide significant deterrence against pending patent ambushes.

At the same time, the information flow could be improved in the other direction, as well. SSOs could be encouraged to give patent agencies access to the literature and technical documents that are submitted to the SSOs' committees when there are pending patents that could be relevant to the standard that is under development. This would enable the patent examiners to have a better sense of what the prior art is, which will help them to avoid granting patents that should not be granted. Here, too, participation in the SSO could be made conditional on the participants' agreement that such information would be turned over to patent agencies. This kind of co-operation between SSOs and patent agencies could serve as a substantial deterrent against ambushes, as well.

4.3.2 Do no Harm

A potential obstacle to the first three suggestions in Part 4.3.1 is that they themselves could be viewed as competition law violations. After all, the idea of groups of competitors getting together and discussing maximum prices and other terms on which they will all deal with suppliers sounds very much like unlawful collusion. The claim that SSO participants are trying to prevent an ambush could be a pretext for setting up

[40] See *e.g.* Joseph Farrell, *et al.*, "Standard Setting, Patents, and Hold-Up," *74 Antitrust Law Journal 603, 632* (2007); Ohana, *et al.*, *supra* note 32 at 654.

a buyers' cartel. Another concern is that the participants might start with discussions about licensing fees for the patents incorporated in the standard but transition to discussions about how much they will charge for the products they are going to sell to consumers. Therefore, SSOs and their members could find themselves in trouble if competition authorities take a suspicious view of their efforts to prevent ambushes. If that were to happen, it would make SSOs less likely to engage in such efforts and that could mean the loss of some legitimate and welfare-enhancing behaviour. To avoid that outcome, competition authorities would have to discriminate between sham anti-ambush strategies and genuine ones. That means spurning the per se approach to co-ordinated *ex ante* SSO conduct and using a rule of reason approach instead.

To some extent, this has already happened. In the US, for example, there is a reasonably solid consensus that in the context of standard setting, the expected value of collective anti-ambush measures exceeds their expected harm (in terms of the possibility that they may occasionally have the real purpose of facilitating a cartel).[41] The Antitrust Modernisation Commission recently recommended that antitrust law should accommodate SSOs when they try to prevent ambushes, noting that ambushes threaten to undermine the adoption of common technical standards that would benefit consumers. It added that "[j]oint negotiations with intellectual property owners by members of a standard-setting organisation with respect to royalties prior to the establishment of the standard, without more, should be evaluated under the rule of reason." Special attention should be paid, the Commission concluded, to the likely consequences of the SSO's joint activities on innovation.[42] Several scholars agree with the idea of taking a rule of reason approach to *ex ante* SSO strategies in general.[43] The USDOJ agrees with it, too, at least in the context of disclosure rules, having twice issued business review letters indicating that it applied a rule of reason analysis to such measures and did not intend to prosecute in either case.[44]

As Willard Tom has observed, though, "telling us *that* the rule of reason should be applied, without telling us *how* the rule of reason should be applied, leaves counsellors in a bit of a conundrum."[45] Thomas Cotter, for one, admits that he has no idea what the approach should look like.[46]

At first glance, the European Commission seems to take a view that is generally similar to the USDOJ's:

> *Undertakings setting up a technology pool that is compatible with Article 81, and any industry standard that it may support, are normally free to negotiate and fix royalties for the technology package and each technology's share of the royalties either before or after the standard is set. Such agreement is inherent in the establishment of the standard or pool and cannot in itself be considered restrictive of competition and may in certain circumstances lead to more efficient outcomes. In certain circumstances it may be more efficient if the royalties are agreed before the*

41 See Cotter, *supra* note 29 at 762-63 & n.53.

42 US Antitrust Modernisation Commission, Report and Recommendations, pp. 118-121 (April 2007).

43 See *e.g.* 2 Herbert Hovenkamp, Mark Janis & Mark Lemley, IP and Antitrust s. 35.6c3 at 35-64 (2008); Justin Hurwitz, "The Value of Patents in Industry Standards: Avoiding License Arbitrage with Voluntary Rules", *36 American Intellectual Property Law Association Quarterly Journal 1, 29-30, 41* (2008). For many more sources, see Cotter, *supra* note 29 at 765 n.68.

44 Letter from Thomas Barnett, USDOJ, to Michael Lindsay, (April 30, 2007), available at www.usdoj.gov/atr/public/busreview/222978.pdf; Letter from Thomas Barnett, USDOJ, to Robert Skitol, (October 30, 2006), available at www.usdoj.gov/atr/public/busreview/219380.pdf.

45 Willard Tom, "The DOJ/FTC Report on Antitrust Enforcement and Intellectual Property Rights," *Antitrust 35, 39* (Summer 2007) (quoted in Cotter, *supra* note 29 at 788 n.153) (emphasis in original).

46 Cotter, *supra* note 29 at 788.

> *standard is chosen and not after the standard is decided upon, to avoid that the choice of the standard confers a significant degree of market power on one or more essential technologies.*[47]

But this guidance is based on the premise that the parties are in compliance with Article 81 in the first place. It is also qualified by the words "normally" and "in certain circumstances," leaving open the question of what would be considered exceptional and objectionable. Additional guidance might be useful, since some observers have argued that SSOs currently face a serious risk of prosecution under Article 81(3) if they engage in joint negotiations.[48]

There is an argument that it is not such a good idea after all to apply the rule of reason to joint *ex ante* negotiations (as opposed to *ex ante* disclosure rules alone and/or one-on-one *ex ante* negotiations) because no good can come from allowing them. Assuming that all SSO members have complied with a commitment or requirement that they disclose their relevant IP, there can be two types of joint *ex ante* negotiations. The SSO will be jointly negotiating with a company that has IP for which there are either 1) feasible substitutes or 2) no feasible substitutes.

In the first type of negotiation, there is no monopoly power to fight against in the first place. *Ex ante* disclosure requirements and *ex ante* bilateral negotiations should be sufficient to motivate the IP owner to offer competitive terms (if it is willing to comply with such requirements and engage in negotiations). Adding an element of monopsony power to the transaction can only depress the licensing fee further, so that it may wind up below the (theoretical) competitive level. There is at least a risk that this will result in a fee low enough to harm incentives for funding further R&D and innovation. There is also a risk that the joint monopsonists will collude in the output market as well as the input market.

In the second type of negotiation, the IP owner does have monopoly power. But this is an *ex ante* negotiation. If that power exists, it is not because the IP owner has carried out an ambush strategy, but because it has developed a desirable and peerless technology. Why should the successful innovator be deprived of the fruits of its success just because it is selling to licensees who happen to be participating in an SSO? Does it not deserve monopoly profits? Permitting licensees to form a collective monopsony so as to exercise countervailing power against the licensor may bring the royalty down, but it will also sour the reward for innovating. That does not seem like an outcome that competition authorities would want to tolerate.

In sum, this argument finds problems with the joint aspect of the negotiation rather than its *ex ante* aspect. It holds that it does not seem necessary or advisable, from a policy perspective, to permit the negotiations to be conducted in a joint fashion. Most if not all of the benefits of *ex ante* competition (if *ex ante* competition is possible) can be obtained through *ex ante* rules requiring the disclosure of maximum fees and most restrictive terms and through *ex ante* bilateral negotiations. If individual potential licensees wish to negotiate with individual potential licensors over precise terms on an *ex ante* basis, that does not present any problems and may be a wise approach. But as soon as the potential licensees start to negotiate jointly, there will be a danger of harm to competition without an offsetting benefit.

A counterargument is that *ex ante* joint negotiations could be pro-competitive in situations where an IP owner refuses to engage in *ex ante* bilateral negotiations. In other words, an IP owner might not dare to refuse to negotiate with all the potential licensees in the SSOs at once, whereas it would have had the nerve

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47 EC Notice 2004/C 101/02, Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements, para. 225.

48 Damien Geradin & Miguel Rato, "Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-up, Royalty Stacking and the Meaning of Fraud," *3 European Competition Journal 101, 134-36* (2007).

to refuse to negotiate with them individually. Particularly where there is a possibility that rival IP owners are willing to negotiate with SSO members who are acting on a joint basis, the first IP owner may perceive that it would put itself at a competitive disadvantage by refusing to engage in the negotiations. The SSO members might thus be able to use *ex ante* joint negotiations to bring the IP owner to the bargaining table before they sink their investments in a specific technology.

Still, if an IP owner knows that it may be at a competitive disadvantage if it refuses to participate in *ex ante* joint negotiations, then it should know that it may be at a competitive disadvantage if it refuses to participate in *ex ante* bilateral negotiations, too. To be sure, the IP owner might be more reluctant to refuse to negotiate when doing so risks alienating all the SSO members at once rather than one at a time. But a refusal to negotiate with all of them individually might amount to the same ultimate effect. The IP owner would still be putting itself at a competitive disadvantage if owners of rival technologies are willing to negotiate bilaterally.

In any event, at least some authorities have announced that they will use of a rule of reason analysis in cases involving *ex ante* joint negotiations by SSOs.[49]

4.3.3 Litigation and its Limitations

Another option that agencies have is to investigate patent ambushes and bring cases against the ambushers. To be considered successful, these cases should at least put a stop to the competitive harm that defendants are doing and deter them and others from engaging in similar conduct again. There is a threshold question, though, about whether patent ambushes can ever constitute competition law violations. One might reasonably believe that courts would view this is as pure patent law territory, off limits to competition laws. Another view could be that ambushes are based on deception and deception is a fraud problem, not a competition law problem.

At least in some jurisdictions, deceptive conduct can constitute a competition law violation even when patents are involved. In the US, for example, the Supreme Court concluded long ago that deceptive conduct involving patents could be the basis of a monopolisation claim.[50] The Court held that obtaining a patent through knowing and wilful misrepresentations to the patent office could support a section 2 monopolisation claim when the patent was subsequently used to exclude competition. Since then, US antitrust cases that relied solely or primarily on deceptive, patent-related conduct (besides fraud on the patent office) have occurred sporadically. Some of them are discussed in Part 4.3.4.

The European Commission has pursued at least three cases involving patents and deceptive conduct in a standard-setting environment (also discussed in Part 4.3.4.). Although the European courts have not had to rule on any of them yet, the EC's actions indicate that it is confident that such conduct can violate the competition laws. Outside the SSO context, the EC has imposed substantial fines on a company under Article 82 for giving misleading information to national patent offices in order to extend the duration of

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49 See Deborah Majoras, then-Chairman of the USFTC, *Recognising the Procompetitive Potential of Royalty Discussions in Standard Setting*, Speech at Stanford University, p. 7 (September 23, 2005) (endorsing rule of reason approach to analysing joint, *ex ante* negotiations in SSOs); USDOJ & USFTC, "Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition," (2007), pp. 7-8 (same, but expressly noting that the agencies take no position on the issue of whether SSOs *should* engage in joint *ex ante* discussion of licensing terms), available at www.usdoj.gov/atr/public/hearings /ip/222655.pdf and www.ftc.gov/reports/innovation/P040101PromotingInnovationandCompetitionrpt 0704.pdf.

50 *Walker Process Equipment, Inc. v. Food Machinery and Chemical Corp.*, 382 U.S. 172 (1965).

patent protection.[51] These actions are consistent with the EC's guidance that "[t]he fact that intellectual property laws grant exclusive rights of exploitation does not imply that intellectual property rights are immune from competition law intervention."[52]

The EC has an interesting challenge in pursuing some patent ambush cases under Article 82, though, because that statute requires defendants to have already achieved a dominant position at the time the abuse occurs. Acquiring or attempting to acquire a dominant position in an anti-competitive manner does not fall within the strict limits of Article 82's reach. That constraint can be significant in patent ambush cases, where a firm's deceptive conduct may be what gives it a dominant position (assuming that it becomes dominant after the ambush).

The EC can manoeuvre around this problem by focusing on the licensing fees that a defendant demands after acquiring its dominant position. Instead of attacking the initial deceptive conduct, the EC can attack the defendant's subsequent imposition of "high" fees as an abuse of a dominant position. Unfortunately, that approach has some drawbacks. First, it raises the difficult question of what "high" means. As discussed earlier, the FRAND concept does not do a very satisfactory job of answering that question.

Second, if it is only the "high" licensing fees that count as the anticompetitive conduct, then in principle *any* IP owner that is dominant in some market could be challenged under Article 82 on the vague basis that its fees are too high, regardless of whether it ever engaged in a patent ambush (or any other conduct that harmed competition). This approach casts a net that may be too wide because it makes no distinction between dominant positions that were acquired through anti-competitive conduct and dominant positions that were acquired as the result of superior technology. For example, it could impugn the owner of a technology that was selected for a standard even though the SSO was fully aware, *ex ante*, that it was patented.

Third, it does not correct the root problem in ambush cases, which is that the defendant became dominant by deceiving the SSO into designing a standard that depends on the defendant's patent(s). The defendant's pricing might be curtailed, but its deceptively acquired dominant position will be left intact because, at least in the eyes of Article 82, there is nothing unlawful about it. Inge Govaere recently commented on this issue in the context of patent ambushes:

> *As it is only the abuse of an already existing dominant position and not the abusive acquisition of market power as such that is targeted by Article 82 TEC, it appears difficult for the Commission to impose a remedy to make the initial patent ambush and the resulting standardisation undone. Through the fait accompli effect of the patent ambush, the IP holder may thus confirm, if not increase, market power and may reap a benefit in the form of royalties for each use of the standard for the full duration of the IP right. Only the sharpest edges of the effect of the initial anti-competitive behaviour will be removed through the imposition of FRAND conditions[.]*[53]

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51 See *AstraZeneca* Decision, OJ L 332/24 (30 November 2006). This decision has been appealed to the Court of First Instance.

52 EC Notice 2004/C 101/02, Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements.

53 Inga Govaere, "In Pursuit of an Innovation Policy Rationale: Stakes and Limits under Article 82," *31 World Competition 541, 549-550* (2008); see also Eliza Petritsi, "The Case of Unilateral Patent Ambush Under EC Competition Rules," *28 World Competition 25, 31-33, 42* (2005) (concluding that "[a]s long as EC competition rules prohibit only the abuse of dominance and not monopolisation or attempted monopolisation..., combating patent ambush as such would appear to be very tricky").

That is an accurate criticism but it is also somewhat unfair. Even in jurisdictions where competition laws apply to the acquisition of a dominant position, there will not ordinarily be any way to "undo" a successful patent ambush and the resulting standardisation. A smart ambusher will wait until its intended victims are heavily invested in implementing a standard before wielding its patents against them. At that point, even if a competition authority acts with great speed, it will probably be too late for the industry to switch to another standard. The defendant, if held liable, might be forced to reduce its fees or even to give free licenses to anyone that manufactures or buys products that conform to the standard. It is unlikely to be economically feasible to reset the standard using an alternative technology, though. That opportunity for competition cannot be re-created.

This predicament exists in all jurisdictions and it underscores the importance of *ex ante* competition advocacy as a way to fight patent ambushes. The most valuable competition work will be done before the conduct even begins. Authorities will therefore do well to keep an eye on SSOs and open dialogues with them, if necessary, to help them avoid ambushes.

Even so, this is not to say that *ex post* enforcement work is useless. Giving the defendant a corporate "black eye" by prosecuting it for competition law violations, taking away its ability to earn *supra*-competitive licensing fees (or perhaps any royalties at all), and imposing fines (in jurisdictions where that is possible) can still remove much or all of the incentive for engaging in future patent ambushes.

4.3.4 A Sampling of Cases

The Rambus Cases

Both the European Commission and the US Federal Trade Commission have taken action against Rambus, Inc. in recent years for an alleged patent ambush involving pending patents and standards for dynamic random access memory ("DRAM") chips.[54] The conduct at issue in the Rambus cases falls squarely under the heading of Part 4 of this paper. Because the cases are still pending, however, only their basic elements will be discussed here to illustrate what ambush cases involving pending patents can entail.[55]

The Joint Electron Device Engineering Council (JEDEC) develops standards for computer memory. One of its goals is to avoid setting standards that will require payment of substantial patent royalties by those who manufacture products that comply with the standard. Thus, JEDEC's policies sought to avoid inclusion of patented technologies in standards unless the patent holder had agreed to charge fair, reasonable and non-discriminatory ("FRAND") licence fees.

Rambus, a developer and licensor of computer memory technology, was a member and participated in proceedings of the JEDEC subcommittee on DRAM chip standards for approximately four years in the early to mid-1990s. During that time, Rambus had pending patent applications with disclosures broad enough to cover technologies for the standards under consideration. Indeed, Rambus repeatedly amended

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54 EC, *Commission Confirms Sending a Statement of Objections to Rambus*, Press Release (23 August 2007), available at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330&form; *In the Matter of Rambus, Inc.*, FTC Docket No. 9302, Opinion of the Commission (August 2, 2006); *Rambus Inc.*, 2007 WL 431524 (F.T.C. 2007); *Rambus, Inc.*, 2007 WL 431525 (F.T.C. 2007); *Rambus, Inc.*, 2007 WL 2086203 (F.T.C. 2007); *Rambus, Inc.*, 2007 WL 431523 (F.T.C. 2007); *Rambus, Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008).

55 The USFTC formally dismissed its case as this paper was being finalised. USFTC, *Statement in the Matter of Rambus*, Press Release (14 May 2009), available at www.ftc.gov/opa/2009/05/rambus.shtm.

its pending patent claims and filed a series of divisional applications in order to build a patent portfolio that would cover the standards.

The FTC challenged Rambus's conduct under Section 5 of the FTC Act (prohibiting unfair or deceptive methods of competition) and Section 2 of the Sherman Act (prohibiting monopolisation). In support of its claims, the FTC alleged that Rambus did not disclose any of its patents or pending patent claims during its JEDEC membership, although it did disclose some patents in connection with its resignation from the JEDEC. The FTC pointed out that when a Rambus representative was asked for information about any of its patents that could cover the proposed standards under consideration he evaded the question, providing only partial information. Furthermore, throughout Rambus's JEDEC membership, Rambus used the information that it gained regarding the standards under consideration to amend and refine its pending patent claims with the aim of making them correspond directly to the proposed standards.

It was undisputed that Rambus's patents ultimately allowed it to monopolise (with a market share of approximately 90 per cent) four markets for technologies that were elements of the standard developed for DRAM. But internal Rambus communications urged the company not to assert those patents "until ramp reached a point of no return."[56] That is essentially what Rambus did, eventually enforcing its patents with several infringement lawsuits against DRAM chip manufacturers and taking in millions of dollars in licensing fees.

The significance of Rambus's conduct under the antitrust laws has been intensely disputed. The main issues in the litigation have been i) whether Rambus had an obligation to disclose its granted and pending patents; ii) whether its failure to disclose them enabled it to obtain a monopoly in the four technology markets or whether that monopoly was instead the inevitable result of its superior technology; and iii) whether its failure to disclose merely deprived the JEDEC of an opportunity to obtain a commitment, in advance of establishing its standards, from Rambus that it would charge FRAND licence fees.

In July 2007, the EC sent a Statement of Objections to Rambus based on the same conduct that led to the FTC's case. The SO outlines the Commission's preliminary view that Rambus abused a dominant position by claiming unreasonable royalties on certain DRAM patents subsequent to a patent ambush. The official press release states that this is the first time the EC dealt with a patent ambush under EC antitrust law.[57]

ETSI

In 2005 the European Commission conducted an investigation of the European Telecom Standards Institute (ETSI), raising concerns that flaws in ETSI's standard setting procedures made the standards susceptible to patent ambushes. The EC closed the investigation after ETSI incorporated rule changes that were recommended by the Commission, making ETSI's procedures more resistant to patent ambushes. The changes included obligations relating to early disclosure of IPRs that are essential for implementing the standard, fair and transparent procedures for standard-setting, and FRAND conditions for licensing.[58]

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56 *In the Matter of Rambus, Inc.*, FTC Docket No. 9302, Opinion of the Commission (August 2, 2006), at 44-48.

57 EC, *Commission Confirms Sending a Statement of Objections to Rambus*, Press Release (23 August 2007), available at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330.

58 EC, *Commission Welcomes Changes in ETSI IPR Rules to Prevent 'Patent Ambush*,' Press Release IP/05/1565 (12 December 2005), available at http://europa.eu/rapid/pressReleasesAction.do?reference=IP/05/1565.

This shows how an authority can follow through on the point that *ex ante* measures are vital for fighting patent ambushes.

The Qualcomm Cases

A US federal appeals court decision provides further confirmation that, at least in the US, monopolisation by deception in a standard-setting context is a possibility under the antitrust laws.[59] Broadcom Corporation, which supplies semiconductors for wireless broadband communications, accused Qualcomm, which develops wireless communications technologies, of deceiving an SSO with respect to a certain mobile phone standard. The allegations of the complaint[60] asserted that Qualcomm induced the SSO to include Qualcomm's patented technology in the standard by falsely agreeing to comply with FRAND licensing terms. Specifically, Broadcom contended that Qualcomm charged higher royalties to companies that used chipsets manufactured by companies other than Qualcomm, demanded royalties on portions of chipsets for which Qualcomm did not hold a patent, and provided discounts and incentives to mobile phone manufacturers that used only Qualcomm-manufactured chipsets.[61]

The court's task in this decision was not to make a final judgment, but only to determine whether a lower court was correct when it rejected deceptive conduct as a basis for a monopolisation violation. The court compared the case to *Aspen Skiing*[62] and found similarities to a defendant with monopoly power who terminated a voluntary agreement (here, the FRAND commitment) for anti-competitive purposes. It then held that in a consensus-oriented, private standard-setting environment, a patent holder's intentionally false promise to license essential proprietary technology on FRAND terms, combined with an SSO's reliance on that promise when including the technology in a standard and the patent holder's subsequent breach of that promise, is conduct that could support a monopolisation claim. The court added that deception in a standard-setting environment harms the competitive process by obscuring the cost of including proprietary technology in a standard and by increasing the likelihood that patent rights will confer monopoly power on the patent holder. It also stated that deceptive FRAND commitments were as dangerous to the competitive process as failures to disclose IP such as those in *Rambus*.

Drawing a parallel to *Aspen* is a bit odd because that case involved an outright refusal to deal or co-operate with a rival, whereas this case involved (allegedly) excessive pricing, bundling and fidelity discounts to customers. This is not to suggest that the conduct at issue, if proved, could not have constituted a valid antitrust claim, but only that *Aspen* might not have been the best choice for precedential support.

In October 2007, the EC initiated formal proceedings against Qualcomm based at least in part on the same conduct as that alleged in Broadcom's lawsuit. The official press release states that the investigation will focus on whether Qualcomm is dominant and whether its licensing terms are fair, reasonable and non-discriminatory. "In a context of standardisation, a finding of exploitative practices by Qualcomm... contrary to Article 82 of the EC Treaty may depend on whether the licensing terms imposed by Qualcomm are in breach of its FRAND commitment."[63] These proceedings are pending.

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59 *Broadcom Corp. v Qualcomm, Inc.*, 501 F.3d 297 (3d Cir. 2007).

60 These allegations were never proved. The companies reached a settlement in April 2009 under which all pending litigation between them was dismissed.

61 *Broadcom*, 501 F.3d at 318.

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

63 EC, *Commission Initiates Formal Proceedings against Qualcomm*, Press Release (1 October 2007), available at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/389.

U.S. v. Microsoft

This case did not involve pending patents or SSOs, but it is relevant because it is another example of a court concluding that deceptive conduct is a monopolisation violation. One of the allegations against Microsoft in the US Department of Justice's 1998 antitrust case was that Microsoft had maintained a monopoly, in part, through deception.[64] The deception was one element of a plan to constrain the development of Java, a platform for software development that Microsoft viewed as a potential threat to Windows.

Sun Microsystems was developing Java as an open architecture alternative to Windows. Microsoft did several things to create the impression that it was supporting Java. It announced a plan to promote Java, created something called a Java Virtual Machine (JVM), and distributed software tools to help independent software developers design Java applications. But Microsoft added undisclosed features to its JVM and tools that actually impeded Java. In particular, Microsoft intentionally made its JVM inconsistent with Sun Microsystems' JVM and then entered into a series of agreements with independent software vendors, requiring them to use only Microsoft's JVM. Microsoft also designed the software development tools so that any software developed using those tools would run correctly only on Microsoft's version of Java and not on Sun Microsystems' version.

The court concluded that developers had relied on Microsoft's public commitment to co-operate with Sun with regard to Java's development and that they had used Microsoft's development tools while under the impression that the software they helped to create would run on either Microsoft's or Sun's Java environment for Windows. Microsoft documents, the court found, demonstrated that Microsoft intended to deceive Java developers in order to limit Java's threat to Microsoft's monopoly in the operating systems market. The court concluded that Microsoft's design of the Java software tools "served to protect its monopoly of the operating system and was therefore anticompetitive and exclusionary in violation of Section 2 of the Sherman Act."[65]

A Comment on the Cases

Together, the cases above provide some foundation for the proposition that committing a patent ambush on an SSO can be an actionable competition law offence, regardless of whether the ambush involves pending patents or granted patents.[66]

An important theme that the analyses in ambush cases should have in common, but that may not come through clearly in the mostly abbreviated or inchoate matters described above, is that for patent ambushes to be competition problems they have to harm competition. Dishonest conduct is not necessarily the same thing as conduct that is unlawful because it is exclusionary, and the way to distinguish the two is by looking at the conduct's effect on competition. It bears repeating that harm to a competitor does not necessarily imply harm to competition. For example, a company might succeed in deceiving an SSO into selecting technology for a standard that the company has patented. Had the SSO known that the technology

64 *United States v Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

65 *Id*. at 35-36.

66 There is at least one other relevant case. In *In re Dell Computer Corp.*, 121 FTC 616 (1995), the USFTC filed a lawsuit under Section 5 of the FTC Act when Dell failed to disclose its patent for the VL Bus design that was incorporated into a Video Electronics Standards Association (VESA) standard. Dell's representative in VESA had signed a statement indicating that VESA's standard did not infringe any of Dell's IP. After the standard was adopted, Dell nevertheless claimed it incorporated technology covered by one of its patents. Dell attempted to enforce that patent against companies who implemented the standard. Under the terms of a settlement with the FTC, Dell agreed not to enforce the patent.

was patented, it might have selected some other technology. But if the standard itself faces competition from other standards, then it is not clear that the company's deceit matters from a competition policy perspective.

5. Using Pending Patents in Cross-Licensing Agreements

Cross-licensing agreements give two parties the rights to use each other's patents. Sometimes the agreements include rights to pending patents, as well. Cross-licensing agreements may cover every granted and pending patent in the parties' portfolios or just a portion of them. With regard to compensation, the agreements might call for a simple bartering of rights such that no fees are charged. There is usually a perceived difference in the values of the rights that are exchanged, though, so it is typical for one party to pay the other a fee to make the transaction even.

Cross-licensing agreements may be grouped together to form a licensing pool for the purpose of sharing complementary technologies held by several parties.[67] These parties may be competitors in a downstream market where they implement the pool's technology. The pooled technologies are not licensed to third parties, though outsiders may try to join the pool by offering to share their own complementary technology with the pool members and (possibly) by paying initial fees to one or more of them.

Ordinarily, cross-licensing agreements and licensing pools are efficient, pro-competitive ways for companies to share complementary technologies amongst themselves without having to worry about being sued by one another for infringement. This section addresses the question of how pending patents can be used anti-competitively in such arrangements. In theory, at least, there are a great many ways in which that might be done and it is not possible to discuss all of them in a background paper. The following scenarios are therefore illustrative, not comprehensive.

5.1 Collusive Entry Deterrence

One of the behaviours identified as a potential competition concern by the EPO in its presentation to the Committee involves the use of pending patents by members of licensing pools. The concern is that pool members who are rivals in some downstream market could agree to create pending rights artificially in order to justify raising the fees they charge to other rivals and potential rivals who wish to join the pool. The purpose of the higher fees would be to deter the other firms from joining the pool and thereby prevent them from gaining access to technology that would make them better able to compete with the incumbent pool members in the downstream market.

In other words, the theory is that pool members could pack their IP portfolios with a large number of patent applications for the purpose of using them to exclude rivals, knowing that some of those applications have little chance of being granted. But the task of analysing the merit of each pending patent might be a daunting, time-consuming and costly one for other firms. Knowing that, the pool members rely on the pending patents to substantiate their demands for entry fees that are so high that they prevent others from joining the pool. Denying entry into the pool might also deny entry into any markets for which the pool's IP is necessary or especially helpful.

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67 Some clarification of terms is necessary. In this Note, "licensing pools" are different from "patent pools" and "technology pools." The terms patent pool and technology pool describe a group of technologies owned by several entities who agree to license the pooled patents as a package to third parties at a certain price. These third party customers do not generally seek to join the patent pool. Instead, they simply pay a fee to use the technology that the patent pool offers.

This conduct is relatively easy to analyse under most competition law frameworks because its legality will probably have little or nothing to do with the fact that pending patents happen to be involved. Instead, it will likely depend on whether the licensing pool members have actually formed an agreement or understanding to raise the fees they each charge to prospective new pool members. If they have formed such an agreement or understanding, then their conduct will constitute price fixing and be deemed illegal per se. If there are no such agreements, then in order for there to be a competition law violation at least one of the pool members would have to be dominant in some relevant market.[68] That possibility is discussed in Part 5.2.

In any event, it seems unlikely that pool members would go through the trouble and expense of building up stockpiles of dubious pending patents just for the purpose of discouraging other rivals from joining their pool. If they want to use their fees as an entry deterrent then it would be rational simply to raise their fees even without adding any new material to their pending patent portfolios. Furthermore, they could also keep rivals out by refusing to deal with them at any price. That, too, would be a simpler, cheaper and surer strategy than filing a batch of bogus patent applications. Then again, an outright refusal to deal might offend the competition laws, too, especially if it were done in a co-ordinated manner or if the pooled technologies represented a de facto industry standard.

A safer strategy (from a defendant's point of view) would be for the incumbent pool members to decide individually that they will refuse to deal with any rival who is not already in the pool. In most jurisdictions, firms have a basic right to deal or not deal with whomever they please. That right is especially likely to exist if the refusing firm is non-dominant. Moreover, in the IP context the right to choose whether and to whom one will license may be even stronger. After all, a fundamental characteristic of patents is that they convey the right to exclude others from using the invention that the patent describes.[69]

An even higher margin of safety could be achieved by pool members if they each unilaterally adopt a constructive refusal to deal strategy (using high fees) instead of refusing to deal at any price. That would force private plaintiffs or competition authorities, and ultimately courts, to delve into the difficult subject of how high a fee has to be to be considered anti-competitive. The EC has issued guidelines that cover this situation but they rely on the "FRAND" concept, which has significant drawbacks as described earlier.[70]

5.2 Unilateral Entry Deterrence by a Dominant Firm

Suppose we change the scenario in Part 5.1. to a purely one-on-one cross-licensing negotiation between a prospective entrant (A) and a dominant incumbent (B). Suppose further that it is necessary (or at least highly desirable) for any entrant in the relevant market to have a license to certain patents owned by B. Firm A has a modest number of patents that are complementary to B's, so A suggests a cross-licensing agreement. Although B sees some value in A's patents, B does not like the idea of allowing a new rival into its market. B also knows that A needs it more than it needs A.

In anticipation of proposals like A's, B has loaded its IP portfolio with pending patents, many of which are of dubious merit and are therefore unlikely to be granted. Nevertheless, given the very large

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68 In the US, where attempted monopolisation is an antitrust violation, dominance is not necessarily a prerequisite. Instead, at least one pool member would have to have a dangerous probability of success in monopolising a relevant market.

69 OECD, *Intellectual Property Rights*, *supra* note 3 at 39-40.

70 EC Notice 2004/C 101/02, *Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements*, para. 167.

number of pending patents in B's portfolio, few companies would be willing or able to expend the resources required to examine them all to determine their quality. With that in mind, B exaggerates the importance of its pending patents and tells A that if A wants a cross-licensing agreement with B, then A will not only have to give B a license to all of A's patents, but pay B a large fee, too. In reality, B has simply chosen a fee that it believes A cannot and will not pay. A refuses B's terms and does not enter B's market. Is there a competition violation?

One problem with this hypothetical is that it feels forced. The strategic use of pending patents seems to have been unnecessarily crammed into it. If B is dominant and its granted patents are critical, then why would it need pending patents to justify a high licensing fee? Why not spare itself the trouble of filing the spurious patent applications and use either a constructive or outright refusal to deal based on the patents it already has?

Again, the constructive refusal to deal would be safer from a defendant's standpoint. B could not be found in violation of competition laws unless the competition authority and/or a court undertook the difficult task of deciding how much B's IP portfolio is really worth. Courts and competition authorities are not equipped to do that very well. Of course, that task would be even harder if pending patents are involved because their status would not have been determined by the patent office at the time of the negotiation between A and B. So perhaps there is a good reason for filing all the extra patent applications after all. In any event, it appears that it would be quite difficult for competition law to play a useful role in a hypothetical case like this one.

Suppose we make the hypothetical less rigid by removing the assumption that B's granted patents continue to be absolutely vital after A appears. Assume instead that A has patented an innovation that may enable A to operate in the market without infringing any of B's patents. B therefore fears that A could take away B's dominant position. The entrant A knows that B's patents still pose some infringement risk, but A is confident that its own patents are strong enough to force B into a cross-licensing arrangement so that both firms will be able to compete in the market. Rather than concede part of the market to A, however, B fortifies its portfolio with weak pending patents in an effort to intimidate A and deter it from entering.

A key point is that even weak pending patents may have powerful effects on competition. That power flows from three main traits. First, the validity of pending patents is uncertain and it can be costly and time-consuming to challenge them.[71] Second, the more weak patents and pending patents a firm has, the more time and money it will take to challenge them. Third, the risk of infringing even a weak pending or granted patent can be extremely high because if its validity is upheld, the owner can obtain substantial damages or injunctive relief. Christopher Leslie observes that:

> *[c]ompetitors sometimes pay to license a patent that they suspect was fraudulently procured because [the] risk of infringing and being held liable is too great. While some scholars suggest that a competitor need not pay a royalty to make and sell a product that infringes upon a patent of suspect validity, it is often rational for the competitor to license a patent that she does not believe is valid. If the licensee enters the market without a license and cannot prove invalidity,*

71 Litigating patent validity is an expensive undertaking. See *e.g.* Christopher Leslie, "Patents of Damocles," *83 Indiana Law Journal 133* (2008) at 138 ("Fear of inviting an infringement suit will deter many competitors from entering a market with a product that would infringe the dominant firm's patent, even if the competitors suspect that that patent is invalid. The cost of defending against any infringement suit runs into the millions, win or lose.").

> *the patent litigation could bankrupt the firm. The cost of a license can be considerably less than the damages for infringement discounted by the probability of being held liable.*[72]

Alternatively, the patent holder may be able to get an injunction that shuts down the infringer's business.[73]

Returning to our hypothetical, B is convinced that A has neither the time nor the resources necessary to independently determine the worthiness of B's pending patents or to wait for the patent office to rule on all of them and then go into litigation over the ones that are granted. With that in mind, B tells A that B's pending patents are extremely valuable. Perhaps B says that they will change the state of the art in the market, or maybe B simply says that a license is necessary if A wants to enter without any risk of liability for infringement. B then demands that A pay a fee for the cross-licensing deal that A cannot afford to pay. Consequently, B successfully deters A from entering, enabling B to maintain its dominant position. In addition, A's innovation may never reach the marketplace and other potential innovators may be discouraged by B's tactics.

In this scenario pending patents are far more important to B's objective of maintaining its dominant position than they were in the earlier example where B's granted patents were clearly essential. When the granted patents are no longer assumed to be clearly essential, the uncertainty that the pending patents create is crucial to B's entry deterrence plan. Whereas A might have taken a chance and entered absent B's pending patents, it is less likely to do so in the presence of those pending patents and B's threats concerning them.

Other important factors are that some of B's pending patents are of dubious quality and that A has neither the time nor the resources to investigate them all or litigate their validity, if necessary. While the latter factor may be relatively easy for a competition agency to assess, there is no way to avoid the fact that the former factor will be difficult. According to Harhoff, *et al.*, to pursue a competition case against B, the agency will likely need reasonably strong evidence that B's pending patents are of poor quality or at least that they do not support B's threats.[74] But what does "poor quality" mean? A possible solution is to say that pending patents have "poor quality" if they were eventually rejected by the patent office (or invalidated by a court).

There would still be the question of what percentage of B's relevant pending patents would have to be of poor quality to establish a competition law violation. That seems to be the type of question that calls for a bright line to be drawn. The percentage would have to be high enough that it would not impugn good faith patenting behaviour (it is normal for some patent applications to be rejected) but low enough that it would capture bad faith patent filing that harmed competition. If drawn either too high or too low, the line could discourage both competition and innovation. A system that discourages inventors who are dominant in some market from filing patent applications unless they are absolutely certain to be granted would probably chill innovation. On the other hand, a system that allows dominant firms to keep competitors at

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72 *Id*. at 154-55.

73 See *e.g.* "MedImmune, Inc. v. Genentech, Inc.", *549 U.S. 118, 122* (2007) ("If respondents were to prevail in a patent infringement action, petitioner could be ordered to pay treble damages and attorney's fees, and could be enjoined from selling Synagis, a product that has accounted for more than 80 percent of its revenue from sales since 1999. Unwilling to risk such serious consequences, petitioner paid the demanded royalties[.]").

74 Harhoff, *et al.*, *supra* note 5 at 113 (citing Daniel L. Rubinfeld and Robert Maness, *The Strategic Use of Patents: Implications for Antitrust*, (http://www.law.berkeley.edu/faculty/rubinfeldd/Profile/publications/Strategic_Use_of_Patents.pdf) in Francois Leveque and Howard Shelanski (eds.), Antitrust, Patents and Copyright: EU and US Perspectives 85 (2005)).

bay by maintaining arsenals of dubious pending patents might chill innovation, too, and it could certainly harm competition.

It would also be useful to examine exactly *how* poor the quality of the "poor quality" pending patents is. Applications with great, glaring weaknesses should raise more suspicion than applications with smaller faults.

5.3 Patent Flooding

Another potentially anticompetitive way of using pending patents and cross-licensing agreements is called "patent flooding." Sri Sankaran describes this strategy:

> *[T]he patent flooder files many patent applications that claim minor or incremental variations on technology developed by another, the target company. The goal of the patent flooder is to surround the target company's technology with patents and patent applications, so that the target company cannot commercially exploit its technology without the risk of infringing the flooder's rights. The flooder may not be able to exploit its claimed inventions without running afoul of the target company's patent rights, but neither can the target company exploit its own technology without the risk of infringing on the flooder's claims to variations and uses of that technology. The flooder uses this 'gridlock' to negotiate a license to the target company's technology, offering in return licenses to technology claimed in the flooder's patent applications and patents.*[75]

When it works as planned, patent flooding strips away the target company's exclusive right to use technology that it invented.

There is at least one plausible argument that patent flooding is not a competition law issue. The argument is that if patent flooding reveals any problem at all, it must be with the patent system's inventive step requirement (specifically that it must be too weak). Either the flooding "inventions" deserve patent protection or they do not. If they do not, then obviously the patent office should not be granting them and the way to fix the problem is to raise the bar on the inventive step requirement. If they do deserve patent protection, then the so-called flooders must be contributing something new, non-obvious and useful to society and that should be encouraged even if it does cause difficulties for other inventors.

A flaw in that argument is that it assumes that the target company can quickly and affordably determine whether the flooder's patents and patent applications should have been or should be granted. That is a substantial assumption, and the more patent applications the flooder files the harder the assumption is to maintain. If it is not realistic to assume that the target company can determine the validity of all of the flooder's granted and pending patents, then there is uncertainty. There is a chance that at least some of the flooder's patents and pending patents are valid, and of course that translates into risk for the target.

It is plausible that there could be an abuse of dominance problem in such circumstances, assuming the flooder is dominant. Not only can patent flooding enable a dominant firm to neutralise the competitive threat posed by a rival's or potential entrant's potentially superior technology, but it can ultimately discourage other firms from developing innovations that could threaten the flooder. Furthermore, the more important and valuable the technology is, the more likely it will be subjected to a patent flooding strategy. As in the analysis of unilateral entry deterrence by a dominant firm in Part 5.2., it would be appropriate to

[75] Krishna Sankaran, "Patent Flooding in the United States and Japan," *40 IDEA 393* (2000) at 393.

determine both the percentage of the defendant's patents and pending patents that are of poor quality and the severity of their weakness.[76]

6. What Else Can Competition Agencies Do?

6.1 Conduct or Commission Studies, Reports and Sector Inquiries

If competition agencies wish to do more to combat anti-competitive uses of pending patents, a good initial use of their resources would be to conduct or commission studies of how companies are using their patent applications and how the relevant competition statutes might be relevant. Ideally, these reports would give agencies a much better idea of which industries (if any) are good targets for further investigation and whether greater competition law enforcement is needed in those industries.

Some agencies have already made substantial progress in this direction. The EC, for example, commissioned a report on the strategic use of patent portfolios by a group of five professors, who finished it in July 2007 (the "Harhoff Report").[77] The report indicated that pharmaceuticals are one industry that is ripe for further study. The EC promptly followed up by launching a pharmaceutical sector inquiry in January 2008. The Commission released a preliminary version of its study in November 2008.[78] Moreover, the USDOJ and USFTC issued a joint report on antitrust enforcement and IPRs in 2007.[79]

All three of those reports reflect extensive, thorough research. They provide helpful illustrations of how agencies can go about trying to focus their efforts on potential competition issues related to both patents and patent applications.

6.1.1 The Harhoff Report

The Harhoff Report contains both a survey of economic literature on patenting and an empirical study of patenting trends in European industrial sectors. The latter is based on an analysis of 1.76 million patent applications filed at the EPO between 1978 and 2006. The report reaches a number of conclusions relevant to pending patents, including:

- The volume of patent applications has increased substantially, a development that is concentrated in specific technology areas such as telecommunications, information technology and pharmaceuticals. Strategic uses of patents are more likely in those areas.

- The complexity of firms' patent applications has increased noticeably in specific technology areas. That may be partially due to attempts by firms to make it more difficult for others to determine the exact scope of patent applications. The complexity of applications, as measured by the number of claims per application, grew fastest in the chemicals/pharmaceuticals group.

- The authors identified a patenting strategy, which they called "portfolio maximisation," wherein larger firms in complex sectors such as information technology, telecommunications and

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76 For more detail on patent flooding strategies, and particularly on a comparison of how they work in Japan and the US, see *id*.

77 Harhoff, *et al.*, *supra* note 5.

78 European Commission, Pharmaceutical Sector Inquiry Preliminary Report and Executive Summary (28 November 2008), available at http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/index.html.

79 USDOJ & USFTC, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition*, *supra* note 49.

electrical engineering try to maximise the coverage of their patent portfolios by proliferating and broadening their patent applications. The report finds that competition concerns are most likely to arise in sectors where this strategy is used. The aim of the portfolio maximisation strategy is to improve the firm's bargaining position in cross-licensing negotiations. In the sectors where this strategy is used most frequently, cross-licensing agreements usually grant rights to a large number of (granted and pending) patents. Perhaps out of sheer convenience, the negotiations typically focus on a simple comparison of the size of the parties' relevant portfolios. That gives firms an incentive to file more patent applications while worrying less about their individual technological merit or legal validity.

- When dealing with conduct involving (pending and granted) patents, competition authorities should tailor their approach to the industry in which it is occurring. Patent protection has different incentive effects from sector to sector and is more important to innovation in some than in others. Thus, for instance, invalidating or paring back a firm's patents as part of a competition law remedy might weaken R&D incentives in some sectors, whereas in others it may strengthen them. The distinction between complex and discrete technologies is especially important because patent portfolio effects are more likely to be relevant in complex technology markets, whereas individual patents are more relevant in discrete technology markets.

- Strategically building up portfolios of granted and pending patents and using them to block rivals or gain negotiating leverage against them is "a highly inefficient development which should be reined in as far as possible."[80] Where large portfolios are used to achieve anticompetitive aims, competition policy should intervene. Furthermore, the view that competition policy should adopt a lighter approach because individual patents spur innovation should not be given undue weight in such cases. It is the portfolio effect that matters most in those cases, not individual patents.

- Mechanisms for dealing with the abuse of market power do not yet exist in either competition law or patent law where patenting strategies are based on large patent portfolios as opposed to individual patents.[81]

6.1.2 The EC's Pharmaceutical Sector Inquiry

Although the status of the Pharmaceutical Sector Inquiry is preliminary as of this writing, it is still instructive. Even apart from its particular findings, the Inquiry is noteworthy because it is an example of an agency focusing pro-actively on an industry that was found to be prone to potentially anti-competitive abuses of the patent process. Although the Inquiry does not state that it was launched in response to the Harhoff Report, it does note that it was a response to information indicating that innovation was lagging in the pharmaceuticals sector and that competition in it might be restricted.[82]

The Inquiry does not aim to identify competition violations by specific companies or even to reach conclusions about whether certain conduct violates EC competition law in general. Instead, its function is to provide the Commission with a factual basis for determining whether further action is warranted. The Inquiry focuses on a sample of 219 medicines during the time period 2000-2007.

The Inquiry's preliminary findings indicate, among many other things, that:

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80 Harhoff, *et al.*, *supra* note 5 at 253.

81 *Id*. at 8-13, 80, 140, 253-54, 272-73.

82 European Commission, Pharmaceutical Sector Inquiry Preliminary Report, Executive Summary, *supra* note 78 at 3.

- The number of pharmaceutical-related patent applications grew much faster than the general population of patent applications (about 10.2 percent per year versus 4.9 percent);[83]

- Divisionals serve mainly to create uncertainty for the filer's competitors;[84] and

- Pharmaceutical companies that develop and sell branded drugs file divisionals for the purpose of preventing or at least delaying the entry of competitors who sell generic drugs; the divisionals raise the risk for generic manufacturers with regard to whether they can enter a certain market without infringing a potential patent.[85]

6.1.3 The USDOJ/USFTC Report

The US agencies issued a joint report entitled "Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition" in 2007. The report is based on a series of hearings held by the agencies, on written submissions, and on scholarly literature. It synthesises many of the views expressed in the hearings and the literature, and offers some conclusions on the proper ways to analyse certain conduct involving IPRs. Like the EC's reports, this one goes far beyond the issues addressed in this paper, but there are some conclusions related to the standard setting topics raised in this note:

- *Ex ante* consideration of licensing terms by SSO participants can be pro-competitive.

- Joint *ex ante* consideration of licensing terms by SSO participants is unlikely to constitute a *per se* antitrust violation. The US agencies will usually apply the rule of reason when evaluating joint activities that mitigate hold up by allowing potential licensees of the standard to negotiate licensing terms with IP holders. Such *ex ante* negotiations of licensing terms are most likely to be reasonable when the adoption of a standard will create or enhance market power for a patent holder.

- An intellectual property owner's unilateral announcement of licensing terms violates neither section 1 nor, without more, section 2 of the Sherman Act.

- Bilateral *ex ante* negotiations about licensing terms that take place between an individual SSO member and an individual intellectual property holder outside the auspices of the SSO are unlikely (without more) to require any special antitrust scrutiny.

- The US agencies take no position as to whether SSOs should engage in joint *ex ante* discussion of licensing terms.[86]

6.2 Train and Be Trained by Patent Officials

Establishing programs in which competition and patent officials train each other in the basics of their respective disciplines would be helpful to competition agencies in at least two ways. It would enhance patent officials' ability to identify and pass along information suggestive of anticompetitive activity in

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83 European Commission, Pharmaceutical Sector Inquiry Preliminary Report, *supra* note 17 at 137-38.

84 *Id*. at 160-61.

85 *Id*. at 377.

86 USDOJ & USFTC, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition*, *supra* note 49 at 7-8.

patent processes. It would also give competition officials a better understanding of the basics of the patent process and how it might be abused in ways that harm competition.

6.3 Seek Statutory Changes to Enhance the Flow of Information to Competition Authorities

Where statutory impediments prevent or complicate the flow of information from patent agencies to competition authorities regarding suspected anticompetitive conduct in patent processes, officials from both agencies could jointly petition lawmakers to change the applicable laws. Potentially relevant information for competition authorities about pending patent abuses is not necessarily limited to the contents of the patent applications. Other information such as the number of a company's filings related to a certain technology or the nature and timing of a company's modifications to its claims may raise suspicions, too. It could be useful for patent officials to be able to relay that information to competition agencies.

Moreover, in most jurisdictions, patent applications are published 18 months after the filing date, so at that point there should not be any problem with sharing information about the content of the application. There are exceptions to the 18 month rule, though, such as one in the US that exempts patent applications that are not filed in any other jurisdiction. There is also the problem of cascading divisionals, which can keep applications unpublished well beyond 18 months after the first filing. Therefore, if competition agencies approach their legislatures on the topic of enhancing information sharing with patent offices, they could also push for changes that would make it harder for firms to use tactics like cascading divisionals. Such efforts might make a difference in jurisdictions like the EU and the US, where patent officials have already implemented such changes and have faced, or may face, legal challenges as a result. The USFTC, for example, has already issued a recommendation that legislation be introduced to protect parties from infringement allegations that depend on patent claims that were first introduced in a continuation.[87]

In addition, suspicions might be raised within the 18 month period after an application is filed. For example, if a company files a large number of applications within a short period of time and all of them are closely related to a breakthrough patent (or patents) held by another company, patent officials might suspect a patent flooding strategy. It could be helpful for them to be able to inform competition agencies immediately in such instances, rather than waiting the full 18 months, especially if they examine a sample of the applications and find that a significant portion is clearly invalid.

Enabling such information flows and publicising the fact that they are occurring could serve as a powerful deterrent to abuses of the patent process. If there is any down side at all, it would be that some companies might be less likely to file legitimate, pro-competitive patent applications out of fear that they could somehow be mistaken for anti-competitive ones. But if competition agencies choose the right cases to bring then the only patent applications that should be deterred are those that society is better off without anyway.

7. Conclusion

The EPO has warned that – aside from the direct harm to competition and innovation that can be done by companies engaging in the behaviour discussed in this note – failure to deter such conduct could harm innovation indirectly by encouraging patent "arms races." That is, if companies see that they can harm competition by manipulating pending patents without being punished, they are more likely not only to try to gain commercial advantages over their competitors but also to defend themselves by amassing more

87 USFTC, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* at p. 16, (2003).

pending patents. Such races would lead to more patent thickets, which would eventually become severe enough to harm innovation.

As Harhoff, *et al.*, noted in their report to the EC, sectoral reviews that study the ways in which strategic uses of pending patents in specific technology areas are affecting competition would be very useful. Such studies would provide important insights into the actual effects of the patent system on product market competition.[88] In addition, more work is required on whether and how the conduct involving pending patents that is taking place could be challenged under each jurisdiction's competition laws.

[88] Harhoff, *et al., supra* note 5 at 275.

NOTE DE REFERENCE

Par le Secrétariat

1. Introduction

Cette Table ronde porte sur les liens entre concurrence, brevets et innovation. Ce faisant, elle répond à plusieurs objectifs : poursuivre une réflexion que le Comité de la concurrence a engagée en octobre 2006 mais n'a pas eu le temps de mener à terme ; faire progresser le projet de Stratégie pour l'innovation, né de la demande formulée par le Conseil des ministres de l'OCDE en 2007 ; et étudier les problématiques soumises au Comité par l'Office européen des brevets (OEB) en 2008.

La question de l'innovation est encore plus d'actualité aujourd'hui qu'en 2006 parce qu'elle est largement reconnue comme un élément de la réponse à apporter à plusieurs grands défis auxquels sont confrontés les pays, qu'ils soient ou non membres de l'OCDE. Parmi ces défis figurent notamment la crise économique mondiale et le changement climatique. Bon nombre des plans de relance récemment mis en œuvre ou proposés par les pouvoirs publics comportent des mesures visant à stimuler l'innovation – aide à la recherche et développement (R-D), mécanismes incitatifs pour favoriser les inventions vertes et mesures destinées à promouvoir la mise en place d'infrastructures « intelligentes », notamment de réseaux Internet à large bande.

Comme l'a démontré la Table ronde de 2006, la concurrence et les brevets favorisent aussi l'innovation. Toutefois, les rapports en jeu sont complexes et ne peuvent faire l'objet d'une généralisation, dans le cadre de descriptions courtes et schématiques. La note établie par le Secrétariat suite à la Table ronde de 2006, qui examine de manière relativement approfondie l'influence de la concurrence et des brevets sur l'innovation ainsi que les rapports entre concurrence et brevets, est incorporée à la présente note par renvoi.[1]

Les nouveaux éléments présentés dans cette note portent sur les problématiques soumises par l'OEB. Ces problématiques ont trait à l'incertitude liée aux demandes de brevets en instance et à l'utilisation qui peut en être faite pour servir des objectifs stratégiques, dont certains peuvent nuire à la concurrence et à l'innovation. La deuxième partie de la note expose le contexte, analysant le volume et la complexité des demandes de brevets. La hausse du volume des demandes a entraîné non seulement un allongement des délais d'instruction, mais aussi une augmentation du stock de demandes en instance dans les offices de brevets. Le fait que les demandes en instance soient plus nombreuses et restent en souffrance plus longtemps est source d'une plus grande incertitude, laquelle peut être utilisée à des fins stratégiques. La troisième partie montre que les demandes divisionnaires peuvent être utilisées pour accroître l'incertitude et faciliter la mise en œuvre de stratégies susceptibles de nuire à la concurrence et à l'innovation. Les quatrième et cinquième parties analysent de manière approfondie deux de ces stratégies, en l'occurrence l'utilisation des demandes de brevets en instance pour tendre une embuscade aux processus de normalisation et l'utilisation des demandes de brevets en instance pour exercer davantage d'influence lors de la négociation d'accords de concession réciproque de licences. La sixième partie offre quelques

[1] OCDE, Competition, Patents and Innovation (DAF/COMP(2007)40), Note de référence, consultable à l'adresse www.oecd.org/dataoecd/26/10/39888509.pdf.

éléments de réflexion sur les mesures que pourraient prendre les autorités en charge de la concurrence pour contrer ces stratégies. Enfin, la septième partie présente des conclusions.

Cette note porte sur la politique de la concurrence plutôt que sur la politique des brevets. Par conséquent, elle ne s'étend pas sur la manière dont la réforme des lois des brevets pourrait contribuer à résoudre des problèmes posés par l'utilisation abusive du système des brevets. Elle ne traite pas des réformes qui pourraient être apportées au droit des brevets ou aux procédures relatives aux brevets pour remédier à ces problèmes. Il ne faut pas pour autant en conclure qu'il n'est pas nécessaire de réformer le système des brevets. Une telle réforme est peut-être nécessaire et, si tel est le cas, rechercher au sein même du système des brevets une solution aux problèmes précités constitue sans doute la meilleure solution de long terme. Comme l'a un jour fait observer William Nordhaus « [l]a meilleure manière de prévenir les abus est de veiller à ce que les inventions triviales ne soient pas brevetées ».[2] Il en reste pas moins que lorsque des utilisations abusives du système des brevets nuisent à la concurrence, il convient d'examiner si et de quelle manière l'application du droit de la concurrence peut apporter des solutions.

Les principaux arguments avancés dans cette note sont les suivants :

- Ces dernières années, le nombre de demandes de brevets déposées dans les grands offices de brevets du monde a connu une forte hausse. Dans le même temps, le degré moyen de complexité des demandes a lui aussi augmenté. Il s'en est suivi une augmentation du nombre de demandes en instance, qui sont beaucoup plus nombreuses et restent en moyenne plus longtemps en souffrance qu'il y a cinq ou dix ans. Cette situation a favorisé la mise en œuvre de diverses stratégies, qui tirent parti de l'incertitude qu'elle crée. Certaines de ces stratégies sont préjudiciables à la concurrence et à l'innovation.

- La plupart de ces stratégies sont permises ou facilitées par l'utilisation d'une procédure dénommée demande divisionnaire dans certaines juridictions et demande de continuation dans d'autres. Certaines de ces « demandes divisionnaires » ont un caractère obligatoire, tandis que d'autres sont déposées volontairement, mais toutes procèdent d'une demande antérieure, qui leur est liée, et toutes ont une vie qui leur est propre dès lors qu'elles existent. Elles sont donc examinées séparément et doivent respecter un calendrier de publication qui leur est propre. Il est également possible de déposer des demandes divisionnaires de manière répétée, si bien qu'une série de demandes peut découler d'une seule demande initiale. Ces demandes permettent, entre autres, aux entreprises de faire en sorte que leurs demandes de brevets restent en instance plus longtemps qu'elles ne le devraient. Elles permettent aussi de dissimuler plus longtemps au public l'existence de ces brevets en instance. De ce fait, elles peuvent être des instruments précieux pour une entreprise qui souhaite, par exemple, tendre une embuscade à une organisation de normalisation, exercer une influence lors de la négociation d'accords de concession réciproque licences ou formuler délibérément ses brevets de manière à ce qu'ils soient violés.

- Les organisations de normalisation permettent que des entreprises différentes conçoivent des produits, par exemple des DVD ou des téléphones mobiles, interopérables. Elles ont en général des effets proconcurrentiels. Il arrive toutefois qu'un processus de normalisation soit « pris en embuscade » par une entreprise qui dissimule intentionnellement les brevets qui lui ont été délivrés ou dont la demande est en instance jusqu'à l'adoption et l'application de la norme. À ce moment, elle révèle l'existence de ses droits de propriété intellectuelle et engage ou menace d'engager une action en justice pour atteinte auxdits droits. Les entreprises peuvent ainsi acquérir une position dominante, ce qui n'aurait pas été possible en d'autres circonstances, et, partant,

[2] William Nordhaus, « The Optimum Life of a Patent : Reply », 62 American Economic Review, pp. 428, 430-31 (1972).

récupérer des redevances beaucoup plus élevées. Cette pratique peut avoir pour effet de paralyser l'activité de normalisation par la suite, et d'entraîner ainsi un recul de l'interopérabilité des produits, une hausse des prix pour les consommateurs et un retard dans l'application de la norme, voire une interruption totale. Les autorités en charge de la concurrence peuvent contrer de tels agissements en permettant et favorisant certaines mesures *ex ante*, comme les règles relatives à la divulgation et à la négociation des conditions de concession de licence, et en engageant des actions en justice si nécessaire.

- Un accord de concession réciproque de licences donne à chacune de deux parties le droit d'exploiter le brevet de l'autre. Il arrive que ces accords contiennent également des droits portant sur des brevets en instance. En outre, ils peuvent être regroupés pour former une communauté de licences afin de partager des technologies complémentaires appartenant à plusieurs parties. Les accords de concession réciproque de licences et les communautés de licences sont généralement efficients et proconcurrentiels. Toutefois, dans le cadre de ce type d'accords aussi, divers procédés peuvent être utilisés pour utiliser les brevets en instance à des fins anticoncurrentielles. Au nombre de ces procédés figurent notamment les stratégies de dissuasion d'entrée et d'inondation de brevets, consistant, pour une entreprise en position dominante, à déposer un grand nombre de demandes de brevets de mauvaise qualité afin, soit d'empêcher un concurrent d'entrer sur le marché, soit de l'obliger à passer des accords de concession réciproque de licences pour l'exploitation de sa technologie de valeur. Ces stratégies sont mises en œuvre parce que des brevets en instance, même de mauvaise qualité, peuvent avoir d'importants effets sur la concurrence. La victime n'a généralement ni le temps, ni les moyens d'apprécier la validité des brevets en instance et il y a de fortes chances pour qu'au moins une petite partie d'entre eux soient accordés. De surcroît, porter atteinte à un brevet en instance ou délivré peut être très risqué parce que si sa validité est confirmée, le titulaire peut obtenir des dommages et intérêts substantiels ou un redressement par voie d'injonction.

- Les autorités en charge de la concurrence ont un certain nombre de moyens à leur disposition pour lutter contre l'utilisation abusive des brevets en instance. Elles peuvent notamment conduire ou faire conduire des études et des enquêtes sectorielles pour analyser la manière dont les entreprises utilisent les demandes de brevets dans leur juridiction et dont la législation sur la concurrence pourrait s'appliquer ce comportement ; mettre sur pied des programmes de formation mutuelle avec les autorités en charge des brevets de façon à ce que chaque autorité apprenne à mieux connaître la discipline de l'autre et à favoriser une coopération plus étroite ; et essayer de modifier les règles, si nécessaire, pour améliorer la circulation de l'information entre les autorités chargées des brevets et celles chargées de la concurrence.

2. Évolution du nombre de brevets en instance et conséquences de cette évolution

Chacun sait que le nombre de brevets accordés dans le monde a connu une forte hausse ces quelque 20 dernières années.[3] Le nombre de demandes déposées dans les principaux offices de brevets a également fortement augmenté. Le graphique 1, qui présente le nombre de demandes déposées dans les cinq plus grands offices de brevets du monde de 2000 à 2007, fait apparaître cette évolution au cours de la période récente.[4]

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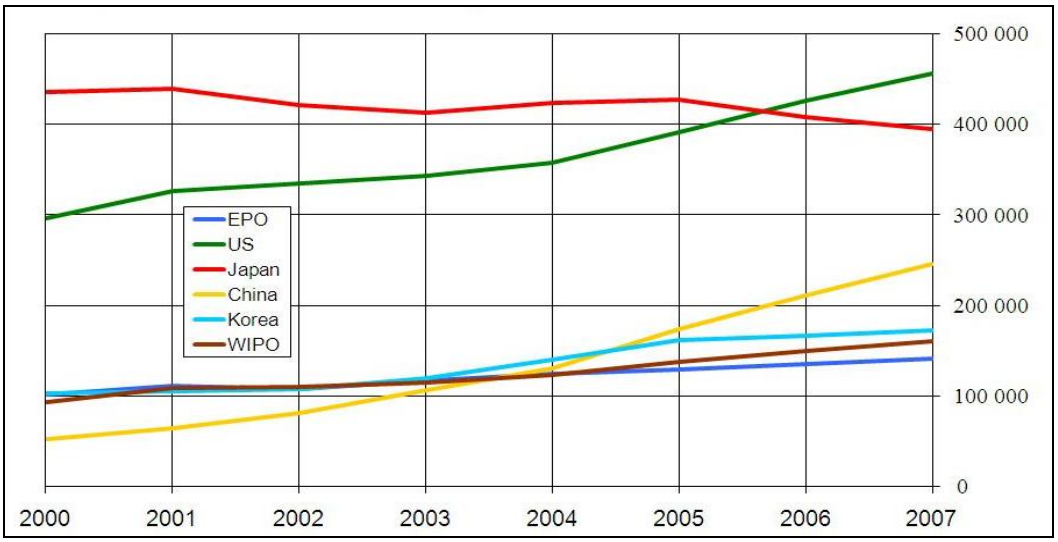
3 Voir, par exemple, OCDE, Intellectual Property Rights, DAF/COMP(2004)24, consultable à l'adresse www.oecd.org/dataoecd/61/48/34306055.pdf et OCDE, Competition, Patents and Innovation, note 1 *supra*.

4 Les données du l'Organisation mondiale de la propriété intellectuelle (OMPI) concernent les demandes de brevets déposées dans le cadre du Traité de coopération en matière de brevets (PCT). Dans le cadre de ce système, les demandeurs cherchent à obtenir la protection de leur invention dans un grand nombre de pays

Graphique 1. Demandes de brevets déposées dans les principaux offices de brevets



Source : OEB. (Légende : OEB, États-Unis, Japon, Chine, Corée, OMPI)

L'augmentation du volume des demandes s'explique en partie par la mondialisation. Les entreprises étant présentes dans un plus grand nombre de marchés géographiques, elles ont davantage besoin de la protection de brevet géographiquement plus large. Par conséquent, il est devenu plus courant que les entreprises déposent des demandes de brevet dans plusieurs pays au lieu de se limiter à un ou deux. En outre, à mesure que le développement économique de pays comme la Chine ou la Corée s'est accéléré, la propension des inventeurs présents sur ces marchés à déposer une demande de protection par un brevet a augmenté. L'autre facteur qui a joué un rôle est l'augmentation (dans certaines juridictions) du nombre de types de technologies susceptibles d'obtenir une protection par un brevet.

Même si les offices de brevets sont en mesure d'accroître leur efficience et les capacités dont ils disposent de manière à ce que la durée pendant laquelle les demandes restent en instance soit constante malgré l'augmentation du volume des demandes, le stock de brevets en instance continuera d'augmenter. Ainsi, d'après le graphique 1, en 2000, une durée de traitement fictive de trois ans à l'Office des brevets et des marques des États-Unis (*US Patent and Trademark Office*, USPTO) se traduit par un stock d'environ 900 000 demandes en instance. Compte tenu du volume des demandes en 2007, la même durée de traitement aboutit à environ 1.35 million de demandes en instance. À l'évidence, si le délai de traitement s'allonge, le stock de demandes en instance sera même encore plus important. À cet égard, le défi auquel sont confrontés les offices de brevets est d'autant plus difficile à relever que les technologies sur lesquelles portent les demandes à examiner sont de plus en plus complexes.[5]

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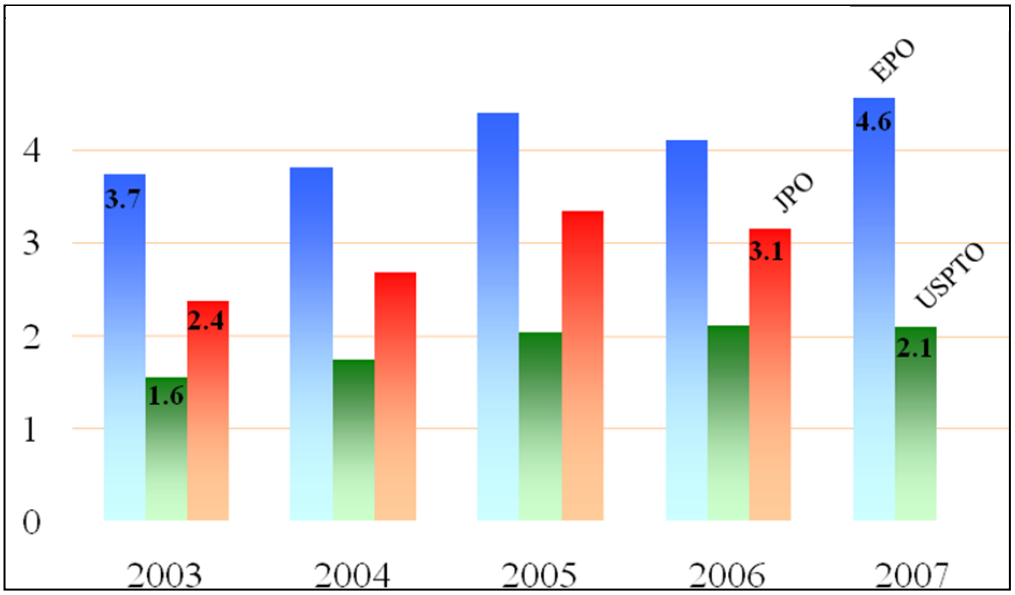
en déposant d'une « demande internationale ». Ce dépôt peut être effectué auprès de l'office de brevets de l'État dont le déposant est ressortissant ou résident ou auprès du bureau international de l'OMPI. Techniquement, les demandes déposées en vertu du PCT ne sont pas des demandes de brevets, mais offrent au déposant la possibilité de déposer une telle demande dans n'importe quel(s) pays signataire(s) dans un délai de 30 mois à compter de la date de dépôt.

5 Dietmar Harhoff, *et al.*, « The Strategic Use of Patents and Its Implications for Enterprise and Competition Policies », rapport commandité par la Commission européenne (8 juillet 2007), pp. 91, 128-29, 136-141, consultable à l'adresse www.en.inno-tec.bwl.uni-muenchen.de/research/proj/laufendeprojekte/patents/stratpat2007.pdf ; National Research Council of the National Academies, A Patent System for the 21st Century (Stephen Merrill,

Graphique 2. Nombre d'années nécessaires pour apurer le stock de demandes de brevets en instance



Source : OEB. (Légende : Japon, OEB, USPTO)

Le graphique 2 montre ce que représente le stock effectif de demandes en instance auprès de l'Office japonais des brevets, de l'OEB et de l'USPTO en termes de temps nécessaire pour mener à son terme l'instruction de tous les brevets en attente, dans l'hypothèse où aucune nouvelle demande ne serait déposée et compte tenu du délai moyen d'instruction de chaque office et du nombre de demandes effectivement reçues jusqu'à une certaine année. Ainsi, en partant de l'année 2007, il faudrait 2.1 ans à l'USPTO pour apurer son stock en supposant qu'il se consacre exclusivement aux demandes en instance et non aux nouvelles demandes. On observe également qu'en règle générale, les stocks de demandes en instance ont augmenté au fil du temps.[6]

En 2006, le responsable de l'USPTO a déclaré que « le volume des demandes de brevets continue d'augmenter plus vite que les capacités dont on dispose pour les examiner ». Il a ajouté que l'USPTO avait un « stock de demandes en instance d'une ampleur inégalée. »[7] En 2008, il a indiqué que « le plus gros défi à relever par l'USPTO était de remédier à l'augmentation du stock de demandes de brevets en attente d'examen, tout en préservant une qualité élevée. »[8]

Richard Levin et Mark Myers, dir. pub.) 79 (2004) ; John *Allison* et Mark *Lemley*, « The Growing Complexity of the United States Patent System », 82 Boston University Law Review 77 (2002).

6 Mieux vaut utiliser ce graphique pour comparer l'évolution dans le temps des résultats des différents offices, plutôt que de réaliser des comparaisons entre offices, en raison des différences entre offices. Par exemple, alors que l'OEB compte un grand nombre d'abandons de procédure (qui s'ajoutent aux décision de délivrance ou de refus de délivrance), à l'USPTO, presque toutes les demandes aboutissent à une décision de délivrance ou de rejet.

7 Performance and Accountability Report Fiscal Year 2006, USPTO, message du Directeur, p. 2, consultable à l'adresse www.uspto.gov/web/offices/com/annual/2006/200_message_director.html.

8 USPTO, Performance and Accountability Report Fiscal Year 2008, consultable à l'adresse www.uspto.gov/web/offices/com/annual/2008/2008annualreport.pdf.

Cette évolution du nombre de demandes et du stock en instance a conduit l'OEB à déclarer que le nombre de brevets en instance était désormais probablement supérieur au volume de brevets accordés et encore valides.[9] Cette situation constitue elle-même une des raisons pour lesquelles les cas de comportement anticoncurrentiel en lien avec les brevets en instance sont peut-être plus répandus que les cas de comportement anticoncurrentiel en lien avec des brevets délivrés. Si l'on se fonde exclusivement sur un critère numérique, les occasions sont tout simplement plus nombreuses.

Bien qu'un brevet ne soit opposable que s'il est délivré, les brevets en instance ont de la valeur. En plus d'offrir au déposant une protection provisoire jusqu'à ce que l'office ait statué, ils ont évidemment des chances de se transformer, à terme, en brevets opposables. En pareil cas, les plaintes pour violation de brevets peuvent être réglées en faveur du plaignant, même si le comportement en cause a eu lieu pendant que la demande était en instance et non après la délivrance du brevet. En réalité, les brevets en instance peuvent être des instruments plus puissants que les brevets délivrés en raison du degré d'incertitude qui les entoure : on ne sait pas s'ils seront attribués, quand ils le seront, quel sera leur portée, et, parfois, s'ils existent réellement.

En résumé, la hausse du volume de demandes de brevets et des stocks de demandes en instance est synonyme d'une augmentation de l'incertitude dans le système des brevets, qui a elle-même pour corollaire un accroissement des risques auxquels sont exposés les acteurs du marché. Cette incertitude et ces risques peuvent être utilisés d'une façon qui nuit à la concurrence et à l'innovation.

3. L'utilisation des demandes divisionnaires pour accroître l'incertitude

3.1 Caractéristiques des demandes divisionnaires

Dans la quasi-totalité des pays industrialisés, les demandes de brevets doivent être publiées (rendues publiques) dans un délai de 18 mois à compter de la date de dépôt de la demande.[10] Il existe toutefois des exceptions à cette règle générale. L'une des principales d'entre elles est liée à l'obligation ou à la possibilité, pour les déposants, de déposer une demande « divisionnaire » ou « de continuation ».[11,12]

Au cours de l'examen d'une demande de brevet, il apparaît parfois que la demande décrit plusieurs inventions. En pareil cas, le déposant peut être invité à déposer une ou plusieurs demandes divisionnaires, de manière à ce que chaque demande ne porte que sur une invention. Ces demandes sont dites « divisionnaires obligatoires ». Les déposants peuvent également être autorisés à déposer des demandes divisionnaires à leur propre initiative (« demandes divisionnaires volontaires »). Une demande divisionnaire ne doit pas contenir d'éléments supplémentaires par rapport à ceux figurant dans la demande antérieure ou « demande parente », même si cette restriction laisse une grande marge de manœuvre.[13] En

9 OEB, « Patenting and Competition », document soumis au Comité de la concurrence de l'OCDE (23 octobre 2008) ; Ciarán McGinley, « Taking the Heat Out of the Global Patent System » 31 Intellectual Asset Management 11 (2009).

10 Reiko Aoki et Yossi Spiegel, « Pre-Grant Patent Publication and Cumulative Innovation » 27 International Journal of Industrial Organization 333, 333 (2009).

11 Comme indiqué, il y a d'autres exceptions. Ainsi, l'USPTO ne rend la publication des demandes de brevets obligatoire qu'en cas de dépôt simultané aux États-Unis et à l'étranger – pas en cas de dépôt aux États-Unis uniquement.

12 Par souci de commodité et sauf indication contraire, dans ce document, le terme « divisionnaire » est utilisé bien que certaines juridictions emploient d'autres termes et malgré les différences de procédure d'une juridiction à l'autre.

13 Voir, par exemple la Convention sur le brevet européen, article 76(1) (« Toute demande divisionnaire de brevet européen (…) ne peut être déposée que pour des éléments qui ne s'étendent pas au-delà du contenu

outre, les demandes divisionnaires ont un coût pour les déposants, qui doivent payer des taxes pour chaque demande.

Les demandes divisionnaires ont la même date de priorité et de dépôt que la demande parente, mais, sur le plan de la procédure, sont traitées comme de nouvelles demandes.[14] Il s'ensuit, entre autres, que le délai de 18 mois fixé pour la publication de la demande divisionnaire repart de zéro. De plus, même si la demande parente est finalement rejetée ou retirée, la demande divisionnaire continue d'exister comme une entité distincte. Si le brevet divisionnaire est délivré, il expire à la date à laquelle le brevet parent expirerait s'il était accordé. Les règles applicables dans la plupart des juridictions disposent qu'une demande parente doit être en instance pour qu'une demande divisionnaire puisse être déposée.[15]

3.2 Utilisations abusives des demandes divisionnaires

La possibilité de déposer des demandes divisionnaires de manière répétée, associée au fait que ces demandes ne sont pas publiées immédiatement, permet des utilisations abusives. La plupart des offices de brevets permettent le dépôt volontaire de demandes divisionnaires. Cette procédure peut être répétée, si bien qu'il peut y avoir, comme dans un arbre généalogique, des demandes de première, deuxième, troisième générations. On parle alors de demandes divisionnaires en cascade. Pour élaborer de telles demandes, il suffit aux déposants de rétrécir la portée de leurs revendications ou de les modifier – ou, dans certaines juridictions, de les reproduire – de manière répétée, de les intégrer à de nouvelles demandes et de payer à nouveau les taxes de dépôt.[16]

Le délai de 18 mois fixé pour la publication repartant de zéro pour chaque demande divisionnaire, les déposants peuvent, en déposant des demandes divisionnaires tous les 18 mois et en retirant l'ancienne, tenir leur véritable invention secrète pendant une période qui peut atteindre 20 ans. Comme le résume un fabricant de médicaments génériques dans un récent rapport de la Commission européenne sur le secteur

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de la demande antérieure telle qu'elle a été déposée »). Toutefois, le terme « contenu » couvre non seulement les revendications, mais aussi la description de l'invention. De ce fait, il est beaucoup plus facile de trouver des éléments pour justifier des revendications ultérieures dépassant, à certains égards, les frontières délimitées par les revendications de la demande antérieure. Ainsi, aux États-Unis, il est possible d'ajouter des revendications dans les demandes divisionnaires ou d'y faire figurer des revendications plus larges que celles de la demande antérieure, dès lors que l'on trouve, dans une partie quelconque de cette demande, des éléments suffisants pour justifier ces revendications. 35 U.S.C., paragraphe 120.

14 La date de priorité est celle à laquelle une demande de brevet a été déposée pour la première fois dans un office de brevets. Dans le cadre du système établi par la Convention de Paris, les demandes peuvent également être déposées dans un délai d'un an à compter de la date de priorité auprès de l'office de brevets de tout autre pays qui a ratifié la Convention. Par conséquent, la date de priorité peut être différente de celle à laquelle la demande a été déposée dans un office spécifique (« date de la demande »).

15 Les États-Unis font une fois de plus exception. Il est en effet possible de déposer des demandes divisionnaires même après délivrance du brevet parent ou rejet de la demande parente. 35 U.S.C., paragraphe 120. Ainsi, « [u]n des aspects qui surprend le plus quelqu'un qui ne connaît pas le système américain des brevets est qu'il est impossible à [l'USPTO] de rejeter définitivement une demande de brevet. (…) Le plus surprenant est peut-être que l'USPTO ne peut jamais *délivrer* définitivement un brevet ». Mark Lemley et Kimberly Moore, « Ending Abuse of Patent Continuations » document de travail (2003), p. 1 (italique dans l'original), consultable à l'adresse http://papers.ssrn.com/sol3/papers.cfm?abstract_id=462404.

16 Par exemple, la Grande Chambre de recours de l'OEB a confirmé, dans les décisions G1/05 et G1/06 du 28 juin 2007, que le dépôt d'une demande divisionnaire identique à la demande parente était possible.

pharmaceutique, « [l]e dépôt de demandes divisionnaires permet également à leurs auteurs d'entretenir l'incertitude créée par la [les] demande[s] parente[s]. »[17]

Même si les demandes de génération antérieure ne sont pas retirées, il reste possible d'entretenir un certain secret au-delà de la période de 18 mois. Dans ce contexte, le terme « secret » n'est pas synonyme de « dissimulation totale », mais signifie plutôt qu'il peut être difficile de reconnaître, dans une demande de nouvelle génération, une demande qui procède d'un dépôt antérieur du fait que la description et les revendications peuvent être très différentes d'une génération à l'autre. Cette situation s'explique par le fait que la progression de génération en génération n'est pas nécessairement linéaire. En d'autres termes, il n'est pas toujours évident qu'une série de demandes divisionnaires découle de la série précédente.

Il arrive que des entreprises déposent des demandes divisionnaires après avoir « découvert » que leur invention « réelle » correspond à un ensemble de revendications totalement différent, concernant une autre partie de la description qui figure dans la demande. Une demande divisionnaire peut être déposée dès lors qu'elle découle, d'une manière ou d'une autre, de la demande qui la précède immédiatement (qui comprend à la fois les revendications et la description). Les descriptions représentent en général une trentaine de pages, mais peuvent en compter plusieurs centaines, voire plusieurs milliers. Par conséquent, il peut arriver que le premier ensemble de revendications ne corresponde pas à l'invention principale. De ce fait, une entreprise peut faire en sorte qu'il soit très difficile pour les autres de discerner ce qu'elle va finalement chercher à faire breveter. Autrement dit, les demandes divisionnaires permettent aux déposants de brouiller les pistes. À cela s'ajoute qu'il est quasiment impossible pour un office de brevets de distinguer les « découvertes » de bonne foi de celle qui sont planifiées.

Bien que les demandes divisionnaires volontaires soient plus souvent utilisées à des fins abusives que les demandes obligatoires, ces dernières peuvent également être délibérément employées par une entreprise pour prolonger le délai de traitement. Pour ce faire, l'entreprise doit décrire plusieurs inventions différentes dans la même demande de brevet. Ce nombre peut varier de deux à des centaines. L'office de brevets finit par demander au déposant de diviser sa demande en deux demandes au moins.

Les demandes divisionnaires représentent une proportion de plus en plus forte des demandes. Harhoff, *et al.* voient dans cette évolution le signe que les entreprises font une utilisation stratégique du système des brevets. Selon eux, les déposants semblent utiliser le mécanisme des demandes divisionnaires de manière abusive en le manipulant afin de créer une incertitude autour de la portée de leurs brevets en instance.[18] Une telle pratique peut être préjudiciable, non seulement à la concurrence, mais aussi à l'innovation. « Il y a une différence entre savoir ce qui pourrait être breveté et savoir ce qui va l'être ; par conséquent, l'utilisation des demandes divisionnaires peut obliger des entreprises rivales à utiliser des technologies efficientes pour écarter le risque qu'elles soient concernées par une demande de brevet en instance. »[19]

Un déposant dépose parfois une demande divisionnaire lorsqu'une demande de brevet est peu convaincante et risque fort d'être rejetée, mais qu'il veut retarder ou empêcher une réponse potentiellement négative parce qu'il juge utile l'incertitude créée par le brevet en instance. Il peut par exemple exploiter

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17 Commission européenne, Enquête sectorielle dans le secteur pharmaceutique, rapport préliminaire (28 novembre 2008), consultable à l'adresse http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/index.html, p. 161 ; voir également Lemley et Moore, note 15 *supra*, pp. 2, 9 (qui font observer qu'au cours de la période 1976-2000, alors qu'il fallait en moyenne 1.96 ans pour délivrer un brevet au titre de la demande initiale aux États-Unis, ce délai passait à 4.16 ans en présence d'au moins une demande divisionnaire).

18 Harhoff *et al.*, note 5 *supra*, pp. 128, 166 ; *voir également* Lemley et Moore, note 15 *supra*, pp. 6-7 (qui soulignent une augmentation constante de la proportion que représentent les demandes divisionnaires aux États-Unis).

19 Harhoff *et al.*, note 5 *supra*, p. 166.

cette situation pour faciliter ainsi une pratique d'embuscade tendue au moyen d'un brevet (voir partie 4). Les demandes divisionnaires peuvent également renforcer la capacité du déposant à exercer une influence sur ses concurrents ou avoir un effet dissuasif sur l'entrée sur le marché (cet aspect est examiné dans la partie 5, dans le contexte des accords de concession réciproque de licences).

Une entreprise peut également choisir d'utiliser les demandes divisionnaires comme un « mécanisme de violation personnalisé ». Il s'agit d'une stratégie ingénieuse qui consiste, pour une entreprise, à déposer des demandes divisionnaires pour que ses demandes de brevets restent en instance et ne soient pas publiées, jusqu'à se qu'un concurrent mette au point une technologie proche de celle couverte par le brevet. Il arrive même que l'entreprise attende que la technologie de l'entreprise concurrente soit déjà largement appliquée. Elle dépose ensuite des demandes divisionnaires supplémentaires de manière à modifier ses brevets en instance pour qu'ils couvrent la technologie du concurrent. Il est déjà arrivé que des entreprises reprennent exactement, dans leurs demandes divisionnaires, les termes utilisés par l'entreprise rivale dans sa propre demande de brevet, s'assurant ainsi presque systématiquement qu'une violation sera constatée en leur faveur. En effet, la date de priorité étant la date de dépôt de la demande initiale, on considère que c'est la première entreprise qui a déposé la demande de brevet en premier lieu. Elle peut ensuite obtenir une injonction pour empêcher l'entreprise concurrente d'utiliser la technologie en cause ou menacer de le faire si ladite concurrente ne lui paie pas un certain montant.

Il existe également des versions défensives de cette stratégie. En voici un exemple :

> *[I]l est fréquent que les avocats spécialisés en droit des brevets déposent une demande de continuation juste avant la délivrance d'un brevet, de manière à ce que l'action engagée sur la base de la première publication puisse continuer. Cette stratégie est payante dans les cas où un concurrent risque de tenter de créer sur la base d'un brevet, en adoptant des variantes mineures. En pareil cas, il pourrait être possible de modifier les revendications de la demande de continuation de manière à couvrir les variantes adoptées par le concurrent, élargissant ainsi considérablement la portée effective du brevet.*[20]

Dans certains systèmes des brevets au moins, ces stratégies personnalisées offensives ou défensives sont parfaitement légitimes, tant que les demandes divisionnaires sont suffisamment étayées par les demandes parentes. À supposer que cette politique soit appropriée, il faudrait en conclure que même dans le cas où un déposant n'aurait jamais eu les idées nécessaires à la conception de la technologie de son concurrent, il pourrait, en formulant les descriptions contenues dans son brevet en instance de manière suffisamment large, obtenir des droits de propriété intellectuelle sur cette technologie.[21] Lemley et Moore jugent cette politique contre-productive vis-à-vis de l'objectif de promotion de l'innovation.

> *Permettre aux titulaires de brevets de modifier leurs revendications en fonction des produits de leurs concurrents favorise les utilisations abusives du système. Cette pratique semble fondamentalement injuste, puisque même un concurrent qui a été le premier à inventer un dispositif ou processus particulier risque d'être accusé d'atteinte à des revendications rédigées à une date postérieure à son invention (et, en réalité, à cause de son invention). Elle semble également en contradiction avec la justification économique fondamentale du système des brevets, qui est d'encourager de nouvelles inventions. Comme l'ont souligné les commentateurs, le système des brevets doit parvenir à un compromis entre la promotion d'inventions novatrices et la promotion d'améliorations. Le fait de modifier des revendications dans un but stratégique*

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20 Robert Merges, *et al.*, Intellectual Property in the New Technological Age 116 (3e éd. 2003).

21 Ce principe a été confirmé par la Cour d'appel pour le circuit fédéral *(Court of Appeals for the Federal Circuit)*, principal tribunal compétent en matière de brevets aux États-Unis par exemple. *Voir Kingsdown Medical Consultants contre Hollister*, 863 F.2d 867 (Fed. Cir. 1988).

est susceptible de faire obstacle à des auteurs légitimes d'améliorations ou à des inventeurs indépendants et de réduire ainsi leur capacité et leur motivation à innover.[22]

Le principal aspect à retenir par les autorités de la concurrence concernant les demandes divisionnaires est qu'elles permettent de prolonger la période durant laquelle une demande reste en instance et n'est pas publiée, ce qui peut permettre des comportements stratégiques et potentiellement anticoncurrentiels. Cela ne signifie pas que toutes les demandes divisionnaires doivent susciter la méfiance des autorités de la concurrence et de celles chargées des brevets. Ces demandes peuvent être souhaitables ou nécessaires pour des raisons parfaitement légitimes. Ainsi, il est possible que les déposants aient tout simplement besoin de davantage de temps pour perfectionner leur invention. Un déposant peut également vouloir accélérer le traitement des aspects les plus simples de sa demande initiale en les séparant des aspects qui risquent de se heurter à la réticence des examinateurs. Toutefois, comme souligné ci-dessus, les possibilités d'utilisation abusive sont nombreuses.

3.3 Remédier au problème des demandes divisionnaires

Du point de vue de la politique de la concurrence, il est difficile de comprendre pourquoi un comportement consistant à déposer des demandes divisionnaires en cascade pour qu'un brevet reste en instance pendant 10 ou 20 ans est toléré. Les principaux offices de brevets n'ont actuellement aucun instrument de procédure à leur disposition pour lutter efficacement contre ces pratiques. En toute logique, il faudrait donc réformer le système des brevets lui-même, en permettant aux offices de brevets de prendre des mesures, par exemple de limiter le nombre de demandes divisionnaires qui peuvent être déposées ou la période durant laquelle elles peuvent l'être.

En fait, les demandes divisionnaires ont occupé le devant de la scène ces derniers temps, puisqu'au moins deux grands offices ont déployé d'importants efforts pour limiter les abus constatés. L'USPTO et l'OEB ont récemment modifié leurs règles de manière à restreindre la possibilité de déposer des demandes divisionnaires en cascade. Malheureusement, ces modifications ont été invalidées par le système judiciaire aux États-Unis et risquent de subir le même sort en Europe.

L'USPTO avait édicté une nouvelle règle qui permettait de déposer, de plein droit, deux demandes de continuation, mais interdisait de dépasser ce nombre. Les déposants qui souhaitaient déposer plus de deux demandes devaient introduire une requête prouvant que la modification, l'argument ou les preuves qu'ils voulaient introduire n'auraient pas pu être soumis durant l'instruction de la demande antérieure. Cette règle a été contestée en justice et, en mars 2006, une cour d'appel l'a invalidée au motif que l'USPTO n'a pas de pouvoir réglementaire sur le fond.[23] Cette décision vient renforcer l'argument selon lequel, tant que le Congrès refuse d'adopter les réformes nécessaires, il y a lieu d'intervenir sur le fondement du droit de la concurrence pour empêcher les comportements anticoncurrentiels qui reposent sur des demandes de continuation, puisque l'USPTO ne peut pas le faire.

Le Conseil d'administration de l'OEB a décidé – également en mars 2009 – d'imposer un délai de 24 mois pour le dépôt des demandes divisionnaires, qu'elles soient obligatoires ou volontaires.[24] Ces nouvelles règles sont censées entrer en vigueur en avril 2010. Bien que l'introduction de ces contraintes

22 Lemley et Moore, *supra* note 15, p. 16.

23 *Tafas contre Doll*, 559 F.3d 1345 (Fed. Cir. 2009).

24 Pour les demandes volontaires, le délai de 24 mois court à compter de la date de la première notification de la division d'examen concernant la première demande pour laquelle une notification a été signifiée. Pour les demandes obligatoires, le délai de 24 mois court à compter de la date de la première notification dans laquelle la division d'examen soulève son objection d'absence d'unité.

aille dans la bonne direction, elle risque de se heurter aux mêmes difficultés que les changements proposés par l'USPTO. Apparemment, une contestation judiciaire est possible parce que le texte applicable (la Convention sur le brevet européen) ne contient pas de dispositions relatives aux limites à l'exercice du droit de déposer des demandes divisionnaires.

4. Utilisation des brevets en instance pour tendre une embuscade au processus normatif

4.1 Organisations de normalisation

Beaucoup de secteurs ont créé des organisations de normalisation qui édictent des normes techniques pour faciliter la conception, par des entreprises différentes, de produits interopérables. L'activité de normalisation a, en général, des effets proconcurrentiels parce qu'elle est de nature à entraîner une augmentation du nombre de fournisseurs présents sur le marché et une réduction des coûts de production ; elle permet en outre aux consommateurs d'utiliser les composants de leur choix en faisant appel à différents fournisseurs au lieu de n'avoir à leur disposition qu'une seule entreprise pour une catégorie de produits et leur garantit qu'ils pourront continuer de trouver des produits compatibles à l'avenir. Au nombre des normes qui ont connu un grand succès figurent les normes DVD, MP3 et GSM.

Les normes ne sont pas toujours définies par des organisations engagées dans des activités normatives officielles. Certaines naissent de fait, après qu'une norme exclusive s'est « imposée sur le marché ». Ainsi, une norme de fait peut apparaître parce qu'elle a l'avantage du premier arrivant ou parce qu'elle se révèle supérieure aux normes concurrentes. Du point de vue de l'action publique, il peut sembler séduisant de laisser le jeu normal de la concurrence désigner la norme qui est la meilleure. Toutefois, « un processus normatif reposant sur la recherche du consensus permet des gains d'efficience souvent supérieurs à la diminution de la concurrence. »[25] En d'autres termes, le processus de normalisation officiel présente l'avantage d'éviter les gaspillages qui peuvent découler de la normalisation *ad hoc*. Il suffit, pour l'apprécier, d'imaginer les dépenses qu'entraînerait le remplacement des voies ferrées d'un système ferroviaire régional non normalisé par rapport au remplacement de voies ferrées conformes à la norme classique. Il n'en reste pas moins que le fait qu'une norme soit définie officiellement, par une organisation de normalisation, ne garantit pas qu'elle sera acceptée par le marché, ni même qu'elle sera appliquée.

En principe, les organisations de normalisation s'appuient sur la participation des acteurs du secteur concerné pour élaborer des normes. Ces dernières définissent généralement des interfaces, mais pas la manière dont ces interfaces sont appliquées. Par conséquent, bien que des concurrents coopèrent pour parvenir à l'interopérabilité, ils continuent généralement d'être en concurrence une fois la norme applicable, en différenciant les caractéristiques de leurs produits et services.

4.2 Embuscades tendues au moyen de brevets en instance

Participer au processus de normalisation permet à une entreprise de se tenir informée de la manière dont la définition d'une norme évolue. L'entreprise peut également tirer parti des retards et de la souplesse du système d'examen des demandes de brevets pour optimiser le calendrier et la nature des changements qu'elle apporte à la portée des revendications en lien avec la norme, le cas échéant. La mise en œuvre d'une stratégie d'embuscade au moyen de brevets en instance consiste, pour l'entreprise, à ne pas informer l'organisation de normalisation qu'elle a déposé des demandes de brevets en lien avec la norme en cours d'élaboration. Dans le même temps, elle modifie les revendications contenues dans ces demandes pour qu'elles correspondent à la future norme. Elle peut également être en mesure d'exercer une influence sur la norme de manière à ce qu'elle se rapproche davantage des revendications en instance. L'entreprise peut

[25] Commission fédérale du commerce (FTC), *In the Matter of Rambus*, Docket n° 9302, p. 33, consultable à l'adresse www.ftc.gov/os/adjpro/d9302/060802commissionopinion.pdf .

donc modifier à la fois la norme et ses propres revendications en instance pour qu'elles coïncident le plus possible.

Si tout se déroule comme prévu, l'organisation de normalisation publie une norme couverte par des brevets en instance non divulgués, tandis que l'entreprise poursuit la procédure de demande, de l'examen jusqu'à la délivrance du brevet. Dans l'intervalle d'autres entreprises appliquent la norme à leurs produits, que des clients achètent. De substantiels investissements à fonds perdus sont réalisés sur la base de la norme. Lorsque l'entreprise qui tend l'embuscade est certaine que ces investissements sont suffisamment élevés pour que le passage à une autre norme soit trop coûteux, elle révèle l'existence de ses brevets et attaque, menaçant d'engager des actions pour atteinte à ses droits. Elle peut décider de demander des redevances de licence très élevées ou de bloquer purement et simplement l'application de la technologie en cause.

Si l'entreprise avait révélé l'existence de ses brevets en instance alors que l'élaboration de la norme était encore en cours, l'organisation de normalisation aurait pu choisir une technologie différente, moins coûteuse (si possible) ou aurait pu essayer d'amener l'entreprise à s'engager à limiter le montant de ses redevances de licence. En revanche, entretenir le secret jusqu'à ce que la norme soit si largement appliquée qu'il serait impossible d'en élaborer et d'en appliquer une autre, lui permet d'acquérir une position dominante qu'elle n'aurait pas acquise en d'autres circonstances. « Pour résumer, le titulaire d'un brevet qui ne se manifeste qu'après qu'une entreprise a investi dans une norme donnée peut prendre ces investissements en otage ». Cette pratique peut se traduire par le paiement de redevances nettement plus élevées que la valeur intrinsèque de la technologie brevetée concernée. »[26]

Ce scénario part du principe qu'il n'existe pas de normes concurrentes. Tel était le cas, par exemple, dans une récente affaire tranchée par la Cour fédérale allemande. Dans la décision *Orange-Book-Standard*, la Cour a estimé que l'entreprise Philips était en position dominante parce qu'elle était titulaire d'un brevet essentiel pour la norme relative à la fabrication de disques compacts CDR et CDRW et que tout producteur de disques compacts utilisait inévitablement ce brevet.[27] Au contraire, sur un marché où coexistent des normes concurrentes, une entreprise titulaire d'un brevet essentiel pour l'une de ces normes n'a pas nécessairement une position dominante sur l'ensemble du marché.

Le fait qu'une entreprise acquière une position dominante en tendant une embuscade à une organisation de normalisation peut avoir un certain nombre d'effets préjudiciables. Il peut s'en suivre une paralysie générale de l'activité de normalisation, si les producteurs craignent de s'exposer à des pratiques d'embuscade. Cette paralysie risque elle-même d'entraîner une fragmentation inefficiente et une insuffisance de l'interopérabilité sur d'autres marchés, qui auraient pu tirer profit d'un processus officiel de normalisation. En outre, les redevances de licence, qui atteignent un niveau de monopole, sont susceptibles d'être répercutées sur les consommateurs sur le marché où l'embuscade a été tendue. Il est également possible que l'application de la norme concernée prenne un retard important, pendant que les victimes cherchent des moyens de contournement ou des solutions pour invalider les droits de propriété intellectuelle de l'auteur de l'embuscade. Pendant ce temps, toute innovation de seconde génération en cours de développement par les victimes sur la base de la norme risque de prendre du retard, voire d'être abandonnée.

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26 Douglas Lichtman, « Patent Holdouts and the Standard-Setting Process » University of Chicago, Olin Working Paper n° 292, (mai 2006), consultable à l'adresse http://ssrn.com/abstract=902646.

27 FCJ, KZR 39/06 (6 mai 2009).

4.3 Moyens à la disposition des autorités de la concurrence pour lutter contre les embuscades

4.3.1 Promotion de la concurrence

Les embuscades tendues au moyen des brevets (et brevets en instance) à l'encontre des organisations de normalisation étant susceptibles de retarder l'adoption de normes, d'en rendre l'application plus coûteuse et de paralyser le processus normatif en général, les organisations de normalisation devraient avoir intérêt à adopter des stratégies de nature à limiter le risque d'embuscade. Si la plupart des organisations de normalisation ont déjà adopté de telles politiques, toutes ne l'ont pas fait. En outre, même lorsqu'elles l'ont fait, des améliorations pourraient être apportées. Les autorités chargées de la concurrence pourraient aider les organisations de normalisation à concevoir et améliorer leurs règles de procédure de manière à limiter au maximum les possibilités de tendre des embuscades sans enfreindre le droit de la concurrence relatif aux pratiques concertées. Trois types de règles ont été proposées à cette fin : les divulgations, les conditions équitables, raisonnables et non discriminatoires (conditions FRAND) et la conduite de négociations *ex ante* collectives. Une quatrième option – l'amélioration de la circulation de l'information entre les organisations de normalisation et les offices de brevets – est également présentée ci-après.

Divulgations

Deux grands modes de divulgation pourraient être exigés ou encouragés. Premièrement, les organisations de normalisation pourraient mettre au point des règles obligeant leurs membres à divulguer de manière sincère les brevets ou brevets en instance susceptibles de recouper la norme en cours d'élaboration, le cas échéant. Cette divulgation devrait être effectuée avant et pendant le processus d'élaboration de la norme. Deuxièmement, elles pourraient obliger leurs membres à indiquer le montant maximum des redevances et les conditions de concession de licence les plus restrictives qu'elles imposeraient pour l'exploitation de ces brevets si la technologie qu'ils couvrent devait être intégrée à la norme. Nelly Kroes, Commissaire européenne à la concurrence a récemment apporté son soutien à ces deux approches, en déclarant qu'elles constituaient un moyen, pour les organisations de normalisation, d'éviter de « se laisser manipuler par des intérêts commerciaux étriqués. »[28]

Une variante de ces politiques consisterait à donner aux membres la possibilité de s'engager à effectuer ces divulgations, au lieu de les rendre obligatoires. En présence de concurrence *ex ante*, l'effet serait le même. En refusant de prendre cet engagement alors que ses concurrents l'ont déjà fait, une entreprise éveillerait probablement les soupçons de l'organisation de normalisation et se mettrait dans une position concurrentielle défavorable. L'organisation de normalisation serait non seulement plus encline à choisir la technologie des concurrents, mais risquerait également de limiter la capacité de l'entreprise à continuer de participer à l'élaboration des normes.

Les deux versions augmenteront la possibilité d'apprécier les avantages techniques et financiers des technologies couvertes par les brevets délivrés et en instance pour les comparer entre elles et avec d'autres technologies, non couvertes par des droits de propriété intellectuelle, avant de s'engager vis-à-vis de la formulation d'une norme.[29] Elle pourra ainsi tirer parti de la concurrence *ex ante*, si elle existe, au lieu de

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28 Neelie Kroes, Commissaire européenne chargée de la concurrence, « Being Open about Standards », discours 08/317 prononcé devant OpenForum Europe (10 juin 2008), p. 4.

29 Mais voir Thomas Cotter, « Reflections on the Antitrust Modernization Commission's Report and Recommendations Relating to the Antitrust/IP Interface » 53 Antitrust Bulletin 745, 762 note 50 (qui fait observer que les membres des organisations de normalisation risquent de divulguer un trop grand nombre de brevets en instance et délivrés, ce qui retarderait inutilement le processus de normalisation, le temps que l'organisation de normalisation vienne à bout de l'examen de divulgations sans rapport avec la norme).

s'exposer à être piégée une fois que la norme est choisie et qu'il est trop tard pour opter pour une autre technologie.

À l'évidence, en l'absence de technologie concurrente, le titulaire des droits de propriété intellectuelle peut se sentir suffisamment confiant pour imposer une redevance supérieure au niveau de concurrence même avant qu'il soit officiellement décidé d'intégrer sa technologie protégée à la norme. Du point de vue de la politique de la concurrence, il s'agit là d'une issue légitime. En d'autres termes, si les divulgations requises ont été effectuées, et si elles n'obligent pas l'organisation de normalisation à ne pas intégrer une certaine technologie brevetée (ou en attente de brevet) à sa norme, il n'y a pas lieu de présumer que l'application, par le titulaire des droits de propriété intellectuelle, d'une redevance supérieure au niveau de concurrence est une pratique anticoncurrentielle. Dans ces circonstances, le titulaire des droits de propriété intellectuelle a tout simplement la meilleure technologie, compte tenu du montant (*supra*-concurrentiel) de la redevance et de la qualité – à moins qu'il détienne la seule technologique possible. Quoi qu'il en soit, selon la théorie économique, il *doit* pratiquer un prix supérieur au niveau de concurrence. Par conséquent, en termes de politique de la concurrence, l'objectif doit être, non pas de faire baisser le montant des redevances jusqu'au prix fictif qui s'établirait en situation de concurrence parfaite, mais d'empêcher les titulaires de droits de propriété intellectuelle de pratiquer, en utilisant des stratégies d'embuscade, des prix plus élevés que ceux qu'ils auraient exigés s'ils n'avaient pas utilisé cette stratégie.

Conditions FRAND

L'autre stratégie de lutte contre les embuscades, qui rencontre déjà du succès auprès des organisations de normalisation, consiste à obliger les membres à s'engager *ex ante* à concéder, dans l'hypothèse où des technologies sur lesquels ils détiennent des brevets ou des brevets en instance seraient intégrées à une norme, des licences à des conditions dites « FRAND » ou « RAND ». FRAND signifie « équitables, raisonnables et non discriminatoires » (dans RAND, le mot « équitables » a été omis ; par souci de simplification, seul le terme FRAND est utilisé dans le présent document). Ces engagements sont en principe formulés dans des termes relativement vagues et ne précisent pas les conditions exactes de concession de licence, ces dernières étant en général négociées bilatéralement, en dehors de l'organisation de normalisation.

L'obligation de « non discrimination » contenue dans les conditions FRAND est généralement jugée utile. Bien qu'elle ne signifie pas nécessairement que tous les preneurs de licence doivent bénéficier de conditions identiques, elle garantit aux preneurs de licence qui se trouvent dans une situation identique qu'ils seront traités de la même manière par le cédant. Elle est également susceptible d'empêcher que le cédant ne puisse nuire à la concurrence en appliquant à ses concurrents horizontaux des redevances plus élevées que celles imposées à toute autre partie.[30]

En revanche, les obligations d'équité et de caractère raisonnable des conditions FRAND sont controversées. Alors que certains estiment qu'elles contribuent à garantir que les auteurs potentiels d'embuscades ne pourront pas prendre la norme en hold-up en refusant de concéder des licences sur leurs brevets ou en les concédant à des conditions non raisonnables[31], d'autres jugent cette attente naïve. Si les conditions FRAND sont effectivement susceptibles d'empêcher les cédants de menacer de refuser

30 Gerald Masoudi, Deputy Assistant Attorney General, ministère fédéral de la Justice des États-Unis, « Efficiency in Analysis of Antitrust, Standard Setting, and Intellectual Property », discours prononcé dans le cadre de l'atelier sur la normalisation, la concession de licences d'exploitation de droits de propriété intellectuelle et le droit de la concurrence *(Workshop on Standardization, IP Licensing, and Antitrust)*, organisé le 18 janvier 2007 à l'université de Tilburg, p. 6.

31 Voir, par exemple, Dean Dunlavey et Michael Schallop, « Lessons from Rambus – Play by the Rules in Standard Setting Organizations », Intellectual Property Today (juin 2007), p. 35 note 2.

purement et simplement de concéder des licences puisqu'elles obligent le titulaire de brevet à le faire (à un prix quelconque), la protection qu'elles offrent contre la pratique de prix abusifs est limitée, voire inexistante.

Le problème que posent les termes « équitables » et « raisonnables » tient au fait qu'ils ne sont pas liés à un principe ou à une définition objective. Il s'agit de termes vagues, qui peuvent être interprétés de différentes manières. Par conséquent, une entreprise qui possède un brevet essentiel pour une norme peut, en principe, remplir l'obligation de concéder une licence, conformément aux conditions FRAND, mais demander un prix qu'aucun preneur de licence potentiel ne peut juger raisonnable. Si rien n'est fait pour définir les termes « équitables » et « raisonnables », il semble difficile que les conditions FRAND puissent contribuer à régler les différends entre les parties.

Un tribunal peut être amené à se prononcer sur le sens des termes « équitables » et « raisonnables » dans le cadre d'un différend particulier ; toutefois, l'expression FRAND elle-même ne lui sera pas d'une grande utilité, puisqu'elle présume simplement que chacun sait ou est capable de déterminer ce que signifient les termes « équitables » et « raisonnables ». Il est probable que la conception de ce qui est « équitable » et « raisonnable » varie selon les tribunaux, non seulement dans des cas d'espèce, mais en général. Par conséquent, les conditions FRAND offrent une prévisibilité limitée, voire inexistante aux preneurs de licence comme aux cédants. « L'expression "conditions FRAND" est tellement imprécise qu'elle est, dans la pratique, dénuée de sens. »[32]

La difficulté qu'il y a à se prononcer sur le sens du terme « équitable » risque d'entraîner une certaine désaffection des tribunaux pour cet exercice. L'affaire *Orange-Book-Standard* en témoigne. En l'espèce, la Cour a confirmé qu'une entreprise avait porté atteinte à un brevet essentiel à la norme relative aux disques compacts enregistrables et réinscriptibles. L'entreprise mise en cause a invoqué le fait que le titulaire du brevet avait abusé de sa position dominante en refusant de lui concéder une licence, sauf si elle acceptait de payer une redevance qu'elle jugeait « excessive » et « non raisonnable ». Tout en reconnaissant que l'argument était recevable, la Cour a refusé d'être mise dans la position de devoir déterminer le sens des termes « excessive » et « raisonnable », estimant que « dans la majorité des cas, la détermination de ce qui constitue une redevance d'un montant acceptable au sens du droit de la concurrence est un exercice très difficile ». C'est pourquoi elle a décidé que l'entreprise accusée de violation de brevet devrait d'abord prouver qu'elle avait essayé, en vain, d'obtenir une licence à des conditions raisonnables avant de pouvoir invoquer un refus de négocier. Quant à savoir quelles conditions peuvent être considérées comme « raisonnables », la Cour a demandé aux parties de s'en faire une idée elles-mêmes. Le contrevenant doit « proposer au titulaire de brevet de payer une redevance dont le montant reste à déterminer, lui laissant le soin de le faire selon ce qui lui semble juste et, dans le même temps, offrir une garantie en déposant une somme correspondant à une redevance objectivement raisonnable, voire supérieure à ce montant. *Ainsi, la procédure relative à l'atteinte aux droits conférés par un brevet n'a pas à porter sur le différend relatif au montant de la redevance.* »[33]

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32 Gil Ohana, Marc Hansen et Omar Shah « Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush? » 24 European Competition Law Review 644, 648 (2003) ; voir aussi Mark Lemley, « Intellectual Property Rights and Standard-Setting Organizations », 90 California Law Review 1889, 1964 (« en l'absence d'une idée un tant soit peu précise de ce que sont les conditions [FRAND], l'obligation de pratiquer des conditions de concession de licence raisonnables et équitables perd beaucoup de son sens »).

33 *Orange-Book-Standard*, FCJ, KZR 39/06 (6 mai 2009) et communiqué de presse de la Cour fédérale allemande, « "Zwangslizenzeinwand" im Patentverletzungsprozess grundsätzlich zulässig (« l'argument fondé sur "l'obligation de concéder une licence" est fondamentalement acceptable dans une action en violation de brevet », numéro 95/2009 (6 mai 2009) (traduit de l'allemand ; italique ajouté).

Il est compréhensible, et peut-être heureux, que les tribunaux cherchent à éviter ce problème. Même s'il existait des moyens objectifs pour déterminer ce que signifient les termes « équitables » et « raisonnables », l'exercice serait compliqué pour un tribunal parce qu'il lui faudrait tenir compte de l'intérêt de chaque brevet ou brevet en instance par rapport à d'autres technologies. Une approche standard ne fonctionnerait pas. Il n'est par exemple pas évident qu'il y ait lieu d'obliger le titulaire d'un brevet portant sur une technologie innovante à respecter des conditions FRAND, si les termes « équitables » et « raisonnables » doivent systématiquement être interprétés comme des synonymes de « bon marché » ou de « peu coûteux », voire comme ayant un sens plus précis tel que « pas plus que ce que les autres cédants reçoivent ». Si tel devait être le cas, les inventeurs de technologies innovantes choisiraient vite de se désengager du processus de normalisation, ce qui nuirait à l'efficacité des organisations de normalisation.

Certaines définitions objectives des termes « équitables » et « raisonnables » ont été proposées, mais toutes présentent des faiblesses. L'une des propositions consisterait à appliquer une proportionnalité stricte : il suffirait de compter le nombre de brevets en lien avec la norme possédés par une entreprise et de diviser ce nombre par le nombre total de brevets intégrés à la norme. La fraction résultant est multiplié par le montant FRAND de la redevance éxigée au titre de l'utilisation de la norme. Cette idée ne présente guère d'intérêt. Si elle a l'avantage de ne pas reposer sur des concepts subjectifs, elle présente aussi l'inconvénient d'occulter le fait que certains brevets ont plus de valeur que d'autres – il s'agit d'une approche simpliste, qui accorde la même valeur à des inventions innovantes qu'à de simples améliorations. De surcroît, elle provoquerait une course au brevet (et peut-être une baisse de la qualité des brevets), parce qu'elle valorise la quantité plutôt que la qualité. Par ailleurs, elle fait abstraction d'une question centrale, en l'occurrence celle de savoir à qui il incombe de fixer le montant juste et équitable de la redevance exigée au titre de l'utilisation de la norme. Enfin, elle fait abstraction du problème des brevets en instance – ne précisant pas s'il faut les prendre en compte ou non.

Une autre proposition serait de plafonner les redevances de licence pour l'exploitation d'un brevet donné à un niveau égal à la redevance qu'exigeait le titulaire du brevet avant l'adoption de la norme. Cette méthode ne fonctionnerait pas pour les licences qui n'ont pas été concédées avant l'approbation de la norme, en raison de l'absence de redevance de référence dans ces situations. L'autre problème réside dans le fait qu'il est rationnel de lancer un marché en appliquant aux premières entreprises qui adoptent la technologie brevetée un tarif inférieur à celui qui sera exigé par la suite s'il devient évident que cette technologie est un succès commercial. En outre, les conditions de licence varieront probablement d'un preneur de licence à l'autre. Il risque d'être difficile de déterminer quel accord doit être retenu pour l'application de cette méthode. Par exemple, la redevance exigée de certains preneurs de licence peut être plus faible si ces preneurs concluent des accords de concession réciproque de licences sur leurs propres technologies.

Baumol et Swanson ont proposé une autre méthode, fondée sur la détermination de la redevance qui aurait résulté du jeu de la concurrence *ex ante* (le cas échéant).[34] Bien que cette méthode soit celle qui a, jusqu'à présent, reçu l'accueil le plus favorable, elle est également controversée. On lui a reproché d'être plus favorable aux plaignants dont le seul but est d'obtenir une diminution des redevances de licence ainsi que d'être complexe et coûteuse à appliquer.[35] Il est édifiant que l'on ait dû demander à l'un des plus grands économistes du monde de proposer une méthode pour interpréter la notion de conditions FRAND et que même sa méthode n'ait pas résolu le problème.

34 Daniel Swanson et William Baumol, « Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power » 73 Antitrust Law Journal 1 (2005).

35 Damien Geradin et Anne Layne-Farrar, « The Logic and Limits of Ex Ante Competition in a Standard-Setting Environment » 3 Competition Policy International 79 (2007).

Malgré les faiblesses de la méthode reposant sur les conditions FRAND, ses partisans soulignent que les différends relatifs à l'interprétation de ces conditions sont relativement peu nombreux et, que, par conséquent, elle semble fonctionner. Le nombre limité de différends pourrait cependant n'avoir que peu de rapport, voire aucun rapport, avec les conditions FRAND. Il n'est pas exclu que les parties qui ont conclu un accord de licence parviennent à s'entendre malgré les conditions FRAND plutôt que grâce à elles. Même si les entreprises qui participent à l'élaboration d'une norme sont généralement concurrentes et détiennent des portefeuilles de brevets, il est possible qu'elles fonctionnent bien parce qu'elles ont réussi à établir des relations relativement cordiales plus que parce qu'elles se sont engagées à respecter de vagues conditions FRAND. Toutefois, un enjeu trop grand peut mettre à mal ces relations (comme dans les affaires *Rambus* et *Qualcomm*[36]).

Le Professeur Thomas Cotter a exprimé un certain scepticisme vis-à-vis tant de l'obligation de divulgation que des conditions FRAND, estimant que ces méthodes « pourraient tout simplement ne pas être efficaces » parce qu'une « obligation de divulgation ne constitue pas en elle-même un engagement du titulaire de brevets (ou de brevets en instance) à pratiquer un tarif qui ne soit pas *supra*-concurrentiel *ex post* et parce qu'un engagement à appliquer une redevance équitable, raisonnable et non discriminatoire peut être vague. »[37] En d'autres termes, selon Thomas Cotter, ni les divulgations d'une entreprise au sujet de ses brevets et de la redevance maximale qu'elle entend pratiquer, ni son engagement à concéder des licences à des conditions FRAND ne peuvent, en eux-mêmes, empêcher l'entreprise de ne pas tenir compte de ces engagements à l'avenir et d'imposer le prix qui lui convient.

S'il existe effectivement des raisons de douter de l'efficacité des conditions FRAND, l'obligation de divulgation ne se heurte pas au même problème d'imprécision. Si nécessaire, les organisations de normalisation pourraient s'appuyer sur le droit contractuel pour faire respecter les règles de divulgation. Elles obligeraient alors tous les participants à l'élaboration d'une norme à signer un contrat dans lequel ils s'engagent à divulguer leurs brevets avant et durant le processus de définition de la norme.[38] Ces contrats stipuleraient également que tout manquement donnerait lieu à des sanctions précises, par exemple que le titulaire des brevets en cause perdrait le droit de les opposer à l'organisation de normalisation et à quiconque se prévalant de la norme. Une autre sanction possible serait d'obliger la partie qui ne respecte pas le contrat à concéder des licences à un tarif « bas » à toute partie se prévalant de la norme (étant entendu qu'il faudrait définir à l'avance ce que signifie « bas »).

Les opposants à cette solution objectent que de telles obligations contractuelles ont un effet dissuasif sur la participation au processus de normalisation et nuisent par conséquent à l'innovation. Ils font observer que leur respect nécessiterait un travail colossal et coûteux de la part des entreprises qui possèdent d'importants portefeuilles de brevets délivrés ou en instance. Ces entreprises risqueraient de ne pas divulguer certains droits de propriété intellectuelle concernés, non pas parce qu'elles projettent de tendre une embuscade mais parce qu'elles n'ont pas identifié ces droits. Une politique de divulgation reposant sur le principe de la « responsabilité objective » sanctionnerait néanmoins ces entreprises. Elles pourraient alors tout simplement décider de se désengager du processus de normalisation plutôt que de courir ce risque.

Face à ces objections, les partisans de l'application d'obligations de divulgation assorties de sanctions reposant sur le droit contractuel répondent que l'impact anticoncurrentiel d'un défaut de divulgation peut

36 Ces affaires sont présentées dans la partie 4.3.4 ci-après.

37 Cotter, note 29 *supra*, p. 763 et note 55.

38 *Id*. p. 760 ; Carl Shapiro, « Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting » in Adam Jaffe, Josh Lerner et Scott Stern (dir. pub.), 1 Innovation Policy and the Economy 121, 138 (2001).

être le même, que ce défaut soit intentionnel ou non. En outre, prévoir des exceptions pour les manquements « accidentels » encouragerait les entreprises à désigner, pour les représenter au sein de l'organisation de normalisation, un représentant qui n'a pas connaissance de leurs brevets délivrés ou en instance.[39] Par ailleurs, les arguments des opposants comportent une autre faiblesse : obliger les entreprises qui prétendent ne pas pouvoir identifier les brevets concernés à concéder des licences à un tarif bas ou à ne pas exiger de redevance ne leur coûte pas plus cher que de ne jamais identifier ces brevets. De plus, si elles sont capables d'effectuer une recherche pour identifier ces brevets après l'adoption d'une norme, elles peuvent fort bien le faire aussi avant l'adoption de cette norme.

Négociations *ex ante*

La troisième stratégie proposée pour prévenir les embuscades repose sur les obligations de divulgation et préconise la tenue, entre les membres d'une organisation de normalisation qui sont susceptibles de prendre à l'avenir des licences sur une technologie et le membre susceptible de concéder ces licences, de négociations *ex ante* collectives sur la redevance qui serait pratiquée si la technologie devait être intégrée à une norme.

Comme l'obligation de divulgation du montant maximal des redevances, la tenue de négociations *ex ante* collectives vise notamment à obliger les cédants potentiels à fixer le montant de la redevance avant le choix de la norme, *c'est-à-dire* tant que les cédants sont encore soumis à une certaine concurrence (en supposant que l'organisation de normalisation ait réellement la possibilité d'opter pour une autre technologie). L'autre objectif de cette stratégie est de créer un certain contre-pouvoir d'acheteur, en regroupant la demande de tous les preneurs de licence participant au processus de normalisation. L'effet *ex ante*, associé à l'effet de négociations collectives/de monopsone peut aider les membres de l'organisation de normalisation qui veulent appliquer la norme à obtenir des conditions plus favorables de la part des titulaires de brevets essentiels, ce qui conduit à une diminution des coûts marginaux et éventuellement à une baisse des prix pour le consommateur. Cette stratégie est également susceptible d'accélérer le processus de normalisation et de diminuer le risque qu'une action en justice soit nécessaire pour résoudre des différends liés aux redevances et conditions de licence.

D'un autre côté, selon la théorie économique, l'existence d'un contre-pouvoir d'acheteur a un résultat incertain lorsqu'il est exercé face à un pouvoir de monopole. La production et le bien-être des consommateurs pourraient même l'une et l'autre diminuer davantage qu'ils ne le feraient dans un scénario de monopole pur. En outre, le cédant n'a pas toujours un pouvoir de monopole, en particulier avant l'adoption de la norme. Il s'ensuit que le pouvoir d'acheteur pourrait être, non pas un contre-pouvoir à un monopole, mais un moyen de faire diminuer des redevances qui sont déjà à un niveau concurrentiel jusqu'à un niveau encore plus faible. La pression à la baisse sur les redevances serait telle que les principaux innovateurs réagiraient par une diminution de leurs investissements dans la R-D. À noter toutefois que plusieurs commentateurs ont contesté l'idée selon laquelle l'existence d'un pouvoir d'acheteur dans le cadre du processus de normalisation entraîne une baisse de la production.[40]

Comme le montre l'argument relatif au contre-pouvoir d'acheteur, les engagements et négociations *ex ante* peuvent poser un problème dans la mesure où, même s'ils peuvent constituer des moyens intéressants de lutte contre les embuscades, ils sont susceptibles de poser, en eux-mêmes, des problèmes de concurrence. Les membres des organisations de normalisation sont souvent des concurrents et toute négociation entre des concurrents pour déterminer les prix qu'ils sont prêts à payer et les conditions qu'ils sont disposés à accepter des vendeurs risquent, à l'évidence, d'être jugées illicites. C'est la raison pour

39 Dunlavey et Schallop, note 31 *supra*, pp. 34-35.

40 *Voir, par exemple*, Joseph Farrell, *et al.*, « Standard Setting, Patents, and Hold-Up », 74 Antitrust Law Journal 603, 632 (2007) ; Ohana, *et al.*, note 32 *supra*, p. 654.

laquelle certaines organisations de normalisation appliquent des règles qui interdisent à leurs membres de conduire des négociations sur les redevances et les conditions de licence. Cet aspect est examiné plus précisément dans la partie 4.3.2.

Améliorer la communication entre les organisations de normalisation et les offices de brevets

L'autre stratégie défensive que les autorités de la concurrence pourraient proposer aux organisations de normalisation serait d'améliorer la communication avec les offices de brevets. L'objectif serait notamment de permettre aux organisations de normalisation d'avoir connaissance de tous les brevets délivrés et en instance des entreprises qui participent au processus de normalisation. Dans l'idéal, il faudrait que les organisations de normalisation puissent également avoir connaissance ou être informées de toute modification apportée par ces entreprises à la portée de leurs brevets en instance. Si le système des brevets confère aux participants des droits légaux leur permettant d'empêcher que ces informations soient communiquées à des tiers tels que les organisations de normalisation, il faudrait subordonner la participation au processus de normalisation à la renonciation à ces droits vis-à-vis des organisations de normalisation. Cette renonciation serait, à elle seule, suffisante pour dissuader les entreprises de tendre une embuscade au moyen de leurs brevets en instance.

Parallèlement, il faudrait que l'information circule mieux dans l'autre direction aussi. Il pourrait être envisagé d'inciter les organisations de normalisation à permettre aux offices de brevets d'accéder aux études et à la documentation technique soumises à leurs comités lorsque des brevets en instance susceptibles de concerner la norme en cours d'élaboration existent. Les examinateurs des offices pourraient ainsi mieux appréhender l'état de l'art antérieur, ce qui contribuerait à éviter qu'ils ne délivrent des brevets à tort. La participation au processus de normalisation pourrait, là aussi, être subordonnée à un accord des participants autorisant la communication de ces informations aux offices de brevets. Cette forme de coopération entre organisations de normalisation et offices de brevets est aussi un moyen relativement puissant de dissuader les entreprises de tendre des embuscades.

4.3.2 Ne pas nuire à la concurrence

Les trois premières propositions exposées dans la partie 4.3.1. présentent l'inconvénient de pouvoir être elles-mêmes considérées comme des atteintes au droit de la concurrence. Le fait que des concurrents se regroupent pour négocier ensemble des prix maximaux et autres conditions relatives à la manière dont ils traitent avec les fournisseurs ressemble beaucoup à une pratique de collusion illicite. L'argument selon lequel les participants au processus de normalisation cherchent à prévenir une embuscade pourrait être un prétexte pour mettre en place une entente entre acheteurs. En outre, les participants pourraient fort bien commencer par des négociations sur les redevances de licence pour l'exploitation des brevets intégrés à la norme, puis passer à des négociations sur le prix auquel ils vendront leurs produits aux consommateurs. Par conséquent, les organisations de normalisation et leurs membres pourraient se trouver eux-mêmes en difficulté si les autorités de la concurrence accueillent avec méfiance leurs efforts pour prévenir les embuscades. En pareil cas, les organisations de normalisation seraient plus réticentes à effectuer ces efforts, ce qui pourrait empêcher un comportement légitime, susceptible d'améliorer le bien-être. Pour éviter cet écueil, il faudrait que les autorités en charge de la concurrence fassent la différence entre les stratégies faussement destinées à lutter prévenir les embuscades et celles qui visent véritablement à les déjouer. Pour y parvenir, elles doivent rejeter l'approche *per se* vis-à-vis de la coordination *ex ante* des organisations de normalisation au profit d'une approche reposant sur la règle de raison.

Dans une certaine mesure, elles l'ont déjà fait. Aux États-Unis, par exemple, il existe un consensus relativement solide sur l'idée selon laquelle, dans un contexte de normalisation, l'intérêt que peuvent avoir des stratégies collectives de lutte contre les embuscades est supérieur aux préjudices qu'elles risquent de

causer (du fait qu'elles peuvent parfois avoir en réalité pour but de faciliter une entente).[41] La commission de modernisation du droit de la concurrence *(Antitrust Modernization Commission)* a récemment recommandé une interprétation souple du droit de la concurrence vis-à-vis des organisations de normalisation lorsqu'elles cherchent à prévenir les embuscades, soulignant que ces pratiques risquaient de compromettre l'adoption de normes techniques courantes positives pour les consommateurs. Elle a ajouté que « un comportement limité à [l]a tenue, par les membres d'une organisation de normalisation, de négociations collectives avec les titulaires de droits de propriété intellectuelle en ce qui concerne le montant des redevances doit être apprécié sur la base de la règle de raison. » Elle a insisté sur la nécessité de prêter attention aux conséquences que les négociations collectives d'une organisation de normalisation peuvent avoir sur l'innovation.[42] Plusieurs chercheurs sont d'accord avec l'idée qu'il faut adopter une approche fondée sur la règle de raison vis-à-vis des stratégies *ex ante* des organisations de normalisation en général.[43] Le ministère fédéral de la Justice partage cet avis, du moins en ce qui concerne les règles de divulgation et a, dans deux cas, émis des lettres de clarification à l'intention des entreprises *(business review letters)* dans lesquelles il indique avoir appliqué une analyse fondée sur la règle de raison à de telles mesures et ne pas avoir l'intention d'engager des poursuites.[44]

Toutefois, comme le souligne Willard Tom, « dire *que* la règle de raison doit être appliquée, sans expliquer *comment* l'appliquer met les conseillers dans une situation particulièrement difficile[45] Thomas Cotter, pour sa part, reconnaît n'avoir aucune idée de ce à quoi devrait ressembler cette approche.[46]

De prime abord, la Commission européenne semble avoir une conception globalement similaire à celle du ministère fédéral de la Justice :

> *Les entreprises qui concluent un accord de regroupement de technologies compatible avec l'article 81 et toute norme industrielle dont il est à la base sont normalement libres de négocier et de fixer les redevances pour les technologies concernées, ainsi que la part de chacune de ces technologies dans les redevances totales, soit avant soit après la fixation de la norme. Il s'agit d'une caractéristique propre à ce type de normes ou d'accords, qui ne peut être considérée en soi comme constituant une restriction de la concurrence et peut dans certaines conditions donner de meilleurs résultats. Dans certaines circonstances, il peut être plus efficace de se mettre d'accord sur les redevances avant de choisir la norme et non après l'avoir adoptée, afin d'éviter que le choix de cette norme confère un degré important de puissance sur le marché d'une ou plusieurs technologies essentielles.*[47]

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41 Voir Cotter, note 29 *supra*, pp. 762-63 et note 53.

42 US Antitrust Modernization Commission, Report and Recommendations, pp. 118-121 (avril 2007).

43 Voir, par exemple, 2 Herbert Hovenkamp, Mark Janis et Mark Lemley, IP and Antitrust, paragraphe 35.6c3, pp. 35-64 (2008) ; Justin Hurwitz, « The Value of Patents in Industry Standards: Avoiding License Arbitrage with Voluntary Rules », 36 American Intellectual Property Law Association Quarterly Journal 1, 29-30, 41 (2008). Beaucoup d'autres sources sont citées dans Cotter, note 29 *supra*, p. 765 note 68.

44 Lettre de Thomas Barnett, ministère fédéral de la Justice, à Michael Lindsay, (30 avril 2007), consultable à l'adresse www.usdoj.gov/atr/public/busreview/222978.pdf ; Lettre de Thomas Barnett, ministère fédéral de la Justice, à Robert Skitol, (30 octobre 2006), consultable à l'adresse www.usdoj.gov/atr/public/busreview/219380.pdf.

45 Willard Tom, « The DOJ/FTC Report on Antitrust Enforcement and Intellectual Property Rights », Antitrust 35, 39 (été 2007) (cité dans Cotter, note 29 *supra*, p. 788 note 153) (italique dans l'original).

46 Cotter, note 29 *supra*, p. 788.

47 Communication de la Commission 2004/C 101/02, Lignes directrices relatives à l'application de l'article 81 du Traité CE aux accords de transfert de technologie, paragraphe 225.

Toutefois, ces lignes directrices reposent sur l'hypothèse que les parties respectent l'article 81. En outre, elles comportent une réserve, introduite par les termes « normalement » et « dans certaines conditions », et n'apportent pas de réponse à la question de savoir ce qui doit être considéré comme exceptionnel et comme contestable. Des orientations supplémentaires pourraient être utiles, certains observateurs ayant avancé que les organisations de normalisation sont actuellement confrontées à un risque sérieux de poursuites sur la base de l'article 81(3) du Traité CE en cas de négociations collectives.[48]

Certains avancent qu'il pourrait finalement ne pas être judicieux d'appliquer la règle de raison aux négociations *ex ante* (au lieu de ne l'appliquer qu'aux règles relatives à la divulgation *ex ante* et/ou aux négociations *ex ante* bilatérales) parce que les autoriser ne peut avoir aucun effet bénéfique. En supposant que tous les membres de l'organisation de normalisation aient divulgué tous leurs brevets, conformément à un engagement ou une obligation, deux types de négociations *ex ante* collectives sont possibles. L'organisation de normalisation peut négocier avec une entreprise titulaire de droits de propriété intellectuelle pour lesquels 1) il existe des substituts envisageables ; 2) il n'existe pas de substituts envisageables.

Dans le premier cas de figure, il n'y a pas de pouvoir de monopole à combattre. Les obligations de divulgation *ex ante* et les négociations *ex ante* bilatérales devraient suffire à inciter le titulaire des droits de propriété intellectuelle à proposer des conditions concurrentielles (à condition qu'il soit disposé à respecter ces obligations et à participer à ces négociations). Faire intervenir un pouvoir de monopsone dans la transaction ne peut qu'entraîner une baisse supplémentaire de la redevance, qui risque de devenir inférieure au niveau de concurrence (théorique). Il existe au moins un risque que la redevance devienne suffisamment faible pour dissuader d'effectuer d'autres investissements dans la R-D et l'innovation. Il existe aussi un risque que les monopsoneurs se livrent à des pratiques de collusion sur le marché d'aval comme sur le marché d'amont.

Dans le second cas de figure, le titulaire des droits de propriété intellectuelle détient un pouvoir de monopole. Il s'agit cependant dans ce cas d'une négociation *ex ante*. Si ce pouvoir de monopole existe, il est lié au fait, non pas que le titulaire des droits a tendu une embuscade, mais qu'il a mis au point une technologie utile et sans équivalent. Dès lors, est-il justifié qu'un innovateur soit privé des fruits de sa réussite au seul motif que les preneurs de licence sont membres d'une organisation de normalisation ? Ne mérite-t-il pas des bénéfices de monopole ? Permettre aux preneurs de licence de constituer un monopsone collectif de façon à exercer un contre-pouvoir vis-à-vis du cédant risque d'entraîner la redevance à la baisse, mais aussi de compromettre la récompense de l'innovation. Une telle issue ne semble guère tolérable par les autorités de la concurrence.

En somme, c'est l'aspect collectif de la négociation plutôt que son aspect *ex ante* que cet argument remet en cause. Il repose sur l'idée qu'il ne semble ni nécessaire, ni souhaitable, du point de vue de la politique de la concurrence, d'autoriser que des négociations soient conduites collectivement. L'essentiel, voire la totalité des effets positifs de la concurrence *ex ante* (si toutefois elle est possible) peut être obtenu par une obligation de divulgation *ex ante* des redevances maximales et des conditions de licence les plus restrictives et par des négociations *ex ante* bilatérales. Le fait que les preneurs de licence potentiels veuillent négocier des conditions précises individuellement avec les cédants potentiels sur une base *ex ante* ne constitue pas un problème et pourrait même être une stratégie judicieuse. En revanche, si les preneurs de licence commencent à négocier collectivement, il risque d'y avoir préjudice à la concurrence sans avantages pour compenser ce préjudice.

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48 Damien Geradin et Miguel Rato, « Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-up, Royalty Stacking and the Meaning of Fraud » 3 European Competition Journal 101, 134-36 (2007).

On peut objecter que des négociations *ex ante* collectives pourraient se révéler proconcurrentielles dans des situations où un titulaire de droits de propriété intellectuelle refuse de participer à des négociations *ex ante* bilatérales. En d'autres termes, il est possible qu'un titulaire de droits de propriété intellectuelle n'ose pas refuser de négocier avec l'ensemble des preneurs de licence potentiels membres d'une organisation de normalisation, mais ose refuser de négocier avec eux individuellement. En particulier, si d'autres titulaires de droits de propriété intellectuelle en concurrence avec le premier semblent susceptibles d'accepter de négocier avec l'ensemble des membres d'une organisation de normalisation, le titulaire des droits risque d'avoir l'impression qu'il se mettra dans une position concurrentielle défavorable en refusant de participer aux négociations. Les membres de l'organisation de normalisation pourraient donc utiliser les négociations *ex ante* collectives pour obliger le titulaire des droits de propriété intellectuelle à négocier avant de réaliser eux-mêmes des investissements à fonds perdus dans une technologie spécifique.

Toutefois, si le titulaire des droits de propriété intellectuelle sait qu'il risque de se mettre dans une position concurrentielle défavorable en refusant de participer à des négociations *ex ante* collectives, il sait sans doute qu'il risque aussi de se mettre dans une position défavorable en refusant de participer à des négociations *ex ante* bilatérales. À l'évidence, le titulaire des droits risque d'hésiter davantage à refuser de négocier s'il sait qu'il risque ainsi de s'aliéner tous les membres d'une organisation de normalisation collectivement, et non individuellement. Cependant, refuser de négocier avec chacun d'eux individuellement risque d'aboutir au même résultat final. Le titulaire des droits de propriété intellectuelle se mettrait dans une position concurrentielle défavorable si les titulaires de droits sur des technologiques concurrentes sont prêts à négocier bilatéralement.

Quoi qu'il en soit, certaines autorités de la concurrence au moins ont annoncé leur intention d'appliquer une analyser fondée sur la règle de raison aux affaires qui font intervenir des négociations *ex ante* par des organisations de normalisation.[49]

4.3.3 L'action en justice et ses limites

L'autre moyen que les autorités ont à leur disposition est de mener une enquête sur les embuscades et d'engager des actions en justice à l'encontre de leurs auteurs. Pour que l'issue de ces affaires puisse être considérée comme favorable, il faut au moins que la décision mette un terme aux préjudices que les défendeurs causent à la concurrence et les dissuade de recommencer. Il existe toutefois un problème de seuil, lié à la question de savoir si une embuscade peut constituer une atteinte au droit de la concurrence. On peut fort bien imaginer que les tribunaux considèrent que cette pratique relève du seul droit des brevets, et n'entre pas dans le champ d'application du droit de la concurrence. On pourrait également considérer que les embuscades reposent sur la tromperie et que la tromperie relève de la fraude, non du droit de la concurrence.

Dans certaines juridictions au moins, un comportement trompeur peut constituer une atteinte au droit de la concurrence, même lorsque des brevets sont en jeu. Aux États-Unis par exemple, la Cour suprême a estimé il y a longtemps qu'un comportement trompeur mettant en jeu des brevets pouvait constituer le

[49] Voir Deborah Majoras, alors présidente de la FTC, « Recognizing the Procompetitive Potential of Royalty Discussions in Standard Setting », discours prononcé à l'université de Stanford, p. 7 (23 septembre 2005) (approuve l'application de la règle de raison à l'analyse des négociations *ex ante* collectives dans les organisations de normalisation) ; ministère fédéral de la Justice et FTC, « Antitrust Enforcement and Intellectual Property Rights : Promoting Innovation and Competition », (2007), pp. 7-8 (défend le même point de vue, mais souligne expressément que les autorités ne prennent pas position sur le point de savoir s'il *faut que* les organisations de normalisation tiennent des négociations *ex ante* sur les conditions de licence), consultable à l'adresse www.usdoj.gov/atr/public/hearings/ip/222655.pdf et www.ftc.gov/reports/innovation/P040101PromotingInnovationandCompetitionrpt0704.pdf.

fondement d'une plainte pour monopolisation.[50] La Cour à considéré que le fait d'obtenir un brevet en faisant sciemment et délibérément de fausses déclarations à l'office de brevets pouvait étayer une plainte pour monopolisation en vertu de l'article 2 si ce brevet était ensuite utilisé pour empêcher toute concurrence. Depuis, des affaires relatives au droit de la concurrence fondées exclusivement ou principalement sur un comportement trompeur et impliquant des brevets (outre les cas de fraude vis-à-vis de l'office de brevets) ont été portées de temps à autre devant les tribunaux américains. Certaines d'entre elles sont présentées dans la partie 4.3.4.

La Commission européenne a instruit au moins trois affaires liées à un comportement trompeur et à des brevets dans un contexte de normalisation (également présentées dans la partie 4.3.4.). Bien que les tribunaux européens n'aient, pour l'instant, eu à trancher aucune de ces affaires, il ressort des interventions de la Commission qu'elle est convaincue qu'un tel comportement peut porter atteinte au droit de la concurrence. Dans une affaire extérieure au contexte de la normalisation, la Commission a, sur le fondement de l'article 82, imposé des amendes substantielles à une entreprise qui avait communiqué de fausses informations à l'office national de brevets pour étendre la durée de la protection conférée par un brevet.[51] Cette décision est conforme aux orientations données par la Commission, selon lesquelles « [l]e fait que la législation sur la propriété intellectuelle accorde des droits d'exploitation exclusifs ne signifie pas que les droits de propriété intellectuelle sont exclus de l'application du droit de la concurrence. »[52]

Analyser sur le fondement de l'article 82 des affaires impliquant des embuscades représente toutefois un défi intéressant pour la Commission européenne, parce que l'article exige que les défendeurs aient déjà acquis une position dominante au moment où ils se livrent à un comportement abusif. L'acquisition ou la tentative d'acquisition d'une position dominante de manière anticoncurrentielle n'entre pas dans le champ d'application de l'article 82. Cela peut représenter un obstacle important dans les affaires d'embuscades tendues au moyen de brevets, dans lesquelles le comportement trompeur de l'entreprise peut être à l'origine de la position dominante (à supposer que cette position ait été acquise après l'embuscade).

La Commission peut contourner cette difficulté en se concentrant sur la redevance exigée par le défendeur une fois qu'il est en position dominante. Elle peut, au lieu d'attaquer le comportement trompeur initial, contester, au titre de l'abus de position dominante, la redevance « élevée » imposée ensuite par le défendeur. Cette approche présente malheureusement des faiblesses. Premièrement, elle pose la délicate question de l'interprétation du terme « élevée ». Comme indiqué précédemment, le concept de conditions FRAND n'aide guère à répondre à cette question.

Deuxièmement, s'il suffit que le niveau de la redevance soit « élevé » pour qu'un comportement soit jugé anticoncurrentiel, *tout* titulaire de droits de propriété intellectuelle en position dominante sur un marché quelconque pourrait être poursuivi sur le fondement de l'article 82 au vague motif qu'il pratique des redevances trop élevées, qu'il ait ou non tenté de tendre une embuscade (ou de se livrer à d'autres agissements préjudiciables à la concurrence). Cette approche risque d'aboutir à condamner un trop grand nombre de comportements parce qu'elle ne fait pas de distinction entre une position dominante acquise via un comportement anticoncurrentiel et une position dominante résultant de la détention d'une technologie supérieure. Ainsi, elle pourrait aboutir à attaquer le détenteur d'une technologie qui a été choisie pour une norme alors que l'organisation de normalisation savait, au préalable, qu'elle était brevetée.

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50 *Walker Process Equipment, Inc. contre Food Machinery and Chemical Corp.*, 382 U.S. 172 (1965).

51 Voir la décision *AstraZeneca*, JO L 332/24 (30 novembre 2006). Cette décision a fait l'objet d'un recours devant le Tribunal de première instance.

52 Communication de la Commission 2004/C 101/02, Lignes directrices relatives à l'application de l'article 81 du Traité CE aux accords de transfert de technologie.

Troisièmement, cette approche ne remédie pas à ce qui constitue le problème fondamental dans les affaires d'embuscade, à savoir le fait que le défendeur a acquis une position dominante en amenant, par la tromperie, l'organisation de normalisation à élaborer une norme en lien avec un ou plusieurs de ses brevets. Le défendeur devra peut-être réduire sa redevance, mais le fait qu'il ait acquis une position dominante par la tromperie ne sera pas sanctionné parce que cette pratique n'est pas illicite, du moins selon l'article 82. Inge Govaere a récemment commenté cette question dans le contexte des embuscades tendues au moyen de brevets :

> *L'article 82 du Traité CE s'appliquant aux positions dominantes déjà acquises et non à l'acquisition abusive d'un pouvoir de marché en tant que telle, il semble difficile que la Commission prenne des mesures correctrices pour défaire l'embuscade initiale et le processus de normalisation qui en a découlé. À travers l'effet du fait accompli, l'embuscade permet au titulaire des droits de propriété intellectuelle de conforter, voire d'accroître, son pouvoir de marché et d'en récolter les fruits sous forme de redevance au titre de toute utilisation de la norme pendant l'intégralité de la durée de son brevet. L'application de conditions FRAND n'élimine que les effets les plus saillants du comportement anticoncurrentiel initial [.]*[53]

Pour fondée qu'elle soit, cette critique est également un peu injuste. Même dans les juridictions où le droit de la concurrence vise l'acquisition d'une position dominante, il n'existe en principe pas de moyen de « défaire » une embuscade et la normalisation qui en découle. S'il est adroit, l'auteur de l'embuscade attend que ses victimes aient réalisé de lourds investissements pour appliquer une norme avant d'utiliser ses brevets contre elles. À ce stade, même si l'autorité de la concurrence intervient très rapidement, il sera probablement trop tard pour que le secteur se tourne vers une autre norme. Le défendeur, s'il est reconnu coupable, peut être contraint à baisser le montant de sa redevance, voire à concéder une licence gratuitement à quiconque fabrique ou achète des produits conformes à la norme. En revanche, il est peu probable qu'il soit envisageable, d'un point de vue économique, de recommencer le processus d'élaboration de la norme en utilisant une autre technologie. Cette possibilité de concurrence ne peut pas être recréée.

Ce problème existe dans toutes les juridictions et montre que la promotion de la concurrence *ex ante* constitue un important moyen de lutte contre les embuscades. La concurrence accomplit l'essentiel de son travail avant le début de tout comportement anticoncurrentiel. Les autorités de la concurrence devraient donc faire preuve de vigilance vis-à-vis des organisations de normalisation et dialoguer avec elles, si nécessaire, pour les aider à prévenir les embuscades.

Il ne faut néanmoins pas en conclure que les interventions *ex post* sont inutiles. Sanctionner le défendeur en le poursuivant pour atteinte au droit de la concurrence, en le privant de sa capacité à pratiquer des redevances de licence *supra*-concurrentielles (voire à percevoir des redevances) et en lui imposant des amendes (dans les juridictions où cela est possible) peut le dissuader partiellement ou complètement de tendre des embuscades à l'avenir.

4.3.4 Exemples d'affaires

Les affaires Rambus

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[53] Inga Govaere, « In Pursuit of an Innovation Policy Rationale: Stakes and Limits under Article 82 », 31 World Competition 541, 549-550 (2008) ; voir également Eliza Petritsi, « The Case of Unilateral Patent Ambush Under EC Competition Rules », 28 World Competition 25, 31-33, 42 (2008) (qui conclut que « [t]ant que les règles européennes en matière de concurrence n'interdisent que l'abus de position dominante et non la monopolisation ou la tentative de monopolisation (…), la lutte contre les embuscades tendues au moyen de brevets en tant que telles semble être une entreprise très délicate »).

La Commission européenne et la Commission fédérale du commerce des États-Unis (*Federal Trade Commission*, FTC) ont, l'une et l'autre, engagé des poursuites contre Rambus, Inc. ces dernières années pour suspicion de pratique d'embuscade basée sur des brevets en instance et des normes relatives aux puces à mémoire dynamique à accès aléatoire (DRAM).[54] Le comportement en cause dans ces affaires correspond exactement aux situations visées par l'intitulé de la partie 4 du présent document. Ces affaires étant encore en instance, seuls les éléments de base seront examinés ici pour illustrer les conséquences que peuvent avoir les embuscades tendues au moyen de brevets en instance.[55]

Le *Joint Electron Device Engineering Council* (JEDEC) est un organisme chargé de définir des normes pour les mémoires informatiques. L'un de ses objectifs est d'éviter de définir des normes qui exigeront le paiement de redevances de licence élevées de la part des producteurs fabriquant des produits conformes. C'est pourquoi ses règles visaient à éviter l'intégration de technologies brevetées dans les normes, sauf si le titulaire du brevet s'était engagé à appliquer des conditions de licence équitables, raisonnables et non discriminatoires (FRAND).

Rambus, qui conçoit des technologies de mémoire informatique et concède des licences sur ces technologies, était membre du JEDEC et a participé aux travaux du sous-comité sur les normes relatives aux puces à mémoire DRAM pendant environ quatre ans, du début au milieu des années 90. Durant cette période, l'entreprise avait des demandes de brevets en instance, dont les divulgations étaient suffisamment larges pour couvrir les technologies visées par les normes en cours d'examen. Elle a même modifié de manière répétée les revendications de ses brevets en instance et déposé une série de demandes divisionnaires pour constituer un portefeuille de brevets propre à couvrir les normes.

La FTC a contesté le comportement de Rambus sur le fondement de l'article 5 de la loi instituant la FTC (qui interdit les formes de concurrence déloyales et reposant sur la tromperie) et de l'article 2 de la loi Sherman (qui interdit la monopolisation). La FTC a fait valoir que l'entreprise Rambus n'a divulgué aucun de ses brevets ou brevets en instance lorsqu'elle était membre du JEDEC, bien qu'elle en ait divulgué certains dans le cadre de sa démission du JEDEC. La FTC a souligné qu'interrogé sur l'existence éventuelle de brevets susceptibles de couvrir les normes à l'étude, le représentant de Rambus a éludé la question et n'a fourni que des informations partielles. En outre, pendant toute la période durant laquelle elle a été membre du JEDEC, l'entreprise a utilisé les informations auxquelles elle avait accès sur les normes à l'étude pour modifier et affiner les revendications de ses brevets en instance, afin qu'elles correspondent directement aux normes proposées.

Le fait que les brevets possédés par Rambus lui ont permis d'avoir un monopole (avec une part de marché de 90 %) sur quatre technologies intégrées à la norme élaborée pour la mémoire DRAM était incontesté. Toutefois, des documents internes de l'entreprise appelaient à ne pas divulguer l'existence de ces brevets « jusqu'à ce que la production ait atteint un point de non retour. »[56] C'est ce qu'a fait Rambus, qui a fini par opposer ses brevets, engageant plusieurs actions en justice pour atteinte à ses droits à

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54 CE, « Commission Confirms Sending a Statement of Objections to Rambus », communiqué de presse (23 août 2007), consultable à l'adresse http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330&form ; *In the Matter of Rambus, Inc.*, FTC Docket n° 9302, Opinion de la Commission (2 août 2006) ; *Rambus Inc.*, 2007 WL 431524 (F.T.C. 2007) ; *Rambus, Inc.*, 2007 WL 431525 (F.T.C. 2007) ; *Rambus, Inc.*, 2007 WL 2086203 (F.T.C. 2007) ; *Rambus, Inc.*, 2007 WL 431523 (F.T.C. 2007) ; *Rambus, Inc. contre FTC*, 522 F.3d 456 (D.C. Cir. 2008).

55 La FTC a officiellement abandonné ses poursuites alors que la présente note était en cours de finalisation (USFTC, « Statement in the Matter of Rambus », communiqué de presse (14 mai 2009), consultable à l'adresse www.ftc.gov/opa/2009/05/rambus.shtm.

56 *In the Matter of Rambus, Inc.*, FTC Docket n° 9302, Opinion de la Commission (2 août 2006), pp. 44-48.

l'encontre de fabricants de puces équipées d'une mémoire DRAM et demandant des millions de dollars de redevances.

L'analyse du comportement de Rambus à la lumière du droit de la concurrence a donné lieu à de vives controverses. Les principales questions à trancher dans le procès portaient sur le point de savoir i) si Rambus avait l'obligation de divulguer ses brevets, délivrés et en instance ; ii) si le fait de ne pas les avoir divulgués lui avait permis d'obtenir un monopole sur les quatre technologies ou si ce monopole était plutôt le résultat inévitable de la supériorité de sa technologie ; et iii) si la non-divulgation avait eu pour seule conséquence de priver le JEDEC de toute possibilité d'obtenir, avant d'élaborer ses normes, que Rambus s'engage à concéder des licences à des conditions FRAND.

En juillet 2007, la Commission européenne a envoyé à Rambus une communication de griefs pour le même comportement que celui qui avait conduit la FTC à engager des poursuites. La Commission y expose son analyse préliminaire, qui est que Rambus a abusé de sa position dominante en demandant des redevances excessives pour l'utilisation de certains brevets portant sur la technologie DRAM après les avoir utilisés pour tendre une embuscade. Le communiqué de presse officiel précise que, pour la première fois, la Commission européenne aborde une affaire d'embuscade sous l'angle du droit de la concurrence.[57]

ETSI

En 2005, la Commission européenne a ouvert une enquête concernant l'Institut européen des normes de télécommunication (ETSI) et a constaté que des faiblesses dans les procédures de normalisation de cet organisme exposaient les normes à un risque d'embuscade. La Commission a clôturé son enquête après que l'ETSI a eu apporté à ses règles les modifications recommandées par la Commission afin de renforcer la protection contre les embuscades. Ces modifications portaient sur l'obligation de divulgation rapide des droits de propriété intellectuelle essentiels pour l'application d'une norme, sur l'équité et la transparence des règles de normalisation et sur l'application de conditions FRAND à la concession de licences.[58]

Cet exemple illustre la manière dont une autorité peut aller jusqu'au bout de la logique selon laquelle les mesures *ex ante* sont essentielles à la lutte contre les embuscades.

Les affaires *Qualcomm*

Une décision rendue par une cour fédérale d'appel aux États-Unis apporte une illustration supplémentaire du fait que, du moins aux États-Unis, l'acquisition d'un monopole par la tromperie dans un contexte de normalisation est visée par le droit de la concurrence.[59] Broadcom Corporation, qui fournit des semi-conducteurs pour les systèmes de communication sans fil à large bande, a accusé Qualcomm, qui conçoit des technologies de communication sans fil, d'avoir trompé une organisation de normalisation concernant une norme de téléphonie mobile. Le plaignant alléguait[60] que Qualcomm avait amené l'organisation de normalisation à intégrer sa technologie brevetée à la norme en feignant d'accepter de

57 CE « Commission Confirms Sending a Statement of Objections to Rambus », (23 août 2007), consultable à l'adresse http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330 .

58 CE, « La Commission se félicite des modifications apportées par l'ESTI à ses règles en matière de droits de propriété intellectuelle afin de prévenir toute situation de type "patent ambush" », communiqué de presse IP/05/1565 (12 décembre 2005), consultable à l'adresse http://europa.eu/rapid/pressReleasesAction.do?reference=IP/05/1565.

59 *Broadcom Corp. contre Qualcomm, Inc.*, 501 F.3d 297 (3d Cir. 2007).

60 Ces allégations n'ont jamais été prouvées. En avril 2009, les parties ont conclu un règlement à l'amiable, en vertu duquel tout litige les opposant est non avenu.

concéder des licences à des conditions FRAND. Plus précisément, Broadcom prétendait que Qualcomm demandait des redevances plus élevées aux entreprises qui utilisaient des jeux de composants fabriqués par ses concurrents, exigeait des redevances au titre de composants sur lesquels elle ne détenait pas de brevet et accordait des remises et autres avantages aux fabricants de téléphones mobiles qui utilisaient exclusivement des jeux de composants qu'elle fabriquait.[61]

Dans cette affaire, la cour avait pour mission, non pas de rendre un jugement définitif, mais de déterminer si un tribunal inférieur avait eu raison de refuser de considérer la tromperie comme le fondement d'une plainte pour monopolisation. Comparant cette affaire à l'affaire *Aspen Skiing*[62], la cour a constaté l'existence de similitudes avec ce cas, qui concernait un défendeur disposant d'un pouvoir de monopole et mettant fin à un accord volontaire (en l'espèce à l'engagement d'appliquer des conditions FRAND) à des fins anticoncurrentielles. Elle a ensuite estimé que dans l'environnement normatif privé, caractérisé par la recherche du consensus, l'engagement intentionnellement faux pris par un titulaire de brevets de concéder des licences sur sa technologie exclusive essentielle à des conditions FRAND, associé au fait que l'organisation de normalisation s'était fondée sur cette promesse pour intégrer la technologie à la norme et au fait que le titulaire de brevet n'a ensuite pas tenu sa promesse pouvait constituer le fondement d'une plainte pour monopolisation. La cour a ajouté que la tromperie dans un contexte de normalisation était préjudiciable au processus concurrentiel parce qu'elle dissimulait le coût de l'intégration d'une technologie exclusive à une norme et augmentait la probabilité que les droits conférés par des brevets permettent à leur titulaire d'acquérir un pouvoir de monopole. Elle a aussi déclaré qu'un faux engagement à appliquer des conditions FRAND était aussi dangereux pour la concurrence que le défaut de divulgation en cause dans l'affaire *Rambus*.

Ce parallèle avec l'affaire *Aspen* est un peu surprenant dans la mesure où cette dernière concernait un refus pur et simple de négocier ou de coopérer avec un concurrent, tandis que l'affaire *Qualcomm* porte sur l'application de prix (prétendument) excessifs, la subordination de vente et l'offre de remises de fidélité à des clients. Il ne s'agit pas d'affirmer que le comportement en cause, une fois prouvé, ne pouvait pas constituer le fondement valide d'une plainte pour atteinte au droit de la concurrence, mais simplement que l'affaire *Aspen* n'était peut-être pas le précédent le mieux choisi.

En octobre 2007, la Commission européenne a ouvert, à l'encontre de Qualcomm, une procédure formelle fondée en partie sur le même comportement que celui allégué dans l'action engagée par Broadcom. Le communiqué de presse officiel indique que l'enquête cherchera à déterminer si Qualcomm est en position dominante et si ses conditions d'octroi de licence sont équitables, raisonnables et non discriminatoires. « Dans un contexte de normalisation, la constatation de pratiques d'exploitation abusive contraires à l'article 82 du Traité CE par Qualcomm (…) peut dépendre de la question de savoir si les modalités d'octroi de la licence imposées par Qualcomm sont contraires à son engagement FRAND. »[63] Cette procédure est en cours.

États-Unis contre Microsoft

Bien que n'impliquant ni brevets en instance, ni organisations de normalisation, cette affaire mérite d'être citée parce qu'elle est une autre illustration d'une situation dans laquelle un tribunal a estimé que la tromperie pouvait constituer une atteinte par monopolisation. L'une des allégations portées contre Microsoft dans l'action engagée en 1998 par le ministère de la Justice sur le fondement du droit de la

61 *Broadcom*, 501 F.3d, 318.

62 *Aspen Skiing Co. contre Aspen Highlands*, 472 U.S. 585 (1985).

63 CE, « La Commission engage une procédure formelle contre Qualcomm », communiqué de presse (1er octobre 2007), consultable à l'adresse http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/389 .

concurrence était que Microsoft avait conservé un monopole en partie par la tromperie.[64] La tromperie constituait un des éléments d'un plan visant à entraver la mise au point de Java, une plateforme de développement de logiciels que Microsoft considérait comme une menace potentielle pour Windows.

Sun Microsystems concevait Java comme une architecture ouverte susceptible de servir d'alternative à Windows. L'entreprise Microsoft a usé de plusieurs stratégies pour donner l'impression de soutenir à Java. Elle a annoncé un plan de promotion de Java, a créé une machine virtuelle Java (JVM) et a diffusé des outils logiciels pour permettre aux éditeurs de logiciels indépendants de concevoir des applications Java. Toutefois, Microsoft a ajouté à sa JVM et à ses outils des technologies non divulguées qui ont en réalité fait obstacle à Java. Elle a en particulier délibérément fait en sorte que sa JVM soit incompatible avec celle de Sun Microsystems et a passé avec des fournisseurs de logiciels indépendants des accords qui les obligeaient à n'utiliser que la JVM Microsoft. Microsoft a également conçu ses outils de développement d'applications de manière à ce que toute application développée avec ces outils ne puisse fonctionner correctement que sur sa version de Java et pas sur celle de Sun Microsystems.

Le tribunal a estimé que les éditeurs de logiciels s'étaient fondés sur l'engagement public de Microsoft à coopérer avec Sun en vue du développement de Java et qu'ils avaient utilisé les outils de développement de Microsoft en ayant la conviction que le logiciel qu'ils contribuaient à créer pourrait fonctionner aussi bien dans l'environnement Java de Microsoft que dans celui de Sun. Selon le tribunal, les documents publiés par Microsoft visaient à tromper les éditeurs d'applications Java pour limiter la menace que Java faisait peser sur le monopole de Microsoft sur le marché des systèmes d'exploitation. Il a considéré que la conception d'applications Java par Microsoft « visait à protéger son monopole sur le marché des systèmes d'exploitation et constituait par conséquent un comportement anticoncurrentiel et une pratique d'exclusion contraires à l'article 2 de la loi Sherman. »[65]

Commentaire des affaires

Ajoutées les unes aux autres, les affaires précitées plaident en faveur de la proposition consistant à considérer que tendre une embuscade au moyen de brevets à l'encontre d'une organisation de normalisation peut constituer une atteinte au droit de la concurrence passible de poursuites, que l'embuscade ait été tendue au moyen de brevets délivrés ou en instance.[66]

L'un des points communs importants que l'analyse des affaires d'embuscades devrait révéler, mais qui ne ressort peut-être pas clairement dans les descriptions souvent succinctes et schématiques présentées ci-dessus, est que les embuscades ne soulèvent un problème de concurrence que si elles nuisent à la concurrence. La conduite malhonnête n'est pas toujours assimilable à un comportement qui est illicite parce qu'il exclut la concurrence et pour faire la différence entre les deux, il faut examiner les effets du comportement en cause sur la concurrence. Il importe de rappeler que nuire à un concurrent ne signifie pas nécessairement nuire à la concurrence. Par exemple, une entreprise peut amener, par la tromperie, une

64 *United States contre Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

65 *Id.*, pp. 35-36.

66 Une autre affaire au moins mérite d'être citée. Dans l'affaire *In re Dell Computer Corp.*, 121 FTC 616 (1995), la FTC a engagé une action sur le fondement de l'article 5 de la loi instaurant la FTC au motif que Dell n'avait pas divulgué ses brevets portant sur la technologie VL Bus, intégrée à une norme de l'association de normalisation *Video Electronics Standards Association* (VESA). Le représentant de Dell à la VESA avait signé une déclaration selon laquelle la norme de la VESA ne portait pas atteinte aux droits de propriété intellectuelle de Dell. Une fois la norme adoptée, Dell a néanmoins accusé la VESA d'y avoir intégré une technologie couverte par un de ses brevets. Dell a essayé d'opposer ce brevet à des entreprises qui appliquaient la norme. Dell a finalement accepté, dans le cadre d'un accord amiable avec la FTC, de ne pas faire valoir les droits conférés par son brevet.

organisation de normalisation à normaliser une technologie sur laquelle elle détient un brevet. Si l'organisation avait su que la technologie était brevetée, elle en aurait choisi une autre. Cependant, si la norme elle-même est en concurrence avec d'autres, il n'est pas évident que le comportement trompeur de l'entreprise ait une incidence du point de vue de la politique de la concurrence.

5. Utilisation des brevets en instance dans les accords de concession réciproque de licences

Les accords de concession réciproque de licences donnent à chacune de deux parties le droit d'utiliser les brevets de l'autre. Il arrive que ces accords comportent aussi des droits sur des brevets en instance. Ils peuvent couvrir tous les brevets délivrés ou en instance du portefeuille des parties ou certains d'entre eux seulement. En ce qui concerne la contrepartie, les accords peuvent prévoir un simple échange de droits, si bien qu'aucune redevance n'est imposée. Toutefois, comme les droits échangés n'ont habituellement pas la même valeur perçue, en général, l'une des parties verse une redevance à l'autre pour que la transaction soit équitable.

Les accords de concession réciproque de licences peuvent être regroupés en une communauté de licences pour permettre le partage de technologies complémentaires appartenant à plusieurs parties.[67] Ces parties peuvent être en concurrence sur un marché d'aval où elles utilisent la technologie de la communauté. Les technologies qui font partie de la communauté ne sont pas concédées en licence à des tiers, même si des parties extérieures peuvent essayer de se joindre à la communauté en offrant de partager leur propre technologie complémentaire avec les membres et (peut-être) en payant une redevance initiale à un ou plusieurs d'entre eux.

Les accords de concession réciproque et les communautés de licences sont habituellement, pour les entreprises, des moyens efficients et proconcurrentiels de partager des technologies complémentaires sans avoir à craindre d'être poursuivies par les autres membres pour atteinte aux droits. Cette partie porte sur la question de savoir de quelle manière les brevets en instance peuvent être utilisés à des fins anticoncurrentielles dans le cadre de ces accords. En théorie du moins, ces possibilités sont nombreuses et il n'est pas possible de toutes les examiner dans une note de référence. Par conséquent, les scénarios ci-après ne sont que des illustrations et ne prétendent pas à l'exhaustivité.

5.1 Stratégie concertée de dissuasion à l'entrée

Dans sa présentation au Comité, l'OEB cite, parmi les comportements susceptibles de poser des problèmes en termes de concurrence, l'utilisation de brevets en instance par les membres de communautés de licences. L'office craint que des membres en concurrence sur un marché d'aval s'entendent pour créer des droits en instance artificiellement afin de justifier une hausse des redevances qu'ils imposent à d'autres concurrents ou concurrents potentiels souhaitant rejoindre la communauté. Le but de cette hausse des redevances serait d'empêcher d'autres entreprises de rejoindre la communauté et, partant, d'accéder à une technologie qui améliorerait leur position concurrentielle vis-à-vis des entreprises déjà membres de la communauté de licences sur le marché d'aval.

En d'autres termes, selon cette thèse, les membres de la communauté pourraient ajouter à leurs portefeuilles de droits de propriété intellectuelle un grand nombre de demandes de brevets et les utiliser

67 Il est nécessaire de clarifier la terminologie. Les « communautés de licences » sont différentes des « communautés de brevets » et « communautés de technologies » dans cette note. Les termes « communauté de brevets » et « communauté de technologies » désignent un ensemble de technologies appartenant à des entités différentes qui conviennent de concéder en bloc à des tiers des licences sur les brevets de la communauté, à un prix donné. Ces tiers ne cherchent généralement pas à rejoindre la communauté. Ils préfèrent en général payer pour utiliser la technologie proposée par la communauté.

pour exclure des concurrents, tout en sachant que certaines de ces demandes n'ont que peu de chances d'aboutir à la délivrance d'un brevet. Analyser l'intérêt de chaque demande en instance représenterait une tâche colossale et extrêmement coûteuse en temps et en argent pour les autres entreprises. Le sachant, les membres de la communauté se fondent sur leurs demandes en instance pour exiger un prix d'entrée tellement élevé qu'il dissuade les autres entreprises de rejoindre la communauté. Refuser l'accès à la communauté peut également empêcher l'entrée sur tout marché sur lequel les droits de propriété intellectuelle de la communauté sont nécessaires ou particulièrement utiles.

Ce comportement est relativement facile à analyser à la lumière du droit de la concurrence parce que sa licéité n'a guère, voire pas de rapport avec le fait que des brevets en instance sont concernés. Elle dépend probablement plutôt de la question de savoir si les membres de la communauté de licences ont effectivement conclu un accord ou une entente pour augmenter les redevances imposées par chacun d'eux aux futurs membres potentiels. Si tel est le cas, leur comportement constitue une entente sur les prix et est considéré comme illicite *per se*. En l'absence d'un tel accord, il n'y a atteinte au droit de la concurrence que si un membre de la communauté au moins est en position dominante sur un marché en cause.[68] Ce scénario est examiné dans la partie 5.2.

Quoi qu'il en soit, il semble peu probable que les membres de la communauté soient prêts à se mobiliser et à engager des dépenses pour constituer une multitude de demandes de brevets douteuses dans le seul but de dissuader d'autres concurrents de rejoindre leur communauté. S'ils veulent faire une utilisation dissuasive de leurs redevances, il serait plus rationnel de se contenter de les augmenter sans ajouter de demandes à leurs portefeuilles de brevets en instance. En outre, ils pourraient également empêcher les concurrents d'accéder au marché en refusant de négocier avec eux, quel que soit le prix. Cette stratégie aussi serait plus simple, moins coûteuse et plus sûre que celle consistant à déposer une série de demandes de brevets douteuses. Un refus pur et simple de négocier risque de constituer aussi une infraction au droit de la concurrence, en particulier s'il est concerté ou si les technologies mises en commun représentent une norme de fait du secteur.

Il serait plus prudent (du point de vue du défendeur) que les entreprises déjà membres de la communauté de licences décident individuellement de refuser de négocier avec un concurrent non membre. Dans la plupart des juridictions, les entreprises ont fondamentalement le droit de négocier ou non avec qui bon leur semble. Ce droit a encore plus de chances d'exister si l'entreprise qui refuse de négocier n'est pas en position dominante. En outre, le droit de décider de concéder ou non une licence et de choisir le preneur de licence est peut-être encore plus fort dans le contexte des droits de propriété intellectuelle. Au fond, l'une des caractéristiques fondamentales d'un brevet est de conférer le droit d'empêcher d'autres parties d'utiliser l'invention qu'il décrit.[69]

Les membres de la communauté de licences auraient même une marge de sécurité supplémentaire si chacun deux adoptait unilatéralement une stratégie de refus de négocier constructif (reposant sur les redevances élevées), au lieu de refuser de négocier à n'importe quel prix. Une telle stratégie contraindrait les plaignants privés ou les autorités de la concurrence et, finalement, les tribunaux, à s'intéresser à la question délicate de savoir à partir de quel niveau une redevance peut être jugée anticoncurrentielle. La

68 Aux États-Unis, où la tentative de monopolisation est considérée comme une atteinte au droit de la concurrence, l'existence préalable d'une position dominante n'est pas toujours exigée. En revanche, il faut qu'au moins un membre de la communauté ait eu une forte probabilité de réussir à acquérir un pouvoir de monopole sur un marché en cause.

69 Voir OCDE, Intellectual Property Rights, note 3 *supra*, pp. 39-40.

Commission européenne a publié des lignes directrices qui couvrent cet aspect mais s'appuient sur le concept « FRAND », qui présente d'importantes limites, comme exposé précédemment.[70]

5.2 Stratégie unilatérale de dissuasion à l'entrée par une entreprise en position dominante

Supposons que le scénario exposé dans la partie 5.1. se transforme en la négociation bilatérale d'un accord de concession réciproque de licences entre une entreprise candidate à l'entrée sur le marché (A) et une entreprise déjà présente en position dominante (B). Supposons en outre qu'il soit nécessaire (ou du moins très souhaitable) pour tout entrant sur le marché en cause de détenir une licence sur certains brevets appartenant à B. Entreprise A, qui possède un petit nombre de brevets complémentaires avec ceux de B, propose un accord de concession réciproque de licences. B est réticente à laisser une nouvelle entreprise entrer sur son marché, même si elle estime que les brevets de A ont une certaine valeur. Elle sait également que A a besoin d'elle plus qu'elle n'a besoin de A.

En prévision de propositions comme celle formulée par A, B a ajouté à son portefeuille de droits de propriété intellectuelle des brevets en instance dont beaucoup sont d'un intérêt discutable et n'ont que peu de chances d'être délivrés. Toutefois, le portefeuille de B contenant beaucoup de brevets en instance, peu d'entreprises seront prêtes ou aptes à mobiliser les moyens nécessaires pour les examiner et apprécier leur qualité. Le sachant, B exagère l'importance de ses brevets en instance et indique à A que si elle souhaite conclure un accord de concession réciproque, elle devra non seulement autoriser B à exploiter tous ses brevets, mais aussi lui payer une redevance élevée. En réalité, B a simplement fixé une redevance que, selon elle, A ne pourra ou ne voudra pas payer. A refuse les conditions imposées par B et ne pénètre pas sur son marché. Y a-t-il atteinte au droit de la concurrence ?

L'une des limites de ce scénario fictif est qu'il semble artificiel. L'utilisation stratégique de brevets en instance semble y avoir été intégrée par obligation. Si B est en position dominante et si les brevets qui lui ont été délivrés sont essentiels, pourquoi aurait-elle besoin de faire appel à des brevets en instance pour justifier une redevance élevée ? Pourquoi ne s'épargne-t-elle pas la peine de déposer des demandes de brevets douteuses et n'oppose-t-elle pas un refus de négocier constructif ou direct en se fondant sur les brevets qui lui ont déjà été délivrés ?

Dans ce cas aussi, le refus de négocier constructif serait une stratégie plus prudente du point de vue du défendeur. B ne pourrait pas être considérée comme portant atteinte au droit de la concurrence, à moins que l'autorité de la concurrence et/ou un tribunal ne décident d'apprécier la valeur réelle de son portefeuille, ce qui est une entreprise délicate. Les autorités de la concurrence et les tribunaux n'ont pas les moyens d'accomplir cette tâche de manière satisfaisante. À l'évidence, l'exercice serait d'autant plus difficile que le portefeuille contient des brevets en instance, non encore examinés par l'office de brevets à la date de la négociation entre A et B. Par conséquent, peut-être existe-t-il finalement une bonne raison d'ajouter des demandes de brevets. Quoi qu'il en soit, il serait très difficile pour les autorités de la concurrence de jouer un rôle utile dans un tel scénario.

Supposons que l'on modifie le scénario en éliminant l'hypothèse selon laquelle les brevets délivrés de B demeurent essentiels après l'apparition de A. Supposons que A ait fait breveter une innovation qui pourrait lui permettre d'être présente sur le marché de B sans porter atteinte aux brevets de cette dernière. B craint donc que A ne remette en cause sa position dominante. A, qui entre sur le marché, sait que le risque d'atteinte aux brevets de B subsiste mais est convaincue que ses propres brevets sont d'une qualité suffisante pour obliger B à conclure un accord de concession réciproque de manière à ce que les deux entreprises puissent être en concurrence sur le marché. Toutefois, au lieu de céder des parts de marché à A,

70 Communication de la Commission 2004/C 101/02, Lignes directrices relatives à l'application de l'article 81 du Traité CE aux accords de transfert de technologie, paragraphe 167.

B préfère compléter son portefeuille avec des brevets en instance de mauvaise qualité pour tenter d'intimider sa rivale et de la dissuader d'entrer sur le marché.

L'un des points essentiels est que des brevets en instance, même de mauvaise qualité, peuvent exercer une forte influence sur la concurrence. Cette influence est liée à trois grandes caractéristiques. Premièrement, la validité de brevets en instance est incertaine et les contester peut être coûteux, en temps et en argent.[71] Deuxièmement, plus les brevets de mauvaise qualité et brevets en instance d'une entreprise sont nombreux, plus il faut de temps et d'argent pour les contester. Troisièmement, porter atteinte à un brevet délivré ou en instance, même de mauvaise qualité, peut représenter un risque très important parce qu'en cas de confirmation de la validité, le titulaire peut obtenir des dommages et intérêts ou un redressement par voie d'injonction. Christopher Leslie relève que :

> *[l]es concurrents paient parfois pour exploiter un brevet dont ils pensent qu'il a été obtenu frauduleusement, parce que le risque de porter atteinte au brevet et d'être reconnu coupable est trop grand. Bien que certains chercheurs estiment qu'un concurrent n'a pas à payer de redevance pour fabriquer et vendre un produit qui porte atteinte à un brevet dont la validité est douteuse, il est souvent rationnel pour le concurrent de prendre une licence sur un brevet dont il pense qu'il n'est pas valide. S'il entre sur le marché sans licence et ne peut pas prouver que le brevet n'est pas valide, le procès pour atteinte au brevet risque de le conduire à la faillite. Le prix de la licence peut être beaucoup plus faible que les dommages et intérêts calculés en tenant compte de la probabilité d'être reconnu coupable.*[72]

Il est également possible que le titulaire du brevet obtienne une injonction qui oblige le contrevenant à cesser son activité.[73]

Si l'on revient au scénario présenté, B est convaincue que A n'a ni le temps ni les ressources nécessaires pour apprécier elle-même la valeur des brevets en instance de B ou pour attendre une décision de l'office de brevets sur la totalité d'entre eux et une action en justice au titre de ceux qui auront été délivrés. Le sachant, B fait savoir à A que ses brevets en instance ont beaucoup de valeur. Elle affirme par exemple qu'ils vont changer l'état de l'art du marché ou informe simplement A qu'elle a besoin d'une licence si elle veut entrer sur le marché sans risquer d'être mise en cause pour atteinte aux droits. B demande alors, dans le cadre de l'accord de concession réciproque de licences, une redevance que A ne peut pas payer. B réussit dont à empêcher A d'entrer sur le marché, et conserve ainsi sa position dominante. De plus, l'innovation de A n'arrivera peut-être jamais sur le marché et d'autres innovateurs seront peut-être découragés par la tactique de B.

Dans ce scénario, les brevets en instance jouent un rôle beaucoup plus important dans le maintien de la position dominante de B que dans l'exemple précédent, où les brevets délivrés étaient indéniablement

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71 Contester la validité d'un brevet est une entreprise coûteuse. *Voir, par exemple,* Christopher Leslie, « Patents of Damocles », 83 Indiana Law Journal 133 (2008), p. 138 (« La peur de provoquer un procès pour atteinte aux droits conférés par un brevet dissuade beaucoup de concurrents d'entrer sur un marché avec un produit qui porterait atteinte au brevet d'une entreprise en position dominante, même si lesdits concurrents soupçonnent le brevet de ne pas être valide. Être défendeur dans un procès pour atteinte aux droits coûte des millions, quelle que soit l'issue. »).

72 *Id*., pp. 154-55.

73 *Voir, par exemple, Medimmune, Inc. contre Genentech, Inc.*, 549 U.S. 118, 122 (2007) (« Si les défendeurs devaient l'emporter dans une action pour atteinte aux droits conférés par un brevet, le plaignant pourrait être condamné à payer des dommages et intérêts colossaux et les frais d'avocat, et pourrait se voir interdire la vente de Synagis, un produit qui représente plus de 80 % de son chiffre d'affaires depuis 1999. Refusant de s'exposer à de telles conséquences, le plaignant a payé la redevance demandée[.] »).

essentiels. Lorsque les brevets délivrés ne sont plus considérés comme indéniablement essentiels, l'incertitude créée par les brevets en instance joue un rôle central dans le plan mis en œuvre par B pour empêcher l'entrée sur le marché. Alors que A aurait peut-être pu tenter d'entrer sur le marché si B n'avait pas eu de brevets en instance, elle est beaucoup moins susceptible de le faire du fait de leur existence et des menaces de B les concernant.

Par ailleurs, la qualité douteuse de certains des brevets en instance et le fait que A n'a ni le temps, ni les moyens de tous les examiner ou de contester leur validité, le cas échéant, sont également des facteurs importants. Si le deuxième facteur peut être relativement facile à apprécier par une autorité de la concurrence, le premier pose inévitablement des difficultés. Selon Harhoff, *et al.*, pour engager une action contre B pour atteinte au droit de la concurrence, l'autorité de la concurrence aura vraisemblablement besoin d'éléments suffisamment solides prouvant que les brevets en instance de B sont de mauvaise qualité ou, du moins, ne justifient pas les menaces de B.[74] Reste à savoir ce que signifie « mauvaise qualité ». L'une des solutions envisageables serait de considérer que des brevets en instance sont de mauvaise qualité s'ils ont finalement été refusés par un office de brevets (ou invalidés par un tribunal).

Il resterait encore à déterminer quel pourcentage des brevets en instance concernés de B devrait être de mauvaise qualité pour qu'il y ait atteinte au droit de la concurrence. Cette question semble être de celles qui nécessitent une règle claire. Il faudrait que ce pourcentage soit suffisamment élevé pour que les autorités n'attaquent pas des demandes déposées en toute bonne foi (il est normal que certaines demandes de brevets soient rejetées) mais suffisamment bas pour permettre d'attaquer les dépôts de mauvaise foi, nuisibles à la concurrence. Un pourcentage trop élevé ou trop bas risque d'avoir un effet dissuasif à la fois sur la concurrence et sur l'innovation. Un système de nature à dissuader les inventeurs en position dominante sur un marché de déposer des demandes de brevets à moins d'être absolument certains que le brevet sera délivré paralyserait probablement l'innovation. D'un autre côté, un système permettant aux entreprises en position dominante de tenir leurs concurrents à distance en utilisant un arsenal de demandes en instance douteuses paralyserait probablement aussi l'innovation et nuirait sans nul doute à la concurrence.

Il serait aussi utile d'examiner avec précision *à quel point* la qualité des brevets en instance est « mauvaise ». Les demandes présentant des faiblesses importantes et flagrantes devraient paraître plus suspectes que celles comportant des anomalies plus légères.

5.3 Inondation de brevets

L'autre utilisation anticoncurrentielle des brevets en instance et accords de concession réciproque de licences est appelée « inondation de brevets » *(patent flooding)*. Sri Sankaran décrit cette stratégie ainsi :

> *[L]'entreprise qui utilise une stratégie d'inondation dépose de nombreuses demandes de brevets revendiquant des modifications mineures ou des améliorations par rapport à la technologie mise au point par une autre entreprise, dite entreprise cible. Son objectif est d'entourer la technologie de l'entreprise cible de brevets et demandes de brevets pour l'empêcher d'exploiter commercialement sa technologie sans risquer de porter atteinte aux droits de l'entreprise qui utilise la stratégie d'inondation. Celle-ci peut ne pas être en mesure d'exploiter les inventions revendiquées sans enfreindre les brevets de l'entreprise cible, mais cette dernière ne peut pas non plus exploiter sa propre technologie sans risquer d'enfreindre les revendications de l'autre entreprise eu égard aux variantes et utilisations de cette technologie. L'entreprise qui emploie*

74 Harhoff, *et al.*, note 5 *supra, p.* 113 (citant Daniel L. Rubinfeld et Robert Maness, « The Strategic Use of Patents: Implications for Antitrust » in Francois Leveque et Howard Shelanski (dir. pub.), Antitrust, Patents and Copyright : EU and US Perspectives 85 (2005)).

> *une stratégie d'inondation utilise ce « blocage » pour négocier une licence pour l'exploitation de la technologie de l'entreprise cible, offrant en contrepartie des licences sur la technologie revendiquée dans ses brevets et demandes de brevets.*[75]

Lorsqu'elle fonctionne comme prévu, cette stratégie dépossède l'entreprise cible du droit exclusif d'utiliser la technologie qu'elle a inventée.

Il existe au moins un argument plausible à l'appui de la thèse selon laquelle l'inondation de brevets ne pose pas de problèmes du point de vue du droit de la concurrence. Il consiste à avancer que, à supposer que l'inondation de brevets soit révélatrice d'un problème, ce problème a trait à l'exigence d'activité inventive du système des brevets (plus précisément, elle révèle que cette exigence est sans doute trop faible). Il y a deux possibilités : soit les « inventions » qui font l'objet de l'inondation méritent d'être protégées, soit elles ne le méritent pas. Dans le second cas, il n'y a évidemment pas lieu que l'office de brevets délivre un brevet pour les protéger et la solution au problème consiste à renforcer l'exigence d'activité inventive. Si elles méritent d'être protégées, il faut en déduire que les entreprises qui utilisent une stratégie d'inondation apportent probablement quelque chose de nouveau, de non évident et d'utile à la société et qu'il y a lieu d'encourager cette démarche, même s'il s'ensuit des difficultés pour d'autres inventeurs.

Cet argument comporte une faiblesse dans la mesure où il repose sur l'hypothèse que l'entreprise cible est en mesure de déterminer rapidement et facilement si les brevets et brevets en instance de l'autre entreprise ont été ou devraient être délivrés. Il s'agit là d'une hypothèse déterminante, d'autant plus difficile à défendre que les demandes de brevets déposées sont nombreuses. Si l'hypothèse selon laquelle l'entreprise cible est en mesure de se prononcer sur la validité de tous les brevets délivrés et en instance de l'autre entreprise n'est pas réaliste, il y a incertitude. Il y a un risque qu'au moins certains des brevets ou brevets en instance soient valides, ce qui, à l'évidence, constitue une menace pour l'entreprise cible.

L'argument selon lequel il peut y avoir position dominante dans ce type de situation est plausible à condition que l'entreprise qui utilise une stratégie d'inondation soit en position dominante. Cette stratégie permet non seulement à une entreprise en position dominante de neutraliser la menace concurrentielle que représente la technologie potentiellement supérieure du candidat à l'entrée sur le marché, mais peut, *in fine*, dissuader d'autres entreprises de mettre au point des innovations qui pourraient menacer l'entreprise utilisant la stratégie d'inondation. De surcroît, plus la technologie a de l'importance et de la valeur, plus il est probable qu'elle fasse l'objet d'une stratégie d'inondation. Comme dans l'analyse relative aux stratégies unilatérales de dissuasion à l'entrée mise en œuvre par une entreprise en position dominante, présentée dans la partie 5.2., il serait bon de déterminer à la fois le pourcentage que représentent les brevets délivrés et en instance de mauvaise qualité ainsi que l'ampleur de leurs faiblesses.[76]

6. Autres moyens à la disposition des autorités de la concurrence

6.1 Réaliser ou commanditer des études, rapports et enquêtes sectorielles

Si les autorités de la concurrence veulent œuvrer davantage pour combattre les utilisations anticoncurrentielles des brevets en instance, un bon point de départ pour utiliser leurs ressources à bon escient serait de réaliser ou de commanditer des études sur la manière dont les entreprises utilisent leurs demandes de brevets et dont le droit de la concurrence pourrait être pertinent. Dans l'idéal, il faudrait que ces rapports donnent aux autorités une idée beaucoup plus précise des secteurs qu'il conviendrait de cibler

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75 Krishna Sankaran, « Patent Flooding in the United States and Japan », 40 IDEA 393 (2000) at 393.

76 Pour de plus amples informations sur les stratégies d'inondation de brevets, en particulièrement sur une comparaison de leur fonctionnement au Japon et aux États-Unis, voir *id*.

(le cas échéant) pour effectuer des investigations complémentaires et leur permettent de déterminer si un renforcement de l'application du droit de la concurrence est nécessaire dans ces secteurs.

Certaines autorités ont déjà fait des avancées remarquables sur cette voie. La Commission européenne, par exemple, a fait réaliser par un groupe de cinq professeurs un rapport sur l'utilisation stratégique des portefeuilles de brevets qui a été achevé en juillet 2007 (le « rapport Harhoff »).[77] Il en est ressorti que le secteur pharmaceutique méritait une étude plus approfondie. La Commission a réagi rapidement en lançant une enquête sectorielle sur le secteur pharmaceutique en janvier 2008. Elle a publié une version provisoire de cette étude en novembre 2008.[78] Par ailleurs, en 2007, le ministère de la Justice des États-Unis et la FTC ont publié conjointement un rapport sur l'application du droit de la concurrence et les droits de propriété intellectuelle.[79]

Ces trois rapports sont le fruit d'un travail de recherche complet et approfondi. Ils apportent une illustration utile des moyens que pourraient utiliser les autorités pour concentrer leurs efforts sur les problèmes de concurrence potentiels liés aux brevets et demandes de brevets.

6.1.1 Le rapport Harhoff

Le rapport Harhoff contient à la fois une revue de la littérature économique consacrée à la question des brevets et une étude empirique des évolutions observées dans le domaine des brevets dans les différents secteurs d'activité en Europe. Cette étude empirique repose sur l'analyse de 1.76 millions de demandes de brevets déposées à l'OEB entre 1978 et 2006. Le rapport tire un certain nombre de conclusions en lien avec les brevets en instance, notamment :

- Le volume de demandes de brevets a augmenté de manière substantielle, essentiellement dans certains domaines technologiques comme les télécommunications, les technologies de l'information et le secteur pharmaceutique. L'utilisation stratégique de brevets se rencontre davantage dans ces domaines.

- La complexité des demandes de brevets déposées par les entreprises s'est notablement accrue dans certains domaines technologiques. Ce phénomène pourrait en partie résulter d'une volonté des entreprises de rendre la portée exacte de leurs demandes de brevets plus difficile à déterminer par les autres entreprises. C'est dans le secteur chimique et pharmaceutique que la complexité des demandes, mesurée par le nombre de revendications par demande, s'est accrue le plus rapidement.

- Les auteurs ont identifié une stratégie en matière de brevets, qu'ils ont dénommée « maximisation des portefeuilles », consistant, pour les grandes entreprises qui opèrent dans des secteurs complexes, tels que les technologies de l'information, les télécommunications et le génie électrique, à faire en sorte que leurs portefeuilles de brevets couvrent le plus grand champ possible en multipliant et en élargissant leurs demandes. D'après le rapport, c'est dans les secteurs où cette stratégie est utilisée que des problèmes de concurrence risquent le plus de se poser. L'objectif est d'améliorer le pouvoir de négociation de l'entreprise lors de la négociation

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77 Harhoff, *et al.*, note 5 *supra*.

78 Commission européenne, Enquête sectorielle dans le secteur pharmaceutique, rapport préliminaire et synthèse (28 novembre 2008), consultable à l'adresse http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/index.html.

79 Ministère fédéral de la justice et FTC, « Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition » note 49 *supra*.

d'accords de concession réciproque de licences. Dans les secteurs où cette stratégie est la plus utilisée, les accords de concession réciproque confèrent en général des droits sur un grand nombre de brevets (délivrés et en instance). En principe, peut-être par pur souci de commodité, les négociations sont essentiellement basées sur une simple comparaison de la taille des portefeuilles de brevets des parties. Les entreprises sont ainsi incitées à déposer plus de demandes de brevets et prêtent moins attention à l'intérêt ou à la validité juridique de leur technologie.

- Lorsqu'elles font face à des comportements impliquant des brevets (délivrés et en instance), les autorités de la concurrence devraient adapter leur intervention en fonction du secteur concerné par ces comportements. Les effets incitatifs de la protection conférée par les brevets varient d'un secteur à l'autre et ont plus d'incidence sur l'innovation dans certains secteurs que dans d'autres. Ainsi, par exemple, invalider ou réduire la portée d'un brevet dans le cadre de mesures correctrices prises pour faire respecter le droit de la concurrence peut affaiblir les incitations à investir dans la R-D dans certains secteurs et les renforcer dans d'autres. En outre, la distinction entre technologies complexes et technologies discrètes est particulièrement importante parce que les effets de portefeuille jouent un rôle plus important sur les marchés des technologies complexes, tandis les brevets individuels ont davantage d'incidence sur les marchés des technologies discrètes.

- Constituer des portefeuilles de brevets délivrés et en instance dans un but stratégique et les utiliser pour bloquer des concurrents ou acquérir un pouvoir de négociation face à ceux-ci est une « tendance très inefficiente qu'il faudrait inverser le plus rapidement possible. »[80] Lorsque de vastes portefeuilles sont utilisés à des fins anticoncurrentielles, il faudrait que la politique de la concurrence joue un rôle. En pareil cas, il convient de ne pas donner trop de poids à l'idée selon laquelle la politique de la concurrence devrait être appliquée de manière plus souple parce que les brevets individuels stimulent l'innovation. Dans ce type de situations, c'est l'effet de portefeuille, pas les brevets individuels, qui est en cause.

- Le droit de la concurrence et le droit des brevets ne prévoient pour l'instant ni l'un ni l'autre de mécanismes pour lutter contre l'utilisation abusive d'un pouvoir de marché lorsque les stratégies mises en œuvre en matière de brevets reposent, non pas sur des brevets individuels, mais sur de vastes portefeuilles de brevets.[81]

6.1.2 L'enquête sectorielle de la Commission européenne dans le secteur pharmaceutique

Bien que ses résultats soient encore provisoires à la date de rédaction de la présente note, cette enquête n'en est pas moins riche d'enseignements. Même si l'on fait abstraction des différentes constatations qui en résultent, elle est intéressante parce qu'elle constitue un exemple de stratégie préventive adoptée par une autorité vis-à-vis d'un secteur identifié comme propice à des utilisations abusives, potentiellement anti-concurrentielles, du système des brevets. Bien que le rapport ne précise pas que l'enquête a été lancée suite au rapport Harhoff, il indique qu'elle fait suite à des données faisant état d'un retard de l'innovation dans le secteur pharmaceutique et d'une possible restriction de la concurrence dans ce secteur.[82]

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80 Harhoff, *et al.*, note 5 *supra*, p. 253.

81 *Id*. pp. 8-13, 80, 140, 253-54, 272-73.

82 Commission européenne, Enquête sectorielle dans le secteur pharmaceutique, rapport préliminaire et synthèse, note 78 *supra*, p. 3.

L'enquête ne vise pas à identifier les atteintes à la concurrence d'entreprises spécifiques, ni à tirer des conclusions sur le point de savoir si certains comportements enfreignent le droit de la concurrence européen de façon générale. Elle a plutôt vocation à fournir à la Commission des données factuelles pour lui permettre de décider si des actions supplémentaires sont nécessaires. Elle repose sur l'examen de 219 médicaments pendant la période 2000-2007.

Les constatations provisoires de l'enquête sont notamment les suivantes :

- le nombre de demandes de brevets dans le domaine pharmaceutique a augmenté beaucoup plus vite que le nombre de demandes de brevets en général (10.2 % par an, contre 4.9 % par an) ;[83]

- les demandes divisionnaires sont essentiellement utilisées par le déposant pour créer une incertitude pour ses concurrents ;[84] et

- les entreprises pharmaceutiques qui mettent au point et vendent des médicaments de marque déposent des demandes divisionnaires pour empêcher ou du moins retarder l'entrée sur le marché de concurrents qui vendent des médicaments génériques ; les demandes divisionnaires augmentent les risques pour les fabricants de médicaments génériques eu égard à la question de savoir s'ils peuvent entrer sur un marché donné sans enfreindre un éventuel brevet.[85]

6.1.3 Le rapport conjoint du ministère de la Justice et de la FTC

En 2007, ces deux autorités américaines ont publié conjointement un rapport intitulé *« Antitrust Enforcement and Intellectual Property Rights : Promoting Innovation and Competition »*. Ce rapport repose sur une série d'entretiens menés par les deux autorités, sur des contributions écrites et sur la littérature spécialisée. Il synthétise bon nombre des opinions exprimées dans les entretiens et dans la littérature et tire quelques conclusions sur les moyens qui pourraient être utilisés pour analyser certains comportements dans lesquels les droits de propriété intellectuelle jouent un rôle. À l'instar des rapports de la Commission européenne, il va bien au-delà des thématiques abordées dans la présente note, mais contient certaines conclusions en lien avec les sujets qu'elle évoque concernant la normalisation :

- L'examen *ex ante* des conditions de licence par les membres d'une organisation de normalisation peut être proconcurrentiel.

- Il est peu probable que la négociation *ex ante* collective des conditions de licence par les membres d'une organisation constitue une atteinte *per se* au droit de la concurrence. Les autorités américaines appliquent généralement la règle de raison pour évaluer les mesures collectives qui atténuent les risques de hold-up, en autorisant les preneurs de licence potentiels à négocier les conditions d'octroi de licence avec les titulaires de droits de propriété intellectuelle. Les négociations *ex ante* de ce type sont surtout souhaitables lorsque l'adoption d'une norme risque de donner un pouvoir de marché à un titulaire de brevet ou de renforcer ce pouvoir.

- Le fait qu'un titulaire de droits de propriété intellectuelle impose unilatéralement ses conditions de licence n'enfreint ni l'article 1, ni, en l'absence d'autres agissements, l'article 2 de la loi Sherman.

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83 Commission européenne, Enquête sectorielle dans le secteur pharmaceutique, rapport préliminaire et synthèse, note 17 *supra*, pp. 137-38.

84 *Id.*, pp. 160-61.

85 *Id.*, p. 377.

- Il est peu probable (en l'absence d'autres agissements) que les négociations *ex ante* bilatérales portant sur les conditions de licence conduites entre un membre d'une organisation de normalisation et un titulaire de droits de propriété intellectuelle indépendamment de l'organisation de normalisation aient besoin d'être passées au crible du droit de la concurrence.

- Les autorités ne prennent pas de position particulière sur le point de savoir s'il est bon que les organisations de normalisation conduisent des négociations *ex ante* particulières sur les conditions de licence.[86]

6.2 Formation suivie et dispensée par les agents des offices de brevets

La mise en place de programmes permettant aux agents des autorités de la concurrence et à ceux des offices de brevets de se former mutuellement aux principes de base de leurs disciplines respectives serait utile aux autorités de la concurrence de deux manière au moins. Les agents des offices de brevets seraient davantage en mesure d'identifier et de transmettre des informations relatives aux utilisations anticoncurrentielles du système des brevets. De leur côté, les agents des autorités de la concurrence auraient une meilleure connaissance du fonctionnement de base du système des brevets et des utilisations anticoncurrentielles qui peuvent en être faites.

6.3 Faire modifier la réglementation pour améliorer la transmission d'informations aux autorités de la concurrence

Lorsque des obstacles réglementaires entravent ou compliquent la circulation, entre les autorités de la concurrence et les offices de brevets, d'informations sur des utilisations du système des brevets suspectées d'être anticoncurrentielles, il conviendrait que les responsables des deux autorités s'adressent ensemble au législateur pour demander un amendement de la législation applicable. Les informations susceptibles d'être utiles aux autorités de la concurrence ne sont pas nécessairement limitées au contenu des demandes de brevets. D'autres données, telles que le nombre de demandes de brevets déposées par une entreprise pour une technologie donnée ou la nature des modifications apportées par une entreprise à ses revendications et la date de ces revendications peuvent également éveiller les soupçons. Il pourrait être utile que les agents des offices de brevets transmettent ces informations aux autorités de la concurrence.

De plus, dans la plupart des juridictions, les demandes de brevets sont publiées 18 mois après la date de dépôt, si bien qu'à ce stade, l'échange d'informations sur le contenu de la demande ne devrait pas poser de problèmes. Il existe toutefois des exceptions à cette règle des 18 mois : ainsi, aux États-Unis, elle ne s'applique pas aux demandes qui ne sont pas simultanément déposées dans une autre juridiction. Les demandes divisionnaires en cascade constituent un autre problème, puisqu'elles peuvent aboutir à ce que les demandes ne soient pas publiées bien au-delà de 18 mois après la demande initiale. Par conséquent, si les autorités de la concurrence se tournent vers le législateur pour obtenir une amélioration de l'échange d'informations avec les offices de brevets, elles pourraient également plaider en faveur de changements qui rendraient plus difficile l'utilisation de tactiques telles que le dépôt de demandes divisionnaires en cascade par les entreprises. De telles initiatives pourraient être importantes dans des juridictions telles que l'Union européenne et les États-Unis, où les offices de brevets ont déjà adopté ces changements mais où ils ont été ou risquent d'être contestés juridiquement. La FTC, par exemple, a déjà émis une recommandation dans laquelle elle préconise l'introduction de dispositions législatives pour protéger les parties d'accusations

[86] Ministère de la Justice et FTC, « Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition », note 49 *supra*, p. 7-8.

d'atteinte aux droits fondées sur des revendications introduites pour la première fois dans des demandes de continuation.[87]

Par ailleurs, il serait bon de pouvoir faire part de soupçons pendant le délai de 18 mois suivant le dépôt. Par exemple, si une entreprise dépose un grand nombre de demandes dans un délai court, et si toutes ces demandes sont étroitement liées à un brevet (ou à des brevets) innovant détenu par une autre entreprise, l'office de brevets peut soupçonner une stratégie d'inondation. Il serait peut-être utile qu'il puisse informer les autorités de la concurrence immédiatement, sans avoir à attendre que le délai de 18 mois soit écoulé, en particulier si un examen d'un échantillon des demandes montre qu'une partie non négligeable d'entre elles est à l'évidence invalide.

Permettre de tels échanges d'informations et faire savoir qu'ils existent pourrait avoir un effet très dissuasif sur les utilisations abusives du système des brevets. Le seul inconvénient qui pourrait en résulter est que les entreprises hésiteraient peut-être davantage à déposer des demandes légitimes et proconcurrentielles, de peur que ces demandes soient, par erreur, jugées anticoncurrentielles. Cependant, si les autorités de la concurrence ne poursuivent que les cas qui le méritent, cet effet dissuasif ne devrait s'exercer que sur les demandes de brevets dont la société a intérêt à se passer.

7. Conclusion

L'OEB signale que, outre le fait que les agissements décrits dans la présente note peuvent nuire directement à la concurrence et à l'innovation, ne pas chercher à les décourager risque de porter indirectement préjudice à l'innovation en favorisant des « guerres des brevets ». En d'autres termes, si les entreprises constatent qu'elles peuvent nuire à la concurrence en manipulant impunément les brevets en instance, il est plus probable, non seulement qu'elles cherchent à obtenir des avantages commerciaux par rapport à leurs concurrents, mais aussi qu'elles cherchent à se défendre en accumulant davantage de brevets en instance. Ces guerres ne feraient qu'accroître les enchevêtrements de brevets, qui deviendraient suffisamment importants pour nuire à l'innovation.

Comme Harhoff, *et al*. le font observer dans leur rapport à la Commission européenne, des enquêtes sectorielles examinant l'incidence sur la concurrence des utilisations stratégiques des demandes de brevets en instance dans des domaines technologiques particuliers pourraient se révéler très utiles. De telles études apporteraient un éclairage précieux sur les effets réels du système des brevets sur la concurrence à l'œuvre dans les marchés de produits.[88] Par ailleurs, des travaux supplémentaires sont nécessaires pour déterminer si et comment les comportements dans lesquels des brevets en instance entrent en jeu pourraient être contestés en vertu du droit de la concurrence des différentes juridictions.

87 FTC, To Promote Innovation : The Proper Balance of Competition and Patent Law and Policy, p. 16, (2003).

88 Harhoff, *et al.*, note 5 *supra*, 275.

CANADA

1. Introduction

Innovation is a key determinant of productivity and economic growth. In recognition of this, governments typically utilise many different policy instruments in an effort to stimulate the level of innovation in their economies. These have ranged from direct mechanisms such as funding of specific projects at government laboratories to more indirect means such as R&D tax breaks, subsidies or general funding for university research. In addition to these policy instruments are framework laws such as intellectual property ("IP") and competition laws. IP laws provide property rights comparable to those for other kinds of private property, thereby providing incentives for owners to invest in innovation through research and development and encourage the efficient use, dissemination, and adoption of innovations within the marketplace. Applying competition laws to conduct associated with IP serves to prevent anti-competitive conduct that impedes the efficient production and diffusion of goods and technologies and the creation of innovative new products. The promotion of a competitive marketplace through the application of competition laws is consistent with the objectives underlying IP laws.

The outline for this submission is as follows: First, there is a discussion of the Competition Bureau's ("Bureau") *Intellectual Property Enforcement Guidelines* ("IPEGs") and how they attempt to provide transparency and predictability to firms investing in innovation. A recent example of the importance of guidelines is drawn from a Federal Court of Appeal ("FCA") decision in Canada. Second, there is a discussion of a Bureau research initiative, undertaken in co-operation with other government departments responsible for IP policy, which was intended to provide guidance on future Canadian IP policy development, as well as to ensure that the Bureau's enforcement approach in the area of IP remains up-to-date. Finally, there is a discussion of three previous Bureau merger investigations where innovation was considered in the Bureau's analysis of competition issues.

2. The Bureau's Intellectual Property Enforcement Guidelines[1]

Firms in industries where innovation is considered extremely important, such as pharmaceuticals, software, biotechnology and telecommunications, face tremendous technological risk due to the inherent uncertainty of scientific research and development. In addition to this risk, firms also face additional uncertainties, such as the risk that once a critical innovation is developed and attempts are made to commercialise it, other firms may cite patent infringement or the government may intervene and order compulsory licensing or restrict the type of business arrangements and transactions that a firm may engage in. Many of these risks are inherent to the market environment and cannot be mitigated. However, some uncertainties, such as those posed by possible government interference in the market, can be reduced through clear articulation of government policy. In the domain of competition policy, antitrust agencies can go a long way to alleviate the uncertainties high-tech industries face by publishing guidelines as to how they intend to enforce competition statutes with respect to matters involving IP, as well as to pronounce on how innovation will be taken into account in mergers and in other situations where there may be competition concerns. By providing clarity, government policy creates an environment more conducive to innovation.

With the goals of transparency and predictability in mind, the Bureau released its *Intellectual Property Enforcement Guidelines* ("IPEGs") in September 2000. The drafting of the guidelines was a very

[1] For a copy of the Guidelines go to: http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/01286.html.

intensive exercise: it lasted over two years; involved several rounds of consultations with the public, as well as a group of expert advisors. The devotion of time and resources to the development of the guidelines was for good reason. Several provisions of Canada's *Competition Act* ("Act") mention IP explicitly, and one in particular, provides the Federal Court with the authority to order a nullification or revocation of IP rights when they are used in a manner that creates an undue lessening of competition.[2] Given the nature of its competition statute, it was important for the Bureau to articulate to stakeholders how it would interpret this and other provisions of the Act in matters involving IP. By doing so, the Bureau hoped to provide a more stable domestic environment in which both Canadian and foreign firms could invest for the purpose of innovation.

There are three fundamental principles laid out in the IPEGs that govern the treatment of intellectual property under Canada's *Competition Act*. Taken together, they enable competition law and intellectual property laws, including patent law, to work together to foster innovation and economic efficiency.

The first principle is that, for the purposes of competition analysis, IP should be treated as any other property. This has two implications. First, IP laws do not differentiate IP from other forms of property. This is not to suggest that there are no differences between the characteristics of IP and other kinds of property, but rather that the *Competition Act* and the standard analysis applied in its enforcement are sufficiently flexible to account for these differences. Second, because IP is traded within an economy by the same mechanism that directs the trade of other forms of property, society should benefit from the application of the *Competition Act* to IP for the same reasons it benefits from the application of the *Act* to other forms of property.

The second principle is that an IP owner's inherent right to prevent others from using its IP does not necessarily imply that the owner has market power. Market power refers to the ability to cause price, quality, variety, service, advertising, innovation or other dimensions of competition to deviate from competitive levels. This ability depends on the extent to which effective substitutes constrain the ability of the IP owner to exercise power over price or these other elements of competition. The only way this can be determined is by explicit reference to the actual economic circumstances on a case-by-case basis. In certain cases, the products or services associated with an IP right will constitute an antitrust market that would warrant concerns over market power.

The third principle is an affirmation of the pro-competitive nature of IP licensing. This principle flows from an understanding that intellectual property laws exist to facilitate exchange within the market system. Licensing represents the trading and exchange of IP, which IP rights are in part designed to facilitate and promote. In this regard, the exchange or licensing of IP should generally be considered to contribute positively to the competitive market process and therefore be viewed as being pro-competitive.

Taken together, the three principles convey to stakeholders that the Bureau approaches the competition law/IP right interface from the broad perspective that the two legal regimes are both necessary ingredients to the goal of promoting the efficient operation of the competitive process. From the Bureau's perspective these principles provide a sound basis for a practical application of the *Competition Act* to IP rights and respect the role that innovation plays in fostering productivity and economic growth.

[2] Provisions in the *Competition Act* explicitly referring to IP include: section 76 prohibiting price maintenance; section 77 concerning exclusive dealing, tied selling and market restriction; section 79 prohibiting abuse of dominance; section 86 concerning specialisation agreements; and section 32 concerning special remedies.

3. Section 32 – Nullification and Mandatory Licensing

In addition to explaining the Bureau's general view of the interface between IP and competition law, the IPEGs also describe the Bureau's enforcement approach to one particular provision in the *Competition Act*—section 32. This provision explicitly concerns the use of exclusive rights and privileges conferred by patent, trademark, copyright or registered integrated circuit topography so as to unduly lessen or prevent competition.[3] Given that the remedies available to the Federal Court under this provision include invasive measures such as the nullification of IP rights, many stakeholders are understandably concerned as to the circumstances under which this provision would be applied. This concern is heightened by the fact that there exists no jurisprudence with respect to this provision.[4]

The IPEGs spell out a two-step approach to the application of section 32. In the first step, the Bureau seeks to establish whether the mere refusal of an IP right has adversely affected competition to a degree that would be considered substantial in a relevant market that is different or significantly larger than the subject matter of the IP or the products or services which result directly from the exercise of the IP. To make this determination, the Bureau would consider whether (i) the holder of the IP is dominant in the relevant market, and (ii) the IP is an essential input or resource for firms participating in the relevant market.

In the second step, the Bureau seeks to establish whether invoking a special remedy under section 32 against the IP holder would *not* adversely alter the incentives for firms to invest in research and development. This last requirement is recognition that IP rights are important for providing incentives for R&D and that by targeting a right by way of a remedy, this should not undermine this general incentive mechanism.

By clarifying its approach to this provision through the publication of the IPEGs, the Bureau achieved an important objective - that of providing assurance, not only to firms in high-tech industries, but all firms with IP assets, that the Bureau would use section 32 judiciously and not to punish firms that may have simply become dominant by way of breakthrough innovations. By providing transparency and predictability, the Bureau hopes to diminish, in part, some of the uncertainties that innovators face and therefore, furnish a more stable environment for investment in research.

4. The Importance of Guidelines

The importance of having guidelines became apparent in a matter involving private litigants before Canada's Federal Court of Appeal ("FCA"). The case in question involved Eli Lilly and Company and Eli Lilly Canada ("Lilly"), suing Apotex Inc. ("Apotex"), a Canadian producer of generic pharmaceuticals, for infringing patents relating to the manufacture of the antibiotic cefaclor. In its defence, Apotex launched a counterclaim, alleging that Lilly violated section 45 of the Act - the conspiracy provision - by conspiring with Shionogi, a Japanese pharmaceutical firm, to monopolise the Canadian market for cefaclor. The allegations were that Lilly had the patents for one of the two known commercial processes to develop cefaclor and Shionogi had the patents for the other. In 1995, after Lilly's patent on the cefaclor molecule itself had expired, Lilly acquired Shionogi's process patents thus giving Lilly control of the patents for both commercial processes. It was alleged that this allowed Lilly to monopolise both known manufacturing methods for cefaclor and thus control the market for bulk cefaclor itself.

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3 The complete text to section 32 is provided in Annex A.

4 Section 32 has only been employed twice by the Attorney General of Canada and in both instances the cases were settled out of court. The last settlement occurred in 1971.

Lilly and Shionogi filed motions to dismiss Apotex's counterclaim on the grounds that the assignment of a patent could not create an undue lessening of competition, which is the test required under section 45. Their position was based, in part, on the fact that a patentee is granted a statutory "monopoly" under the *Patent Act* and is given the accompanying right to assign it to others. They submitted that any lessening of competition created through an assignment of a patent is explicitly sanctioned by the *Patent Act* and, therefore cannot be undue for purposes of the Act. In a summary judgment proceeding, the Federal Court accepted Lilly's position, and struck out the portion of Apotex's counterclaim alleging a violation of section 45. In its decision, the Federal Court opined that its decision was consistent with the Bureau's IPEGs.

Apotex appealed the Federal Court ruling to the FCA and the Competition Bureau was granted leave to intervene in the proceedings. As an intervenor, the Bureau explained that, contrary to the interpretation by the Federal Court, the IPEGs view a patent assignment as something beyond the mere exercise of an IP right and thus subject to the criminal and civil provisions of the Act, including section 45. The Bureau also explained that a patent "monopoly" is different than the antitrust concept of market power and that an assignment of a patent such as that from Shionogi to Lilly could have the potential to increase Lilly's market power beyond what was contemplated under the *Patent Act*. The FCA held that Canada's Parliament did not intend, by authorising assignments of patents generally, to exempt such assignments from Canada's cartel law, as a framework economic law of the country, and that the IPEGs did not support such an approach. Consequently, the FCA allowed Apotex its appeal and remanded the matter back to the Federal Court.

5. Bureau Research Initiatives

In March 2007, the Bureau, in partnership with other government departments responsible for setting and administering IP policy, held a symposium to discuss a range of topics involving the interface between competition and IP law. This initiative followed a similar one the Bureau undertook in May 1996 which resulted in the publication of a research volume titled *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy* and fed into the development of the Bureau's IPEGs.

In its recent initiative, the Bureau and its co-sponsors created an international editorial panel to oversee work on five research topics. These included: authorised generics, collective management of copyright, extension of IP rights, compulsory licensing, and tying/bundling in the IP context. Legal and economic scholars drafted reports on each of the topics. Approximately 50 participants consisting of academics, practitioners and government representatives with responsibilities for or related to competition or intellectual property policy attended the Bureau's March 2007 symposium where the authors had the opportunity to present their research and engage in in-depth discussions of the issues with symposium participants.

The objective of the research stemming from this exercise was to provide guidance on future Canadian IP policy development, as well as to provide an opportunity for the Bureau to re-examine its enforcement approach to matters involving IP to ensure it continued to reflect modern economic thinking.

The following list provides a summary of the findings from the research on the topics that were studied.[5]

[5] This summary borrows heavily from the introductory chapter to the research volume, *Competition Policy and Intellectual Property*, written by Professors David Vaver, Marcel Boyer and Michael Trebilcock, Toronto: Irwin Law 2009.

5.1 Authorised Generics

A paper by Professor Paul Grootendorst (University of Toronto) analysed the impact of "authorised generics" ("AGs") on prices and competition in the Canadian prescription drug market. An authorised generic is a brand-name drug that is manufactured by the brand company but is sold as a generic either through a licensee or through a subsidiary. Of particular importance, in terms of their impact on competition, is the effect of an AG on independent generics ("IGs"). IGs are generic drugs manufactured by firms other than the brand company that compete directly with the brand-name drug (and any AGs present in the market).

From a theoretical perspective, Professor Grootendorst noted that AGs have an ambiguous effect on drug prices. On the one hand, the release of an AG involves the introduction of an additional competitor into a drug market, which could lower prices. On the other hand, AGs may reduce the potential level of sales for other generic manufacturers, which may deter their entry and thus result in higher prices.

Professor Grootendorst's empirical findings indicated that when an AG first enters a drug market, average prices in that market decrease by about 12 percent with the decrease being smaller the larger the share of the generic market held by the AG. In addition, Professor Grootendorst, through inquiries made of executives of generic firms, found anecdotal evidence that the threat of AGs increased the minimum size of a market that IGs would consider entering. Specifically, the threat of AGs increased the minimum market size threshold from $5 million to $10 million as measured by sales of the brand-name drug in its tenth year since its introduction to the market.

To reach an overall conclusion with respect to the competitive impact of AGs, Professor Grootendorst concluded that any exclusionary costs that may arise from AGs need to be verified, quantified, and ultimately compared to the benefits of reduced drug prices caused by AGs.

5.2 Collective Management of Copyright

A paper by Professor Jacques Robert (HEC University of Montreal) evaluated the Canadian copyright management system by addressing several key questions: does the current Canadian system of copyright collectives achieve its general goals? What is the logic behind it and is it consistent with the general interest? What might be alternative models that would be more appropriate and what challenges would Canada face in changing its current system?

To address these questions, Professor Robert examined the microeconomic rationales for collectives, reviewed the system currently in place in Canada, and surveyed developments in other countries. In addition, Professor Robert examined the impact and role of technology on copyright management and considered whether different copyright regimes should be developed for different copyright markets.

In his conclusions Professor Robert first noted that, by offering a blanket licence for extended repertoires, copyright collectives appear to be the best mechanism for achieving the twin goals of: (i) efficient dissemination of creative works, and (ii) revenue generation for creators. He concluded that pure competition among creators would produce an outcome inferior to that of blanket licences. Importantly, Professor Robert stressed that copyright collectives and blanket licences are advantageous for reasons over and above the rationale commonly given that they save on transaction costs. Therefore, the advancement in technology that serves to reduce transaction costs does not undermine the rationale for copyright collectives.

As a second conclusion, Professor Robert noted that the Canadian copyright management system is not particularly unique as it is similar to those of other countries except for the United States. Furthermore, he found that the two main types of collectives, professional association collectives and collecting

collectives, appear to be organised efficiently and are helpful to both users and creators alike although they have not exploited information technologies to their full potential.

5.3 Extension of IP Rights

A paper by Teressa Scassa (University of Ottawa) examined two broad categories of strategies that have been used in attempts to extend IP protection. One category includes attempts to exploit overlap between different types of IP rights. Examples that Professor Scassa considered in this category are attempts to secure trademark protection over functional features of articles in order to extend protection beyond the statutory patent period and attempts to secure copyright protection over trademark logos or product-wrapper designs in an effort to prevent the parallel importation of non-copyright goods. The second category of strategies to extend IP protection involves the assertion of weak or uncertain IP rights. In this category, Professor Scassa considered the example of reverse-payment settlements in patent disputes between brand name and generic drug companies.

Professor Scassa proposed various approaches that could be used to combat the extension of IP rights and discusses their limitations. First, legislative amendments are possible but this solution is often slow. Second, court rulings could be relied on to address overlap issues, however, this is also a slow process, can result in a piecemeal approach and tends to serve only those with the resources to engage in litigation. Finally, competition law may be used to challenge practices aimed at extending IP rights, however, as seen in reverse-payment cases, transgressions of competition laws may be difficult to prove, particularly where a finding of a violation requires speculation as to the likely validity of underlying IP rights.

In a final note in the paper, Professor Scassa pointed out the difficulty in measuring the actual prevalence of IP extension strategies. There is rarely a public record of activities involving over-claiming in relation to weak or uncertain rights. A possible solution to this problem would be to require the filing of settlement agreements with a public organisation, as is done in the case of patent settlements in the United States. Moreover, in the case of overlapping IP rights, the observed cases may only represent a small fraction of all instances that occur so that the problem could potentially be much larger than what the few litigated cases may suggest.

5.4 Compulsory Licensing

A paper by Professor Abraham Hollander (University of Montreal) addressed a range of questions concerning the compulsory licensing of patents. The two primary avenues of inquiry involve identifying the circumstances where compulsory licensing should be considered as a viable policy instrument and the appropriate institutional body that should be charged with making the decision as to whether a compulsory licence would be an appropriate remedy in a particular situation and if so, determining its terms.

Professor Hollander considered whether the principles underlying the “essential facilities” doctrine (pursuant to which licenses are granted to remedy the withholding of facilities deemed essential to public welfare) have been applied in other jurisdictions provides sufficient clarity to identify the circumstances when compulsory licensing should be used. His conclusion was that it does not, nor does it resolve the issue of what conduct and areas of activity should or should not be immune from competition law.

Professor Hollander considered the potential effect of compulsory licensing on the incentives to innovate. Both the theoretical and empirical research in this regard suggests that compulsory licensing, if used sparingly, cannot be expected to lower expenditures on research and development and thus result in decreased levels of innovation.

Finally, in considering the type of institutional arrangement that should be granted the authority to determine when and how to issue a compulsory licence, Professor Hollander concluded that in Canada this

is best left to the Commissioner of Patents acting under the *Patent Act*. However, because of the difficulty of setting royalties, and because orders to license may be ineffective without complementary orders, Professor Hollander suggested that it would be useful to explore ways to expand the range of remedies currently available to the Commissioner of Patents and to have applications for compulsory licenses also reviewed under the Act.

5.5 Tying/Bundling in the IP Context

A paper by Professors Edward M. Iacobucci (University of Toronto) and Ralph A. Winter (University of British Columbia) examined the existing economic literature with respect to tying, to identify lessons and principles that could guide competition agencies when determining the appropriate approach to enforcement in this area.

The principal conclusion from this paper was that competition authorities cannot rely on general rules of thumb to reach conclusions as to when tying in a given circumstance violates antitrust laws. The complexity of the issue requires a case-by-case approach. To be potentially anti-competitive, tying must result in exclusionary effects in either the tying or tied good markets. For such effects to occur, the firm conducting the tied selling must have market power with respect to the tying good.

Although the risk of foreclosure through tying may be more prevalent in high-technology industries where IP rights are common, Professors Iacobucci and Winter caution against a simplistic notion that product tying involving IP rights should be inherently suspect. An intervention against tying can impose costs and, if unfounded, may undermine valuable gains from innovation in dynamic industries. A competition agency must be conscious of these concerns.

6. Bureau Cases Involving Innovation

The Competition Bureau has had three merger investigations where innovation has been a particular consideration in its analysis. In the *Rogers/Microcell* transaction, the pace of innovation in the industry was a factor in not challenging the merger. In both the *Pfizer/Pharmacia* and *Bayer AG/Aventis Cropscience* transactions, the Bureau concluded that these mergers would, if allowed to proceed without a remedy, have a negative impact on product innovation and development.

6.1 Rogers/Microcell[6]

In 2004, the Bureau investigated a merger in the telecommunications industry between Rogers Communications Inc. and Microcell Telecommunications Inc., two Canadian wireless service providers. The transaction raised competition issues with respect to the potential removal of Microcell as a vigorous and effective competitor in the provision of mobile wireless services in Canada. The Bureau was concerned with both the potential exercise of unilateral market power and co-ordinated behaviour post-merger.

The role of change and innovation had an important impact on the Bureau's conclusions in this matter. The rate of growth in the mobile telecommunications market over the six to seven years after the merger was expected to be significant. At the time of the merger, it was estimated that the wireless industry had penetrated 44% of the population base, but was expected to grow to a 70% penetration level.

Advances in mobile handset technology were rapidly bringing newer and more advanced services to market and placing an increasing load on existing infrastructure. This, in turn, required additional capital

6 For a backgrounder on this case go to: http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/00257.html.

investment in existing and new technologies in order to strengthen the underlying networks and support the continued rollout of these services.

At the same time, advances in broadcast distribution and telecommunications were providing new delivery mechanisms, allowing for greater convergence between these traditionally separate market segments.[7] This led incumbents in both markets to increasingly rely on bundled service offerings to attract and/or retain their customer base. Bundling provided a competitive advantage to integrated firms who could more readily combine their wireless services with other telecommunications services, broadcasting services, or Internet access.

As a result of the transaction, there would be three mobile wireless operators remaining post-merger and the Bureau determined that Rogers would have a significant market share in the provinces of Ontario and British Columbia. However, given the amount of subscriber growth that was expected in the industry, as well as the prospects for technological change, the Bureau did not view current market shares as an adequate indicator of how much market power individual companies would have in the future. As a result, the Bureau concluded that post-transaction, Rogers would not possess sufficient market power to impose and sustain a significant and non-transitory price increase above levels that would have existed in the absence of the merger, because rivals would likely respond in an effort to enhance their customer bases. The Bureau felt that innovative product and service offerings would continue to be available to consumers at competitive prices. In particular, because Rogers was a cable company and did not own telephony wireline infrastructure, the Bureau saw Rogers as having an incentive for it to continue to offer some of Microcell's more aggressive marketing features in an effort to move customers away from the traditional services offered by incumbent local exchange competitors.

Given the level of innovation and technological change in the wireless industry, the Bureau also concluded that the transaction would not likely result in co-ordinated conduct. As noted previously, the mobile wireless services market was in a period of rapid growth, which was expected to continue for a number of years. This growth would create a greater impetus for wireless providers to capture as many customers as they could in an effort to secure long-term customer loyalty. A principal way for providers to gain customers was to continue with rapid and frequent product or service innovations. Given the dynamic nature of the industry, it seemed evident that there were significant disincentives for participants to act in a co-ordinated fashion.

The final element that lead the Bureau to not challenge the merger was its determination that Microcell would face significant challenges going forward in implementing its current business plan. Although in no way considered a "failing firm", Microcell nonetheless required significant additional capital investments in order to support the increased load resulting from its product offering. This in turn placed pressure on its ability to support funding for the next generation of product and service offerings, as well as other important company initiatives that were intended to allow it to compete on a more even basis with other competitors in the market. At the same time, its competitors were moving forward with significant capital investment in newer generations of technology and network enhancements and were preparing to launch new product offerings.

6.2 Pfizer/Pharmacia

In 2002, the Competition Bureau conducted an examination of Pfizer's proposed acquisition of Pharmacia Corporation. In its assessment of the proposed transaction, the Bureau identified competition concerns with respect to several markets involving pharmaceuticals used to treat human afflictions. Notably, for some of these markets the merging companies were not current competitors. Instead, one

[7] Advancements in Voice over the Internet and delivery of video through DSL telephone lines are two examples of the technological changes that were driving these markets.

merging party had a product in development ("pipeline product") that was expected to compete with a product of the other merging party that was currently on the market. The Bureau concluded that the proposed transaction would create a disincentive for the merged entity to continue with the development of new products and thus there would be a loss of potential competition in markets for the treatment of particular human health conditions.

Importantly, in keeping with its IPEGs, the Bureau did not utilise an innovation market approach. Instead, it defined markets around products used for the treatment of particular afflictions and determined whether products in development would be effective competitors to existing products within those markets. The existence of pipeline products allowed the Bureau to more accurately assess if, and to what extent, these products were functionally interchangeable with existing therapies than if an innovation market approach were used.

The degree of competition for actual products and for innovation provided by competitors in the pharmaceutical industry varies by product. Partly due to patent protection, there are often very few functionally interchangeable products within categories of human pharmaceuticals, thereby reducing the number of effective competitors. The pharmaceutical industry experiences constant change and innovation. Many studies and market contacts have indicated that in order for a company to remain profitable, it must maintain a steady stream of new and innovative products in its pipeline. This is largely driven by ongoing investment in R&D, which is crucial to a company's viability. Because change and innovation is continuous and rapid, current market shares may not be indicative of market power. A newly introduced product with a low market share may become the market leader in a very short time if it has superior characteristics or performance. In the same way, an older product with high market shares may become obsolete with the introduction of either a new generation chemical or the introduction of generics.

The Bureau concluded that the transaction would substantially prevent competition in the market for pharmaceutical products used in the treatment of human sexual dysfunction. Pfizer's Viagra represented a very high market share of sales of products used to treat erectile dysfunction, however, competing products were expected from at least two competitors; one of them was Pharmacia's pipeline intranasal apomorphine. The Bureau also determined that the transaction would substantially prevent competition in the market for pharmaceutical products that treat urinary incontinence. Pharmacia had a significant share of sales for this type of product and was the market leader in Canada with its products, Detrol and Unidet. It was determined that there was the potential for significant overlap as both Detrol (Pharmacia's product) and Darifenacin (Pfizer pipeline product) were aimed at similar populations.

On April 11, 2003, the Bureau registered a consent agreement with the Competition Tribunal to remedy the competition concerns arising from the transaction. As part of the agreement, the parties agreed to terminate a collaboration and license agreement between Pharmacia and Nastech Pharmaceuticals Inc. involving a developmental intranasal apomorphine, and to divest another pipeline product to Neurocrine Biosciences Inc. These divestitures ensured the continued development of these products for eventual introduction into a Canadian market currently dominated by Pfizer's product, Viagra. To remedy concerns about products that treat overactive bladder problems, the parties agreed to divest Pfizer's developmental product, Darifenacin, to Novartis Pharma AG.

6.3 Bayer AG/Aventis Cropscience

Also in 2002, the Competition Bureau reviewed the proposed acquisition of Aventis CropScience Holdings S.A. ("ACS"), constituting the worldwide agrochemical business of Aventis S.A., by Bayer A.G. At the time, both parties were active in the crop protection business. The proposed transaction involved the purchase by Bayer of the manufacture and supply of insecticides, seed treatments, herbicides, fungicides and professional-use pesticides of ACS Canada. Pesticides are made up of chemical formulations of active ingredients that can be grouped by chemical family or by mode of action (the process by which the

pesticide kills the pest). Chemical families or classes may be divided into two sub-categories: old and new. New chemistries are attractive to users since they typically offer a new and different mode of action, different application rates, and lower toxicity levels. New chemistries are developed by crop protection companies to provide the basis for formulating new products and to increase market share. The creation of a new pesticide involves the R&D of a new active ingredient, that is, the chemical reactor that creates the mode of action against the targeted pest.

Companies engaged in the crop protection business continually develop new generation products to provide users with the ability to adapt to changes in the environment and to control pests that develop resistance to pesticides after long-term use. Products based on new chemistries may discipline an incumbent's market position provided they have equal or higher efficacy rates.

The Bureau concluded that the proposed transaction would likely lessen or prevent competition substantially in a number of relevant markets including: insecticides for certain fruit and vegetable crops in Canada (namely potatoes, apples, tomatoes and leafy vegetables); seed treatments for canola in Canada; seed treatments for cereals (wheat and barley) in Canada; and grassy weed herbicides for spring wheat in Western Canada. This conclusion was based on several factors: high market shares, high barriers to entry that include sunk R&D costs and a lengthy and expensive process for regulatory approval, limited foreign competition; and the absence of effective substitutes.

With respect to the insecticide market, the Bureau determined that there were six major research-based suppliers in Canada, but that all of them, other than Bayer, had products based on older chemistries that were being phased out and replaced by newer chemistry products. Indeed, Bayer was the only firm that had a product, marketed under the brand-name "Admire," that was based on a new family of chemicals known as chloronicotinyls. ACS, however, had a chloronicotinyl product of its own in development that was expected to reach the market within two years. Because ACS's product, known under the brand-name of "Assail", was likely to be a close competitor to Bayer's Admire product, the Bureau concluded that the merger would likely cause a substantial prevention of competition.

Similarly, with respect to the canola seed treatment market, the Bureau determined that Bayer, indirectly through another company known as Gustafson, had launched an innovative new product, known under the brand-name "Gaucho," that was a chloronicotinyl based product. ACS was in the process of developing its own chloronicotinyl product that would compete with Bayer's product and that of Syngenta, another pesticide producer. The Bureau determined that for the next several years, Bayer (through Gustafson) ACS and Syngenta, likely would be the only companies that would develop and introduce new seed treatment products based on chloronicotinyls. For this reason, the Bureau concluded that the transaction, if allowed to proceed, would cause a loss in the development of new seed treatments.

On July 19, 2002, the Competition Tribunal issued a consent order to remedy competition concerns raised by the transaction. It required Bayer AG to divest three key agricultural chemical products and to license a fourth in its crop protection division. The Tribunal had issued an interim consent order on June 6, 2002, to ensure that the designated assets were separated and managed independently from Bayer's other business operations. On January 21, 2003, the Bureau announced that Bayer AG had complied with the provisions of the consent order, and the Bureau approved the following divestitures: Arvesta Corporation would acquire certain assets of the flucarbazone business (including Everest, a spring wheat herbicide); BASF AG would acquire certain assets of the triticonazole business (including Charter, a cereal seed treatment); and Nippon Soda Co. Ltd. would acquire certain assets of the acetamiprid business, including a licence for Iprodione. In partnership with a Canadian licensee, Nippon would then be able to manufacture and develop Assail, a fruit and vegetable insecticide, and Assail ST, a canola seed treatment. These divestitures were to ensure competitive prices for distributors and farmers in the Canadian pesticides industry. The consent order was notable for certain "crown jewel" provisions included to ensure the success of the divestitures and to remedy the competition concerns identified by the Bureau. Close co-

ordination with the U.S. Federal Trade Commission and the Merger Task Force of the European Commission ensured appropriate and consistent remedies.

ANNEX A:
SECTION 32 OF THE CANADIAN COMPETITION ACT

32 (1) In any case where use has been made of the exclusive rights and privileges conferred by one or more patents for invention, by one or more trade-marks, by a copyright or by a registered integrated circuit topography, so as to

- limit unduly the facilities for transporting, producing, manufacturing, supplying, storing or dealing in any article or commodity that may be a subject of trade or commerce,
- restrain or injure, unduly, trade or commerce in relation to any such article or commodity,
- prevent, limit or lessen, unduly, the manufacture or production of any such article or commodity or unreasonably enhance the price thereof, or
- prevent or lessen, unduly, competition in the production, manufacture, purchase, barter, sale, transportation or supply of any such article or commodity,

the Federal Court may make one or more of the orders referred to in subsection (2) in the circumstances described in that subsection.

(2) The Federal Court, on an information exhibited by the Attorney General of Canada, may, for the purpose of preventing any use in the manner defined in subsection (1) of the exclusive rights and privileges conferred by any patents for invention, trade-marks, copyrights or registered integrated circuit topographies relating to or affecting the manufacture, use or sale of any article or commodity that may be a subject of trade or commerce, make one or more of the following orders:

- declaring void, in whole or in part, any agreement, arrangement or licence relating to that use;
- restraining any person from carrying out or exercising any or all of the terms or provisions of the agreement, arrangement or licence;
- directing the grant of licences under any such patent, copyright or registered integrated circuit topography to such persons and on such terms and conditions as the court may deem proper or, if the grant and other remedies under this section would appear insufficient to prevent that use, revoking the patent;
- directing that the registration of a trade-mark in the register of trade-marks or the registration of an integrated circuit topography in the register of topographies be expunged or amended; and
- directing that such other acts be done or omitted as the Court may deem necessary to prevent any such use.

(3) No order shall be made under this section that is at variance with any treaty, convention, arrangement or engagement with any other country respecting patents, trade-marks, copyrights or integrated circuit topographies to which Canada is a party.

GERMANY

1. Introduction

The development of a dynamic perspective in economic theory has long overcome the traditional focus on static analysis. The significance of competition for dynamic developments, in particular with regard to its effect on innovations, however, has for a long time been discussed intensively and controversially.[1]

Today it is undisputed that competition incites companies to develop new products and innovative production and business processes. This offers them the possibility to stand out against their competitors.

Developing innovations requires investing in research and development (R&D). Companies are only willing to make these investments if there is a prospect that they will pay off. By providing a (temporary) exclusive right, and the competitive advantage this involves, patents guarantee that this is the case.[2]

A patent prevents competitors from merely copying an innovation. Instead, they are encouraged to engage in competition from substitutes. Therefore both competition and patents are driving forces behind technological progress and innovation.

2. Patents and Competition – Area of Conflict

In spite of the discussions on potential conflict between competition law and patent law, it should not go unnoticed that there is a broad area where competition law and patent law co-exist without conflict. This results not least from the differing foci of patent law and competition law: While patents are granted for individual products or production processes or elements thereof, antitrust enforcement does not focus on individual products but on markets in general.

Conflicts between competition law and patent law arise where the market behaviour of a company that has a competitive advantage resulting from a patent raises competition concerns or is considered to be abusive with regard to a relevant market defined under competition law.

Abuse control under competition law is often criticised for restricting the quasi-property rights of patent holders. This can be countered with the argument that every intervention under competition law to some extent represents an encroachment upon ownership rights or similar rights. The US FTC and the US DoJ, for example, write in their relevant guidelines on the licensing of industrial property rights: "As with other forms of private property, certain types of conduct with respect to intellectual property may have

1 Cf. Joseph A. Schumpeter (1908): *Das Wesen und der Inhalt der theoretischen Nationalökonomie*, p. 176 ff.; only available in German, and Joseph A. Schumpeter (1942): *Capitalism, Socialism and Democracy*, p. 83; Kenneth J. Arrow (1962): *Welfare and the Allocation of Resources for Invention*, in: Richard Nelson (ed.): *The Rate and Direction of Economic Activities: Economic and Social Factors*, p. 609 ff.

2 In order to minimise restraints on competition, close consideration should be paid to the length and scope of the patent.

anticompetitive effects against which the antitrust laws can and do protect. Intellectual property is thus neither free from scrutiny under the antitrust laws, nor particularly suspect under them."[3]

With the provisions on intellectual property rights the legislator consciously created an area where competition has been "reduced". However, this reduction of competition should not be understood as an elimination of competition per se. In other words: A patent allows its holder the exclusive right to use or license to others his innovation. If the holder abuses his competitive advantage, he leaves the area of protection afforded to him under intellectual property law and enters the area of antitrust enforcement.[4] In this way antitrust law acts as a corrective for any behaviour by which a patent holder might abuse the competition advantage offered by the patent for anticompetitive means.

3. Patents and Abuse Control

It seems that patents are increasingly being used by companies as a strategic instrument. At a meeting of the OECD Competition Committee in October 2008, a representative of the European Patent Office commented on possible anticompetitive practices in the application for and granting of patents.[5]

In Germany competition law proceedings on the abuse of patents have so far mainly taken the form of civil proceedings. In its expert opinion of March 2007 on the theme "Patent Protection and Innovation" the Academic Advisory Council at the Federal Ministry of Economics and Technology expected the number of competition cases in which intellectual property plays a role to increase.[6]

3.1 Case Examples of Abuse of Dominance

Several cases of abuse of a dominant position in the use of intellectual property rights were pending at European and German courts in the past. [7] The essential point was that in using the exclusive rights to his patent, the holder of a patent is bound to the principles of general competition law. The patent holder may not abuse his dominant position either by demanding excessive licence fees or discriminating against companies without objective justification. Rather, in using his patent rights he has to abide by the FRAND principles, *i.e.* "fair, reasonable and non-discriminatory."

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3 See FTC/DoJ (1995): *Antitrust Guidelines for the Licensing of Intellectual Property*, online: http://www.usdoj.gov/atr/public/guidelines/0558.htm.
A similar framework is set by the Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements; online: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:123:0011:0017:EN:PDF and the accompanying EC guidelines.

4 Cf. Busche, Jan: *Kartellrechtliche Zwangslizenzen – Schranken für gewerbliche Schutzrechte?*, online: http://www.uni-muenster.de/Jura.iwr/Pohlmann/forumk_berichte/f3b_1.htm; available only in German.

5 OECD Competition Committee (2008): *Dialogue with European Patent Office, Issue Paper "Patenting and Competition".*

6 Cf. Academic Advisory Council (2007): Patentschutz und Innovation, Expert Opinion 1/2007, p. 20; online at: http://www.bmwi.de/BMWi/Redaktion/PDF/Gesetz/entwurf-eines-dreizehnten-gesetzes-zur-aenderung-aussenwirtschaft,property=pdf,bereich=bmwi,sprache=de,rwb=true.pdf. only available in German.

7 Cf for example European Court of Justice: ITT Promedia NV./. Commission (Slg. 1998 II, 2941, 2987), AB Volvo./. Erik Veng (UK) Ltd (Slg. 1988, 6232, 6235), Radio Telefis Eireann (RTE)./. Magill TV Guide Ltd (Slg. 1995 I, 808, 823).

In one case the German courts had to deal with a case of refusal by a patent holder to grant a non-discriminatory licence for a certain type of industrial drum, the so-called standard tight-head drum.[8]

In early 1990 some major German chemical industry companies, members of the German Chemical Industry Association VCI (*Verband der Chemischen Industrie e.V., VCI*) stated their need for a new type of plastic drum that could be more easily drained of liquid residue. Four German drum manufacturers submitted different proposals. One patented proposal was agreed upon and incorporated into the "VCI framework conditions for the new L-Ring Drum – as of 31.7.90" ("*VCI Rahmenbedingungen für das neue L-Ring-Fass – Stand 31.7.90*"). These framework conditions were signed by the major German chemicals manufacturers[9] so that the patented standard tight-head drum thus more or less became the industrial standard. Drums deviating from this standard had only little sales prospects.[10]

The patent holder granted the three other drum manufacturers which had also submitted proposals to the VCI free licences, other manufacturers were granted licences against payment of royalties. One competitor, however, was denied a licence. This competitor went on to manufacture the drums in question without a licence.[11] The company's nullity action before the Federal Patent Court, which was aimed at revoking the patent, was not successful. An appeal against this decision was dismissed by the Federal Court of Justice.[12]

After the patent holder had sued for damages, the Federal Court of Justice ruled that this case was a possible violation of the ban on discrimination, *i.e.* if the patent holder had refused to grant a licence which it had granted to other domestic and foreign drum manufacturers (either with or without the payment of royalties). Similar companies would thus have been treated differently without any objective justification.[13]

In May 2009 the Federal Court of Justice decided on a case in the IT sector in which also the amount of the licence fees was subject to dispute.[14] The company Koninklijke Philips Electronics N.V. (Philips) is the owner of a patent that is essential for the production of recordable and rewriteable optical data carriers (CDR and CDRW). This is a basic patent which every manufacturer of standard CDRs or CDRWs must have and which therefore gives Philips a dominant position. Philips has granted many companies a licence to the patent on the basis of a standard licence agreement. One company manufactured and marketed CDRs and CDRWs without such a licence. The company argued that the licence fees were excessive and also

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8 Cf. Federal Court of Justice (BGH), decision of 13.07.2004, KZR 40/02 – Standard-Spundfaß, online at: http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&sid=afd17569ae503cb56f3e1ee98d7e8745&client=12&nr=47897&linked=pm&Blank=1; only available in German.

9 Cf. BGH, Judgement of 13.7.2004, KZR 40/02, loc. cit., p. 4.

10 Cf. BGH, Judgement of 13.7.2004, KZR 40/02, loc. cit., p. 8.

11 Cf. compulsory licence of a patent that has become an industrial standard, in: WuW of 10.11.2004, issue no. 11, p. 1159-1165.

12 Cf. Federal Court of Justice (BGH), decision of 9.5.2000, X ZR 45/98, online at: http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&sid=7aacd183a773de293b2ba2910eb8354e&client=12&nr=22802&pos=0&anz=1; only available in German.

13 Cf. Federal Court of Justice (BGH), decision of 13.7.2004, KZR 40/02, loc. cit., p. 12.

14 Cf. Federal Court of Justice (BGH), decision of 6 May 2009, KZR 39/06, online at: http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&sid=b5343b8e4b42c68ccd0ee220ba41f048&client=12&nr=48134&pos=0&anz=1; only available in German; press release online at: http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&sid=afd17569ae503cb56f3e1ee98d7e8745&client=12&nr=47897&linked=pm&Blank=1; only available in German.

discriminatory because other companies had been granted more favourable conditions. According to the company, Philips had abused its dominant position.

In its decision the Federal Court of Justice stated that the patent holder may not discriminate against a company wishing to conclude a licence agreement by charging this company higher licence fees than others would have to pay without any objective justification. Patent holders who violate this ban on discrimination thus cannot enforce a claim for injunction under patent law. Just as the patent holder's refusal to conclude a licence agreement with the company seeking to obtain a licence, a claim based on the patent would constitute an abuse of his dominant position.

The Federal Court of Justice also held that a company which manufactures products under a patented industrial standard without a licence could use the "competition law defence" against the holder of the patent. This means that the user of the patent can claim that the patent holder is abusing his dominant position by depriving him of the use of the patent. According to the court the user would have to prove that he tried unsuccessfully to obtain a licence under adequate terms and conditions, and that by refusing to grant the licence the holder of the patent was violating the prohibition under competition law of hindering other companies or treating them differently from similar companies without any objective justification. However, the user may only use the patent in anticipation of the licence agreement unlawfully denied, if he fulfils the obligations arising from the licence agreement he seeks to obtain; in particular if he pays the patent holder an appropriate licence fee or at least guarantees this payment.

The Federal Court of Justice also referred to the particularly difficult clarification of the maximum amount of a licence fee that would (still) be admissible under competition law. As the company requiring a licence is not aware of the appropriate amount of a licence fee, the Federal Court of Justice held that it would be admissible to offer the holder of the patent an unspecified fee to be determined by the patent holder at his reasonable discretion, and to deposit an amount which at least corresponds to the objectively appropriate amount of the licence fee or possibly exceeds this level. The Federal Court of Justice held that, if necessary, the licensee could clarify in later proceedings whether the licence fee imposed was within the limits set by competition law.

4. Patents and Merger Control

Patents also play an important role in merger control. This applies above all to the technology markets in which innovation competition is particularly important.

The Academic Advisory Council noted some developments which could be of relevance for the competition authorities, inter alia in the area of merger control. In its opinion the Academic Advisory Council stated that in many sectors a number of patents are used in a product or manufacturing process. This can lead to a “patent maze” in which it is often unclear whether or not patent rights have been violated.[15] In the semiconductor industry, for example, imminent conflicts are eased by a cross-licensing system under which the major patent holders grant each other rights of use.[16] However, patent pools or entire cross-licensing networks can have a dampening effect on competition in a market.

4.1 Case Example of Merger Control

In 2007 the Bundeskartellamt had to examine the acquisition of the hearing aid business of GN Store Nord A/S, Denmark, by Phonak Holding AG, Switzerland. The companies to be acquired are known in the

15 Cf. Academic Advisory Council, loc. cit., p. 13.

16 Cf. Academic Advisory Council, loc. cit., p. 13.

market concerned under the name GN ReSound. Phonak is one of the world's leading producers of hearing aids. The other two main producers are Siemens and the Danish company William Demant/Oticon.

During the last few years a transfer from analogue to digital technology took place in the hearing aid market and digital technology has since been continuously refined. This technological change could have raised expectations of a good environment for competition with profound innovations and market share gains and losses among innovative competitors. However, the examination of the planned merger revealed a largely uncompetitive structure, at least within the group of the three leading suppliers. A comprehensive market information system, patent pools and cross-licensing agreements, which secured free access to the patent portfolio of the other two companies, largely eliminated innovation competition within the leading group. If one of the companies achieved an important innovation, the other two parties had access to this via the cross-licensing system and could use the new development as well. Not the existence of patents proved to be problematic from a competition point of view, but the strategic use of the patent system to create collusion. By allowing each other access to their innovations free of charge, the leading companies signalled to each other that they did not intend to make innovative progress a competition parameter.[17]

In its decision of 26 November 2008 the Düsseldorf Higher Regional Court supported the opinion that the anti-competitive effects of the system of patent pools and cross-licensing were such that effective innovation competition could not be assumed to exist.[18]

17 Cf. Prohibition decision of the Bundeskartellamt in the B3-578/06 case, "Phonak/GN ReSound" of 11 April 2007, online at: http://www.bundeskartellamt.de/wEnglisch/download/pdf/entscheidungen/07_Phonak_e.pdf; Press release: http://www.bundeskartellamt.de/wEnglisch/News/Archiv/ArchivNews2007/2007_04_12.php

18 Cf. Düsseldorf Higher Regional Court, decision of 26 November 2008, VI-Kart 8/07, online at: http://www.justiz.nrw.de/RB/nrwe2/index.php , File VI-Kart 8/07 (V); only available in German.

JAPAN

1. Introduction

Achieving a dynamic economy and vigorous society through the strategic creation, protection and exploitation of intellectual property is the basic policy of the Japanese government. Since the goal of making Japan "an intellectual property-based nation" was announced through the formulation of the Intellectual Property Policy Outline in July 2002, several related policies have been implemented, including the enactment of the Intellectual Property Basic Act (November 2002), the inauguration of the Intellectual Property Strategy Headquarters (March 2003) and the formulation of the Intellectual Property Strategic Program (July 2003 and since then, formulated and published yearly until 2008 at the latest). Major achievements made so far include the establishment of the Intellectual Property High Court (April 2005) and the establishment of the Headquarters for Expeditious and Efficient Patent Examination (December 2005).

While the Japan Fair Trade Commission (JFTC) has appropriately taken action based on the Antimonopoly Act ("AMA") when fair and free competition is restrained by any restrictions that deviate from the intent of the intellectual property systems, given the above situation, this contribution paper mainly introduces the activities the JFTC has taken concerning patents and innovation since the October 2006 OECD meeting of the Competition Committee.

2. Review of Japan's Contribution Paper in October 2006 (DAF/COMP/WD(2006)47）

2.1 Hearing Decision against Microsoft Corporation[1]

In this case, Microsoft Corporation did not accept the recommendation issued by the JFTC on 13 July 2004. Thereafter, the JFTC instructed the hearing examiner to conduct hearing procedures, and finally issued a hearing decision to order elimination measures on 16 September 2008.

2.1.1 Outline of the Violation

When executing licensing agreements for original equipment manufacturer (OEM) sales of the PC operating system (OS) named "Windows" and owned by Microsoft Corporation ("the Respondent") (hereinafter referred to as "OEM sales agreement"), the Respondent forced licensed OEMs to execute agreements containing a clause according to which they agreed not to initiate any lawsuit against the Respondent or any other licensee arising out of any infringement of the patent rights for the relevant PC OS (hereinafter referred to as "Non-Assertion Provision"), and did business with OEMs on terms that unjustly restricted their business activities (an OEM sales agreement containing a Non-Assertion Provision that is executed through direct negotiations between the Respondent and an OEM is referred to as a "direct agreement").

These actions may adversely affect the fair competitive environment in the PC AV technology market[2] and tend to impede fair competition, fall within Section 13 (trading on restrictive terms) of the "Designation of Unfair Trade Practices", and are in violation of the provisions of Article 19 of the AMA.

1 http://www.jftc.go.jp/e-page/pressreleases/2008/September/080918.pdf.

Besides, in the year 2000, the Windows series[3] represented 90% of all PC OSs worldwide and this percentage was increasing year after year. Therefore, it leads to the recognition that (1) obtaining a license for OEM sales of the latest version of the Windows series and (2) selling Windows-based PCs with the launch of the sales of the latest version of them was indispensable for OEMs in order to continue the business of manufacturing and selling PCs.

2.1.2 Viewpoints Concerning Innovation

Free competition can promote the emergence of new and better-performing products that have a wide variety of functions. The emergence of such products can invigorate economic activity as well as expand the range of consumers' choice. Therefore, in order to maintain free competition that can promote the emergence of products with a wide variety of functions, it is critically important not to undermine the motivation for R&D by providing undertakings that have the capability of developing technologies with the incentives for R&D.

And in general, undermining the incentives of undertakings for technology R&D may inactivate the R&D activity in this technological field, and would be likely to bring stagnation in developing new or improved technology. In addition, in light of the existence of a lot of OEMs with influential AV technologies among the OEMs in Japan (15 manufacturers), if the incentives of PC AV technology R&D for OEMs with influential AV technologies are undermined and investments in the concerned technology are reduced, it is easily presumed that the emergence of new products, as well as new and improved technologies concerning PC AV technology, may likely be impeded.[4]

Regarding this case, in addition to its characteristics of licensing free-of-charge, the Non-Assertion Provision is applicable not only to licensed products but also to future products, is effective for quite a long period of time, and in line with the expansion of the functions of the Windows series, would cover a wide range of patent rights in the future subject to the free-of-charge license. For the following facts, it is recognised that OEMs were in a situation in which they had to develop PC AV technologies while recognising the possibility that such technologies could be included in the Windows series, and therefore there was a high likelihood that the Non-Assertion Provision undermined the incentives of OEMs for PC AV technology R&D.[5]

- Once a certain piece of technology related to the patent rights of an OEM was adopted in the Windows series, almost all PC users would be able to use the patent rights of the concerned

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2 Technology required to deliver functions enabling the user to see and hear digitised sounds or images on a PC.

3 The Windows PC OS is generally referred to as the "Respondent's product" or the "Windows series".

4 This is supported by the statement of a PC manufacturer, International Business Machines Corporation, that unquantifiable costs will be incurred by the decline of incentives for R&D because of the free licensing of the outcome of innovation under the Non-Assertion Provision, as well as by the statement of Hewlett Packard (HP) that it will stop innovating in the concerned business in the future unless it can obtain reasonable returns to its R&D investment (page 116 of the draft decision attached to Judgment No.13 of 2004).

5 The Respondent deleted the Non-Assertion Provision from its direct agreements on or after August 1, 2004. However, even on or after August 1, the Non-Assertion Provision has a future effect and has continued to have effects on Windows series licensed on or after August 1 in respect of the functions and characteristics inherited from products licensed on or before July 31. Considering these situations, it was recognised that the deletion of the Non-Assertion Provision from the direct agreements did not immediately eliminate the likelihood that the incentives of OEMs for PC AV technology R&D was undermined or did not facilitate research and development activities related to PC AV technologies.

OEM and it would become difficult for the OEM to recoup the investment in its technological development activities by licensing its PC AV technology to a third party.

- It would become difficult for the OEM to opt to differentiate its own products by not granting a license to any third party, but limiting the use of the PC AV technology only to its own products.

- As the technological information about the Windows series was not sufficiently disclosed, OEMs were uncertain about whether their patents were used in the Windows series, so that they could not make claims against the Respondent for any infringement of patent rights in agreement negotiations.

- The Respondent expanded and enhanced the AV functions of the Windows series, and several OEMs expressed their concerns about the effect of the Non-Assertion Provision on patent rights related to their PC AV technologies and requested that the Respondent delete the provision.

2.2 Ex-post Review of "Acquisition of the Stock of SANYO Electric Vending Machine Co., Ltd. by Fuji Electric Co., Ltd"[6]

In the proposed acquisition plan, SANYO Electric Co., Ltd. would transfer all stocks of SANYO Electric Vending Machine Co., Ltd., a 100% subsidiary of the company, to Fuji Electric Co., Ltd. By acquiring said stocks, Fuji Electric Co., Ltd. would transform SANYO Electric Vending Machine Co., Ltd. into its subsidiary specialised in the manufacture and development of vending machines, and would consolidate its manufacturing operations. The JFTC indicated to the concerned companies ("parties") that the acquisition would bring significant accumulation of technologies for manufacturing beverage vending machines inside the parties and raise competitive concerns. Then, the companies offered that if a competitor asked them to grant it a license of a certain technology for which they had patents, etc., they would not reject such a request and would grant the license under reasonable conditions. In conclusion, the JFTC replied to the parties that the acquisition of stocks would not violate any provisions of the AMA on condition that they would take the above-mentioned measures, etc.

For the purpose of further refining the review of business combinations, the JFTC published, "Report on the Ex-post Review of Business Combinations" (on 22 June 2007). In this report, the JFTC took up this case and published the results of a more detailed data analysis and an interview survey concerning the implementation of the remedy and its effects following the business combination.

2.2.1 Summary of the Survey Results

Regarding the implementation of the remedy, competitors have not applied for licensing of the parties' patent technologies. While the annual number of patent applications for vending machines has decreased since the business combination, users and competitors did not necessarily have the impression that the competition in technological development in the overall vending machine market has been impeded. One of the reasons cited for this is that the vending machine technology has basically matured and the R&Ds are centreed on technological improvements. Therefore, even if a new technology is developed and a company obtains a patent for it, the same functionality can often be achieved by an alternative technology of another company without infringing the patent. Concerning patent applications, while the total number of applications has decreased, the ratio of the number of applications made by

6 Acquisition of the Stock of SANYO Electric Vending Machine Co., Ltd. by Fuji Electric Co., Ltd (http://www.jftc.go.jp/e-page/pressreleases/2002/march/20020322vending.pdf).

companies other than the parties is increasing. In addition, it is often the case that major beverage manufacturers, which are the main users of vending machines, place orders with multiple vending machine manufacturers for vending machines with the same specifications and the same method of operation. In such cases, they can exercise strong negotiating power to request manufacturers that developed certain technologies to disclose their patents to their competitors, backed by their purchasing power. Disclosure of technologies in such circumstances is considered to be a common practice in the industry.

However, it was suggested that (1) some competitors pointed out that they have difficulty evading patents owned by the parties in developing their technology for new products because of the emergence of a company holding a lot of patents as a result of the business combination; (2) there is the area of patents for large and medium size vending machines for drinking cups, where the grant of a license from the parties is likely to be indispensable for new entry; (3) there can be a change in the attitude of industry that has enabled quite a free access to patents reflecting the intention of large users, such as requiring compensation for covering the expenses of R&D in granting a use of a patent or seeking clear solutions on the patent issues in the form of cross-licensing. Considering these facts, in order to maintain the convenience of users and consumers, guaranteeing disclosure of patents by the parties subsequent to the business combination and towards the future and ensuring potential entry pressures through the implementation of the remedies may be considered to be necessary.

As points to be remembered in implementing remedies in future cases, the results of the ex-post study show the need for a detailed examination on whether the remedy is sufficient to eliminate concerns arising from the business combination and what kind of conditions for providing access to technology (such as compensation or period) should be appropriate. It is also vital to make it possible to review the conditions according to changes in the market environment, etc. While the remedy would be better implemented if a licensing agreement were concluded before the business combination, when the remedy is implemented after the business combination, it is critical to ensure that the remedy is properly publicised and a preliminary examination of potential candidates who may apply for licensing of the technology is conducted.

3. Competition Policy Research Centre (CPRC) Studies for Patents and Innovation

The JFTC Competition Policy Research Centre (CPRC) conducts collaborative research under the principle of “Tripartite Collaboration” between the JFTC staff, economists and jurists, for the purpose of reinforcing the theoretical foundation for planning, suggesting and evaluating competition policy. Collaborative research concerning patents and innovation is also conducted by the CPRC. Recent major research related to patents and innovation is as follows: (see the appendix)

- Quantitative Analysis on Competition, Innovation and Productivity;
- Technology Standards and Competition Policy– Focusing on the Consortium Type Technology Standards;
- Economic Analysis on Network Externalities and Switching Costs;
- Quantitative Analysis on Competition, Innovation and Productivity – Analysis on Dynamics and Performance of Market Structure;
- Trend Analysis of Biotechnology Patent Application in Japan – Competition and Co-operation between the Private Sector and the Public Sector
- Multiparty License and Competition Policy;
- Innovation Competition and Antitrust Policy; Focusing on Merger Regulation.

4. Publication of "Guidelines on Standardisation and Patent Pool Arrangements" (on 29 June 2005)

In industries experiencing rapid innovation, such as the information and communication sector, it is common for competitors to jointly standardise specifications for new product interfaces and disseminate them in order to establish a market for new products with such standards and encourage expansion of the demand for the products (standardisation activities). On the other hand, as a number of patents are granted regarding technologies for a standard and the complex management of patent rights relationships may impede the establishment of a market for new products with standards and the expansion of their demand, patent holders presently pool their patents and license them as a means of addressing these problems.

Given this situation, the JFTC formulated and published the "Guidelines on Standardisation and Patent Pool Arrangements" on June 29, 2005.

The Guidelines were formulated to clarify the interpretations of the AMA with regard to (a) the standardisation activities themselves,[7] and, after specifications are standardised by the activities, (b) activities to claim rights by patent holders of the standards[8] and (c) activities to organise and manage patent pools.[9] The Guidelines contribute to preventing violations of the AMA and further promoting standardisation activities.

5. Formulating the Guidelines for the Use of Intellectual Property under the Antimonopoly Act (28 September 2007)

In July 1999, the JFTC formulated and published the "Guidelines for Patent and Know-how Licensing Agreements under the Antimonopoly Act". In light of recent, intensified efforts toward the protection and the use of intellectual property, in order to provide more clarity on the ideas underlying the AMA in relation to the restriction of competition through the use of intellectual property, the JFTC formulated and published comprehensively revised guidelines, the "Guidelines for the Use of Intellectual Property under the Antimonopoly Act"[10] ("the IP guidelines") in September 2007.

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7 The standardisation itself is not assumed to pose immediate concerns under the AMA. However, if the standardisation activities restrict competition as follows, it may pose problems under the AMA:
Competitors jointly fix prices, etc of their products adopting the standards.
Competitors prohibit the development or the adoption of alternative standards.
Competitors share specifications and performances of new products to the extent they exceed the scope necessary for obtaining the benefits of standardisation.
Competitors prevent the adoption of technical proposals from certain competitors or prevent revisions based on achievements by the improvement of technologies.
Competitors deliberately exclude certain competitors from participating in the standardisation activities when the competitors are at risk of being excluded from the market without participation in the activities.

8 If a patent holder, who has taken part in the standardisation activities and is endeavouring to have its patented technologies adopted by the standards, refuses without justifiable ground to grant a license to those who want to adopt the standards after the formation and the diffusion of them, and makes it difficult for them to develop and produce the products with the standards, such a case may pose problems with the AMA.

9 With regard to whether activities to pool patents for standards pose problems under the AMA or not, the effect on competition is assessed, on a case-by-case basis, by comprehensively considering market conditions, such as the prevalence of the standards and the position of the pool in the market related to the standards.

10 http://www.jftc.go.jp/e-page/legislation/ama/070928_IP_Guideline.pdf.

The IP guidelines are applicable to all intellectual property concerned with technology.[11] They also describe basic principles for crosscutting competition analysis by the identification of the market and by the effect of reducing competition.[12] In addition, they illustrate examples where restrictions may have major impacts on competition and where restrictions are deemed to have a minor effect in reducing competition.[13]

Moreover, from the viewpoints of private monopolisation or unfair trade practices, the IP Guidelines provide the views on behaviours inhibiting the use of technology, limiting the scope of the use of technology and imposing conditions on the use of technology. From the viewpoint of unreasonable restraint of trade, they show the views on restrictive practices in a patent pool, multiple licensing and cross-licensing.

11 As used in the IP Guidelines, "technology" refers to any technology protected under the Patent Act, the Utility Model Act, the Act Concerning the Circuit Layout of a Semiconductor Integrated Circuit, the Plant Variety Protection and Seed Act, the Copyright Act and the Design Act and to any technology protected as know-how.

12 Whether or not restrictions pertaining to the use of technology reduces competition in the market is determined by fully considering the nature of the restrictions, how they are imposed, the use of the technology in the business activity and its influence on it, whether or not the parties pertaining to the restrictions are competitors in the market, their market positions, the overall competitive conditions that prevail in the markets (such as the number of companies competing with the parties concerned, the degree of market concentration, the characteristics and the degree of differentiation of the products involved, distribution channels and difficulty in entering the market), whether or not there are any reasonable grounds for imposing the restrictions, as well as the effects on incentives of research, development and licensing.

13 The IP guidelines specify the principles of the so-called "safe harbour", which determines, without investigating the specific form of the relevant restriction, that the effect in reducing competition is considered to be minor provided it meets certain criteria; *e.g.* (1) the product share is 20% or less in total, (2) there are at least 4 parties holding rights to alternative technologies (*e.g.* cases where the impact on the technology market is examined and the product share is unavailable). This is not applicable, however, to conduct of restricting selling prices, sales quantity, market share, sales territories or customers for the product incorporating the technology or to the conduct of restricting research and development activities or obliging undertakings to assign rights or grant exclusive licenses for improved technology.

APPENDIX:
CPRC RESEARCH INVOLVING PATENTS AND INNOVATION

The JFTC Competition Policy Research Centre (CPRC) conducts collaborative research based on the principle of a "Tripartite Collaboration" between JFTC staff, economists and jurists, with the aim of reinforcing the theoretical foundation for the planning, proposal and evaluation of competition policy. The results of this collaborative research are expected to contain policy implications rather than to remain purely scholarly research.

Within this collaborative research, the major research publications related to patents and innovation are as follows:

Table 1. Published Reports

	Reports and Authors
FY2005	**Quantitative Analysis on Competition, Innovation and Productivity** Kazuyuki Motohashi (Associate Professor, Research Centre for Advanced Science and Technology, University of Tokyo and CPRC Visiting Researcher) Makoto Funakoshi (CPRC Researcher) Akira Tohei (CPRC Researcher)
	Technology Standards and Competition Policy – Focusing on the Consortium Type Technology Standards Sadao Nagaoka（Professor, Institute of Innovation Research, Hitotsubashi University and CPRC Chief Visiting Researcher） Hiroko Yamane（Professor, National Graduate Institute for Policy Studies） Reiko Aoki (Associate Professor, Institute of Economic Research, Hitotsubashi University and Senior Lecturer, Department of Economics, University of Auckland） Masako Wakui (Associate Professor, Osaka City University)
	Economic Analysis on Network Externalities and Switching Costs Tatsuo Tanaka（Associate Professor, Faculty of Economics, Keio University and CPRC Visiting Researcher） Yoshihito Yasaki (Research Associate, Research Centre for Advanced Science and Technology, University of Tokyo and CPRC Visiting Researcher） Reiko Murakami（Lecturer, Faculty of Economics, Kinki University） Hideyuki Shimozu (CPRC Researcher)
FY2006	**Quantitative Analysis on Competition, Innovation and Productivity – Analysis on Dynamics and Performance of Market Structure** Kazuyuki Motohashi（Professor, School of Engineering, University of Tokyo and CPRC Visiting Researcher） Makoto Funakoshi (CPRC Researcher)
	Trend Analysis of Biotechnology Patent Application in Japan – Competition and Co-operation between the Private and the Public Sectors Yosuke Okada (CPRC Chief Researcher and Professor, Graduate School of Economics, Hitotsubashi University) Kenta Nakamura (Researcher, Japan Society for the Promotion of Science) Akira Tohei (Former CPRC Researcher)

FY2008	**Multiparty License and Competition Policy** Sadao Nagaoka（Professor, Institute of Innovation Research, Hitotsubashi University and CPRC Chief Visiting Researcher） Masako Wakui（Associate Professor, Graduate School of Law, Osaka City University） Ryushi Ito (Researcher, Institute of Intellectual Property） **Innovation Competition and Antitrust Policy; Focusing on Merger Regulation** Sadao Nagaoka（Professor, Institute of Innovation Research, Hitotsubashi University and CPRC Chief Visiting Researcher） Masako Wakui (Associate Professor, Graduate School of Law, Osaka City University) Reiko Aoki (Professor, Institute of Economic Research, Hitotsubashi University) Ryushi Ito (Part-time Lecturer, Toyo University and Nihon University） Tomoyuki Shinbo (Lecturer, Faculty of Literature and Social Sciences, University of Yamagata）

1. Summary of the Collaborative Research

1.1 Quantitative Analysis on Competition, Innovation and Productivity

In this research project, the authors conducted a quantitative analysis on market competition, in particular, the relationships between market structure, productivity and innovation. Based on the econometric method, the authors analysed the relationships using 1) market structure indexes, such as the Herfindahl index and the market share fluctuation index, to determine market competition conditions, 2) total factor productivity (hereafter referred to as "TFP") to determine productivity and 3) research and development (R&D) expenses and number of patents owned to determine innovation.

First, the authors estimated the Cobb-Douglas production function at the corporate level based on the corporate data produced by combining the results of the "Survey on Concentration Ratios of Production and Shipment" conducted by the JFTC and those of the "Basic Survey of Business Structure and Activities" conducted by the Ministry of Economy, Trade and Industry ("METI"). Then, regarding the relationship between market competition and productivity, the authors conducted an econometric analysis of market structure and TFP growth, focusing on the intra-company incentive structure.

In addition, in order to better understand the mechanism through which market competition will contribute to TFP growth via various innovation efforts, including R&D, the authors analysed the relationship between market competition and innovation efforts.

As a result of the analysis, a relationship was found between static market structure indexes, including the Herfindahl index, on the one side and production and innovation efforts on the other, but no clear conclusion was obtained for variability market structure indexes, including the market share fluctuation index. A positive relationship was found between market structure and innovation efforts when market competition was weak, and a negative relationship was found between market structure and innovation efforts when market competition was extremely strong.

1.2 Technology Standards and Competition Policy - Focusing on the Consortium Type Technology Standards

If each company that holds patents essential to a standard independently claims its respective rights, there is a danger that the diffusion of that standard may be retarded due to the excessive amount of royalties that would have to be paid for the standard. To cope with this problem, the concept of co-operation among companies by means of a patent pool or the like is drawing attention. In addition, hold-up

problems are caused by outsiders exercising their rights to essential patents for the standard after its diffusion.

The purposes of this research are (1) to study the actual processes through which the four important recent technology standards (including MPEG2 and DVD) have been formed; (2) to interview the competition policy authorities of the US and EU about their enforcement policies in relation to the patent pool or similar scheme, and (3) to analyse how the competition policy should be applied to consortium type technology standards (which require the co-operation of several companies holding patent rights), based on a survey of intellectual property policies of the standardisation organisations in the US, European countries, and Japan.

Firstly, according to the study of the actual situation of MPEG2, DVD, and 3G, there are a large number of essential patents for these standards and therefore many companies hold them. The important factors to consider here are a number of technological elements contained in these standards, the participation of many companies in competition for research and development (R&D), the eagerness of companies to participate in preparing the standards (due to the bandwagon effect for compatibility standards), and the use of a continuation and division system for patent applications. Companies dedicated to R&D, as well as universities (such as Columbia University for MPEG2 and Qualcomm for 3G), also play important roles. The patent pools of MPEG2 and DVD commit to licensing under the RAND (Reasonable and Non-Discriminatory Licensing) conditions and have granted licenses to many companies. Secondly, the basic ideas of the US and the EU on the competition policy regarding patent pools that support standards, have converged as follows: (1) only those patents with high complementariness should be pooled and the patents in the pool that is dominant in the market should be limited to the essential ones (those which have no substitutes outside the pool); (2) a systematic mechanism for the objective evaluation of relations among patents is required; (3) co-operation among companies by means of the pool should be limited to the collective licensing for a bundle of complementary patents; (4) freedom of bypass needs to be assured; (5) grant-back request by the pool should be acceptable if only to request for non-exclusive license of the patents essential to the standard; (6) if the standard has the market power, an open license should be granted ("license under fair and non-discriminatory condition" in the case of the EU); and (7) if any legal objection (challenge) is made against the effectiveness of a patent, only counteraction taken by the concerned patent holder through refusal to grant a license should be acceptable. Furthermore, if any company participating in standardisation withholds the disclosure of its patent in violation of the rules procedure of the standardisation organisation, knowing that its patent will be included in the standards as essential, and exercises its right after the standard has been diffused, such behaviour will be regarded as anticompetitive. The two reasons for this being: first, this behaviour distorts fair competition for the selection of standard technology; and second, such behaviour of the company can force the companies adopting the standard to pay a higher royalty rate by holding them up *ex post*. The competition authority in the US intervenes in such cases and the EU also has a policy in place to impeach such companies as "patent ambush" cases. Thirdly, although standardisation organisations are reviewing their intellectual property policies, in consideration of current situations such as the increasing importance of these rights and the emergence of competition law violation cases, such review processes are still being developed. Therefore, the following basic points remain unclear, even in the patent policies of public standardisation organisations: (1) the RAND condition in terms of the clear definition of "reasonable" and "non-discriminatory"; (2) the disclosure policy for intellectual property rights, in terms of whether disclosure should be obliged at all and what contents of intellectual property rights should be disclosed or licensed (whether rights of pending patents should be included or not); and (3) the scope of the compliance obligation under the intellectual property policy, and penalties for breach of such an obligation. Clarification of whether the responsibility should be assumed by the company or the individuals who participated should also be made. When assuming the requirements for a "reasonable" price, such a price could be decided either through negotiations, at the stage where the companies using the standard have not

sunk their investment cost, or by considering the pricing of the standard as a whole. However, no organisation has yet clarified such principles.

This research suggests the following points: (1) it is important in Japan to implement a competition policy by directing attention to the complementariness and substitutability of the pooled patents as well as the freedom of bypassing; (2) it is preferable from a competition policy perspective that the license conditions for a bundle of essential patents relevant to a technology standard are committed under the existence of competition among standards and before any investment is made by the users of the standard; (3) it is important to enhance the intellectual property policies of standardisation organisations; (4) it is anticompetitive to withhold the disclosure of patents in violation of the disclosure rules of the standardisation organisation and to request a high royalty after the diffusion of the standard—clearly in violation of the patent policy of the organisation; (5) it is important to establish a systematic mechanism for an objective evaluation of patents to see whether they are essential or complementary, so that the patent pool functions without impeding competition; and (6) it is favorable that the "Guidelines on Standardisation and Patent Pool Arrangements" published by the JFTC in June 2005 clarified the basic idea under the Antimonopoly Act of (1) to (5) above. Further research extending the analysis in these guidelines is expected in the future.

1.3 Economic Analysis on Network Externalities and Switching Costs

The network externality works under the compatible interface. Accordingly, if the interface is incorporated into a product of a particular corporation, there will be a tendency toward monopolisation by such a corporation, and competition could be impeded. It is difficult to make a conclusive judgment on the effect of switching costs on competition, but it tends to fix the shares and diminish competition.

When both the network externality and switching costs are too tough to overcome through technology innovation or other efforts made by companies, and they are thought to be impeding the competition (or they make entry to the market impossible), implementation of the competition policy should be considered. In other words, it would be helpful to address this issue with the following steps: (1) measure the effects of the network externality and the switching costs using a quantitative method; (2) compare them with the effect of technological innovations; and (3) consider the possible implementation of competition policy.

In this report, the authors actually verified three products (OS, IP telephones, and routers) through the above approach. As a result, it was suggested that, for OS, the network externality and the switching costs were too large to overcome with technological innovation and that these factors generated a barrier to entry. For IP telephones and routers, however, no evidence was found to support the fact that network externality or switching costs prevented competition.

In addition, based on the results of the analysis regarding the OS, the authors studied what kind of measures would be taken under the Antimonopoly Act (AMA) in different situations.

1.4 Quantitative Analysis on Competition, Innovation and Productivity - Analysis on Dynamics and Performance of Market Structure.

The collaborative research by the same authors in FY2004 ((2)1. above) pointed out that an analysis of the relation between the share fluctuation index and the life cycles of products that affect the dynamics of the market structure would be carried out in the future. This is because it is important to understand the product life cycles — from new development to maturing — and to consider their influence on the products composing the market when interpreting the indices that are related to the dynamics of the market structure such as the share fluctuation index. This research focuses on this point and conducts quantitative

analyses on the relation between competition, innovation, and productivity. As a theoretical framework for market structure dynamics, a theoretical model based on product life cycles is adopted.

Specifically, using the individual data sheets from the "Industrial Statistics Investigation," which is a designated statistics that is managed by the METI, the authors calculated the share fluctuation indices using each item of detailed classification, for a period ranging from 1985 to 2003. The authors then quantitatively analysed the relation between the index and the life cycle stage of each item. In addition, they tried to obtain some suggestions for utilising the share fluctuation index in the competition policy, by analysing the characteristics and determining factors of the index.

As a result of these analyses, the authors observed that the share fluctuation index in the early stage of the life cycle was larger than that which occurred in the stable growth stage. It was also found that the share fluctuation index in the declining stage was larger than that in the stable growth stage. Further, they listed the items that demonstrated large differences between their theoretical value derived from the regression analysis and their actual, measured value in the market start-up stage where potential concerns for a competition policy would be raised. It is necessary to analyse them in further detail to find out whether any problems actually emerged in the market competition, but the authors think that these results are quite significant because they present a method for using the share fluctuation index as an index for measuring market competition.

1.5 Trend Analysis of Biotechnology Patent Application in Japan – Competition and Co-operation between the Private and the Public Sectors

When trying to understand the actual situations of the technology market and the research and development (R&D) competition (or innovation market) underlying it, it is important to see how substituting and complementing relations between the public and private sectors actually work. In this report, the authors examined the difference of patent values, depending on the attributes of each applicant (corporation, university, government research institute etc.) or the combination of joint applicants for biotechnology patents with priority in Japan for a period from 1991 to 2002. They also examined the impact of the introduction of the pro-patent policy on public sectors—including acts such as the Act on the Promotion of Technology Transfer from Universities to Private Business Operators (Technology Licensing Organisation (TLO) Act), and the Act on Special Measures for Industrial Revitalisation (Japanese Bayh-Dole Act)— on the average value of patents, controlling the attributes of the applicants. The major results are as follows: (1) patents filed solely by the private sector are highly valued; (2) patents for which a private corporation is the first assignee and a government research institute is included as a co-assignee are highly valued; (3) government research institutes increasingly have higher patent values after the introduction of the pro-patent policy; and (4) there is no significant change in the average value of university patents before and after the introduction of the pro-patent policy. These results suggest that the Japanese pro-patent policy had different impacts on the trend of applications by researchers in government research institutes and that of applications by university researchers. For appropriate competition assessment without undermining the incentives of R&D, it is necessary to pay sufficient attention to the measures of collaboration among industry, universities, and the government as well as to the systematic and organisational characteristics that are relevant to universities and government research institutes.

1.6 Multiparty License and Competition Policy

The licensing of intellectual property rights has the effect of expanding market supply and increasing the profits of consumers because it promotes the utilisation of the applicable technology and increases the profits obtained from research and development (R&D). When considering these points it is clear the licensing of intellectual property rights is "pro-competitive". However, if the licensing agreement contains any clauses that restrict the behaviour of the licensee (or the licensor depending on the case), there is a

danger that the market competition as a whole may be restricted (when compared with a situation where the licensing agreement is not executed) and the economic welfare may decline. Among various licensing agreements, cross-licensing agreements, where the companies are both licensors and licensees at the same time in the same market, may pose a danger that the mutual restriction of behaviour in the market may restrain the competition and possibly increase company profits. In addition, when there are many license users, there are externalities among licensees and this makes it possible for the licensor to execute licensing agreements that restrict competition in the market—taking advantage of such externalities. This research refers to agreements where the behaviour of more than one company could be constrained by restrictive clauses, as so-called "multiparty licensing agreements."

Multiparty licensing agreements (*e.g.* Cross-licensing, patent pools) have become increasingly important due to the cumulative development of technology innovation in the information and communication field, an increased number of patents accompanying the enhancement of intellectual property rights, an increase of infringement lawsuit cases, and so on. In addition, cross-licensing agreements or non-assertion agreements between a dominant company in the market and a number of its OEM companies have caused disputes under the AMA. The purpose of this research is to identify how competition policy should approach multiparty licensing, based on the analyses of the actual situation of cross-licensing, economic theories, court precedents in the US, and legal theory from the viewpoint of international comparative laws.

This report summarises the results of the three topics as follows:

Firstly, by focusing on the analysis of current cross-licensing agreements in Japan, the economic role of cross-licensing and the shape of competition policy are studied—mainly from an economic perspective.

Secondly, the authors comprehensively analysed 40 court precedents relevant to cross-licensing, patent pool, standardisation, and competition policy in the US and distilled the lessons.

Finally, based on the results of the above, regulations for licenses of intellectual property rights in Japan, the US, and EU countries are studied comparatively to identify proper approaches for future regulations in Japan. This research complements the studies already conducted in FY2005 ((2)2. above).

1.7 Innovation Competition and Antitrust Policy; Focusing on Merger Regulation

In this research project the authors have carried out the following three basic studies, so as to provide some basis for future antimonopoly policy formulation in Japan with respect to innovation competition in the sense of research and development (R&D) competition. Chapter 1 and 2 present the main findings on the merger review practices abroad, with a focus on the US. These chapters analyse the recent merger cases for which DOJ/FTC identified the potential adverse effects on the R&D and they also summarise the major findings of the information gathered and analysed in the merger reviews of the US and Europe, based on interviews with competition authority officials. Chapter 3 surveys law journal papers and cases for a legal analysis of innovation competition and mergers in the US. Chapter 4 presents a case study on the effects of a merger on innovations using micro-data of patents.

The major thrusts of the findings are the following: (1) US antitrust authorities have identified adverse effects on R&D in about a quarter of the cases which they have challenged in recent years. In most of these cases, however, the antitrust authorities identified the adverse effects not only on R&D but also on manufacturing and sales; (2) Much less frequently the EU antitrust authority (DG COMP) has analysed the impact of the mergers on the R&D; (3) The results of the survey of US legal literature suggest that significant pros and cons still exist as to whether antitrust authorities should intervene in merger cases due to the negative effect on innovation competition; and (4) According to a case analysis conducted in this

study, the micro data analysis of patents allows us to undertake specific investigations into the synergy effects of mergers, such as the emergence of post-merger joint research and its relationship with the relocation of researchers and the time elapsed after the merger.

This paragraph outlines the preliminary policy implications of this research. Firstly, the need to address innovation competition (R&D competition) for the competition authority in Japan would increase as the levels of the R&D and the intellectual property right protection are enhanced and industries with significant network externalities are developed. The relationship between R&D competition and the performance of R&D would, however, depend significantly on the appropriateness of the R&D and other factors, so that a structural analysis well-adapted to the case in hand is called for in the analysis of merger effects on innovation. Thus, it would be important to accumulate empirical research on the process of innovation competition, including analysis on using patent information. While this study focuses on horizontal mergers, the protection of innovation competition is also important for vertical mergers, joint research and monopolisation cases, therefore extension of current research to these areas would also be important.

KOREA

1. Korea's Competition Law and Intellectual Property Rights

The Korea Fair Trade Commission (hereinafter "KFTC") has long been paying much attention to the relationship between competition law enforcement and legitimate exercises of intellectual property rights (IPRs). There can be no dispute that a legitimate exercise of IPRs such as patents should be ensured in order to stimulate development of innovative technologies and subsequently enhance consumer welfare. However, the thing is that efforts to guarantee IPRs lead to problems like abuse of such rights, which might restrain competition and sometimes hamper development of creative technologies and in the end, undermine consumer welfare. In this light, Korea's competition law, Monopoly Regulation and Fair Trade Act (hereinafter "MRTFA") states that in principle, a legitimate exercise of IPRs is exempted from application of the MRFTA, but in case such an exercise goes beyond to fall under "abuse of rights," it shall be subject to sanctions as abuse of market dominance or unfair trade practices.

First of all, Article 59 of the MRFTA explicitly states that a legitimate exercise of rights under the Copyright Act, the Patent Act, the Utility Models Act, the Design Act or the Trademark Act is not subject to the MRFTA.

> *Article 59 (Exercise of Right to Intangible Property)*
>
> *The provision of this Act shall not apply to any act which is deemed to be a legitimate exercise of rights under the Copyright Act, the Patent Act, the Utility Models Act, the Design Act, or the Trademark Act.*

That the provision aforementioned is not to mean that all kinds of exercises of IPRs are exempted from application of the MRFTA is explicitly stated. In other words, the provision puts a clear limit on exempted acts by stating "any act which is deemed to be a legitimate exercise of right." That is to say, even if an act is carried out as an exercise of rights under the IPR-related laws, in case the scope or the means of the exercise are deemed unfair, it becomes subject to the MRFTA. This interpretation is well set out in the Notifications and Guidelines, which are subordinate regulations of the MRFTA. First, under the *Guidelines for Review of Abuse of Market Dominance,* abuse of IPRs through patent infringement litigation constitutes an act of obstructing business activities, one type of abuse of market dominance.

> *Act of filing a suit for violating the patent right against the other businesses to limit the competition they pose even when the business knows that their act is not in violation of its own patent right – Guidelines for Review of Abuse of Market Dominance IV. 3. D. (6)*

Moreover, the KFTC clearly set out in the "*Guidelines for Review of Unfair Exercise of Intellectual Property Rights*" that if an act, albeit seemingly a legitimate exercise of IPRs in a superficial or formal manner, is deemed to be in breach of the objectives of the IPR protection regime to encourage invention and creative activities, and to restrain competition in the technology or product market and thus considered to be an unfair exercise of IPRs, the act is subject to the MRFTA.

To sum up, under the Korean law, while a legitimate exercise of IPRs is protected in principle, any act going beyond the reasonable scope shall be subject to the MRFTA. However, Korea does not have many enforcement cases applying the MRFTA to exercises of IPRs in practice. That's partly because it is not an

easy task to draw a clear line between "legitimate" and "illegitimate" exercises and there have been few complaints against abuse of IPRs as infringement of the MRFTA to date.

2. Major Enforcement Cases against Abuse of IPRs

Between 2006 and 2007, the KFTC conducted a sweeping investigation into the alleged unfair trade practices by pharmaceutical companies. The investigation ferreted out several unfair trade practices by both local and multinational pharmaceuticals, imposing corrective orders and a surcharge of some 40.3 billion won in late 2007 and early 2009. Major infringement in the cases was pharmaceuticals' unfairly luring hospitals through rebates conditioned upon the hospital's selecting their drugs and medicines. However, the KFTC investigation also found one case involving abuse of IPRs where a firm with pharmaceutical patent has exploited Korea's unique drug pricing system to restrict newcomers' entry into the market, mostly generic manufacturers. The following is a brief illustration of the case.

In Korea, as to drugs covered by health insurance, the government controls prices by determining and announcing the maximum price of the drugs. A new drug's maximum price is determined according to the following process. First, a company that developed a new drug and got approval from KFDA (Korea Food & Drug Administration) asks for insurance coverage for the drug. Then a committee comprising experts as members under the Ministry for Health, Welfare and Family Affairs (hereinafter "MIHWAF") assesses whether to list the drug for insurance coverage. If accepted, the committee sets the maximum price through the negotiation with the company, which would be announced later by the MIHWFA.

The maximum price of the original drug listed first as an insurance-covered drug is set in consideration of the related costs including the average ex-factory price of foreign countries. Then the maximum price of drugs listed later whose ingredient is same as that of the original drug (so-called generic drugs) is to be set below the maximum price of the first listed original drug. For instance, the price of the generic drug listed first after the patent of the original drug expires is set at 68% of the original drug price at maximum.[1] Then, the maximum price of the generic drugs listed from second to fifth is determined below the price of drugs listed earlier. And the drugs listed 6th and thereafter are priced at maximum of 90% of the lowest price of drugs listed already.

The case ferreted out by the KFTC investigation in fact took advantage of Korea's drug pricing regime. Company D, a leading pharmaceutical company of Korea, sold dementia treatment drugs starting from October 2000 in the Korean market that were manufactured out of an ingredient exclusively supplied by an Italian company which held a patent to the ingredient. Regarding the ingredient, chemical substance of the drug, product patent already expired, with process patent only valid at that time. But the patented process was too complex for any generic drugs to be produced. Then in 2005, as another Italian company succeeded in manufacturing the ingredient, 8 other Korean pharmaceutical companies geared up for production of the generic drug with the ingredient bought by the Italian company. In response, Company D proposed an outsourcing contract to 5 other Korean companies on manufacturing the generic drug of its dementia treatment drug. The 5 companies accepted the offer and got approval from the KFDA concerning the item, finalised listing on insurance of the generic drug in October 2006 and applied for the drug price. This application came faster than the 8 companies preparing generic drug production, preoccupying the drug price application slots for a higher price. That is, the 5 companies applied for the drug price at 780 won, about 80% at maximum applicable of the original drug price of Company D (986 won) according to the then Notification clause. Company D then suggested to Company W, one of the 5 companies, re-bidding for price at 585 won, a price much lower than the other 4 companies'. Adding to the suggestion,

[1] In this case, the price of the original drug whose patent has expired is adjusted at 80% of its pre-expiration price. Meanwhile, prior to the revision of the concerned Notification in December 2006, the maximum price of the first listed generic drug was set at 80% of the original drug.

Company D also promised to Company W that for the re-bidding at 585 won, it would make up for the loss incurred by the lower drug price, which Company W accepted. Likewise, the 5 companies ended with application procedure, but the another group of 8 companies that had been preparing production of the generic drug could not make it within the 5th application, which forced them to apply for price at 90% of the lowest price listed thus far, 585 won. But at price below 585 won, production of drugs virtually became unprofitable, rendering the companies' entry into the market impossible.

The KFTC saw that this act of Company D constituted an act exploiting patent right and drug pricing system to obstruct other competitors' entry into the market, which infringes Article 23 of the MRFTA (Unfair Trade Practice) and so the KFTC imposed a corrective order. It saw that Company D's act took advantage of its patent aiming to avoid competition that might arise in the emergence of effective competitors in the generic drug market. To this end, Company D outsourced manufacturing of its patented drug to small-scale companies that could not compete on their merit and had the generic drug priced low enough to preoccupy the price listing quota earlier than its competitors, making generic drug production by its effective competitors virtually impossible, which substantively harmed competition in the relevant market. After all, Company D feared that in case of fierce competition, its market share would drop and competition itself would drive prices down. And such fear eventually led to blocking of the market entry. Therefore, the KFTC deemed that this act constituted clearly an act of restraining competition, not a legitimate exercise of IPRs.

This case was resolved without a problem as Company W cancelled application of listing its drug in the face of vehement protest of other competitors. As a result, the 8 companies struggling to enter the market could apply for drug price at 780 won, with final price set at 660 won. With this, the KFTC just imposed a corrective order without a surcharge. As seen in this case, patents in the pharmaceutical market have serious implications not just for drug approval but also drug prices, and thus efforts to prevent abuse of IPRs are critical. While this case was terminated with a corrective order, it became a watershed for the KFTC to strengthen its supervision over IPR sector.

3. KFTC's Recent Efforts to Strengthen Enforcement Activities

In recent years, the KFTC has been dedicated to reinforcing its supervision and enforcement activities against abuse of IPRs. Especially, in 2009, the IPR sector was selected as one of the areas for focused monitoring. To this end, the KFTC is trying to come up with measures to further co-operation with relevant authorities such as the Korean Intellectual Property Office. As the pharmaceutical sector, in particular, is expected to see many issues surface concerning IPRs in the years to come, closer co-operation with the KFDA and the MIHWAF is also crucial. The major interest lies in how to go about supervising work to prevent IPR abuse. In fact, IPR abuse often takes place through business-to-business contracts, which makes to monitor it a tall order. Therefore, in order to cope with abuses, it is an imperative to secure active support from relevant authorities and active reporting and co-operation from the victimised businesses. The KFTC, in this regard, is considering creating a network for an effective monitoring system. In addition, this year, the KFTC in concerted efforts with academics is conducting research to seek an effective monitoring system and studies of cases under other jurisdictions concerning the IPR abuse focusing on the pharmaceutical sector. Currently, considerable research is under way and last May, the KFTC co-organised an academic seminar with a university on "agreement on rebate." The KFTC also plans to review relevant regulations that have room to improve in order to ensure effective law enforcement against IPR abuse.

In fact, for Korea, the utmost priority is to accumulate substantive law enforcement experience concerning IPR abuse. Of course, the KFTC dealt with the IPR issue albeit indirectly handling several cases like Microsoft's and Intel's abuse of market dominance. But such cases were not focused on abuse of IPR itself. For this reason, into 2009, the KFTC has been committed to ferreting out and handling IPR-related cases as well as establishing an effective system and institution.

SWITZERLAND

1. Introduction: Recent Debate in Switzerland

Switzerland files more triadic patent applications (applications filed at the EPO, the USPTO and the Japanese Patent Office) per inhabitant than any other country in the world and its biotechnology industry is one of the strongest in Europe.[1]

In light of this success story it has become all the more apparent that the law in force is no longer apt to keep pace with new technologies. Therefore, Swiss patent law is currently being revised. A major point of the revision concerns the patentability of biotechnological inventions and the adaptation of Swiss law to the Biotechnology Directive 98/44/EC. However, the draft bill does not limit itself to the question of patentability of biotechnological inventions, but also addresses other issues such as the exhaustion of patent rights in general and the implementation of several international treaties.

From a competition policy point of view two main concerns have been raised:

- Exhaustion of patent rights and parallel imports;
- The scope of protection of DNA patents: Should the scope of protection of DNA patents be absolute ("absolute protection") or limited to the concrete disclosed functions of the DNA ("function bound protection")?

Both of these very controversial issues deal with the broadness of patent scope. The public debate has been primarily driven by interest groups, and only to a lesser degree by economists. Discussions in Parliament have just started. However, the National Council recently decided to treat the question of parallel imports separately in a later stage in order to accelerate the legislation process for the less disputed parts of the revision.

In the following, we will briefly describe the background of this controversy and outline the various solutions which have been examined.

2. National, International or Regional Exhaustion of Patent Rights?

2.1 Judgement of the Swiss Supreme Court

The debate on exhaustion of patent rights was launched in 1999, when the Swiss Supreme Court ruled that national exhaustion principle applied to patents in Switzerland and therefore the patent holder Kodak could block parallel imports of patented Kodak films by a Swiss retailer coming from Great Britain.[2] Nevertheless, the Swiss Supreme Court stated that the Act on Cartels applied, when the patent holder

1 S. Thumm, Nikolaus (2003), *Research and Patenting in Biotechnology - A survey in Switzerland* www.ige.ch/D/archiv/a105.shtm.

2 BGE 126 III 129.

abuses the exclusive rights granted to him by the patent.[3] Ever since, this ruling on the question of parallel imports is a very controversial issue that has given rise to fierce political debates.

It is worth mentioning that in other areas of intellectual property law in Switzerland, namely in trademark and copyright law, international exhaustion is applied. With the judgement of 1999, the principle of national exhaustion of patent rights was formally stated for the first time, as the Swiss Patent Law did not contain the applicable exhaustion principle for patents.[4] From an economic perspective, patent owners were granted the right to differentiate prices for patented goods and their revenue from patent rights increased compared to the alternative of international exhaustion. On the other hand, competition by parallel importers was removed for patented goods and consumers were harmed as prices remain high in Switzerland for many patented products.

2.2 Revision of the Swiss Cartel Act

As a first consequence of the Supreme Court's ruling, Parliament introduced one new rule in the Law on Cartels[5] which was at that time under revision:

> *"The present Act does not apply to effects on competition that result exclusively from laws governing intellectual property. However, import restrictions based on intellectual property rights fall to be assessed under this Act."* (Art. 3 para. 2 Acart revised).

This new provision does not introduce international exhaustion in patent law, but it enables the Swiss Competition Authorities to examine import restrictions based on intellectual property rights in order to prevent abuse of the exclusive patent rights, when an illegal vertical agreement or an abuse of a dominant position is found. In other words, the patent holder cannot object to parallel imports if the exercise of his exclusive rights constitutes an illegal anti-competitive practice according to our Cartel Act.

Up to now (still valid in 2009), there have not been any cases dealing with parallel imports involving intellectual property rights. The only pre-investigation in connection with the revised Art. 3 para. 2 ACart was closed, as the patent holder decided to conclude a pan European contract with his distributors, which allows parallel imports between the EU and Switzerland. The modification of these distribution contracts was less caused by the revised Act on Cartels than by the fact that the relevant market is shrinking and thus price differentiation between countries is turning less beneficial than the efficiency gains from the pan European distribution system.

2.3 Governmental Studies

In January 2000, a parliamentary commission asked the Government to prepare a report analysing the impact of parallel imports of patented goods. In its first report, the Government concluded that the impact of a change from national to international exhaustion of patent rights could not be answered based on

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3 According to the Federal Court only if the three following conditions are cumulatively fulfilled it may be considered as abusive to invoke patent legislation to bar parallel imports: The imports originate in a country of comparable income, patent protection is comparable in the country where the imports stem from, and in the country of origin prices are not regulated.

4 A former judgement, dating back to the 70s was not very conclusive ("Omo case", BGE 105 II 49).

5 Entry into force: April 1st 2004.

available data and had to be analysed more thoroughly.[6] A distinction between regulated and non (price-) regulated markets was made.

In March 2001, a parliamentary commission mandated the Government to make the respective economic analyses. For its second report, the Government commissioned three external studies. The economic study by Frontier Economics and PLAUT Economics estimated the economic benefit of a change to international exhaustion to be a one-off GDP growth effect of 0.0-0.1%.[7] In a second study, it was found that prices for pharmaceutical products – many of them are patented and thus protected from parallel imports - are high in Switzerland compared to the European level. Only a small fraction of the price differential could be explained by economic and structural factors, while the much larger part was explained by a whole set of complex regulations affecting these products.[8] A legal opinion that was commissioned by the Government in the course of the elaboration of the second study examined the feasibility of a policy change in patent law.[9] The external experts concluded that there were no specific legal barriers to the introduction of international exhaustion of patent rights, while the idea of a Europe-wide regional exhaustion would have to be dealt with in a regional agreement.[10] The Government concluded that the economic benefit of 0.0 – 0.1% of GDP was not large enough to justify a policy change considering that detrimental effects might exist as well. A major concern was that Switzerland would not give the appropriate signal by opening up its markets to parallel imports, given the fact that in international negotiations, Switzerland used to stress the need to protect intellectual property rights. At the same time, the government considered regional exhaustion of patent rights to be an option worth studying. It was announced that the issue of national/international exhaustion, specifically the question of "abuse" of national exhaustion,[11] would be explicitly addressed in the forthcoming patent law revision.[12]

Consequently, the federal council was mandated by the parliament to analyse the option of regional exhaustion of patent rights more thoroughly. In its third report on parallel imports, the government

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6 *Importations parallèles et droit des brevets*, Rapport du Conseil fédéral du 8 mai 2000. http://www.evd.admin.ch/imperia/md/content/dossiers/importations_paralleles/f/000531c-ber-f.pdf.

7 *Frontier Economics and PLAUT (2000): Erschöpfung von Eigentumsrechten: Auswirkungen eines Systemwechsels auf die schweizerische Volkswirtschaft*. http://www.evd.admin.ch/imperia/md/content/dossiers/importations_paralleles/d/Studie_Systemwechsel_und_Anhang.pdf.

8 *BASYS and Infras (2002): Auswirkungen staatlicher Eingriffe auf das Preisniveau im Bereich Humanarzneimittel* http://www.evd.admin.ch/imperia/md/content/dossiers/importations_paralleles/d/Studie_Humanarzneimittel.pdf.

9 See Daniel Kraus (2003): *Les importations parallèles de produits brevetés: Droit de l'OMC dans la perspective du droit communautaire et du droit suisse de la propriété intellectuelle et de la concurrence*, for a comprehensive analysis of the possibilities according to international law to introduce any differentiation (regarding product categories and/or countries) in either the regime of national or of international exhaustion.

10 Kraus, Joseph and Katzenberger, Paul (2002): *Parallelimporte: Rechtsgrundlagen zur Erschöpfung im Patentrecht* http://www.evd.admin.ch/imperia/md/content/dossiers/importations_paralleles/d/Rechtsgutachten_Erschoepfung.pdf.

11 Specifically, the issue that some producers might abuse their national exhaustion rights on patents was to be tackled. A common example for an abuse would be a company that uses a patent right of minor importance to prevent parallel imports of a product that was otherwise only protected by trademark law and hence subject to parallel imports.

12 *Importations parallèles et droit des brevets*, Rapport du Conseil fédéral en réponse au postulat de la CER-N (00.3612). http://www.evd.admin.ch/imperia/md/content/dossiers/importations_paralleles/f/TRI_BERICHT_PARALLELIMPORTE_FRZ.pdf.

concluded that the economic benefit of a switch to regional exhaustion would only be marginally lower than the one of the switch to international exhaustion. However, it was again noted that regional exhaustion was only legally possible in the context of a regional agreement with the European Union. Since it was assumed that an agreement would require Switzerland to switch to regional exhaustion also in other areas of intellectual property law, where Switzerland applies international exhaustion today, such a regional agreement was not estimated worthwhile. Eventual gains and losses of a regime switch were considered to be of comparable magnitude. Hence, the federal council proposed to insert national exhaustion in patent law and to introduce an article that prevented abuse of national exhaustion for goods that were protected by several intellectual property rights.[13]

2.4 The Public Debate

In the public consultation procedure, the proposed codification of national exhaustion of patent rights was welcomed by business and industry associations, most prominently those representing the pharmaceutical industry. They argued that strong patent rights boosted innovation and thus contributed to welfare and growth of the Swiss economy. They noted that allowing parallel imports would mostly benefit wholesalers and only partly consumers, while the incentives for producer innovation were reduced if regional or even international exhaustion were introduced. Furthermore, they stated that many patented products, specifically pharmaceutical products, were subject to price regulation in many countries. They noted that the lower prices in many countries were not a result of competition, but a consequence of price regulation. Moreover, they argued that regional exhaustion was only feasible in regions with a uniform legal framework, such as the European Union. The associations noted that abuse was to be tackled by competition law and not by a regime change in patent law.

On the opposite side, consumer associations, the Price Surveillance Authority and the association of health insurers demanded the introduction of regional or international exhaustion of patent rights. They argued that such a policy change would be beneficial to consumers and contribute to slower growth of health insurance premia as parallel imports would allow to lower the high prices of patented pharmaceuticals in Switzerland. Furthermore, they stated that competition would not endanger, but rather boost innovation as competitive pressure would increase the need to innovate in order to generate profits.

The Competition Commission has always been in favour of international exhaustion and – as second best – regional exhaustion of patent rights – both introduced bilaterally or unilaterally.[14] It remarked among other things that such a policy change would considerably increase GDP growth, ease parallel imports and at the same time complicate foreclosure of the Swiss market. Further, in its opinion, the announcement effect of such a policy change towards the enterprises was overvalued and Switzerland as a research location not endangered, since companies chose the place of their research departments not depending on exhaustion of patents, but on other structural factors such as the availability of qualified personnel, taxes and quality of life.

2.5 Economists' Views

Besides the already mentioned economic analyses that were commissioned by the federal council, several Swiss economists have commented on the issue of exhaustion and parallel imports.

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13 *Importations parallèles et droit des brevets: Epuisement regional*, Rapport du Conseil fédéral. http://www.evd.admin.ch/imperia/md/content/dossiers/importations_paralleles/f/rapport_final_envoi-wak_f_04-12-15.pdf.

14 *Recommendation concerning parallel imports and patent rights*, RPW 2003/1 212 ff.; responses concerning the revision of the patent law.

Barsuglia and Weder (2006)[15] specifically looked into the pharmaceuticals sector. They remark that the pharmaceutical sector is subject to a whole set of regulations, namely patent rights, a ban on parallel imports based on health protection legislation and price regulation. While they conclude firstly that from a theoretical perspective, total welfare in Switzerland might be raised if parallel imports are allowed (*i.e.* gains in consumer welfare can be larger than losses in producer welfare if certain conditions are fulfilled), they also argue that a final judgement is impossible due to uncertainties on price setting in foreign markets. They note that if parallel imports were only about lowering pharmaceutical prices, a simpler tool would already be at hand with the current price regulation mechanism.

2.6 Update 2009: The Parliaments' Decision 2

After long debates, the parliament finally agreed to a compromise between the interest groups, which will enter into force in July 2009:

The Swiss parliament opted for the regional exhaustion of patent law: According to the new article 9a, a patent owner cannot prevent imports if a patented product was brought onto a market within the European Economic Area.

However, this principle is invalid for products, whose prices are regulated by the state in Switzerland or abroad. For the sale of those products, the patent owner's consent is necessary and hence, national exhaustion applies and price competition by imports is unlikely.

The new article described in a) makes parallel imports of many patented products such as machines or consumer goods into Switzerland easier than today, which enhances competition and the pressure on prices. The exemption described under b) mainly refers to price-regulated pharmaceuticals and other medical supplies. The argument for the exemption goes as follows: If the price of a product is regulated in Switzerland, *i.e.* it is set at a specific level after a political decision process accounting for benefits of the innovation as well as for social security costs, this regulated price should not be questioned by the policies of other countries. Rather, if cost-concerns gain importance over innovation incentive-concerns, the regulated price should be reviewed.

3. Absolute or Function Bound Protection of DNA Patents

3.1 The Discussion in Switzerland

Highly controversial, albeit not yet subject to a broader public discussion, is the question whether the scope of protection of DNA patents should be absolute or limited to specified and disclosed functions of the DNA. While traditionally the scope of patent protection for chemical compounds is absolute, it has been put into doubt whether the same conclusion can be drawn for DNA patents. As DNA are multifunctional the idea to grant patent protection also for those functions which have no connection whatsoever with the function disclosed appears to reduce the incentive for investigating the different functions of a known DNA.

Initially, the draft bill proposed a function bound protection for DNA patents. However, this proposal met with stiff resistance by the large pharmaceutical companies supported by some political parties and trade associations, while research institutes, SME and other political parties were in favour of this solution. As the issue is very technical and the delicate delimitation between pro-competitive incentives for

[15] See http://www.dievolkswirtschaft.ch/fr/editions/200607/Weder-Barsuglia.html or the attached document for an overview.

innovation and harmful over-protection is very difficult to make, the government called upon a group of experts to give a second opinion on this issue.

The group of experts finally discussed two options: a function bound protection for DNA patents or an absolute protection which nonetheless shall insure that no speculative or excessively broad patent claims can be filed. In its report, the group voted in favour of the second option, which is now the solution presented to Parliament in the current draft of the Patent Law revision.

3.2 Update 2009: The Parliaments' Decision

In the end, the Swiss parliament voted for a compromise also in the issue of DNA patents, which entered into force in July 2008: In general, absolute protection of DNA patents is granted; hence, DNA sequences can be patented in Switzerland. However, protection is limited to those parts of the DNA sequence, which fulfil the functions that are precisely described in the patent. Thus, the potential abuse of patent law by speculatively patenting DNA sequences is limited.

Furthermore, a broad research privilege was introduced: patent protection does not limit researchers in their work with new applications of the patent. Also, it is allowed to pursue tasks that are necessary to gain the permits for bringing pharmaceuticals on the market. Thus, generic producers can conduct medical trials earlier and get immediate access to the market when the patent right expires, while today, they can only begin with their own trials at expiry of the patent.

4. Conclusion

In a general overview of current literature, Schmutzler (2006)[16] criticises that the traditional view of economists – the conflict between the inefficiency of the patent monopolist on the one hand and the patent right's incentive for innovation on the other hand – is too simplifying. He argues that nowadays many inventions and innovations depend on a whole set of prior patents and non-patented innovations. The complex environment leads to strategic behaviour such as strategic patenting, voluntary publication of research results, vertical and horizontal integration as well as patent pools. According to Schmutzler, the behaviour of market players depends on their estimation of the inventor's own negotiating power and the probability of the development of innovations depending on his own invention. For example, developers of open source-software renounce on any intellectual property rights on their innovations, but nevertheless develop successful business strategies. Schmutzler concludes that simple policy advice is impossible with the current know-how of economists.

This view was also mirrored by Swiss parliament: Radical changes did not find parliamentary support whatsoever. With the compromises described above, parliament ensured that innovators are compensated for their efforts, but still competition plays an important role.

[16] See http://www.dievolkswirtschaft.ch/fr/editions/200607/Schmutzler.html or the attached document for an overview.

UNITED KINGDOM

1. Some Issues and Developments since the 2006 Roundtable

Demand for patents worldwide has doubled in the last 15 years. Despite investing resources in order to manage growing workloads, patent offices around the world have not coped with this growing demand. The result is a large and growing backlog of unprocessed patent applications - current estimates of worldwide backlogs vary between 5 and 10 million applications. Such backlogs lead to delays in granting patent rights and in some countries it can take up to 10 years to obtain patent protection.

Backlogs and delays upset the balance of the patent system and can have a detrimental effect on competition. Investors cannot begin enforcement actions until their patent is granted and struggle to attract financial backing without the security of patent protection. In addition, investors are reluctant to invest in new technologies that are not protected by granted patents. Competitors cannot be certain what the final scope of protection will be or even if any protection will be granted and may therefore choose to avoid certain technologies which are "patent pending", rather than risk potential infringement later. This can slow or even block the development of rival products which is bad for consumers who might have to pay an unwarranted premium for a patented product in the absence of competition.

Some applicants may adopt strategies to accelerate or delay a patent grant based on their own knowledge of the quality of a patent application.[1] Whilst there is no definitive proof, it would appear that applicants deliberately delay applications which they feel have a low probability of being granted. This avoids the costs associated with patent examination, grant, renewal and enforcement for longer. In such cases a pending application is better than no patent at all.[2]

Much of the current backlog is due to duplicate processing of the same application around the world. Businesses seeking global protection have to file patent applications for the same invention in different countries. The result is that the same invention is examined many times over by different patent offices. The UK Intellectual Property Office (IPO) is pursuing a range of initiatives to remove duplication by increasing work-sharing and co-operation between patent offices. These include the Patent Prosecution Highway (PPH) agreements with the US and Japan, participation in the European Patent Office's (EPO) Utilisation Pilot Project (UPP), encouraging EPO engagement with IP5 initiatives of reducing duplication, promoting reform of the Patent Co-operation Treaty (PCT) to increase use of the work-sharing aspects of the PCT, and mutual recognition.

1.1 OECD – Patents and Competition Law Update – Gowers Review

The UK government commissioned an independent review of the IP regime in 2005. The Chancellor of the Exchequer asked Andrew Gowers, former editor of the Financial Times, to lead on this. The report was published in December 2006 and concluded that the IP system needed reform, not radical overhaul. It made 58 recommendations around three key areas: (i) to make the IP system fairer and clearer for consumers and users of IP; (ii) to reduce costs to business; and (iii) to improve the enforcement regime.

1 Jensen P H *et al.* (2006) *Application Pendency Times and Outcomes across Four Patent Offices*, Intellectual Property Research Institute of Australia, Working Paper No 1/08.

2 Van Zeebroeck N (2009) *Filing Strategies and the Increasing Duration of Patent Applications*, CEB Working Paper No 09/005, January.

The Chancellor committed to take forward these recommendations which largely fall to the IPO to deliver, with other government departments (OGD) leading on 10 recommendations.

Work on the Gowers recommendations is ongoing although around half of the recommendations which fell to the IPO to deliver have already been implemented. Notable successes include:

- The entry into force of the London Agreement in May 2008 which has significantly reduced the cost of translations for European patents;
- Trading standards officers have been given powers to search and seize copyright infringing goods;
- Work-sharing pilots have been established by the IPO with Japan and the US;
- Close workings between the IPO and businesses for example on developing an IP Diagnostic tool, information booklets for UK firms looking to exploit in key markets, and the provision of information on business-to-business licensing.

The IPO is actively progressing remaining recommendations and is liaising with OGDs on the outstanding recommendations they lead on.

It has not been possible to implement all the recommendations within the one- to two-year timeframes suggested in the Gowers Review. In some instances further work and consultation has suggested that certain recommendations should be reconsidered. These include complex legal issues (not identified by the Review) which have arisen in relation to recommendations on copyright exceptions. A number of recommendations have also been delayed where action is dependent on the work programme of the European Commission *e.g.* EU Community Patent (COMPAT) and the European Patent Court.

One recommendation not being taken forward by the IPO is the patent fast track service– following formal consultation and informal discussions with industry, this was rejected as users were satisfied that existing services were fit for purpose. Instead the IPO is working to clarify and raise awareness of these existing services.

1.2 OECD – Patents and Competition Law Update – Certain Cases

Pumfrey J. in the Patents Court found two Halliburton patents[3] for methods of designing drill bits invalid for lack of sufficiency. The parties settled but Halliburton then appealed the decision on one of the patents. The question arose whether because the applicant for revocation had withdrawn, the patent could simply be reinstated. The Court of Appeal decided that it should not restore the revoked patent by consent or by a purely administrative act, but that it should consider the technical merits. As the applicant for revocation was no longer a party, the Comptroller of the IPO was invited to make the case for the side not argued, and did so at least for points where the IPO disagreed with Halliburton. Halliburton was required to pay the Comptroller's costs whatever the outcome of the appeal. The Court of Appeal found the intervention very helpful and said it hoped that a similar procedure would be followed in future. The Court of Appeal upheld Pumfrey J.'s judgment.

[3] http://www.bailii.org/ew/cases/EWCA/Civ/2006/1715.html.

Since then this procedure has been followed in other cases, most notably that of *Conor* v *Angiotech* in the House of Lords,[4] and in that case the court found for the appellant, Angiotech.

2. General Observations on the Patent/Competition Law Interface

Before considering some specific issues over strategic patenting and increasing pendency periods, it is appropriate first to set out some general observations on the patents/competition law interface. In the UK, as in many jurisdictions, activities relating to patents (rightly in our view) do not enjoy competition law immunity. Well thought-out competition law interventions in the right cases can be appropriate against anti-competitive activities in relation to patents.

"Well thought-out" and "in the right cases" are vital qualifiers for these purposes. Competition law interventions involving patents can have potentially high agency costs and can also risk deterring innovation, particularly by creating uncertainty, as well as giving rise to perceptions of conflicts between patent law and competition law. Competition authorities dealing with patent cases therefore ought to have an enforcement narrative for each case where intervention is made which embodies a well articulated theory of harm and a readily understandable and achievable set of enforcement objectives. Such interventions should also offer well-defined markers so as to enable firms and their advisers to have a clear understanding of what kinds of patent-related activities might infringe competition law, and when. Ambiguous borders between what a competition authority views as competitive or anticompetitive patent strategies and/or unclear enforcement narratives in this respect can seriously risk creating uncertainty and deterring innovation as well as appearing to put the patent and competition regimes in conflict with one another.

Competition authorities must also be wary of inadvertently allowing a status quo to emerge in which competition law is regarded as an *ex post* facto "when all else fails" means of addressing deficiencies in the framework or operation of the patent system itself. Among other potential ills, this can lead to circumstances in which competition authorities come under pressure "to do something" about perceived issues in the framework or operation of the patent system "because nobody else can", thereby risking scenarios in which competition authorities may have to "shoe-horn" the analysis of such issues as potential infringements under competition law. This can have high agency costs and risks leading to the undesirable enforcement ambiguities alluded to above.

Instead, if competition authorities have concerns about adverse welfare consequences of weaknesses in the framework or operation of the patent system, then it is suggested that they should be proactive in engaging with patent offices, policy makers in the field and the intellectual property community more widely, with a view to debating, clarifying and resolving where practicable interface issues which give rise to concerns. Given the global nature of the patents system, it is likely that for such proactive engagement to be effective, it cannot be limited to the domestic level. Instead, it would seem imperative that such engagement also occur internationally. From the competition law perspective, international fora such as the OECD Competition Committee and the ICN may be well suited to help drive forward such collaboration. It is also worth noting that there may be a great deal of theorising about potential problems with regard to the patent system that may, or may not, exist in practice. Organisations such as the OECD may also be able to play an important role in facilitating the collection and understanding of relevant economic evidence. However the issues are approached, it seems that it would be highly beneficial for there to be considerably more contact between those involved in competition economics and those involved in intellectual property policy.

[4] http://www.bailii.org/uk/cases/UKHL/2008/49.html.

2.1 Theories of Harm Relating to Patent Strategies Exploiting Long Pendency Periods

There have been growing concerns about increased pendency periods for patent applications. The EPO has itself mooted the existence of a phenomenon called "global patent warming". This problem, according to the EPO, has three elements: "woolly boundaries" for patents, globalisation and increasing pendency periods owing to examination backlogs in patent offices.[5] Can patent strategies that exploit this phenomenon, such as loading patent offices with multitudes of patent applications (often called "patent application loading"), have an adverse impact on consumer welfare? It is a feature of patent law that most patents are never worked and that many patents are never renewed. Many patented inventions have no commercial value, and by implication it is difficult to see how strategic use of the patent application process may in many situations have adverse welfare effects. Furthermore, many firms active in patent-rich markets may well be able to assess the viability of their competitors' patents and, by extension, their patent applications. Lord Justice Jacob, an English patents judge, has said that what he calls patents with "woolly lines" are the ones that cause the trouble and lead to litigation.[6] Moreover, patent infringement proceedings can only commence once the patent has been granted (though admittedly the infringement suit can extend of course to infringing acts done prior to grant) – as such, even marking items with "patent pending" does not necessarily mean that a competitor will not work the invention or "work around" it.

All that said, it may well be that, in some cases, pending patent applications will deter potential competitors from working the invention(s) to which the application(s) relates for fear of an eventual lawsuit, especially if the patent applicant is better resourced than the would-be competitor - who may be unable to risk eventual costly patent litigation even if, at the end of the day, the patent is declared invalid. In such a case, it is obvious that the public may be deprived of the benefits of competition with respect to the invention which is of dubious novelty, inventiveness or other aspect of patentability. Patent application loading may also have welfare implications by raising rivals' costs, either by increasing the need for firms to conduct more extensive patent searches, assessing a greater number of their competitor's patent applications, or unnecessarily incurring research and development costs in order to "work around" the inventions to which the applications relate. "Patent flooding" may similarly be problematic when engaged in by a firm that already has a myriad of patents in respect of competing technology: forcing cross-licensing may allow it to leverage its strength and raise prices across the board for the technology while potentially deterring innovation, particularly if the cross-licences include exclusivity provisions.[7] Moreover, where "evergreening" at the end of the patent lifecycle occurs through myriads of applications for perhaps dubious improvement patents, then this may have the clear effect of excluding others from being able to work the technology in question in the most commercially attractive way and from delivering the benefits of competition.

2.1.1 What Can Competition Law do about it?

Patent application strategies which exploit long pendency periods and other weaknesses in the framework and the operation of patents system may have adverse welfare effects, but what can and should competition law do about such practices? On one view, competition law enforcement should not tackle such problems, leaving built-in safeguards in or changes to the framework and/or operation of the patent

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5 See for example, comments of EPO controller Ciarán McGinley at http://www.epo.org/topics/news2008 20080905.html.

6 See Sir Robin Jacob, *Woolly Lines in Intellectual Property Law*, *Patents and Technological Progress in a Globalised World*, (Springer, 2009) p. 781.

7 Patent flooding is said to occur where firms file a multitude of improvement patent applications over their rivals' patents: see, *e.g.* Sri Krishna Sankaran "Patent Flooding in the United States and Japan" *IDEA, The Journal of Law & Technology, Vol. 40 No 3, 2000.* The aim is said to be to force cross-licensing of the original patent.

system to address such issues. For example, it may well be the case that many unmerited patent applications will fail and of those that somehow do slip through examination and which are granted patents, many will be eventually invalidated by the patent courts.

Notwithstanding these arguments, which may be well-founded in some cases, it is nevertheless worth considering whether competition law can appropriately be deployed to address potential competition issues arising from some patent application strategies. Before seeking to answer this question, it is appropriate to recall some elementary principles relating to the interface between patents and competition law.

In most patent systems, persons have a positive right to apply for patents. For example, section 7(1) of the UK Patents Act 1977 provides that "[a]ny person may make an application for a patent either alone or jointly with another."[8] There is also an affirmative right under the UK Patents Act 1977 to apply to amend patent applications (including claims) before a patent is granted, subject to limitations on added matter.[9]

Allegations of anti-competitive patent application strategies are likely to be most appropriately assessed under unilateral conduct rules.[10] Under UK competition law, the chief unilateral conduct provision is the Chapter II prohibition against the abuse of a dominant position, found in section 18 of the Competition Act 1998 (CA98).[11] Merely holding a patent does not mean that a patentee enjoys a dominant position. For that matter, the so-called "patent monopoly" merely allows a patentee to prevent others from doing certain restricted acts without the consent of the patentee, and only in relation to the patented product or process.[12] In contrast, a dominant position refers to a position of economic strength in a market that allows the dominant undertaking to prevent effective competition in a market, by affording that undertaking the ability to act independently of its competitors, customers and ultimately of consumers.[13] A market for these purposes is defined on the basis of interchangeable products and services. It will often be the case that the products or processes forming the subject matter of a patent will be interchangeable with other products or processes as to their price, characteristics or intended use. Or undertakings may be able within a reasonably short period of time to develop products or processes that are interchangeable with the patented products or processes. To use a colloquial and perhaps whimsical example, the inventor is granted a patent for the proverbial better mousetrap is almost certainly not dominant even in a narrowly defined hypothetical market for mouse control: competing products may include pre-existing mousetraps, poisoned cheese or even cats.[14]

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8 Section 7(2) of the Patents Act 1977 empowers the Intellectual Property Office to grant patents and makes provisions as to whom the patent may be granted.

9 See section 19(1) of the Patents Act 1977 and the exceptions in section 76 as to added matter.

10 Though of course it is possible that they may be carried out according to some agreement or understanding, in which case the rules against anticompetitive agreements may be engaged.

11 The Chapter II prohibition is closely modelled on Article 82 of the EC Treaty. Section 60 of CA98 sets out principles for ensuring that questions under the CA98 in relation to competition in the UK are determined in a manner, which, as much as is possible, is consistent with corresponding questions arising in Community law.

12 For example, with regard to patented products, the restricted acts include making, keeping, using, disposing of, offering to dispose of, or importing the patented products: see section 60 of the Patents Act 1977 (PA77). Remedies for patent infringement include an injunction to prevent the infringer from any apprehended act of infringement, orders for delivery up or destruction of any infringing products, for damages for infringement, for an account of profits and a declaration of infringement: see section 61(1) PA77.

13 See, for example, *United Brands* v *Commission* (Case 27/76) [1978] ECR 207 at paragraph 65.

14 This metaphor is used in Janice M. Mueller, *An Introduction to Patent Law* (2003) at p. 19.

There may however be situations in which a market definition is identical with the product or process protected by a patent (or a bundle of related patents) and where there is no reasonable likelihood of competitors developing suitably interchangeable products or processes in a timely manner. Perhaps less rarely, a patent portfolio may in some situations be a factor, in combination with a number of others (such as high regulatory barriers to entry, for example) that may be indicative of a dominant position.[15]

Abuse under the Chapter II prohibition of the CA98 is an objective concept referring to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is already weakened and, through recourse to methods different from those conditioning normal competition in products or services on the basis of the transactions of commercial operators, this has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.[16] Undertakings in a dominant position have a "special responsibility" not to allow their conduct to impair competition any further. Dominant undertakings may in some situations even be deprived of the right to adopt a course of conduct or take measures which are not in themselves abuses and which would even be unobjectionable if adopted or taken by non-dominant undertakings.[17] Thus, in *ITT Promedia* v *Commission*, the Court of First Instance (CFI) found that the conclusion of a contract or the acquisition of a right may amount to an abuse for the purposes of Article 82 of the EC Treaty if that contract is concluded or that right is acquired by an undertaking in a dominant position.[18] In *Tetra Pak I*,[19] the CFI similarly found that the acquisition of a right by a dominant undertaking may in some circumstances constitute an abuse.

The European Commission decision in *AstraZeneca*[20] is particularly instructive when assessing whether patent application strategies engaged in by a dominant firm can constitute an abuse. It will be recalled that in *AstraZeneca*, the European Commission imposed a fine for infringements of Article 82 of the EC Treaty that categorised as abuse (among other things) the making of *misleading* applications to national patent offices in the EU for supplementary protection certificates (SPCs) in respect of the patents for the drug Losec.[21] In that decision, the European Commission stated that while it was clear that Community law did not affect the property laws of the different Member States,

> *"…the laws of the Member States are not affected by qualifying as abusive misleading representations made in the context of applications for intellectual property rights, in the absence of which the right or rights in question would not normally have been granted….In any event, even following the granting of the SPCs, the making of misleading representations is not included*

15 It should be observed that the competitive impact of "gaming" the regulatory system in some sectors may be far more pronounced than that of strategic patent filing. As noted above, patents do not in and of themselves deny access to markets or sectors. In contrast, governmental regulation in some sectors may well have this effect, by setting up a regulatory barrier to entry.

16 *Hoffmann-La Roche* v *Commission* (Case 85/76) [1979] ECR 461, paragraph 91.

17 See, to that effect, *Michelin* v *Commission* (Case 322/81) [1983] ECR 3461, paragraph 57.

18 (Case T-111/96) [1998] ECR II-2937. For comment, see Preece, *ITT Promedia v EC Commission: Establishing An Abuse of Predatory Litigation?*, (1999) 20 ECLR 118.

19 *Tetra Pak Rausing SA* v *Commission* (Case T-51/89) [1990] ECR II-309.

20 http://ec.europa.eu/competition/antitrust/cases/decisions/37507/en.pdf. Note that the European Commission decision in *AstraZeneca* is currently under appeal to the CFI as Case T-321/05.

21 SPCs effectively extend the term of patent protection for, among other things, pharmaceutical products: see Council Regulation (EEC) No 1768/92 of 18 June 1992 concerning the creation of a supplementary protection certificate for medicinal products, OJ L 182, 2.7.1992/1.

> *in the bundle of rights forming part of the subject-matter of an SPC. Moreover the acquisition of a right may amount to an abuse [citing the CFI's judgments in Tetra Pak v Commission (Case T-51/89) and ITT Promedia v Commission (Case T-111/96)] and there is no reason why the conduct in procedure relating to the acquisition of the right cannot be considered as an abuse…The use of public procedures and regulations, including administrative and judicial processes, may, in specific circumstances, constitute an abuse, as the concept of abuse…is not limited to behaviour in the market only."*[22]

In *AstraZeneca*, the European Commission considered that merely obtaining SPCs as a result of misleading applications, notwithstanding that they may have subsequently been invalidated by national courts, constituted an abuse. The Commission considered that such SPCs were nevertheless capable of having an anti-competitive effect.[23]

Making misleading statements to national patent offices for SPCs was not within the specific subject matter of the patent right.[24]

A question that arises and which is worthy of further consideration by competition and patent authorities, is whether merely making patent *applications* could also be capable of having such an anti-competitive effect. It is submitted that given the potential adverse welfare effects that may result from long pendency periods, patent application loading and similar strategies in some cases, this could well be capable of having the effect of hindering the maintenance of effective competition in a market or the growth of that competition. As such, there may well be a viable argument that patent application loading and similar strategies could constitute abuse in certain cases, particularly if a strictly objective, "no-fault" approach to abuse is employed.[25] That said, the actual and potential economic impact of pending patent applications is arguably worthy of further examination. Data relating to the economic impact of patents currently may often not be available in advance of the patent being granted and worked by the patentee. Moreover, in some cases, even where a firm may have a pre-eminent position in a particular market, there is nothing in the patent application that necessarily determines in which market the invention will eventually be worked. Further, it may be that patent applications, which can be subject to detailed scrutiny by patent examiners (including as to prior art, whether cited or not in the patent application) to determine whether the patents should be granted, are capable of having a different competitive impact from applications for SPCs.[26] The *AstraZeneca* decision indicates that the patent offices in question had little margin of discretion as to whether to grant the SPCs if they accepted the truth of the information in the SPC applications.[27]

When considering what the policy implications of condemning certain patent application strategies as abusive would be, the comments of the CFI in *ITT Promedia* with regard to the right of dominant firms to sue in the courts may have significant read across. In paragraph 95 of that judgment, the CFI noted that

> *"…the Court rejects the applicant's argument that the Commission should have examined whether the relevant Belgian provisions were, at least apparently, compatible with Community*

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22 *AstraZeneca*, recitals 741-743.

23 *Ibid*. recital 758-770.

24 *Ibid*. recital 742.

25 See, for example, footnote 17 above.

26 Though compare comments at recitals 763-764 of *AstraZeneca* to the effect that even if misleading representations are not relied upon by patent offices, they may still be capable of being abuse.

27 *AstraZeneca*, *ibid*, recital 747.

> *law. Such an interpretation…would make it practically impossible for undertakings in a dominant position to have access to the courts. In order to avoid the risk of infringing Article [82] of the Treaty solely because they had brought an action before the courts, those undertakings would have to ensure beforehand that the relevant provisions on which they based their rights were compatible with Community law."*

There may well be an analogous argument that competition authorities ought only consider intervening in cases of strategic patent applications where there is evidence of a clear anti-competitive purpose behind patent filings, such as evidence of misleading the patent office (for example as to prior art in some jurisdictions) or there is other evidence of bad faith with regard to the patent application.[28] Such bad faith could conceivably include making patent applications simply as part of a deliberate strategy of excluding competitors in the knowledge that the patent applications are actually baseless, though evidence of such cases is rare.

Without including such collateral factors in their assessment of abuse, competition authorities may risk deterring patent applications and investment in innovation. This is because firms may legitimately fear that they will be considered dominant and that they will be subject to challenges under competition law if they apply for patents. There may also be a more subtle undesirable side effect if competition law is deployed in a way that deters patent applications. Patents encourage disclosure of inventions to the public in exchange for a period of exclusivity. Where firms fear challenges under competition law, rather than filing patent applications, they may choose instead to protect their inventions using the law of trade secrecy which, provided that the requirements for protection (such as confidentiality) are maintained, is indefinite. Accordingly, the public may ultimately lose out from the benefits of competition in the working of inventions that might otherwise have been disclosed.

That said, proving some mental state or knowledge in an abuse case may often be problematic with regard to patent applications.[29] In practice, it may often not be clear cut whether a patentee has actually misled the patent office or otherwise engaged in bad faith with regard to the patent application. Moreover, the chain between the inventor and the application to a patent office is often a long one.

It may be unwise to offer any firmer views at this time, given the current lack of practical competition law experience of these issues in many jurisdictions. Instead, given the balance of risks and benefits in intervention, the issues raised above are worth further careful examination in collaboration with the intellectual property community. Competition authorities need to be alive to the real risk of creating broader damage to the patent system and innovation if competition law intervention does not set down clear and well thought out markers for what may constitute abuse.

2.1.2 Standardisation – Strategic Patenting and FRAND

Standardisation has become an increasingly important issue in competition law and the importance of standards in many industries is enormous: for instance, in the telecommunications sector. Standardisation can lead to considerable efficiencies, including facilitating network effects and interoperability, and thus bring benefits to competition in markets and consumer welfare. Standards may also result in "market tipping".

One issue that Standard Setting Organisations (SSO) and others may wish to have further guidance on from competition authorities concerns the calculation of Fair Reasonable and Non-Discriminatory

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28 Though see footnote 26 above.

29 Consider Paul M Janicke, *Do We Really Need So Many Mental and Emotional States in United States Patent Law?* 8 Tex. Inell. Prop. LJ 279 (2002).

(FRAND) royalties for any patented technology forming part of a standard. Competition authorities may well wish to work with SSOs to provide guidance on FRAND royalties and other issues concerning standard-setting. When providing guidance on FRAND, however, competition authorities are likely to wish to confine themselves to general principles, to minimise the risk of their guidance becoming too prescriptive and to avoid the danger of creating precedents from case-specific situations. Furthermore, competition authorities should guard against becoming de facto price regulators for SSOs.

It should be added that intellectual property law itself often sets out general guidance for determining what "fair and reasonable" royalties are, which may have some read-across to FRAND. For example, in English law, the leading case of *General Tire & Rubber* v *Firestone Tyre & Rubber*[30] sets out some general principles for the determination of royalties in patent infringement cases. Commenting on these guidelines, Reid notes that where the invention is exploited by way of licence, damages ought to be calculated on the basis on the normal amount of the royalty that would have been payable had the infringer taken a licence.[31] In the same case, the House of Lords noted that in some cases it might not be possible to determine such a normal or established licence royalty. In such a situation, the House of Lords suggests that it will be necessary for the patentee to adduce evidence that will guide the court. Such evidence could include the practice, as regards royalty, in the relevant trade or in analogous trades, or perhaps expert witness evidence; in some cases, it might be appropriate to take into account the possibility of the profitability of the invention or for that matter, any other factor on which the judge can decide the measure of loss.[32]

Similarly, many jurisdictions, including the UK, have statutory schemes set up to deal with disputes involving licensing by copyright collecting societies. In the UK for example, this function is carried out by the Copyright Tribunal. The case law of the Copyright Tribunal sets out the Tribunal's general approach in determining the appropriate amount of a royalty. Recently these principles were recalled in the Tribunal's interim decision in *The British Phonographic Industry Limited and others* v *Mechanical Copyright Protection Society Limited and others.* Among other things, the Tribunal in such cases will consider various factors, including the following:

- Fairness: the Tribunal must determine whether the legitimate financial expectations of the collecting society are reasonable in all of the relevant circumstances;

- The willing buyer/willing seller test: in assessing a reasonable tariff, the Tribunal has frequently addressed the matter on the basis that the proper rate is that which would be negotiated between a willing licensor and willing licensee of the copyright repertoire;

- Comparators: the Tribunal is statutorily required to take into account schemes and licences to other persons in other circumstances;

- A simple and workable tariff: the tariff should be simple and workable having regard to the service being licensed;

- A revenue-based approach to royalty: the royalties should relate to a relevant revenue stream from the licensee, one for which there is some nexus between the use of the licensed repertoire and the revenues earned by the licensee.[33]

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30 [1975] FSR 273.

31 See Brian C Reid, *A Practical Guide to Patent Law, 3rd Edition*, p. 123.

32 *General Tire & Rubber v Firestone Tyre & Rubber,* footnote 14 *supra*, at 280.

33 See paras 47 to 72 of the judgment.

Furthermore, SSOs may find it beneficial to have rules allowing for the determination of royalties in event of disputes by independent third-parties, who may be guided by these or similar principles.

UNITED STATES

1. Introduction

In October 2006, the U.S. Federal Trade Commission ("FTC") and U.S. Department of Justice submitted a note to the OECD Roundtable on Competition, Patents, and Innovation that discusses the relationship between patent policy and competition policy in promoting innovation, the role of competition policy in promoting reforms within the patent system, developments and proposals for changes to the patent system in the United States, and considerations when formulating antitrust policy involving patent and innovation issues. This note describes key policy developments between October 2006 and May 2009 and presents some background on the recently concluded FTC Hearings on the Evolving Intellectual Property Marketplace ("2009 FTC Hearings").[1] The FTC will prepare a public report reflecting what it has learned from these hearings.

2. Recent Developments and Proposals for Changes to the Patent System in the United States

2.1 Supreme Court Litigation

Significant U.S. appellate decisions were among the most important patent policy developments between October 2006 and May 2009. One effect of these decisions was to strengthen the influence of competition in patent policy.

In 2007, the Supreme Court decided *KSR International Co. v. Teleflex, Inc.*[2] *KSR* presented the question of when a patent should be denied or invalidated on the grounds that the claimed invention is "obvious" to a hypothetical person of ordinary skill in the pertinent art in light of the content of the prior art and the inventive skill attributable to such a person.[3] The issue was whether the U.S. Court of Appeals for the Federal Circuit—the intermediate appellate court with jurisdiction over almost all patent appeals in the United States—improperly limited the statutory analysis of obviousness by imposing a "suggestion" test that required that a patent examiner seeking to reject a patent application, or a litigant seeking to invalidate a patent, demonstrate a specific "suggestion, teaching, or motivation" that would have led a person of ordinary skill in the art to combine the elements found in the prior art to create the claimed invention.

In *KSR*, the Supreme Court rejected the Federal Circuit's application of this test, calling it a "rigid rule that limits the obviousness inquiry."[4] Rather than confining obviousness analysis to a formulistic conception, the Court said to "look to interrelated teachings of multiple patents; the effects of demands

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1 The 2009 FTC Hearings, which sought information on changes in the intellectual property marketplace and the implications of such changes for public policy, are described at http://www.ftc.gov/os/2008/11/P093900ipwkspfrn.pdf. The hearings started in December 2008 and concluded in May 2009.

2 550 U.S. 398 (2007).

3 U.S. legislation provides that that "a patent may not be obtained... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103; *see also* Graham *v. John Deere Co.*, 383 U.S. 1, 17–18 (1966) (setting forth a methodology for analysing obviousness).

4 550 U.S. at 419.

known to the design community...; and the background knowledge possessed by a person having ordinary skill in the art" so as to "determine whether there was an apparent reason to combine the known elements."[5] Patents for inventions that are obvious to one of ordinary skill in the art withdraw from the public what is already known and diminishes the resources available to support innovation.[6] Indeed, the Court warned that "the results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise, patents might stifle, rather than promote, the progress of useful arts" as contemplated in the U.S. Constitution.[7]

The Court's 2007 decision in *MedImmune, Inc. v. Genentech, Inc.*[8] also recognised the potential harm of incorrectly issued patents and the need to eliminate them by expanding the ways in which a patent's validity may be challenged. Under *MedImmune* a patent licensee that is still paying royalties has standing to challenge the validity of the licensed patent through a declaratory judgment action because the potential for infringement liability creates a "substantial controversy between parties having adverse legal interests," and thus satisfies the U.S. Constitution's standing requirement.[9] As the Court explained in *Lear Inc. v. Adkins*,[10] an earlier case allowing a licensee to challenge patent validity after being sued for breach of contract, allowing challenges to questionable patents vindicates "the important public interest in permitting full and free competition in the use of ideas which are in reality a part of the public domain."[11]

In *Quanta Computer, Inc. v. LG Electronics, Inc.*,[12] the Supreme Court grappled with the limits of the longstanding "patent exhaustion" doctrine, which provides that a patented item's original authorised sale terminates all patent rights to that item. LG Electronics sought through a licensing agreement to prevent a computer maker (Quanta) from combining components made by Intel using LG's patented computer technology (Intel parts) with other components not embodying that technology (non-Intel parts). In holding that the exhaustion doctrine defeated LG's suit, the Court emphasised that the exhaustion doctrine applied to method patents (practiced when the licensed Intel parts were used after being combined with non-Intel parts) as well as other patents. The Court concluded that because LG's licensing agreement with Intel authorised the sale of components that substantially embodied the LG patents at issue in the suit, the exhaustion doctrine prevented LG from further asserting its patent rights with respect to the patents substantially embodied by those products. This holding underscores the legal limits on the ability of a patentee to extend its rights through contractual restrictions after a product embodying its patented technology has been sold.

2.2 Administrative Activity by the Patent and Trademark Office

In 2007, the U.S. Patent and Trademark Office ("PTO") issued four new rules intended to improve the quality and efficiency of the patent examination process in the United States, and to promote innovation and economic growth. These new rules were designed, in some cases, to increase the quality of information that patent applicants are required to provide to patent examiners, and in others to focus applicants on

5 *Id.* at 418.

6 *Id*. at 415–16.

7 *Id*. at 427.

8 549 U.S. 118 (2007).

9 *Id.* at 127 (*quoting Maryland Casualty Co. v. Pacific Coal & Oil Co.*, 312 U.S. 270, 273 (1941)), 131–135.

10 395 U.S. 653 (1969).

11 *Id*. at 670.

12 128 S. Ct. 2109 (2008).

initially presenting their best claims and arguments.[13] A federal district court struck down the rules as beyond the PTO's authority. On review in 2009, in *Tafas v. Doll*,[14] the U.S. Court of Appeals for the Federal Circuit provisionally upheld the PTO's authority to promulgate three of the rules, but remanded the case to the lower court to decide whether the rules were proper. The court struck down one rule dealing with continuation applications. Although the PTO has announced that it will not implement any of the new rules at this time, the following three paragraphs briefly summarise the rules in order to describe the administrative reforms that the PTO has been contemplating.

Rules Limiting the Number of Claims in a Single Patent Document — Provisionally Upheld. Rules 75[15] and 265[16] are intended to address the PTO's difficulty in examining patent applications that contain a large number of claims. Specifically, Rule 75 requires an applicant who submits either more than five independent claims or twenty-five total claims to provide the examiner with information in an examination support document ("ESD"). Rule 265 sets forth the requirements for ESDs. To comply with Rule 265, an applicant must conduct a pre-examination prior art search, provide a list of the most relevant references, identify the limitations that are disclosed by each reference, explain how each independent claim is patentable over the references, and show where in the specification each limitation is disclosed.

Rule Limiting Patent Pendency Through Continued Examination—Provisionally Upheld. In promulgating Rule 114,[17] the PTO sought to limit the time period a patent application can remain pending and to limit the number of examinations that can be requested for a single invention. To that end, Rule 114 provides that a patent applicant may file only a single request for continued examination ("RCE") in a patent family as a matter of right. For each additional RCE, the applicant must file a petition showing why the information submitted in the RCE could not have been submitted in the original patent application.

Rule Limiting Repetitive Continuation Applications—Struck Down. Continued examination allows applicants to obtain further examination of a patent application after a "final rejection" by the examiner. These procedures sometimes lead to an unlimited string of filings with progressively less useful communications between the patent examiner and the applicant. (Moreover, continuations increase the probability of a phenomenon known as patent "hold-up," whereby patent applicants keep continuations pending for extended periods, monitor developments in the market, and then modify their claims to cover a competitor's product after the competitor has incurred sunk costs in the product's development and, perhaps, marketing.)[18] This set of regulations, which was struck down as beyond the PTO's statutory authority, would have limited proceedings in the PTO by requiring applicants, after they have received two full rounds of examiner review, to show why any new continuation submissions could not have been made previously.[19]

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13 The Department supported the issuance of these rule changes in a May 2006 submission to the PTO.

14 559 F.3d 1345 (Fed. Cir. 2009).

15 37 C.F.R. § 1.75.

16 37 C.F.R. § 1.265.

17 37 C.F.R. § 1.114.

18 For example, a competitor may invest substantially in designing and developing a product and bringing it to market while multiple continuations are pending and before the patent issues. When the patent finally does issue, redesign might be prohibitively expensive, and the new patentee might be in a position to extract large royalties, which has been called "hold-up." FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003), Ch. 4 at 26–28, *available at* http://www.ftc.gov/os/2003/10/innovationrpt.pdf.

19 37 C.F.R. § 1.78 (struck down).

2.3 Legislative Activity

The U.S. House of Representatives and the U.S. Senate have considered various proposed far-reaching reforms to the patent system over the past five years.[20] Key features of the latest Senate and House bills, introduced in March 2009 (S. 515, as amended April 2, 2009, and H.R. 1260) are summarised below. Some provisions of the proposed legislation incorporate aspects of recommendations made by the FTC's 2003 Report, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*.[21] Although the bills differ in scope and in the details of their implementation, they share several features. Among other things, the bills would establish a post-grant opposition procedure, change the standards for willful infringement, and permit third parties to submit prior art during patent examination.[22]

Post-Grant Patent Review. Both bills create an expanded post-grant opposition procedure that allows the public to dispute issues of patentability before a board of administrative judges within the PTO. Parties to an opposition procedure may take limited discovery. Parties wishing to oppose the board's decision have a right to appeal.

Limiting Willful Infringement. The two bills would not allow a plaintiff to plead willful infringement before a court has determined that the patent in suit is not invalid and enforceable, and that the defendant has engaged in acts of infringement. The bills also codify the definition of willfulness set forth in *In re Seagate Technology, LLC.*[23] *Seagate* holds that willful infringement requires a showing of "objective recklessness" on the part of the infringer. In order to prove objective recklessness under *Seagate*, the patentee must show by clear and convincing evidence that (1) the infringer acted despite an objectively high likelihood that its actions infringed a valid patent and (2) the infringer knew or should have known of the objectively high risk. *Seagate* makes it much harder for a patentee to obtain treble damages due to willful infringement, and thus reduces the chilling effect of the pre-*Seagate* willfulness test on legitimate efforts to compete against patentees. The proposed legislative language would reinforce this procompetitive effect.

Third Party Submission of Prior Art. The bills permit third parties to submit prior art to the PTO during patent examination. They provide that the party that submits the reference must explain the relevance of the reference and pay a fee to defray PTO expenses. This provision is intended to improve the quality of patents by giving examiners greater access to prior art when deciding patentability and has the added benefit of discouraging frivolous submissions.

In addition, both bills would change the way in which district courts calculate reasonable royalties in patent infringement actions. At this stage, it is too early to know which legislative proposal, if any, will be enacted, and thus it is too early to predict the effects of the legislation on innovation.

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20 A number of patent reform bills were introduced in the 2005-08 legislative sessions, but none were enacted. On March 3, 2009, very similar versions of a "Patent Reform Act of 2009" were introduced in the 112th Congress by House Judiciary Committee Chairman Conyers (H.R. 1260) and Senate Judiciary Committee Chairman Leahy (S. 515), the ranking minority members of both committees, and co-sponsors from both parties. On April 2, 2009, the Judiciary Committee sent a complete substitute version of S. 515, which made significant changes to certain provisions, to the full Senate. In May 2009, the Judiciary Committee issued a report on S. 515. S. REP. NO. 111-18 (2009), available at http://thomas.loc.gov/cgi-bin/cpquery/R?cp111:FLD010:@1(sr018).

21 See *supra* note 18.

22 Each bill also contains other provisions not discussed here.

23 497 F.3d 1360 (Fed. Cir. 2007).

3. Considerations when Formulating Antitrust Policy Involving Patents and Innovation Issues

3.1 2007 Report by the Agencies on Antitrust and Intellectual Property

As part of its efforts to inform consumers, businesses, and intellectual property rights holders about how the Department and the FTC view activities involving intellectual property in the broader context of competition, the agencies issued a joint report in April 2007 entitled *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition*.[24]

The Report was based on a series of hearings in 2002 that included comments from more than 300 people, including those with interests in biotechnology, computer hardware and software, the Internet, and pharmaceuticals, as well as independent investors, and leading scholars and practitioners in antitrust law, intellectual property law, and economics. Recognising that intellectual property laws and antitrust laws share the common goals of "encouraging innovation, industry and competition," the agencies reported they will use a flexible rule-of-reason approach to determine antitrust liability for the vast majority of conduct involving intellectual property rights. The Report contains, among others, the following conclusions on *ex ante* licensing negotiations within standard-setting organisations ("SSOs") and joint licensing agreements such as cross licenses and patent pools.

The Report examined joint negotiation of licensing terms by participants in SSOs before the standard is set and determined that such negotiations can be procompetitive. Such negotiations are unlikely to constitute a per se antitrust violation. Usually, the agencies will apply a rule-of-reason analysis when evaluating these joint activities.[25]

According to the Report, cross licenses and patent pools are evaluated for their competitive effects under the rule-of-reason framework articulated in the 1995 Antitrust Guidelines for the Licensing of Intellectual Property.[26] Combining complementary patents within a pool is generally procompetitive. Combining of complementary intellectual property rights, especially those that block the use of a particular technology or standard, can be an efficient and procompetitive way to disseminate those rights to would-be users of the technology or standard. Including substitute patents in a pool does not make the pool presumptively anticompetitive; competitive effects will be ascertained on a case-by-case basis.[27]

3.2 Patent Hold-ups Involving SSOs

In recent years the FTC has actively pursued alleged anticompetitive "hold-ups" by patentees that obtained monopoly power as part of a collaborative standard-setting process. In 2006, the FTC ruled that the technology firm Rambus anticompetitively obtained monopoly power over certain computer chip technologies by misleading an SSO as to its patent interests in the technologies that were being standardised. On appeal however, the U.S. Court of Appeals for the District of Columbia Circuit held that the FTC failed to sustain its allegation of monopolisation.[28] In its 2008 *N-Data* consent decree, the FTC condemned (as an unfair method of competition and an unfair act or practice violative of section 5 of the

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24 U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition (2007), available at http://www.usdoj.gov/atr/public/hearings/ip/222655.pdf.

25 *Id.* at Ch. 2.

26 U.S. Dep't of Justice & Federal Trade Comm'n, *Antitrust Guidelines for the Licensing of Intellectual Property* § 1 (1995), reprinted in 4 Trade Reg. Rep. (CCH) ¶ 13,132, available at http://www.usdoj.gov/atr/public/guidelines/0558.pdf.

27 *Id.* at Ch. 3.

28 *Rambus Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008).

FTC Act) a breach of a licensing commitment (a one-time paid-up royalty of $1,000 per licensee) made to an SSO and subsequently relied upon by the market.[29]

In 2007, the U.S. Court of Appeals for the Third Circuit held that the district court erred in dismissing monopolisation and attempted monopolisation claims against a manufacturer of patented chipset technology based on its alleged failure to license its patented technology on fair, reasonable, and nondiscriminatory ("FRAND") terms as it had committed to do during the standard-setting process.[30] The court held that " (1) in a consensus-oriented private standard-setting environment, (2) a patent holder's intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an SDO's reliance on that promise when including the technology in a standard, and (4) the patent holder's subsequent breach of that promise, is actionable anticompetitive conduct."[31] The court remanded the claims to the district court for proceedings to determine whether the claim could be proven. The parties agreed to settle this litigation in April 2009.

3.3 Pay-for-Delay Cases Involving Pharmaceutical Companies

Competition between branded and generic pharmaceutical manufacturers provides consumers enormous savings. Thus, any restriction on the market for generic drugs can have a big impact on consumer spending on drugs. To ensure that this market remains free and competitive, the FTC actively pursues agreements between branded drug companies and generic drug companies that prevent or delay the introduction of lower- cost generic formulations. These agreements, referred to as "pay-for-delay" patent settlements or "exclusion payments," prevent competition from new generic drugs that can drive prices for the branded equivalent down as much as 90 percent. These agreements allow branded manufacturers to share the profits from their branded drugs with potential generic rivals in exchange for delaying the roll out of a lower priced generic, and also prevent other generic manufacturers from entering the market.[32] In March 2009, the FTC testified in favour of proposed congressional legislation (H.R. 1706) that would ban anticompetitive pay-for-delay patent settlements.[33]

In 2009, the FTC challenged such an agreement between Solvay Pharmaceuticals, Inc., the maker of AndroGel, and two generic drug manufacturers in which the generic drug manufacturers agreed to abandon their patent challenges and delay marketing a generic formulation for nine years, until 2015.[34] Androgel is Solvay's branded testosterone replacement drug, a prescription pharmaceutical with sales of more than $400 million a year. The FTC charged that, by agreeing to the delay in exchange for payment, the generic manufacturers, Watson Pharmaceuticals Inc. and Par Pharmaceutical Companies, were co-operating with Solvay on the sale of AndroGel and sharing the monopoly profits rather than competing. This case is pending in federal court.

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29 In re *Negotiated Data Solutions, LLC*, Dkt. No. 051-0094 (2008), available at http://www.ftc.gov/os/caselist/0510094/index.shtm.

30 *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007).

31 *Id*. at 314.

32 See "The FTC in 2009" 16-17 (*Fed. Trade Comm'n Annual Report*) (2009), available at http://www2.ftc.gov/os/2009/03/2009ftcrptpv.pdf, and "The FTC in 2008" 14–16 (*Fed.Trade Comm'n Annual Report*) (2008), available at http://www.ftc.gov/os/2008/03/ChairmansReport2008.pdf.

33 *How Pay-For-Delay Settlements Make Consumers and the Federal Government Pay More For Much Needed Drugs, Before the Subcomm. on Commerce, Trade, and Consumer Protection of the H. Comm. on Energy and Commerce*, 111 Cong. (2009) (prepared statement of the Fed. Trade Comm'n presented by Comm'r J. Thomas Rosch,), available at http://www.ftc.gov/os/2009/03/P859910payfordelay.pdf.

34 *See* http://www.ftc.gov/opa/2009/02/androgel.shtm (FTC press release regarding suit against Solvay).

In 2008, the FTC charged that Cephalon, Inc. engaged in illegal conduct to prevent competition for its branded drug, Provigil, by paying four firms to refrain from selling generic versions of the drug until 2012.[35] Provigil is used to treat excessive sleepiness in patients with sleep apnea, narcolepsy, and shift-work sleep disorder. The four companies had applied to the Food and Drug Administration for approval to market a generic formulation. In the ensuing patent case, the generic companies argued that their products did not infringe the only remaining patent on Provigil, the formulation patent related to the size of the particles used in the drug, and challenged the validity of the patent. Cephalon entered into agreements with these companies, paying more than $200 million in exchange for agreements not to sell a generic version of Provigil until 2012. No other generic company could enter the market until all four "first filers" relinquished their marketing exclusivity or 180 days had elapsed after one of them entered the market. By these agreements, Cephalon effectively prevented any generic from entering the market until at least 2012. The FTC's complaint before the federal district court alleges that Cephalon's conduct in entering into patent-litigation settlement agreements that included payments designed to prevent generic competition constituted an abuse of monopoly power that is unlawful under section 5 of the FTC Act. Today, the FTC continues to press its case against Cephalon in the federal district court in Philadelphia.

Four U.S. circuit courts have examined the competitive effects of these types of settlements featuring exclusion payments from the patent holder of a branded drug to a potential generic entrant (or entrants) that agreed not to enter the market until a later date. One circuit found an agreement per se illegal in which the generic manufacturer received payments and agreed not to compete during the pendency of the litigation using the product at issue or any non-infringing product.[36] Three other circuits have not found antitrust liability.[37]

3.4 Patent Pooling Arrangements

In October 2008, the Department issued a business review letter to the Radio Frequency Identification ("RFID") Consortium stating that it does not presently intend to challenge the Consortium's proposal to jointly license patents that are essential to manufacture products compliant with ultra high frequency ("UHF") RFID standards. UHF RFID is an automatic identification and data capture technology that identifies objects using radio frequency waves.[38]

The Department analysed the patent pooling arrangement under the rule of reason, examining both the pool's expected competitive benefits and its potential to restrain competition. It found that the proposed licensing arrangement was "reasonably likely to yield some tangible cost savings by limiting the threat of hold up and royalty stacking and by lowering transaction costs," even though it likely will not offer a license to all essential UHF RFID patents.[39]

The Department also found that the Consortium planned to implement a number of safeguards that would reduce concerns about the ability of the pool's licensing program to harm competition. First, the Consortium will remove patents from the pool that have been found invalid or unenforceable. Second, the Consortium is likely to exclude substitute patents, *i.e.*, those that cover competing technologies, because it

35 See http://www.ftc.gov/opa/2008/02/ceph.shtm (FTC press release regarding suit against Cephalon).

36 In re *Cardizem CD Antitrust Litigation* 332 F.3d 896 (6th Cir. 2003).

37 In *re* Ciprofloxacin Hydrochloride Antitrust Litigation, 544 F.3d 1323 (Fed. Cir. 2008); In *re* Tamoxifen Citrate Antitrust Litigation, 466 F.3d. 187 (2d Cir. 2006); Schering-Plough Corp. v. FTC, 402 F.3d 1056 (11th Cir. 2005); Valley Drug Co., Inc. v. Geneva Pharmaceuticals, Inc., 344 F.3d 1294 (11th Cir. 2003).

38 Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to William F. Dolan & Geoffrey Oliver (Oct. 21, 2008), available at http://www.atrnet.gov/subdocs/238429.htm.

39 *Id.* at 7–8.

intends to include in the pool license only patents that are essential to the UHF RFID standard. Including substitute patents in the pool could permit the price of such technologies to rise. Third, the Consortium's commitment to license its essential patents on RAND terms means that potential downstream competitors of Consortium members will be able to access the technology for uses compliant with the standard. Fourth, using an independent licensing administrator will preclude the Consortium's members from accessing confidential business information of the Consortium's licensees. Finally, the grantback requirement imposed on licensees was narrowly tailored, requiring them to grant back to the Consortium a nonexclusive right to license only patents that are essential to the standard.[40]

3.5 Ex Ante Licensing within Standard-Setting Organisations

In October 2006, the Department issued a business review letter to the VMEbus International Trade Association ("VITA") stating that it does not presently intend to challenge VITA's proposed patent policy for its standard-setting activities. Under the terms of the proposed policy, patent holders will declare their own most restrictive licensing terms, meaning that the policy has the potential to decrease the price of licenses for use under the standard if patent holders compete to increase the chance that their patented technology would be selected by the working group setting the standard. The Department concluded that the policy would preserve the benefits of competition between alternative technologies, helping VITA to avoid hold up and to improve its decision making by broadening the basis on which working group members decide which technologies to include in its standards.[41]

The Department also concluded that the policy's prohibition on joint negotiation or discussion of licensing terms among the working group members (or with third parties) meant that the price of licenses would not be anticompetitively depressed by the concerted action of working group members. The Department noted that it likely would evaluate any antitrust concerns about such negotiations or discussions under the rule of reason because such actions could be procompetitive.

Pursuant to the VITA policy, actual licensing terms will continue to be determined bilaterally between the patent holder and each potential licensee, subject to the cap declared by the patent holder during the standard-setting process. If SSO members use the patent policy procedures to fix the prices of downstream products, or if patent holders decide to rig their declarations of most restrictive licensing terms the Department would not hesitate to challenge such activities as per se illegal.

After the Department issued its business review letter to VITA, the Department received a request for a business review letter from IEEE and its standards association, IEEE-SA, asking the Department for its views on IEEE-SA's proposed patent policy.[42] This policy, which IEEE believed would ensure the wide adoption of IEEE standards, provided patent holders the option of making a voluntary assurance about their intended maximum royalty rates and most restrictive licensing terms, made all licensing assurances by patent holders irrevocable, and made such assurances binding on future owners of the patents.

In April 2007, the Department issued a favorable business review letter to IEEE, concluding that IEEE's proposed policy could generate benefits similar to those generated by VITA's proposed policy, even though IEEE's proposal does not require patent holders to publicly commit to their most restrictive licensing terms. Patent holders could compete on licensing terms to increase the likelihood of being

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40 *Id.* at 8–10.

41 Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq., Drinker, Biddle & Reath, LLP (Oct. 30, 2006), available at http://www.atrnet.gov/subdocs/219380.htm.

42 Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Michael A. Lindsey, Esq., Dorsey & Whitney LLP (Apr. 30, 2007), available at http://www.atrnet.gov/subdocs/222978.pdf.

selected for the standard. The basis for the decision-making of the working group could be expanded, and the development, implementation, and adoption of IEEE standards could take place faster. The policy might also decrease patent litigation after the standard is set. The Department also noted that SSOs may legitimately choose not to adopt patent policies like IEEE's or VITA's and that experimentation and competition between SSOs in this area should help determine over time which policies will work best in particular contexts.

4. FTC Hearings on the Evolving Intellectual Property Marketplace

In launching the 2009 FTC Hearings, the FTC took note of recent judicial developments (summarised in paragraph 2, above) and of the emergence of new business models involving the buying, selling, and licensing of patents.[43] Some business models seek to monetise patents based on strategic acquisition and assertion. Others establish a co-operative venture that buys and licenses patents to its members for defensive purposes. Still others seek to create sector-specific funds, similar to mutual funds, that allow investors to earn revenue from royalty streams. Other developing patent-related business models also exist.

The implications of recent court decisions and new patent-related business models may have major policy significance, including implications for consumer welfare and competition. The 2009 FTC Hearings are designed to explore these implications by asking (1) how has the marketplace for intellectual property ("IP") changed over the last five or ten years; (2) what are the new business models; (3) what economic evidence is relevant when analysing whether to grant a patentee a permanent injunction; (4) do the legal rules for patent damages result in awards that appropriately compensate patentees; (5) how have changes in the willfulness doctrine changed the behaviour of patentees and potential infringers; (6) how will patent law changes made by Supreme Court and Federal Circuit decisions of the past five years affect the value of patents; (7) how does uncertainty regarding the validity and scope of patents affect the operation of the IP marketplace; (8) how transparent is the current IP marketplace; and (9) during the past five years, what new learning has furthered the understanding of the patent system and the IP marketplace?

The first session of the 2009 FTC Hearings comprised three panels that focused on different aspects of the evolving IP marketplace.[44] The first panel addressed developing business models, including the operation of emerging business models, aspects of the patent system that support those models, industry responses, and implications of the models for patent valuation and licensing. The second panel examined recent and proposed changes in remedies law, including their impact on innovation and consumers and their use of economic analysis in determining remedies. The third panel assessed legal doctrines that affect the value and licensing of patents, such as holdings in recent Supreme Court cases and doctrines that make the scope and enforcement of patents unpredictable. The third panel also considered whether the notice function of patents operates to support an efficient marketplace.

The second session of the 2009 FTC Hearings addressed remedies for patent infringement.[45] The February 11 hearing addressed patent damages, including the standards that govern the assessment of damages, the application of these standards in court proceedings, and the impact of the resulting awards on business activity, including licensing and innovation. The hearing on February 12 focused on permanent injunctions in the wake of the Supreme Court's *eBay* decision and changes to the willful infringement

43 See http://www.ftc.gov/os/2008/11/P093900ipwkspfrn.pdf.

44 The first session of the 2009 FTC Hearings was held on December 5, 2008. See http://www.ftc.gov/opa/2008/11/ipmarketplace.shtm.

45 The second session was held on February 11 and 12, 2009. See http://www.ftc.gov/opa/2009/01/ipheadrings.shtm.

doctrine.[46] Panellists discussed, among other issues, the criteria courts have considered in deciding whether to grant or deny an injunction and the effect of these legal doctrines on innovation and business strategies.

The third session of the 2009 FTC Hearings centreed on practices related to licensing.[47] The March 18 hearing explored how organisations and inventors from different industries use patents by enforcing exclusivity or licensing. Panelists discussed the effects of recent judicial decisions, uncertainty in the patent system, and the notice function of patents on their decision-making. The March 19 hearing assessed economic perspectives on IP and technology markets and the role of notice and transparency in the IP marketplace.

The fourth session of the 2009 FTC Hearings included panels that explored how corporations, inventors, and patent intermediaries value and monetise patents, strategies for buying and selling patents; and the role of secondary markets for intellectual property.[48]

The final session of the 2009 FTC Hearings was held in Berkeley, California, in co-operation with the Berkeley Centre for Law and Technology and the Berkeley Competition Policy Centre.[49] This session explored how markets for patents and technology operate in different industries, whether those markets operate efficiently, and how patent policy might be adjusted to respond to problems in those markets in order to better promote innovation and competition.

The 2009 FTC Hearings have featured presentations by leading experts on the evolving IP marketplace from academia, law, economics, business, and the public sector. FTC staff is carefully assessing the transcripts of hearing sessions, written submissions by hearing participants, and comments by members of the public. The FTC expects to issue a report based on the hearings, one that the FTC hopes will shed light on the policy significance of judicial decisions and new IP business models. The report may also offer tentative recommendations aimed at promoting a sound patent system that is attentive to antitrust concerns—in other words, a system that promotes innovation and economic growth in a manner that optimally balances competition and patent policies.

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46 For a discussion of the eBay decision, see the U.S. Submission to the OECD Roundtable on Competition, Patents, and Innovation in October 2006, DAF/COMP/WD(2006)52, at ¶¶ 34–39, available at http://www.oecd.org/dataoecd/26/10/39888509.pdf.

47 The third session was held on March 18 and 19, 2009. See http://www.ftc.gov/opa/2009/02/iphearings.shtm.

48 More information on the fourth session, held on April 17, 2009, is available at http://www.ftc.gov/opa/2009/03/iphearing.shtm.

49 The final session was held on May 4 and 5, 2009. See http://www.ftc.gov/opa/2009/04/iphearing.shtm.

EUROPEAN COMMISSION

1. Introduction

The topic of competition and innovation and the issues linked to it are at the heart of the European Commission's Lisbon Agenda for Jobs and Growth.[1] R&D and innovation are key drivers of productivity in advanced economies to ensure competitiveness at global scale. The European economy is presently characterised by under-investment in R&D (the EU is currently only spending 2% of total GDP in R&D). The Commission's strategies and reflections are therefore targeting the issue under what conditions companies invest more in R&D leading to innovation and economic growth. The Lisbon Agenda contains a number of building blocks aimed at strengthening European R&D and innovation and transforming that research into commercial products, to improve Europe's competitiveness.

The OECD report "Going for Growth" (2006)[2] in its part II assesses the effectiveness of the various measures applied by OECD countries to foster innovation. While it is commonly accepted that the market should drive this process, governments and government agencies (including the European Commission) have an important role in supporting and facilitating it. Government measures discussed in the report range from direct or indirect financial support for R&D projects to stricter protection of intellectual property. The report finds that all these forms of government intervention entail costs that must be weighed against their benefits. The basic conclusion drawn by the authors is that policy makers in order to maximise successful innovation at the lowest cost have to carefully consider the combined impact of their policies.

The approach taken in the 2006 OECD report is very much in line with the one taken by the European Commission: that innovation is best pursued within a system of innovation, *i.e.* the economic, social, political, organisational, institutional and other factors that influence the development, diffusion and use of innovation.[3] In this spirit and in order to boost innovation in the EU, the European Commission has in the past years embraced the view that a co-ordinated strategy was needed, based on a series of complementary policies.[4]

Competition policy has an important role to play in this strategy. On the one hand, competition advocacy activities are destined at improving the regulatory environment in which companies operate, including IPR law. On the other hand, competition law enforcement ensures the protection of the competitive process to ensure efficient outcomes for consumers. In short, a sound regulatory regime applied to patents and IPRs at large and an effective competition policy are two necessary and complimentary components of a policy strategy aimed at promoting innovation, growth and consumer welfare.

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1 See Communication to the Spring European Council of 2 February 2005: *Working together for Growth and Jobs*; at http://ec.europa.eu/growthandjobs/pdf/COM2005_024_en.pdf.

2 See OECD - Economic Policy Reforms: *Going for Growth*; of 9th February 2006; by Jean Philippe Cotis; at www.oecdwash.org/PDFILES/gfg2006_cotis_washington.pdf#search=%22OECD%202006%20_Going%20for%20Growth%22.

3 See *e.g.* Edquist, C. (2005) "Systems of innovation, perspectives and challenges", *The Oxford Handbook of Innovation*, Fagerberg, Mowery and Nelson (eds)

4 See *e.g. Innovation policy: updating the Union's approach in the context of the Lisbon strategy* (COM(2003) 112 final of 11.3.2003).

Over the past two decades we have seen a constant strengthening of patent regimes world-wide, with expanding coverage, new products and broader patent scopes, lower fees, etc. The 2004 OECD report ("Patents, Innovation and Economic Performance") states that pro-patent policies have been put in place without much regard to their effects on competition or the diffusion of knowledge, which are important questions and deserve further research. Competition agencies have to prepare themselves to tackle the competition issues which may arise from these trends and address them appropriately through their enforcement and advocacy activities.

This paper starts by briefly discussing the relationship between competition, innovation and IP rights (section 2) and goes on by giving a short overview on the recent developments in EC legislative and enforcement practice (antitrust, merger control, state aid and advocacy) with regard to innovation and the specific characteristics of innovative markets (section 3). Section 4 shortly depicts the main initiatives which will flow from the recently adopted Commission Communication on a Broad Based Innovation Strategy. Conclusions are summarised in section 5.

2. The Relationship between Competition, IP Law, Competition Policy and Innovation

2.1 Competition and Innovation[5]

Competition usually induces companies in a market with a given technology to offer the best products at the lowest prices. However, it is innovation which causes product markets to change as improved products and production processes are introduced, leading to greater consumer satisfaction and lower production costs. It is also a generally accepted and well substantiated point of view that innovation is the main source of increases in economic welfare. The literature shows that technological innovation, together with an increased ability on the part of the labour force, are main driving forces behind productivity gains and welfare growth.[6] Consequently, societies in general try to spur the creation and dissemination of innovation. In case of a choice between dynamic and static efficiencies, the former will quickly outweigh the latter.

This has led to the question whether innovation instead of price competition should be the focal point of competition policy and, if so, whether this should lead to a drastic revision of competition policy. This question goes to the heart of competition policy and questions its general validity when applied to markets for new and existing products. The assumption is that there may be a contradiction between innovation and (price) competition, or at least that by focusing on the preservation of (price) competition the rate of innovation may be harmed. Underlying this assumption is the view that (high) concentration may have a positive influence on the rate of technological progress.

There is no clear agreement in the economic literature concerning the benefit of competition for innovation and hence dynamic efficiency. There are economists who, in the footsteps of Schumpeter, claim that innovation is spurred by monopoly.[7] Monopoly profits may fund research and development (R&D) and a high market share may help to appropriate the value of the resulting innovations. The

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5 This section is in good part based on a chapter of Luc Peeperkorn and Vincent Verouden, "*The Economics of Competition*", in The EC Law of Competition, edited by Jonathan Faull and Ali Nikpay, Oxford University Press, forthcoming.

6 See FM Scherer and D Ross, "*Industrial Market Structure and Economic Performance*" (3d edition, Boston: Houghton Mifflin Company, 1990), Ch 17; RM Solow, "Technical Change and the Aggregate Production Function" (1957) *Review of Economics and Statistics 312-320*; WK Tom, Background Note, pp 21-22, Roundtable on Competition Policy and Intellectual Property Rights, Committee on Competition Law and Policy, OECD, October 1997.

7 J A Schumpeter, *Capitalism, Socialism and Democracy*, 1942.

"Schumpeterians" argue that there is a conceptual flaw in competition policy. Competition policy, by attacking monopoly and preventing market power from arising, may have a positive effect on static allocative efficiency but at the same time undermines dynamic efficiency. As the latter is much more important for welfare growth it is argued that competition policy easily leads to unwanted policy results, *i.e.* less growth and less welfare.

The Schumpeterian view has been contradicted by Arrow[8] and also by other economists, who have put forward a number of reasons why competition may provide more incentives for innovation than monopoly. A firm under competitive pressure will be less complacent and will have more market share to gain through innovation. In addition, in the case of a product invention the new product will not cannibalise the firm's own market as it would under monopoly. It is also argued that innovation incentives depend not so much on the post-innovation profits *per se*, but on the difference between post-innovation and pre-innovation profits. The direct effect on welfare is also supposed to be better under competition, especially in the case of a process invention, as the innovation will be applied to a higher output than under monopoly.[9] Greater product market competition and a strict competition policy both work as an effective stick to foster innovative effort.[10]

Empirical research on the relationship between market structure and innovation, usually the litmus test in case of theoretical controversy, does not give unequivocal results but tends to support the view of Arrow. In general competition and open markets provide better incentives for innovation while monopoly and high concentration retard innovation.[11] There are some indications of an inverted U relationship between concentration and the ratio of industry R&D to industry sales, with the highest R&D/sales ratios occurring where the four biggest companies in the industry sell 50 to 60 per cent of total industry sales.[12] However, it is also clear that other factors such as the technological opportunity of the sector are more important to explain R&D intensity. Using data for the UK and controlling for technological opportunity Geroski found higher seller concentration and increases in other monopoly related variables to have a significant negative impact on the emergence of innovations.[13] In a study analysing reports in specialised technical literature covering the entire manufacturing sector, Acs and Andretsch found that the average small-firm innovation rate is higher than the large-firm innovation rate.[14] Other research points to the very important role of newcomers, especially where the invention of radically new products and concepts is concerned, and to the related interest in keeping entry barriers at modest levels. Lastly, it should be noted that research into the relationship between market structure and innovation is complicated by the fact that to a certain extent both are endogenous: both depend on more basic factors such as technological opportunities for innovation and demand conditions.

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8 K J Arrow, "Economic Welfare and the Allocation of Resources for Invention" [1962], *The rate and Direction of Inventive Activity: Economic and Social Factors 609-625*.

9 Static welfare analysis indicates that industry output is higher under competition than under monopoly. See section C.

10 P Aghion, N Bloom, R Blundell, R Griffith and P Howitt, "'Competition and Innovation: An Inverted-U Relationship" (2005) *120 Quarterly Journal of Economics 701*; S Martin, "Competition Policy for High Technology Industries" [2001] *Journal of Industry, Competition and Trade 441-465*.

11 See Scherer and Ross, Ch 17; and Tom, p22 (n 54).

12 P Aghion, N Bloom, R Blundell, R Griffith, P Howitt, *Competition and Innovation: An Inverted U Relationship*, The Institute for Fiscal Studies, WP02/04, February 2002.

13 P Geroski, *Innovation, Technological Opportunity, and Market Structure* [1990], Oxford Economic Papers 42. See also Scherer and Ross, Ch 17.

14 ZJ Acs and DB Andretsch, "Innovation, Market Structure and Firm Size" (1987) *LXIX Review of Economics and Statistics 567-574*.

Also the results of the recent OECD Report "Going for Growth" (2006), on the relationship between competition restraining regulation and its effect on innovation, provide strong evidence that competition spurs innovation. It shows that anti-competitive regulations (other than IPRs) have a significant negative correlation with both R&D spending and patenting.[15] Countries with the least competition restraining regulation (such as the US, Denmark, Sweden, Japan and Finland) are ranked among the top six according to R&D intensity whereas countries with more restrictive regimes (such as Poland and Italy) have a very low R&D intensity.[16]

In conclusion, there seems to be no important conflict between innovation and competition policy aimed at product market competition and there seems to be no fundamental flaw in competition policy. Competition policy, by defending competition and open markets, will in general have a positive impact on both static and dynamic efficiency. [17]

2.2 IP Law and Innovation[18]

To strike the right balance between under- and over-protecting innovators' efforts, intellectual property rights differ from and are usually less absolute than 'normal' property rights: they are often limited in duration (patents, copyright), not protected against parallel creation by others (copyright, know-how) or lose their value once they become public (know-how).

If IP law would always strike the perfect balance in every situation, it could be argued that there would be less reason for competition law to be applied. Whether IP laws do in fact strike the right balance between over- and under-protection of innovators' efforts and whether and how competition policy should intervene in this area are difficult questions. They were dealt with during the hearings organised by DOJ and FTC on "Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy".[19] They were also discussed in a recent OECD roundtable on competition policy and intellectual property, with a focus on the biotechnology industry.[20]

IP law certainly helps defend the incentive to innovate by providing a property right to the innovator. This in principle allows the innovator to reap the benefits of his invention and to go to court against free riding on his innovative effort. IP law also supports the dissemination of innovations. Patent law requires disclosure of the innovation, which allows follow-on innovation. More importantly, the property right also enables the innovator to license his innovation. Licensing will mostly be pro-competitive. It facilitates diffusion of innovation and enables the efficient integration of technological assets of the licensor with production assets of the licensee(s) as the licensor may not be himself the most efficient producer. Licensing may also reduce duplication of R&D, it may spur incremental innovation and through the

15 See OECD ECO/WKP(2005)44.

16 See FN 2.

17 In any event, as shown in the EU Annual Progress Report, the level of competition cannot generally be deemed too high as to limit innovation; "Time to Move Up A Gear" The European Commission's 2006 Annual Progress Report on Growth and Jobs. COM(2006). The report underlines that the functioning of the internal market and the need to enhance competition and market access in general deserved greater attention.

18 This section and the next are in good part based on a paper by Philip Lowe and Luc Peeperkorn "*IP: How Special Is Its Competition Case?*" presented at the 10th Annual EU Competition Law and Policy Workshop (3-4 June 2005/Florence).

19 In the subsequent FTC report *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, October 2003, proposals are formulated to improve the US patent system.

20 OECD, 8-9 June 2004.

royalty income it strengthens the incentive for the initial R&D. Lastly, licensing may help to create competition on down-stream product markets.

However, it is also clear from studies that in most industries patents do not play a very important role for companies in protecting and exploiting innovation.[21] Natural secrecy, recognition lags, learning curve effects, the imitator's need to duplicate at least a part of the R&D effort to overcome practical production problems (the so-called need to develop 'absorptive' capacity) and first-mover advantages are all ranked ahead of patents as appropriation mechanisms. However, for certain sectors like the pharmaceutical sector, patents are recognised as being very important for the appropriation of the revenues from innovation.

Jaffe confronts the outcome of the managerial surveys by Levin and by Cohen and their co-authors with the dramatic increase in US patenting since the mid-1980s.[22] Part of the increase is thought to be related to an increase in R&D spending. Part may also be explained by regulatory capture leading to wider patentability and a friendlier attitude of courts towards protecting or ensuring the validity of IPRs. Part of the increase is also explained by a shift in the technological possibilities for inventions in certain new areas such as biotechnology. However, the main explanation for the increase is thought to be an increase in productivity of the research process in general, at least in terms of its ability to produce patents. Jaffe asks why firms take out more patents while they do not perceive them as any more effective.

His explanation to reconcile the increase in patents with their perceived ineffectiveness to protect innovation is the multiple ways that firms use patents. In addition to protecting the returns on innovation for which they are intended, firms seem to use patents more and more "to block products of their competitors, as bargaining chips in cross licensing negotiations, and to prevent or defend against infringement suits."[23] As Jaffe argues, the latter uses of patents are to a significant extent a zero-sum or negative-sum game. The more companies block, accumulate bargaining chips and patent portfolios, and patent to file for or defend themselves against infringement suits, the less they all succeed in increasing their returns from innovation. A company's private marginal return on patenting may be high but firms' actions largely offset each other, with the result that the overall value of patents is seen as being diminished.

In other words, it is increasingly being recognised that patents and the patent system may not always stimulate innovation but may also be used for other defensive purposes and may retard (follow-on) innovation. This seems to be confirmed by recent OECD work. The 2006 OECD report "Going for Growth"[24] has looked at the situation in the different OECD countries analysing their policy mix. The conclusion it draws is that a high level of IPR protection is not necessarily leading to strong business spending on R&D. Also in the note of the OECD secretariat of 25 September 2006 (DAF/COMP(2006)22) it is said that patents may play a relatively small role in innovation and that the recent surge in the number

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21 See Richard Levin, A.K. Klevorick, R.R. Nelson and S.G. Winter, "Appropriating the Returns from Industrial research and Development", 1987, *Brookings Papers on Economic Activity 3*, and the follow-up to this survey by Wesley M Cohen, R.R. Nelson and J. Walsh, Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (Or Not), NBER, Working Paper 7552, 2000. See also F.M. Scherer and D. Ross, Industrial Market Structure and Economic Performance, 1990, Chapter 17.

22 Adam B. Jaffe, *The US Patent System in Transition: Policy Innovation and the Innovation Process*, NBER, Working paper 7280, 1999. The paper (figure one) shows roughly a doubling in domestic patent applications and domestic patents granted between 1984 and 1998.

23 Jaffe, p.16.

24 See OECD - *Economic Policy Reforms: "Going for Growth"*; of 9th February 2006; by Jean Philippe Cotis; at http://www.oecdwash.org/PDFILES/gfg2006_cotis_washington.pdf#search=%22OECD%202006%20Going%20for%20Growth%22; page 67 ff.

of patents may not be due to greater innovative activity but rather to other factors such as declining patent fees and the pressure to build up large patent portfolios to negotiate with other patent holders.

The note by the Secretariat also points out that there is a growing need to ensure that patent systems strike the right balance to foster technological progress for society as a whole. The Competition DG agrees with this view. It is furthermore essential to place more emphasis on the incentive to innovate provided by IPRs rather than on the exclusive rights it confers on the holder. The question has often arisen as to the level of reward an inventor needs to produce his invention and whether this reward should just cover the costs of inventing or the full economic value of the invention or something in the middle. It is difficult to find the right answer to this complex question, but in our view IPR law should mainly be designed to create incentives to innovate. As the note by the Secretariat rightly concludes, policymakers face the challenge of creating an environment in which the rewards for innovation are sufficient to encourage it, but make sure there are also sufficient competitive pressures that encourage firms to create, use and disseminate innovations.

2.3 Competition Law and IP Law

Early copying of an innovation and free riding on an innovator's efforts undermine the incentive to innovate. This is why IP laws grant the innovator a legal monopoly. They provide the innovator the right to exclusively exploit the innovation and exclude others from exploiting it. A legal monopoly may, depending on the availability of substitutes in the relevant market, in turn lead to market power and even monopoly as defined under competition law. One could therefore come to the conclusion that there is source of conflict: that competition law would take away the protection which IP law is providing. If the aims of IP law and competition law are truly different, this might impose serious limits on the application of competition law to IP.

However, this is only an apparent source of conflict. At the highest level of analysis IP and competition law are complementary because they both aim at promoting consumer welfare. Competition policy aims at promoting consumer welfare by protecting competition as the driving force of efficient and dynamic markets, providing at all times the best quality products at the lowest prices. The objective of IP laws is to promote technical progress to the ultimate benefit of consumers. This is done by striking a balance between over- and under-protection of innovators' efforts. The aim is not to promote the individual innovator's welfare. The property right provided by IP laws is awarded to try to ensure a sufficient reward for the innovator to elicit its creative or inventive effort while not delaying follow-on innovation or leading to unnecessary long periods of high prices for consumers. A delay in follow-on innovation may result when the innovation consists of an improvement on earlier ideas that have been granted patent protection already. Unnecessary long periods of high prices will result when the innovation allows the IPR holder to achieve market power in the market(s) where the IPR is exploited and where the IPR protects this monopoly position longer than is required to elicit the innovative effort.

2.4 Competition Policy in Innovative Sectors

Recently there has been a more refined debate, as to whether the supposed different dynamics of competition in sectors undergoing rapid technological change requires a more or less fundamental revision of competition policy for those sectors. For instance Evans and Schmalensee argue that competition in important new industries centres on investment in IP. Firms engage in competition for the market through sequential winner-take-all races to produce drastic innovations, rather than through price/output competition in the market and through incremental innovation.[25] They argue that firms will obtain

[25] David S. Evans & Richard Schmalensee, Some Economic aspects of Antitrust Analysis in Dynamically Competitive Industries, NBER Working Paper 8268, May 2001. Research for the paper was supported by

considerable short-run market power, but ignoring their dynamic vulnerability may lead to misleading antitrust conclusions.

For competition policy it would therefore be important to distinguish between industries where markets are (continuously) destroyed and replaced through drastic innovations and industries where within markets innovation develops incrementally. Evans and Schmalensee identified the following industries as having Schumpeterian dimensions: computer software, computer hardware, internet based businesses (portals, BtoB exchanges), communications networks, mobile telephony, biotechnology and, to a lesser extent, pharmaceuticals.

This is again in the first place an empirical question. Evans and Schmalensee acknowledge that an initial phase with bursts of innovation may only characterise the infant stage of a new industry and may very well be followed by a long period of comparative stability and incremental innovation. They for instance refer to the car industry having had Schumpeterian aspects around 1910 and decades of stability afterwards. Other examples are the chemical and electronics industries that were described in the fifties as 'new-economy'.[26] It seems most likely that also today's 'new economy' industries will turn into more 'normal and traditional' industries if they haven't done so in good part already.

In addition, Evans and Schmalensee recognise that many of the sectors they have identified as having Schumpeterian characteristics have network effects and that these effects tend to reinforce the market leaders' position and that switching costs and lock-in may prevent displacement of market leaders. It is the task of competition policy to try to prevent that the market leader in a network sector develops into an entrenched dominant company.

The general conclusion in the literature is therefore also that dynamically competitive industries should not be immune from antitrust scrutiny, nor that the basic principles of antitrust should be modified.[27] Price fixing, foreclosure, market partitioning etc. can and will still harm consumers, also in the 'new economy'. However, as is the case for every sector, also for the new-economy industries competition policy needs to take account of industry or technology specific characteristics. As Peter Freeman concluded in his 2004 address to the CBI Competition Conference, there is no substantive tension or conflict between innovative markets and standard competition policy analysis where that analysis is applied sensibly and with flexibility, recognising the true characteristics of the particular market being examined.[22]

3. Innovation: Recent Developments in EC Competition Law

Section 3 briefly explains how innovation is taken into account in the application of Articles 81 and 82 EC (antitrust), Regulation 139/2004 (merger control) and Articles 87-88 EC (state aid). Using its legislative and enforcement powers, the Commission tries to capture the specificities of IP without losing sight of our goal to protect competition in the consumers' interest. The European Commission's current competition policy constitutes an important contribution in the context of the Lisbon Agenda for Jobs and Growth, and its overriding objective to foster innovation in the EU.

Microsoft and both authors also worked for Microsoft as consultants in the United States v. Microsoft Corp. case.

26 See David E. Lilienthal, Big Business: A New Era, 1952.

27 See for instance also *E-Commerce and its Implications for Competition Policy*, Discussion Paper 1, OFT, August 2000, p.1: "…e-commerce will not give rise to any entirely new forms of anti-competitive behaviour, nor will it raise any new issues that cannot be dealt with under the existing competition law framework. However… there are… areas where detailed application of the rules may require some adjustment."

3.1 Innovation and Antitrust

3.1.1 Specific Regime for Technology Transfer Agreements

In particular in innovative sectors licensing is important for economic development and consumer welfare as it helps disseminate innovations and allows companies to integrate and use complementary technologies and capabilities. However, licensing agreements can also be used for anti-competitive purposes. For instance, when two companies use a license agreement to divide markets between them or when an important licensor excludes competing technologies from the market. The note by the Secretariat (DAF/COMP(2006)22; page 9) rightly states that it is crucial to find the right approach with regards to the possibilities of patent holders to license their rights to other market participants.

Commission Regulation (EC) No 772/2004[28] determines the specific conditions of the application of Article 81 EC to technology transfer agreements. The agreements covered by the TTBER (technology transfer block exemption regulation) concern the licensing of technology where the licensor permits the licensee to exploit the licensed technology for the production of goods and services. The aim is to strengthen the incentives for initial R&D, facilitate diffusion and generate market competition. The Regulation creates a "safe harbour" for agreements producing positive effects which outweigh the restrictive effects, below a 20% market share threshold for agreements between rivals and below a 30% market share threshold for agreements between non-competitors. The TTBER also contains hardcore restrictions. The inclusion in an agreement of a hardcore restriction makes it impossible for the agreement to benefit from the block exemption.

The block exemption regulation was adopted together with a set of Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements.[29] These Guidelines set out the principles and provide guidance on the interpretation of the TTBER. The Guidelines stipulate the important principle of Community exhaustion of IPRs. They further provide a framework to assess whether or not licensing agreements are likely to affect inter- or intra-technology competition. To that end it has to be verified whether the agreement at stake restricts competition that would have existed in its absence or absent the contractual restraints. The Guidelines further contain useful clarifications regarding market definition in the field of technology licensing, the scope of the TTBER and the safe harbours. The Guidelines also contain explanations on the hard core restrictions. Finally, they also give guidance on the application of Article 81 (1) and (3) to technology transfer agreements that fall outside the block exemption, for instance because the relevant market share threshold is exceeded. This guidance is provided for various types of licensing restraints (sales restrictions, output restrictions, field of use restrictions, tying and bundling and non-compete obligations). The Guidelines conclude with a section on technology pools, clarifying policy towards this instrument which is more and more used to support industry standards and to overcome patent thicket problems.

Technology pools are arrangements whereby two or more parties assemble a package of technology which is licensed not only to contributors to the pool but also to third parties (in principle it does not therefore cover pure cross-licensing agreements). Technology pools are not covered by the block exemption but only by the Guidelines. They give rise to a number of particular issues regarding the selection of the included technologies and the operation of the pool. The individual licenses granted by the pool to third parties are however covered by the block exemption and treated as any other licensing agreements.

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28 OJ L 123/11 of 27 April 2004.

29 OJ C 101 of 27.4.2004. Also available on the website of the Directorate-General for Competition at: http://europa.eu.int/comm/competition/antitrust/legislation/entente3_en.html#technology.

Technology pools may have negative effects on competition. They, by definition, involve joint selling (of the pooled technologies). They might also (especially where they either support an existing industry standard or becomes a *de facto* industry standard, lead to a reduction of innovation by foreclosing competing technologies. On the other hand, technology pools might also give rise to beneficial effects on competition, in particular by reducing transaction costs and, in case the IPs are complements, lead to lower overall royalties because the parties are in a position to fix a common royalty rate for the package (as opposed to each fixing a royalty which does not take into account the royalty fixed by others). Another benefit worth mentioning is that the pool will allow the licensors a "one-stop-licensing" of the IP.

When a pool has a dominant position on the market, the royalties should be fair and non-discriminatory and licenses should be non-exclusive.[30] This is a clear reference to the FRAND-principle (FRAND stands for fair, reasonable and non-discriminatory) which is used in most standard setting organisations as a way to limit the risks inherent in choosing one technology as a standard over other competing technologies.

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

The technology transfer block exemption represents an important improvement compared to the replaced 1996 Regulation in terms of clarity, scope and economic approach. The Regulation provides more freedom to companies to draw up licence agreements according to their commercial needs, while protecting competition and therewith innovation. It also brings about an important degree of convergence between the application of competition policy to licence agreements in the EU and US.

3.1.2 Article 82 Guidance

First of all, it is important to note that under EC law an IPR does not automatically confer upon its holder a dominant position. Furthermore, there is no obligation for the dominant holder of an IPR to license it to other companies.[31] That said, a refusal by the dominant company may be seen as problematic under certain circumstances, *e.g.* if it prevents the development of a market for which the license is an indispensable input, to the detriment of consumers.[32]

The Guidance on the Commission's enforcement priorities in Applying Article 82 EC ("Guidance")[33] summarises the Competition DG's reflections on abuse of dominance including the assessment and evaluation of IPR rights (*e.g.* the issue of a dominant company refusing to license intellectual property rights). Section D of the Guidance sets out that a refusal to licence intellectual property rights might, in certain circumstances, be considered as an abusive refusal to supply under Article 82 EC.

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30 See the guidelines paragraph 226.

31 E.g. Case 238/87 AB Volvo v Erik Veng (UK); ECR 6211.

32 See for example Joined cases C-241/91 P and C-242/91 Radio Telefis Eireann (RTE) and Independents Television Publications (ITP) v Commission (Magill) [1995] ECR I-743, paragraph 50; Case C-418/01 IMS Health v NDC Health [2004] ECR I-5039.

33 Communication from the Commission – Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, C(2009)864 final.

According to the Guidance, the Commission will consider a case of a refusal to license as a priority case if the following three conditions are fulfilled:

- The refusal relates to a product or service that is objectively necessary to be able to compete efficiently on a downstream market;
- The refusal is likely to lead to the elimination of effective competition on the downstream market; and
- The refusal is likely to lead to consumer harm.

A refusal to license will thus only be considered abusive if the IPRs covered by the license are objectively necessary, or in other words indispensable, for operators to be able to compete effectively on the market. As set out in the recent Microsoft judgment, c.f. below,[34] an input is indispensable where there is no actual or potential substitute on which competitors in the downstream market could rely on to counter the negative consequences of the refusal. Further, according to the Guidance, a refusal to supply is, in general, liable to eliminate effective competition if the indispensability criterion is fulfilled. As regards the third condition, consumer harm may, for example, arise in a situation where, as a result of the refusal, the competitors are prevented from bringing innovative goods or services to the market and/or where follow-on innovation is likely to be stifled.[35]

It should be noted that even though worded somewhat differently from the criteria set out by the European Courts for the assessment of when a refusal to licence can, exceptionally, be considered abusive, the purpose of the Guidance is not to, in any way, change this test. The criteria set out in the *IMS Health* ruling (as refined by the *Microsoft* judgment when it comes to the "new product" criterion, see below) still apply.

3.1.3 Astra/Zeneca

Where a certain exclusionary conduct is clearly not based on competition on the merits (creating no efficiencies and only raising obstacles to residual competition) this conduct is presumably abusive. The dominant company has the possibility to rebut this presumption by providing evidence that the conduct in question does not and will not have the alleged likely exclusionary effect or is objectively justified. This was the scenario in Astra/Zeneca. In this case (currently under appeal before the CFI) the Commission found that the company, dominant in the market for proton pump inhibitors (PPIs) with its product “Losec” had infringed Article 82 EC by misusing public procedures in a number of EEA States only with the objective to exclude competition from generic rivals. AZ was fined 60 million Euro.

AZ’s first abuse involved misuse of an EC Regulation creating supplementary protection certificates which allow extension of basic patent protection for pharmaceuticals. The concrete abuse consisted in misleading representations made by AZ before patent offices. Due to these misleading representations AZ managed to delay the entry of cheaper generic versions of Losec (with costs for health systems and consumers). The Commission’s intervention under these circumstances was very important given that the authorities applying the patent procedures have little or no discretion. Although there exists other legal rules which could have been used by the generic producers as remedies, the Commission found that there is no reason to limit the applicability of competition law (rules on abusive conduct) to situations where such conduct does not violate other laws and where there are no other remedies.

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34 Case T-201/04 Microsoft v Commission [2007] ECR II-3601, paragraphs 428 and 560.

35 Microsoft case paras 643, 647, 648, 649, 652, 653 and 656.

The second abuse consisted of AZ's requests for the deregistration of its market authorisation for Losec capsules in several Nordic countries, thus removing the reference market authorisation on which generic firms and parallel traders arguably needed to rely at the time to enter or remain on the market.[36] Again, this second exclusionary abuse took place in a regulatory context characterised by little or no discretion on the part of the authorities concerned. The Commission found that dominant companies have a special responsibility to use specific entitlements (including IPRs) in a reasonable way in respect of market access for other parties. The types of abuse are both novel and represent the Commission's first decision in relation to patent "evergreening" (the practice of extending the period over which a patentee of a pharmaceutical product may enjoy monopoly rights beyond the period of basic patent protection).

3.1.4 Microsoft

In its 2004 Decision,[37] the Commission, after having found that Microsoft had infringed Article 82 EC by leveraging its dominant position verging on monopoly in a primary market (PC operating system market) into a secondary market (work group server operating system market, ordered Microsoft to disclose to other software developers certain information necessary to ensure the interoperability of their products (work group server operating systems) within Microsoft's dominant platform. Although the case is not a compulsory licensing case, it does have intellectual property implications insofar as Microsoft is an IP company. And as the ECJ has held, a refusal to license intellectual property is under certain exceptional circumstances not immune to antitrust enforcement.

Although intellectual property rights were raised as a justification by Microsoft, the gist of the case concerned a refusal to disclose secret information, the innovative character of which was unclear.[38] The information at stake was indispensable to compete viably against Microsoft in the relevant market and Microsoft's refusal had already allowed it to achieve a dominant position, and risked eliminating competition in that market. Competitors were prevented from bringing to customers new and improved products that interoperate with Windows, in contradiction with Article 82 (b).

The 2004 Decision did not order the compulsory licensing of Microsoft IP, but the disclosure of certain interoperability information. In doing so, the Commission carefully established that the conditions judged to be sufficient by the ECJ in its compulsory licensing *IMS Health* ruling (indispensability of the refused right, risk of elimination of all competition, preventing the emergence of new products and services for which there is a potential consumer demand) were met in the Microsoft case.

The Commission when taking its decision considered not only Microsoft's incentives to innovate but the incentives of the whole market to innovate. It concluded that Microsoft's refusal to disclose the interoperability information was itself reducing the incentives of rivals to bring innovative products to the market because without the interoperability information they will not be in a position to compete on the merits. The objective of the remedy is to induce rivals to innovate along with the dominant company.

As it was shown in the Microsoft case, the Commission always takes an extremely cautious approach in this area. The Commission will always examine carefully the impact of the refusal to supply on incentives to innovate.

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36 Note that EC legislation has recently been modified to address this problem: As of 30 October 2005 it will no longer be possible to prevent generic entry by withdrawing a European reference product.

37 Case COMP/C-3/37.792 Microsoft of 24 March 2004.

38 Note that the Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs (*OJ L 122, 17.5.1991, p. 42–46)* explicitly recognises the value of interoperability in software markets, and allows companies to access the interface information necessary, to the extent feasible.

The much anticipated decision of the Court of First Instance ("CFI") was handed down on 17 September 2007. The judgment confirmed the Commission's fine of 497 euro million on Microsoft for refusal to supply interoperability information to its competitors and for tying Windows Media Player with the Windows operating system (the decision was only annulled in so far as it related to the instauration of the monitoring trustee).

In its judgment the CFI reiterated that, as a general rule, companies are free to choose their business partners but that, in certain circumstances a refusal to supply by a dominant undertaking might be abusive. The Court of First Instance observed that the case law requires "exceptional circumstances" before a refusal to license will be abusive.[39]

According to the CFI such exceptional circumstances are at hand if:

- The product or service concerned must be indispensable for carrying on a particular activity on a neighbouring market.

- The refusal is such as to exclude any effective competition in that neighbouring market.

- The refusal prevents the emergence of a new product for which there is potential demand. In this regards, the CFI stressed that the emergence of a new product is not the only parameter in the case law with regards to the exercise of an intellectual property right to determine that Article 82 is infringed.[40]

- The refusal is not objectively justified.

The CFI agreed with the Commission that the conditions above were met and accepted that interoperability was necessary in order to enable developers of non-Microsoft work group server operating systems to remain viably on the relevant market.

As regards the "new product" criteria, Microsoft had argued that the Commission had failed to identify a new product as required under the case law in *Magill* and *IMS Health*, since its competitors merely wanted to offer the same products in the work group server operating market. In response, the CFI stressed that the emergence of a new product condition is to be assessed in the context of the prejudice of the interests of consumers. According to the CFI, prejudice can therefore arise where there is a limitation not only of production or markets, but also of technical development.[41] If competitors would have access to the interoperability information, they would be able to provide new and enhanced products to consumers. The development of the "new product" criteria to also cover "enhanced products" is where the *Microsoft* judgment refines the case law on refusal to supply as regards licensing.

As regards objective justification, Microsoft argued that its refusal to license was objectively justified as the relevant technology was covered by intellectual property rights. The CFI clarified that the protection granted to intellectual property and the incentive to innovate cannot constitute an objective justification that would offset the "exceptional circumstances" already established in the case-law.

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39 Microsoft judgment, paragraph 319.

40 Microsoft judgment paragraph 647.

41 Microsoft judgment, paragraphs 643-648.

It should be repeated that the conditions set out in the Guidance, be it somewhat differently drafted in order to cover also situations where the refusal to supply does not cover IP-rights and licensing, are the same as those laid down by the CFI in the Microsoft judgment.

3.1.5 The Investigations concerning Rambus and Qualcomm

One of the new topics raised before the second Roundtable of June 2009, touches upon the issue of standardisation. Standard setting is in general beneficial especially in markets where product compatibility and interoperability are of essence, but can also lead to anti-competitive effects either under Article 81 or 82 of the Treaty.

The Article 81 aspect of standardisation agreements is dealt with in the Commission's Guidelines on Horizontal Agreements.[42] These guidelines are presently being revised. According to the Guidelines, certain unbinding standardisation agreements (when participation is unrestricted and transparent) fall outside the scope of Article 81(1). Standardisation agreements may however also lead to anti-competitive effects under Article 81(1), for example where they prevent the parties from developing alternative standards (but at least in industries where interoperability is of essence such agreements can be exempted under 81(3)).

By its very nature standard setting results in foreclosing alternative technologies. Once a companies' IP-rights/technology are included in a certain standard, market power will, in general, be conferred on that company. Those wishing to use the standard have become "locked-in" in relation to the IP-holders, *i.e.* the IP holders have become necessary contract partners for all those companies wishing to produce products in compliance with that standard. This might, for example, lead to a situation where the IP-holders are tempted to extract monopoly rents by unfair prices in violation of Article 82, hence the concept of FRAND mentioned above.

As regards the application of Article 82 in the context of standard setting, it might be interesting to note, even if the final outcome of these proceedings are not yet known, the Commission's on-going investigations regarding the companies Rambus and Qualcomm.

In the Rambus case, the Commission is, for the first time, confronted with the issue of "patent ambush" and whether there is an obligation on the companies participating in the standard setting procedure of disclosing their patents relevant to the standard before its adoption.

A Statement of Objections, setting out the Commission's preliminary view that Rambus has abused its dominant position by claiming unreasonable royalties for the use of certain patents for “Dynamic Random Access Memory” chips (DRAMS) subsequent to a so-called "patent ambush", was sent to Rambus in July 2007.

Rambus designs, develops and licenses high bandwidth chip connection technologies for computers, consumer electronic and communication products (including systems memory, PC graphics, multimedia, workstations, video game consoles and network switches) but it does not manufacture any of the products itself.

DRAMs have been standardised by an industry-wide US based standard setting organisation – JEDEC. Rambus owns and is asserting patents which it claims cover the technology included in these

[42] Commission Notice – *Guidelines on the applicability of Article 81 of the EC Treaty to horizontal co-operation agreements* (OJ 2001/C 3/02).

JEDEC standards. Therefore, every manufacturer wishing to produce synchronous DRAM chips or chipsets consequently must either acquire a licence from Rambus or litigate its asserted patent rights.

The Commission's preliminary view is that Rambus, in violation of Article 82, engaged in intentional deceptive conduct in the context of the standard-setting process by not disclosing the existence of the patents which it later claimed were relevant to the adopted standard. This type of behaviour is known as a "patent ambush". Against this background, the Commission provisionally considers that Rambus breached the EC Treaty's rules on abuse of a dominant market position (Article 82) by subsequently claiming unreasonable royalties for the use of those relevant patents. The Commission's preliminary view is that without its "patent ambush", Rambus would not have been able to charge the royalty rates it currently does.

The Statement of Objections preliminarily concludes that the appropriate remedy to such an abuse, if the Commission decides to take a final decision against Rambus, would be that Rambus charge a reasonable and non-discriminatory royalty rate, the precise amount of which should be determined having regard to all the circumstances of the case.

The European Commission has also, in October 2007, opened formal anti-trust proceedings against Qualcomm Incorporated, a US chipset manufacturer, concerning another alleged abuse in the context of standard setting.

Qualcomm is a holder of IP-rights in the CDMA and WCDMA standards for mobile telephone. The WCDMA standard forms part of the 3G (third generation) standard for European mobile phone technology (also referred to as "UMTS"). The Commission's opening of proceedings follows complaints lodged with the Commission by mobile phone manufacturers. The Commission's investigation concentrates on whether Qualcomm's licensing terms and conditions are non-FRAND and, therefore, may breach EC competition rules.

This is the first time that the Commission is investigating the issue of FRAND in the context of an Article 82 case.

3.2 Innovation and Merger Control

As to merger control, the Commission has always paid attention to the innovation elements of a notified merger. In its investigation the Competition DG also takes due account of the impact of a transaction on R&D and innovation. The capacity of a merger to limit innovation in the market can be a very important element, because it may increase the risk of a significant impediment to effective competition leading to lower investment in research or because an innovative maverick is taken out of the market. But the Commission does not only exercise a negative control trying to preserve incentives and abilities to innovate. The Commission also looks favourably at mergers that promote innovation through mergers and acquisitions in the course of its competitive assessment and when analysing efficiencies. The Commission has published guidelines both as regards mergers between competitors ("Horizontal Merger Guidelines")[43] and those that involve mergers between parties active at different levels or closely related areas of the supply chain ("Non-horizontal guidelines", together the "Guidelines").[44] In both these Guidelines, it is explicitly recognised that innovations, as dynamic efficiencies, are taken into account when assessing the positive impact of a merger.

The Guidelines reflect how the Commission takes into account innovation and the specifics of IPRs and innovative markets in its merger analysis. When interpreting market shares, for example, the

43 *Guidelines on the assessment of horizontal mergers* (OJ C 31/5 of 5.2.2004).

44 *Guidelines on the assessment of non-horizontal mergers* (OJ C 265 of 18.10.2008).

Commission takes into account the particular market conditions, *e.g.* if the market is highly dynamic or if the structure is unstable due to innovation and growth.[45] Innovation is taken into account both when assessing non-co-ordinated effects and co-ordinated effects. When analysing non-co-ordinated effects, in markets where innovation is an important competitive force, a merger may increase the firms' ability and incentive to bring new innovations to the market and exert pressure on rivals to innovate, too. Or vice versa, effective competition may be impeded by a merger between two important innovators (*e.g.* two firms with pipeline products). When analysing co-ordinated effects the Commission takes into account the characteristics of innovative markets and recognises that co-ordination may be more difficult given that innovations if they are significant may allow one firm to gain a major advantage over its rivals.[46] Finally as regards non-horizontal mergers, the Commission considers that such mergers are less likely to raise competition concern than horizontal mergers as they do not lead to the immediate elimination of competitors. However, there may be circumstances when also such mergers could give rise to concern, *e.g.* where the combined entity possesses a key competitive advantage in terms of innovation or technology which gives it the incentive and ability to foreclose rivals from an important source of supply or demand and where the effects of such conduct is material.

Furthermore, both as regards horizontal and non-horizontal merger, innovation is also an important factor to consider when evaluating market entry barriers. In this context the Commission for example examines whether incumbents enjoy technical advantages (including preferential access to innovation and R&D[47] or IPR), which make it difficult for any firm to compete successfully at any level of the supply chain. In certain industries it might be difficult for companies to enter the markets because patents protect products and processes. This may be the case because entrants need access to a protected technology to launch their own products or because their new products risk infringing existing IPRs.

Finally, innovation is also a key element in the examination of efficiencies created by mergers. Mergers may bring about various types of efficiency gains which can lead to benefits for consumers, *e.g.* in resulting from improved products and services obtained by efficiency gains in the area of R&D and innovation. For instance, a JV set up to develop a new product may bring about the type of efficiencies the Commission can take into account when deciding over a proposed concentration.

3.3 Innovation and State Aid Control

3.3.1 Basic Policy Considerations

The basic assumption is that competition in functioning markets creates strong incentives for companies to invest in knowledge and innovation which generate competitive advantages and profits.[48] An innovative company will typical enjoy faster growth in competitive markets enabling it turn its creative efforts into value. Preserving competition by controlling harmful State aid, abuses of dominant positions and other anti-competitive conduct is thus crucial. Nevertheless, there is no rule without exemption. There are situations where markets, left to their own devices, fail to deliver efficient outcomes. In such cases it is not sufficient to rely on market forces and free competition to achieve the desired outcomes. In these specific cases of market failure, State aid may contribute to fostering innovation by increasing the

45 See for example Case COMP/M.2256-Philips/Agilent; par. 31-32 or Case COMP/M.2609-HP/Compaq; par. 39).

46 See par. 45 of the *Guidelines on the Assessment of horizontal mergers* (OJ C 31/5 of 5.2.2004).

47 See Case IV/M.774-Saint Gobain/Wacker Chemie (OJ 247, 10.9.1997).

48 Recent OECD analysis finds that stricter competition-restraining regulation significantly reduces business R&D intensity. See *Economic Policy Reforms "Going for Growth"* (2006), p. 67 (section II.3 entitled *Encouraging Innovation: An Overview of Performance and Policies*).

incentives of businesses to invest more in innovation. It is, however, important to stress that State aid constitutes but one element in a much wider package of structural reforms to encourage innovation. State aid, used judiciously, should be viewed as a complementary tool to support innovation.

3.3.2 State Aid for Research & Development and Innovation

To meet the 3% R&D target set by the Lisbon Agenda several building blocks are regarded as fundamental, a central one being the state aid framework for R&D and innovation. The envisaged aim is to facilitate access to finance and risk capital as well as public financing of R&D and innovation.

In 2006, the Commission has issued new guidelines on State aid for Risk Capital and new rules on State aid for R&D and Innovation. These new rules are designed to encourage Member States to invest more in R&D and Innovation as well as Risk Capital as a percentage of their total State aid budgets. They are also intended to support Member States in using a more economics based approach in order to target State aid towards the right projects, *i.e.* where the benefits of State aid outweigh any harm to competition and trade. The new rules provide for increased legal certainty and introduce the possibility to grant aid through a series of new measures for innovation: aid for young innovative start-ups; aid to SMEs for advisory and support services or for the loan of qualified personnel; aid for process and organisational innovation in services, aid for innovation clusters and aid for technology transfer. Finally, it is worth mentioning in this context that these rules also allow support granted to SMEs for their patenting activities, under certain conditions.

In order to allow Member States to profit even further from these measures and to simplify their implementation, the Commission has largely exempted from the notification process most of the aid to risk capital and to R&D and innovation. These forms of aid are now comprised in the Commission Regulation (EC) No 800/2008 of 6 August 2008 declaring certain categories of aid compatible with the common market in application of Article 87 and 88 of the Treaty (General block exemption Regulation).

3.4 Innovation and Competition Advocacy

3.4.1 The Regulatory Framework and its Significance for Innovation

The regulatory environment is a very crucial factor when it comes to business innovation. The above-mentioned OECD report "Going for Growth" (2006)[49] finds that strict competition-restraining regulation (other than IPR) will always significantly reduce business R & D intensity. It is therefore crucial for legislators to be aware of the potential harmful effects of competition restricting regulation. The OECD study concludes that of the various policy elements studied (including subsidies, private sector credit, import penetration, etc.) reducing anti-competitive regulation was found to be the second most powerful thing that governments should do to raise the level of business R&D spending (and six times stronger than enhancing IPRs).

The Commission considers that competition-enhancing regulation is a fundamental component of any policy strategy aimed at strengthening innovation and competitiveness. The Competition DG is actively engaging in competition advocacy activities in a number of sectors, which are very important as an input for innovative industries (*e.g.* the financial services sector) or where innovation is a driver of competition (*e.g.* professional services). In addition, the Commission has recently developed a revised impact assessment system to assess the potential economic effects of legislative proposals submitted by the Commission, including the competition effects.

[49] See FN 2.

3.4.2 The Competition Test Applied to EC Draft Legislation

Before adopting new regulatory frameworks the Commission's services have to engage in a comprehensive evaluation of its potential impact on the economy, including competition impacts. The Commission's services when preparing draft legislation are called to consider carefully whether government regulation in a sector is necessary, and, if it is, make sure that the regulation is the least intrusive and most open to competition that it can be. Taking the example of intellectual property rules, for example, the challenge is to ensure sufficient IP protection to guarantee investment in IP, but not overly broad protection that helps perpetuate market power and excludes follow on investment.

In June 2005 the Commission[50] - adopted revised Impact Assessment Guidelines,[51] covering all legislative and policy initiatives included in the Commission's Annual Work Programme. These have been replaced by new Impact Assessment Guidelines in 2009.[52] As regards screening of potential negative effects on competition the principles however remain the same. Such impact assessments explore alternative options to solve a defined problem and evaluate their economic, environmental and social impact. The basic "competition test" applied in the context of competition policy screening involves asking two fundamental questions at the outset. First: what restrictions of competition may directly or indirectly result from the proposal?[53] Second: are less restrictive means available to achieve the policy objective in question?

The Impact Assessment Guidelines recognise that "the Member States and the Community shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources. If firms face no, or only weak actual or potential competition, then the quantity and quality of goods and services they product may fall short of the socially efficient level."[54].[55]. Competition advocacy in the form of Competition screening therefore forms an integral part of impact assessment.

4. A Broad Based Innovation Strategy for Europe

As requested by the Spring European Council in March 2006, the Commission on 13 September 2006 adopted a Communication defining a Broad Based Innovation Strategy for Europe[56] that translates investments in knowledge into innovative products and services. This Communication presents ways to better exploit the European Union's innovation potential, by accompanying industry-led initiatives with appropriate public policies. The Communication states that, while increased competition constitutes the most efficient instrument to stimulate innovation, policy measures and innovation support mechanisms may also have an important role to play.

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50 See Communication from the Commission to the Council and the European Parliament of 16 March 2005 on *Better Regulation for Growth and Jobs in the EU*; COM(2005) 97 final.

51 SEC (2005) 791.

52 SEC 2009(92).

53 Table 1 on Economic impacts puts the following key question: "Will it lead to a reduction in consumer choice, higher prices due to less competition, the creation of barriers for new suppliers and service providers, the facilitation of anti-competitive behaviour or emergence of monopolies, market segmentation etc?

54 Annex to the *Impact Assessment Guidelines*, p. 19.

55 A specific DG COMP guidance paper is published at http://europa.eu.int/comm/competition/publications/advocacy/.

56 Communication from the Commission of 13 September 2006 to the Council, the EP, ECOSOC and the Committee of the Regions; COM(2006) 502 final.

The Communication 'a Broad Based Innovation Strategy for Europe' follows a series of previous initiatives and policy orientations by the European Commission,[57] which tend to consider that only a combination of policies can bear fruits for innovation. Apart from the identification and diffusion of "good practices", it is important to assess whether the most important elements of a country's "system of innovation" function well, namely:

The general framework conditions within which R&D and innovation are generated and used, particularly highly competitive markets, flexible, mobile and skilled labour force, and well functioning capital markets (including venture capital)

The overall knowledge base of the EU economies, in terms of well performing economic systems, and efficient public research and business R+D

Sufficient incentives (including taxation) for business R&D and adequate rewards for successful discoveries

Adequate networking and knowledge transfer mechanisms to exploit the potential of science-industry links and improve the commercialisation of research both at a domestic and at the EU levels.

5. Conclusions

In conclusion the Competition DG agrees with the conclusion drawn by the Secretariat's Note (p. 38) that patents clearly have a dual role of fostering innovation and diffusing technology. Judging from our experience we support the conclusion that competition is positively related to innovation. This conclusion can also be based on recent studies involving the degree of anti-competitive product market regulation and innovation in various OECD countries. A number of different factors support the positive correlation between competition and innovation.

First, effective competition provides incentives for firms to innovate, as they can profit from new and idiosyncratic knowledge.[58]

Second, effective competition is a very effective mechanism to diffuse innovation. Well functioning innovation systems serve to ensure the free flow of information across the interfaces between large firms, researchers, entrepreneurs, investors of all kinds, consultants, patent agents and other intermediaries, local authorities and other actors. Competition pushes towards testing, imitation, and feed-back learning, which greatly contributes to the diffusion of innovation. Furthermore, open and competitive markets are a pre-requisite for SMEs and new entrants to spread innovations in the economy.

In light of these observations, competition authorities have an important task in preserving and protecting competition to foster innovation, with a special view to innovation driven markets. At the same time there is also a lot of scope for legislators and patent offices to stimulate innovation by way of designing patent laws. It is increasingly being recognised that patents and patent systems do not always stimulate innovation but are used for other defensive purposes, thus retarding (follow-on) innovation. This requires focus on improving IPR law and its application, including the working of the patent offices. EU

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57 E.g. Innovation policy: updating the Union's approach in the context of the Lisbon strategy, COM(2003) 112 final; Innovation in a knowledge-driven economy, COM(2000) 567 final.

58 See *e.g.* Teece, D.J. (1987) *Profiting from technological innovation: implications for integration, collaboration, licensing and public policy*. In D.J. Teece (ed.) *The competitive challenge: strategies for industrial innovation and renewal: 185-219*. Cambridge, MA: Ballinger. Berney, J.B. (1991) "Firm resources and sustained competitive advantage"; *Journal of Management*, 17:99-120.

competition policy is already revised and is still being revised to face the challenges and contribute to growth and innovation.

ANNEX: THE PHARMACEUTICAL SECTOR INQUIRY

1. Introduction

On 28 November 2008, the Commission presented its preliminary findings on the sector inquiry into pharmaceuticals. The report[1] shows that R&D based companies (originator companies) engage in practices that can contribute to a delay of market entry of generic medicines. The report also states that originator companies use patent strategies aimed at blocking or delaying the development of novel medicines by competitors. It furthermore highlighted room for improvement of the regulatory framework within the sector, in particular, it called for the creation of a Community patent and a unified and specialised Community jurisdiction to decide on patent litigation in the EU.

This paper explains the rationale for launching the sector inquiry and presents the preliminary findings focussing on three main issues of the report, namely practices by originator companies that can delay generic entry, practices that can contribute to the decline in innovation and the main comments of stakeholders on the regulatory framework that were received from companies. It also addresses some of the questions raised by the Competition Committee of the OECD Directorate for Financial and Enterprise Affairs in its communication of 25 March 2009 in preparation for the OECD roundtable II on competition, patents and innovation.

The preliminary report is based on facts as they were reported by respondent companies and other stakeholders. Whereas there seems to be limited dispute on the facts there seems to be some disagreement on their interpretation.[2] The report does not contain any competition law assessment of individual practices nor does it provide any guidance on how such practices should be analysed. Ultimately such guidance will have to be drawn from (future) case law.

The sector inquiry is a competition inquiry and it focuses on behaviour of companies. However, the Commission is fully aware that obstacles can also result from the regulatory framework which is why the latter was investigated in the course of the sector inquiry.

Furthermore, the report does not put into question the need for strong intellectual property rights. Patents are essential for innovation, in particular for the pharmaceutical industry with its long R&D phase and long lifecycle of products. Patents are necessary to recoup investments that have been put into research. At the same time, this does not mean that EC competition law does not need to be respected.

2. Background and Scope of the Sector Inquiry

The European Commission is empowered, in certain cases, to carry out an inquiry into a particular sector of the economy, namely where circumstances suggest that competition may be restricted or distorted within the common market according to Article 17 of Council Regulation (EC) 1/2003.

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1 The full text of the preliminary report is available at the DG Competition website: http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/index.html. See also Press Release IP/08/1829 and MEMO/08/746.

2 Critical submissions and comments will be addressed in the final report.

The inquiry into the pharmaceutical sector was initiated in response to information that competition in the pharmaceutical market in the European Union may not be working well. This was indicated by a decline in innovation measured by the decreasing number of novel medicines reaching the market each year and by instances of delayed market entry of generic medicines.

The sector inquiry aims at investigating the underlying causes by focusing in particular on company behaviour including the use of patent strategies. This does not mean that the sector inquiry ignores other causes. However, as a competition authority, the Directorate General for Competition of the European Commission (DG COMP) is mainly looking at company behaviour which might distort competition.

The sector inquiry was launched[3] on 15 January 2008 and accompanied by upfront inspections, carried out at the premises of a number of pharmaceutical companies (originator and generic companies) in the EU. Subsequently, requests for information (questionnaires) were sent to more than 70 originator and generic companies. Questionnaires were also sent to public authorities dealing with marketing authorisations and pricing and reimbursement, wholesalers, associations of insurance companies, doctors, patients, pharmacists and consumers.[4]

For the in-depth analysis 219 medicines were selected. These medicines were in their majority either blockbusters or well selling medicines facing loss of exclusivity in the period 2000 to 2007 or both. This sample corresponds to approximately 50% of the total prescription market in 2007 and covers a great variety of products across various therapeutic areas. Also, the 70 respondent companies account for 80% of the total turnover generated with prescription medicines in the EU in 2007.

3. Competition between Originator and Generic Companies

The first focus of the sector inquiry deals with competition between originator and generic companies.

3.1 Impact of Generic Entry

As regards the impact of generic entry the sector inquiry found that in markets where generic medicines become available, average savings to the health system (as measured by the development of a weighted price index of originator and generic products) are almost 20% one year after the first generic entry, and about 25% after two years (EU average). In rare instances even price drops of as much as 80 – 90% after generic entry could be observed. Obviously, there are significant differences between different medicines and Member States. For example, in certain Member States the price for the originator product remains largely stable, even after generic entry, whilst in other Member States the prices dropped much sharper than the average, in particular for the generic versions of the product. By comparison, the price of medicines without generic entry stayed stable and even slightly increased.

Based on a sample of medicines used for in-depth investigation and that faced loss of exclusivity in the period 2000 – 2007 (representing an aggregate post-expiry expenditure of about € 50 billion over this period in 17 Member States) the preliminary report estimates that this expenditure would have been about € 14 billion higher without generic entry. However, the savings from generic entry could have been about €

3 The legal basis for the inquiry was the Commission Decision of 15 January 2008 initiating an inquiry into the pharmaceutical sector pursuant to Article 17 of Council Regulation (EC) No 1/2003, available at: http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/decision_en.pdf.

4 Both instruments (inspections and requests for information) are tools provided for in the context of a sector inquiry according to Article 17 of Council Regulation (EC) 1/2003: The inspections were based on Commission Decisions pursuant to Articles 20 (4) and 17 of Council Regulation (EC) No 1/2003. The requests for information were based on Article 18 and 17 of Council Regulation (EC) No 1/2003.

3 billion more, further reducing expenditure for these medicines by more than 5%, if generic entry had taken place without delay.

3.2 A "Tool-Box" of Instruments

The preliminary findings indicate that originator companies design and implement a variety of strategies in order to ensure continued revenue streams from their medicines. The successful implementation of the strategies of this "tool box"[5] of instruments may have the effect of delaying or blocking generic entry. The preliminary report underlines, however, that company behaviour may not be the only cause for the delay of generic entry on the market.

3.2.1 Patent Strategies

The sector inquiry looked in detail at patent strategies of originator companies. This does not put into question the fundamental importance of patent rights and their efficient enforcement. Patents are key for the pharmaceutical industry, as they allow companies to recoup investment and to be rewarded for innovative efforts. The aim of the sector inquiry is, rather, to help understand whether originator companies develop and employ strategies with the purpose of blocking or delaying generics.

The sector inquiry found that originator companies aimed to extend the breadth and duration of protection of a product by filing numerous patents for the same molecule, forming so-called "patent clusters".

Patent clusters in this context describe a situation, where, in order to protect its medicine, an originator company holds in addition to some fundamental patents, often called "primary patents", as they protect the main active compound, a multitude of additional patents often referred to as "secondary patents", covering all kinds of secondary aspects of the medicine, *e.g.* formulations, processes or non-formulation products such as salts or hydrates. In some cases, individual blockbuster medicines are protected by up to 90 patent families translating into 1300 national and EPO patents and pending patent applications in the EU. This creates a dense web of patents around the originator company's blockbuster product which can lead to uncertainty for generic companies as to which of these patents they will possibly have to face. From a commercial perspective a generic company that wants to enter the national markets has to confront the sum of all patents in these member states.

Quotes from strategy documents and e-mails gathered during the course of the inquiry, in particular during the inspections confirmed the intention of companies to delay generic entry through the filing of secondary patents such as the following two:

> *"I suppose we have all had conversations around "how can we block generic manufacturers" […]. Don't play games in patenting new salt forms too late, the generics are starting earlier and earlier. Get claims on key intermediates that cover a number of routes […] Process patents are not the biggest block but can put generics off if a superior chemistry job is done."*

> *"Secondary patents will not stop generic competition indefinitely but may delay generics for a number of years, at best protecting [the originator's] revenue for a period of time."*

Furthermore, the increased filing of divisional patent applications, in particular before the EPO, has been an object of complaint by the generic industry as a potential instrument to prevent or delay generic entry.

[5] The term "tool box" is a term commonly used by originator companies in their strategy documents.

A divisional patent application is created where the applicant, either voluntarily or at the request of the examining office, divides out from a patent application ("parent patent application") one or several (narrower) patent applications ("divisionals"). Such a division must be undertaken as long as the parent patent application is still pending. However, once created, a divisional has a life of its own, *i.e.* even if the parent patent application is refused or revoked, the divisional would still be pending. The divisional will have the same priority and application date as the parent patent application. In other words, if granted, a divisional will, in principle, provide the same duration of patent protection as the parent application. Also, the divisional application cannot go beyond the scope of the parent application.

However, applicants can use this procedure to "reset the clock" and gain more time for patent examination, thus extending the period where applications are pending. As each divisional application has to be assessed individually, a successful challenge of a parent application will not create legal certainty for the challenger, as long as several other divisional applications are still pending. In such cases, generic companies pointed out, it is virtually impossible for them to predict when which divisional application will possibly be granted. As a consequence they are unsure as to what they can reproduce without infringing any patents, even if the parent patent application has been refused or revoked.[6]

On the basis of observations of patent filings for the top 20 best-selling medicines the sector inquiry found a clear continuity on average, *i.e.* that originator companies keep on filing new patent applications for their blockbusters. Hence, there is a steady increase in the number of patent applications over the whole lifetime of the primary patent. This is due to the fact, that amongst the top-selling medicines there is an important number of medicines, where filings increase rapidly just in the years prior to expiry.

3.2.2 Patent Disputes and Litigation

The patent strategies mentioned above may eventually lead to non-litigious patent disputes as well as litigation. In this respect it needs to be underlined that enforcing patent rights is a fundamental right which is of course not put into question by the sector inquiry.

The sector inquiry found almost 460 patent disputes outside legal proceedings on the sample of 219 medicines alone. Interestingly, almost all patent disputes between originator and generic companies - 91% - were initiated by an originator company.

As regards litigation, the inquiry found that, in the period 2000 to 2007, originator companies engaged in nearly 700 cases of patent litigation with generic companies concerning the sample of products investigated. Here, 54% of the cases were initiated by an originator company. Secondary patents accounted for nearly two thirds of all litigated patents (64%). Primary patents made up the remaining 36%. It is noteworthy that of all cases where a final judgment was taken (149) generic companies won 62%. However, on average, it took 2.8 years for a final judgment to be reached by court.

Moreover, in about half of all cases where an originator company requested an interim injunction ordering the generic not to sell, such an injunction was granted. This happened in 112 cases of the sample. On average, an interim injunction lasted for 18 months.

The sector inquiry furthermore discovered 30% of the cases to be duplicates of parallel cases in other Member States and 11% of contradictory final judgments in litigation cases. The total direct costs associated with the patent litigation are estimated to amount to €420 million.

[6] In reaction to such complaints the EPO recently changed its rules on voluntary divisional patent applications limiting the filing period.

3.2.3 Opposition Procedures

The sector inquiry also examined opposition procedures including appeals before the European Patent Office (EPO), involving generic companies as opponents against the patents of originator companies. Opposition procedures, in this particular context, allow generic companies to request a review by the European Patent Office of whether the conditions for granting the patent are met. Thus these procedures can serve as an important tool for opponents, such as generic companies, in order to ensure patent quality and to remove patents that do not meet the agreed standard.

In opposition procedures, a European patent can be either maintained, or rejected or amended.

Counting only rejections as a success the sector inquiry found that in the majority (60%) of opposition procedures in which a final decision was reached, generic companies were successful. In a further 15% the scope of the patent was reduced. While, in theory, opposition procedures could represent an efficient legal remedy for generic companies to challenge invalid patents, they unfortunately do not bring clarity and legal certainty in a timely manner. Almost 80% of procedures took more than 2 years before a final decision was reached. For some extreme cases, it took up to 9 years.

3.2.4 Patent Settlements

Patent settlements are agreements between originator and generic companies to resolve patent-related disputes and litigation. Occasionally, these settlements are also concluded in the context of opposition procedures. Whilst the sector inquiry recognises that settlements can be an efficient way to solve disputes it also found instances where patent settlements can have a restricting effect on generic entry. Such restrictions can be particularly problematic if combined with value transfers from the originator company to the generic company, as the settlement might be beneficial for both companies but not for the public at large that would benefit from earlier generic entry.

For the period 2000 to 2007, companies reported more than 200 settlement agreements relating to the EU markets and covering almost 50 medicines. Out of these 200 settlements, a bit more than half did not limit generic entry. The other half imposed a limitation on generic entry.

Within this latter category the sector inquiry found that 54 agreements did not foresee any value transfer from the originator to the generic. These are typically cases where the generic company accepts that the originator company had a valid patent that needs to be respected.

However, in the remaining 45 agreements one could observe a value transfer from the originator company to the generic company. The value transfer can take different forms, *e.g.* it can consist of a distribution agreement, a license agreement or an agreement with direct payments.

In 22 patent settlements in which generic entry was limited in some form or other there was a direct payment made from the originator company to the generic company. In these cases more than € 200m were transferred to the generic companies.

3.2.5 Intervention at Regulatory Bodies

Originator companies also intervened before national marketing authorisation and pricing and reimbursement authorities to call into question the quality or safety of generic products or to claim that the commercialisation of these products would violate their patent rights.

In this respect it is interesting to note that marketing authorisation bodies are not entitled under EU law to verify the patent status of the generic product.[7]

The sector inquiry found that - where an initial intervention before the authority does not lead to the desired result - originator companies may take the national authorities to court. The vast majority of court cases brought against national authorities by originator companies, however, were lost by the latter. In fact, originator companies won only 2% of cases launched against marketing authorisation bodies where patent infringement or safety issues were raised. Likewise, originator companies were only successful in 19% of cases against marketing authorisation bodies regarding data exclusivity.

Even where generic companies can ultimately enter the market, the interventions can have significant consequences. When comparing the duration of approval procedures in which an intervention took place with procedures in which no such intervention took place the former lasted on average 4 months longer. In the inspection material one originator company reported about significant additional revenues obtained through such interventions.

3.2.6 Life Cycle Strategies for Follow-On Products

Incremental research is important as it can lead to small but important steps in innovation and thus can lead to second generation products that address unmet patient needs. The generic industry is however more critical towards second generation products, and speaks about so called ever-greening strategies. Generic companies argue that second generation products are often based on first generation products and have little or no added value for patients.

For the sample of 219 molecules originator and generic companies reported that approximately 40 % of all medicines were either a first or a second generation product. For the narrower sample of medicines that faced expiry in the period 2000 to 2007 the percentage figures increased even to 53%. Obviously, there were significant discrepancies between the reports of generic and originator companies.

Originator companies confirmed that they launch second generation products on average 1 year and five months prior to the loss of exclusivity of the first generation product. Timing is crucial when switches occur and significant marketing and promotion efforts are undertaken when the switches are envisaged.

Originator companies confirmed that the switch to the next generation must take place before the generic version of the first generation product is launched as was also illustrated by quotes from strategy documents. Generic companies on the other hand submitted that they have difficulties to enter the market when a second generation product was launched successfully by the originator company and the patient base was switched.

3.2.7 Cumulative Use of Instruments

In many instances, originator companies used two or more instruments from the "tool-box" in parallel and/or successively in order to protect the revenue streams from their (best-selling) medicines which can lead to cumulative delays. Such a parallel use is illustrated by an overview of practices used for the top 30 best-selling medicines.

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[7] Article 81 of Regulation (EC) 726/2004 and Article 126 of Directive (EC) 2001/83 provide that an authorisation to market a medicinal product shall not be refused, suspended or revoked except on the grounds set out in the Regulation and the Directive. Considering that patent status is not included in the grounds set out in the Regulation and the Directive, it cannot be used as an argument to refuse, suspend or revoke a marketing authorisation.

4. Competition between Originator Companies

The second focus of the sector inquiry concentrated on the competitive relationship between originator companies themselves.

4.1 Patent Strategies

Again it has to be underlined in this context, that the importance of patents for this sector in particular is not put into question. As already mentioned, they are important for companies to recoup investments and to be rewarded for innovative efforts.

In its analysis of patent strategies, the sector inquiry focused, on so-called "defensive patents". These can be described as patents which are not foreseen to be used for innovation but primarily pursue the purpose of blocking the development of competing products.

The sector inquiry found that in such cases, originator companies did, in fact, not intend to pursue such patents themselves in order to bring a new or improved medicine to the market but rather to block competitors developing or bringing a product to the market. This was, particularly confirmed by several quotes of originator companies that were gathered during the inquiry as well as the statement by several companies to have filed such defensive patents.

Illustrative quotes from strategy documents are the following ones:

> *"We identify options to obtain or acquire patents for the sole purpose of limiting the freedom of operation of our competitors. […]"(emphasis added)*
>
> *"Defensive patents […] serve to protect compounds closely related to [our company's] candidates or products. They do not cover [our company's] candidates or products. They protect compounds that would be of interest to a direct competitor."*

The sector inquiry also tried to estimate the potential of patent "conflict" between originator companies in the pharmaceutical sector. In total, at least 1100 instances were found, where there is an overlap between a product or R&D project of one originator company with the patents of another one. In view of this the sector inquiry looked at the request for licences and refusals and found - on its sample only - 99 cases where a licence was requested. In nearly 20% of the requesting party did not obtain a license, for a variety of reasons.

4.2 Patent-Related Exchanges, Disputes, Litigation and Oppositions

The sector inquiry also confirmed that originator companies engage in patent litigation with other originator companies. Thus almost 40% [16] of respondent originator companies were involved in patent litigation with another originator company. In total, 66 litigation cases were reported for the 219 medicines of the sample only. This is probably a conservative estimate due to the selection of the medicines, which contain many medicines already facing generic entry – and therefore are rather late in their product life cycle.

Of the court cases reported, two thirds (64%) were settled, most of the settlements containing a license agreement. Of the remaining cases, a limited sample [13], the originator company enforcing its patent won in less than 25% of cases. In other words, the originator company challenging the patents won in the majority of cases.

The preliminary findings also showed that, between 2000 and 2007, originator companies mainly challenged each other's secondary patents in opposition procedures. The applicant originator companies were very successful when challenging the patents of other originator companies. During that period, they prevailed in approximately 70% of final decisions rendered by the EPO (including the Boards of Appeal).

5. Regulatory Framework

Companies made many comments on the regulatory framework in particular on laws governing patents, marketing authorisations and pricing and reimbursement systems.

5.1 The Patent System

With respect to the patent system the most important message is that both the originator and the generic companies support the creation of a Community patent and a unified and specialised Community jurisdiction to decide on patent litigation in the EU.

The need for a Community patent and a unified and specialised court is fully supported by findings of the sector inquiry namely by the high number of patent litigation cases, in many instances dealing with the same underlying issue across different Member States. Furthermore in 11% of the cases conflicting judgements were rendered, putting legal certainty into question. Last but not least, the total costs of the patent litigation analysed in the report amount to € 420m.

In addition, generic companies and some originator companies also called upon the patent offices and most prominently the EPO, to which most applications go, to ensure a high quality of patents granted and effectively counter strategies that may cause unnecessary delays such as divisionals.

5.2 Marketing Authorisation Procedures

With respect to procedures governing marketing authorisations, companies, industry associations and national agencies reported most prominently about bottlenecks that can lead to obstacles and delays of market entry.

Some originator companies also said that they would favour further international harmonisation of marketing authorisation procedures, in particular between the EU and the US. First steps are under way to achieve this.

5.3 Pricing and Reimbursement Procedures

With respect to pricing and reimbursement procedures, originator companies complained in particular about the delays and uncertainties created by the national procedures. The delays would reduce the time during which originator companies can reap the benefits of their innovation.

Finally generic companies voiced some concerns about delays in the pricing and reimbursement procedures as a result of the additional requirements introduced by some Member States. They pointed in particular to the fact that some Member States request evidence that the patents of the originator companies are not violated.

Generic companies called for measures facilitating generic uptake after loss of exclusivity.

6. Submissions during the Public Consultation and Next Steps

A two-month public consultation on the preliminary report was concluded on 31 January 2009. The Commission received more than 70 submissions from companies and sector stakeholders.

The preliminary report has been generally welcomed by sickness funds, medical insurances, generic companies and consumers associations. Generic companies submit that the findings of the preliminary report confirm the experience of the generic industry insofar as the behaviour of originator companies is correctly stated to be a significant factor in delays to the entry of generic medicines. Respondents that represent the interests of the health insurance sector and of consumers state that the report provides an impressive set of data, facts and figures, giving a solid, detailed overview of the situation of competition in the pharmaceutical sector, which could constitute a useful basis to argue for certain solutions such as the Community patent.

Associations of originator companies as well as other stakeholders representing industry interests and/or active in the area of patenting took a more critical view. They consider that the tone and attitude of the preliminary report and of the section on patent strategies was pejorative towards the pharmaceutical industry, in particular towards originator companies. Some stakeholders also claim that certain terms such as "toolbox", "delayed entry of generics" or "defensive patenting" were used in a pejorative way.

In this context it has to be pointed out that none of the terms mentioned above have been invented by the preliminary report. Rather they proved to be terms used by originator companies themselves, *i.e.* in their strategy documents.

Originator companies and their associations also claimed that the report did not provide any proof of causality between the toolbox instruments employed by the companies and a delay of generic entry.

However, the preliminary report had stated that the toolbox instruments used contributed to the delay of generic entry, not excluding the existence of other additional causes. Furthermore, the sector inquiry unearthed quotes with the clear intentions of the companies using such instruments in order to delay entry as well as examples showing this effect.

As far as the preliminary report has been criticised for not sufficiently analysing factors affecting the generic competition it has to be pointed out that this analysis is being carried out in the second phase of the inquiry. Thus, results on this issue can be found in the final report.

The final report, which will take these comments into account, is expected in summer 2009 and will allow the Commission to draw the necessary conclusions.

7. Issues Raised by the Competition Committee

Finally, some issues raised by the Competition Committee of the OECD Directorate for Financial and Enterprise Affairs in its communication of 25 March 2009 in preparation for the OECD roundtable II on competition, patents and innovation (Part II A and B) are addressed as far as possible in the context of the pharmaceutical sector inquiry.

7.1 Pending Patents

7.1.1 Threshold Questions

A general assessment of the use of patent applications as examined in the sector inquiry as to its compatibility with competition law is not useful. Such an assessment will always depend on the

circumstances of the individual case. However, it is noteworthy to point out some observations made during the sector inquiry on the effect of some patent applications and patents and their validity.

The increased use of patent applications and the creation of patent clusters seem to lead to uncertainty for generic competitors as regards how they can enter with a generic product after the primary patent has expired without infringing any secondary patents as explained above.[8] In a similar manner the use of divisional applications by originator companies create such a legal uncertainty.[9]

Thus, in the course of the sector inquiry several generic manufacturers complained that originator companies filed numerous patent applications for secondary aspects of a medicine, using also a great number of divisionals in this context. Generic companies maintained that originator companies obtain "weak patents" since in their opinion novelty and inventive step requirements, in particular for secondary patent applications, were too easily considered to be met by the EPO, an argument which was also reiterated during the public consultation. In this context it needs to be pointed out that certain types of prior art may be "unsearchable" and thus not easy to detect for the EPO. Furthermore, examination by the EPO does not include any experiments to verify applicant allegations. Yet, it is also noteworthy, that in the majority of opposition and appeal procedures against originator company's patents examined in this report the final outcome was a revocation of the disputed patent. These procedures almost exclusively concerned secondary patents. Furthermore in 55 % of the patent litigation cases between originator and generic companies that involved a question of the disputed patent's validity and that reached a final judgement, the patents were annulled (43 of 78 cases).

In this context it is noteworthy that within its "raising the bar exercise" the Administrative council of the EPO, composed by its contracting states has agreed on a reform proposal of the EPO to introduce time limits for the filing of divisional applications.[10]

7.1.2 Coherent Theories of Harm

It has to be emphasised that in the course of a sector inquiry it is not possible to assess whether and if so to which extent certain practices are compatible with competition law in general. In fact many of them may be completely legal. Rather, an assessment must be carried out on a case-by-case basis taking into account individual circumstances. However, it can be pointed out that as mentioned in the Commission decision[11] launching the sector inquiry certain practices may cause market distortion when they unduly fence off incumbent suppliers of drugs from innovative or generic competition, for example, due to *de facto* extended patent protection through unilateral conduct or agreements. Such practices may limit consumer choice; reduce economic incentives to invest in research and development of new products and damage public and private health budgets.

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8 See above para.17.

9 See above paras. 19-21.

10 As of 1 April 2010, voluntary divisional applications will need to be filed within a period of two years from the first communication by the EPO examining division in respect of the parent or an even earlier (in case of a "chain" of applications) application. For further details see the Decision of the Administrative council of 25 March 2009 amending the Implementing Regulations to the European Patent Convention (CA/D 2/09) under: http://www.epo.org/patents/law/legal-texts/decisions/archive/20090325.html.

11 See: Commission Decision of 15 January 2008 initiating an inquiry into the pharmaceutical sector pursuant to Article 17 of Council Regulation (EC) No 1/2003, available at: http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/decision_en.pdf.

Such practices may include patenting or the exercise of patents which may not serve to protect innovation but to block innovative and/or generic competition, litigation, which may be vexatious, and agreements, which may be collusive, such as patent settlements that restrict generic market entry and contain a value transfer from the originator company to the generic company.

In this context the *AstraZeneca* case has to be mentioned where the Commission came to the conclusion that *AstraZeneca* had abused government procedures (*e.g.* submitting incorrect information to obtain longer SPC periods) in order to delay generic entry. This amounted to an abuse of a dominant position, in other words a violation of Article 82 of the EC Treaty.

7.1.3 Standardisation

So far standardisation is not of relevance for the pharmaceutical sector. Although the sector is considerably regulated through marketing and pricing and reimbursement procedures no standards are being set that could be monopolised as in other industries.

7.1.4 Cross-Licensing Agreements

While cross-licenses in a narrower sense have not been examined, the sector inquiry unearthed data about the need of originator companies to ask for a license of other originator companies where the latter own patents that interfere with the formers' R&D poles. It was found that the patents in question often did not protect a particular R&D pole of the patent holder. In particular, where they were applied for as defensive patents in the view of the patent holder they rather served the purpose of blocking other companies' developments of competing products than the protection of development of an own product. Also it is noteworthy that in 20% of cases where an originator company asked for a license it did not finally obtain it.[12]

Although compulsory licenses might be an appropriate solution in some cases of refusals, in the sector inquiry, only two cases were identified where compulsory licences had been issued, both of them in Italy.[13]

7.2 Collaborating with IP Agencies

As regards collaboration between competition agencies and patent agencies it has to be emphasised that patent authorities often are not empowered to take into account competition aspects when carrying out there tasks.

From its experience the Commission would recommend a frequent exchange between competition and patent authorities to enhance knowledge about the problems within patent and competition law on both sides. Throughout the sector inquiry the Commission and the EPO have been in regular contact. The EPO even seconded an experienced official to the Commission to provide advice on patent related questions and support the Commission in the inquiry.

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12 See above.

13 In the first case, the Italian Patent and Trademark Office referred the matter to the Italian Competition Authority. The latter adopted an interim order ordering the grant of a licence to the company requesting the licence. According to the patent holder, the company concerned never made use of the licence. Subsequently, the Competition Authority accepted a commitment from the patent holder to grant a non-exclusive, non-royalty bearing licence to any company requesting it and closed the case. Eleven licences were granted under this commitment. In the second case, the Italian Patent and Trademark Office itself granted a compulsory licence. This licence was subsequently revoked upon request of the two parties concerned after they had reached a settlement. Under the settlement, an exclusive licence was issued.

Regular dialogues with drug approval agencies or marketing authorisation bodies as suggested by the OECD in its paper seem to be desirable in particular to highlight the problematic practice of patent linkage in the EU which is sometimes employed by originator companies when intervening in marketing authorisation procedures of generic drugs.[14] The same applies for "frivolous" interventions by companies on other purported reasons, but which might in fact be unfounded.

[14] See above.

CHILE

1. Introduction

In recent years, Competition and Intellectual Property laws and institutions in Chile have experienced significant reforms, aimed at increasing transparency, independency and technical expertise in the administration of these two policies.

The amendments introduced in 2004 to the Competition Act were the result of a pro economic growth agenda agreed between the representatives of the business community and the Government to have -at the decisional level in competition issues- a more technical body, independent from the Government, and to adapt substantive provisions to the current competition law and policy developments. This reform has resulted in a more economic approach and the introduction of judiciary procedural standards to be performed by the new adjudicative body, the Competition Tribunal (TDLC).

The recent changes in Intellectual Property (IP) laws and institutions (years 2005, 2007 and 2008) have been motivated, mainly, by Chile's commitments assumed in International Trade Agreements, both multilaterally and bilaterally (*e.g.* Marrakesh Agreement establishing the WTO and several Free Trade Agreements), the latter particularly with some developed countries. These amendments have set up a modern Industrial Property Agency (the *Instituto Nacional de Propiedad Industrial*) in charge of the registration of patents, trademarks, industrial designs and models, and an appeals body (the *Tribunal de Propiedad Industrial*); these changes have also adapted the substantive provisions to the current developments in the field.[1]

Following the recent establishment of the new IP authorities in charge of these policies, there has been little interaction between them and the FNE. Nevertheless, it is unlikely that with the current institutional arrangements the enforcement of competition law in Chile result in innovation stifling, poor patent protection, and also, abuses or fraud to the patent's office are expected to be infrequent. In most cases, both policies work in parallel, yet exceptional cases reveal that some complementarities exist between both areas, one reinforcing the other. Only in a few recent competition cases it has been possible to identify some potential conflicts.

Interaction between the respective agencies occurs in the context of their common relationship with the Ministry of Economy. However, it is in the interest of the FNE, in the context of its advocacy role, to maintain close contact through a program of meetings and other promotion activities with Intellectual Property officers and authorities, to promote adequate co-ordination and enforcement in both areas.

2. Patents in Recent Competition Case-Law

In 2006 the international pharmaceutical company Novartis was sued before the Competition Tribunal (or TDLC) by the national pharmaceutical laboratory Recalcine. The latter claimed that Novartis had abused its right to petition by the submission of several claims before judicial and administrative bodies with the only purpose to raise entry barriers to the claimant's product and by these means, unlawfully

[1] When the ground for granting a compulsory license is an abuse of dominance through patent misuse, the compulsory licences system for patents requires a prior condemnatory decision of the Competition Tribunal.

protect its monopoly. Hence, the TDLC had to issue a decision on a typical 'sham litigation' case. In its interesting decision, the TDLC first held that the defendant had a dominant position in the market for 'Imatinib mesylate', a drug used for chronic-myeloid-leukemia disease. Then it held that, although the decision on each claim submitted by Novartis was within the field of competence of the requested body or authority, it was within the jurisdiction of the Competition Tribunal to decide whether the group of claims, as a whole, constituted an anticompetitive strategy against Recalcine's product, *i.e.*, a strategy aimed at preventing, restricting or hindering free competition or tending to produce such effects. Finally, the TDLC dismissed Recalcine's complaint founding its decision on the grounds that during the period of time the defendant had reasonable doubts about the composition of its rival's imported drug, it could not be concluded that the claims submitted by the defendant had the only purpose of preventing or retarding a competitor's entry, despite the fact that these claims did actually produce such effects. For that reason, the group of claims could not be considered unlawful and against competition law but a legitimate means of patent protection. The Supreme Court affirmed the TDLC's decision. (TDLC Ruling N° 46/2006).

In 2007 the TDLC issued a decision regarding the following conduct: The pharmaceutical company Sanofi sent three warning letters to its local rival, the pharmaceutical laboratory Tecnofarma, announcing future and potential judicial actions in case Tecnofarma decided to produce, import or sell a drug based on crystalline form 1 of "Clopidogrel". This is an antiplatelet agent often used in the treatment of coronary artery disease, peripheral vascular disease, and vascular brain disease, which patent was owned by Sanofi. The TDLC dismissed the allegation by Tecnofarma, that the sending of these warning letters was an anticompetitive conduct raising artificial entry barriers to a rival product. The TDLC considered the sending of the letters to be within the lawful limits of patent protection rights, while also stating that this conduct could not be considered as an entry barrier in breach of the competition law. The Supreme Court affirmed the TDLC decision (TDLC Ruling N° 52/2007).

Most of the competition/IP interface cases brought to the TDLC have not been related to patents but to trademarks.

3. Looking Forward

Interaction between competition and IP policies has been limited in the past, mainly confined to a small number of particular cases. Current advocacy efforts by the competition agency, the FNE, and the recent establishment of new IP authorities may promote a different trend.

In the meantime it seems clear that competition authorities, when faced with competition/IP cases, are willing to take into consideration dynamic efficiency factors. Potential co-ordination and convergence efforts may ensure that public and private decisions regarding IP rights, and particularly patents, are not aimed at facilitating either the granting of unduly market power (patents unlawfully obtained) or market power abuses.

CHINESE TAIPEI

1. Introduction

This submission is written by the Fair Trade Commission (hereinafter the "FTC") in consultation with the competent authority, the Intellectual Property Office (hereinafter the "IPO") under the Ministry of Economic Affairs. The written report, which was submitted by Chinese Taipei to the OECD "Competition Committee" meetings in October 2006 and that touched upon the issue of whether patent rights should be strengthened or not, will be further supplemented and updated in this report.

While the purpose of a patent system is to encourage innovation, the patent rights holders are obligated to bear social responsibilities. Conflicts, however, do not necessarily occur between whether or not the patent rights holders bear their social responsibilities and whether or not the patent rights themselves should be strengthened. Chinese Taipei does not have a predetermined position on whether patent rights should be strengthened or weakened in regard to this issue; this is typically decided on an issue-by-issue basis and by observing international trends when a patent system is developed.

In order to speedily ascertain the validity of the patent rights, the Patent Act is to be amended to strengthen the invalidation action procedure with respect to patents, including that the petitioner must ascertain the claims of his/her invalidation action by a declaration at the time of the invalidation action, and may not change or add claims. The petitioner could also limit an invalidation action to part of the claims. In addition, the correction made in the process of the invalidation action will be included for review and ratification and, within the scope of the said declaration, the patent office may, on the basis of its powers, review reasons and evidences that have not been submitted by the petitioner. Related amendments to the Patent Act will positively contribute to the strengthening of the patent rights.

In this report, Chinese Taipei will propose relevant viewpoints and practices with respect to the issues associated with pending patents, including standardisation, cross-licensing agreements, and how the competition agencies could collaborates with IP agencies.

2. Pending Patents

Since Article 40 of the Patent Act provides, "Where a person has received a written notification of the contents of an invention patent application from the applicant thereof after the laying-open of such patent application and continues to put the invention to practice for commercial purpose in the interim after such notification and prior to the publication, the applicant of the invention patent application may, after the publication of his/her invention patent application, make a claim against said person for an appropriate pecuniary compensation," a patent applicant is not allowed to exercise such a right to claim until the patent application is examined, approved, and then announced. Accordingly, at least in the case of unitary patent, the possibilities that a pending patent could be abused to the extent that is in violation of the competition law is minimised.

If a patent right holder exercises his/her rights by utilising a patent portfolio that includes pending patents, it is, in theory, indeed possible that the action of the patent right holder will prevent competitors from entering the market due to asymmetric information. Nevertheless, the concept of the "market" is defined through a product, and an examination of a patent in each country will not take into account market factors of an individual patent application in a "product." In other words, even if a product includes several

patents, to the patent office, each patent is still an independent case, and there is no special legal relationship between or among these patents.

While an individual pending patent does not easily cause anti-competitive concern, the patent office does not deal with the scope of the patent portfolios for the same or similar products. Therefore, a more possible way to prevent pending patents from causing anti-competitive effects is to ensure that there is co-ordination and co-operation between the patent authorities and competition authorities. This approach facilitates, through the exchange of information, the understanding of the scope of a patent portfolio and pending patents, as well as the determination of the issue as to whether a patent portfolio involves anti-competitive conduct. In the same way, this kind of pending patent that may possibly result in anti-competitive effects will be examined as a first priority by the patent office.

If the purpose of a patent application is merely an effort to gain a dominant position in negotiation, and as a matter of fact, an article which is to be patented, itself, does not have elements which are required for patenting, in theory, the applicant at this time shall, to the best of his/her ability, attempt to delay the time spent for the substantial examination of the article.

However, where a patent applicant, to the best of his/her ability, attempts to delay the time spent for the substantial examination of the article after the filing of the application for patenting the article, his/her action may also indicate that an attempt is being made to cause anti-competitive consequences. Nonetheless, there are many kinds of reasons that a patent applicant may have for delaying the time spent for the substantial examination of an article that he/she applies for patenting, and the causal relationship between these reasons and the anti-competitive manipulation will need the accumulation of enforcement experience to confirm such a relationship. Currently, no such cases have been detected in Chinese Taipei's patent practices.

2.1 Standardisation

Chinese Taipei has already paid attention to the international trend on patent and standard integration and, with respect to the discussion on the incorporation of patents in standards, the Bureau of Standards, Metrology & Inspection of the Ministry of Economic Affairs has already colleted the related information from other countries and has proceeded to study this issue.

With respect to the circumstance whereby an enterprise, which takes part in specification setting, uses the pending period to change the claims on a pending application so as to make them fit a standard that has just been approved by a standards body, Chinese Taipei currently still has no such cases.

After referring to the Standards Setting Organisations, Chinese Taipei plans to adopt the free, reasonable and non-discriminatory terms as well as the obligation of disclosure of information. Furthermore, the standard-setting process involves patent technology that is relevant to the disclosure of information, and not the invalidity of the patent itself.

2.2 Cross-licensing Agreements or Licensing Pools

The term "cross-licensing agreements" or "licensing pools" means that two or at least two persons who own different intellectual property rights license to each other or among themselves. In theory, this kind of licensing can integrate complementary technologies, reduce transaction costs (*e.g.*, royalties), eliminate patent barriers, and avoid infringement litigation, achieve technological expansion and, consequently, improve the effects of competition. On the other hand, if a licensing arrangement provides a mutual restraint of prices or outputs, or it becomes tool of collusion on prices or outputs for downstream manufacturers, it will possibly be regarded as an act that violates the competition law, provided that it does not help promote the efficiency of economic activities.

In order to deal with licensing cases, such as the licensing of patents, know-how, or a combination of the two, the FTC issued the "Guidelines on Technology Licensing Agreements Cases," to clarify the criteria for the enforcement of the Law and to help enterprises comply with the regulations to some extent.

Paragraph 6 (1) of the aforesaid Guidelines refers to "arrangements between parties to a licensing arrangement who are in a competitive relationship, in which through contract, agreement, or other form of mutual understanding they jointly determine the price of the goods employing the licensed technology, or restrict the quantities of goods, trading partners, trading regions, or areas of research and development, thus mutually restricting each other's business activities in a manner sufficient to influence the functions of the relevant market in violation of Articles of the Law." The rules could be regarded as the regulations governing the relevant conditions that constitute a concerted action that possibly results from patent pools.

The FTC is of the view that the protection of intellectual property rights should be built upon fair and reasonable competition rules and environments to maintain market operations. The enterprises' efforts in regard to research and innovation will be protected and encouraged through establishing markets trading order. Currently, the FTC is conducting research on the relationships among patent licensing agreements, patent pools, and the Fair Trade Act.

3. Collaborating with IP Agencies

Paragraph 2 of Article 72 of the Patent Act stipulates that in the absence of the conditions set forth in the preceding Paragraph, the competent authority may still, upon application, grant a compulsory license to an applicant to practice the patented invention in the event that the patentee has imposed restrictions on competition or has engaged in unfair competition, as confirmed by a judgment given by a court or a disposition made by the FTC. Thus, anticompetitive actions arising from patent licensing to a patent right holder could be corrected through intervention using administrative measures. In addition, compulsory licensing is the most useful remedy for dealing with anticompetitive practices involving restraints on patent rights.

On the basis of the aforesaid illustration, the degree of difficulty that will result from an anticompetitive practice in relation to a pending patent in Chinese Taipei is higher, and a patent examination does not include the item "market competition issue." Nevertheless, if a globally accepted doctrine does appear in the future, the exchange of information among agencies will not be difficult, and yet, the real difficulties shall be the following: (1) what kind of information needs to be exchanged; and (2) after the exchange of the information, which agencies are to make a decision that effectively prevents the abuse of patent rights.

With the current practice of law enforcement, Chinese Taipei still has not received cases that concern competition issues resulting from the patent-granting process. However, with the trend toward the development of economic activities and technology, the types of related cases and the involved laws become more complicated. In order to effectively resolve disputes over related cases, the FTC and the IPO or other governmental agencies need to interact closely, and it is still necessary for the FTC to advocate competition concepts in a timely manner.

In the future, the FTC will continue to actively take part in meetings of amendments to the Patent Act, and to hold workshops or conferences on the harmonisation of competition law and intellectual property rights law. The FTC will consult with the IPO, on a case-by-case basis, to provide professional opinions (such as patent content, and the reasonableness of licensing requirements) for reference. All of these ways will help the FTC grasp the background knowledge of similar cases, and improve the quality of the handling of patent cases.

COMPETITION POLICY AND INTELLECTUAL PROPERTY IN THE WTO: MORE GUIDANCE NEEDED?

Robert D. Anderson[*]

1. Introduction

Recognition of the legitimate role of competition policy vis-à-vis intellectual property rights (IPRs) and licensing practices is an important element of the overall balance embodied in the WTO Agreement on Trade-Related Intellectual Property Rights (TRIPS). The relevant provisions acknowledge that "licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse effects on trade and may impede the transfer and dissemination of technology" and stipulate that WTO Members "may adopt, consistently with the other provisions of this Agreement, appropriate measures to prevent or control" practices constituting "abuse[s] of intellectual property rights having an adverse effect on competition in the relevant market."[1] As examples of such practices, the Agreement refers to exclusive grantback conditions, conditions preventing challenges to validity and coercive package licensing.[2] These provisions reflect concerns regarding the potential anti-competitive effects of intellectual property rights protected under the Agreement that were expressed particularly by developing countries during the negotiation of the Agreement in the course of the Uruguay Round of multilateral trade negotiations.[3]

The competition-related provisions of the TRIPS Agreement, while representing an essential element of balance in the Agreement, also leave important questions unanswered. For example, they do not define

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[*] This paper has been prepared in the author's personal capacity. A version of the paper has been published in Josef Drexl, ed., Research Handbook on Intellectual Property and Competition Law (Edward Elgar, 2008)Counsellor, Intellectual Property Division, WTO Secretariat (responsible for government procurement and competition policy issues). E-mail address: robert.anderson@wto.org. Helpful discussions with Adrian Otten and Pierre Arhel, and comments provided by Andreas Heinemann on an earlier draft are gratefully acknowledged. Anna Müller assisted with the finalisation of the paper. The paper has been prepared strictly in the author's personal capacity. The views expressed must *not* be attributed to the WTO, its Secretariat, or any of its Member governments.

1 See the *Agreement on Trade-Related Intellectual Property Rights*, Article 40.2. In addition, Article 8.2 of the Agreement provides that "Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology." The scope and content of these provisions are discussed further, below.

2 Id., Article 40.2. There is no suggestion that this list is exhaustive; on the contrary, Article 40.2 is explicitly couched in non-exhaustive terms (*i.e.* the Agreement states only that such practices "may include" the practices mentioned).

3 See, for background and discussion, World Trade Organisation, "Special study on trade and competition policy," in *Annual Report of the World Trade Organisation for 1997*, Geneva: WTO, 1997, chapter IV; Robert D. Anderson, "Intellectual Property Rights, Competition Policy and International Trade: Reflections on the Work of the WTO Working Group on the Interaction between Trade and Competition Policy," in Thomas Cottier and Petros Mavroidis (eds.), *Intellectual Property: Trade, Competition and Sustainable Development*, Ann Arbour: University of Michigan Press, December 2002, chapter 17; and Frederick M. Abbott, "Are the Competition Rules in the WTO TRIPS Agreement Adequate?" *Journal of International Economic Law*, vol. 7(3), 2004, pp. 687-703.

the basis on which practices may be deemed to be anti-competitive – *i.e.* the evaluative standards to be employed. The full set of practices that may be deemed anti-competitive (beyond the three examples mentioned) is left undefined. The Agreement also provides little in the way of guidance regarding the remedies that may be adopted in particular cases, beyond making clear that any measures adopted must be consistent with other provisions of the Agreement.[4]

Whether the lack of guidance provided by the TRIPS Agreement regarding these questions is a problem can be debated. Frederick Abbott, for one, argues that the broad discretion for governments in the design and implementation of competition policies vis-à-vis intellectual property that results from the wording of the current provisions serves the best interests of developed and developing countries alike and, therefore, that no amendment to the Agreement or development of parallel rules on anti-competitive practices in relation to IP is warranted.[5]

However, even if no amendment to the TRIPS Agreement as such or development of parallel binding rules is deemed to be desirable or feasible in the current circumstances, there could be merit in a policy analysis and development exercise at the multilateral level to consider the relationship between competition policy and intellectual property rights. The question of possible guidelines – whether of a binding or non-binding nature – could be addressed in that context. Certainly, there are reasons for believing that there are costs associated with the dearth of guidance for WTO Member countries regarding the optimal application of competition policy in this area (see detailed discussion in Part III, below). In brief, the application of competition policy vis-à-vis intellectual property is one of the more complex and technically challenging sub-fields of such policy. In the absence of appropriate guidance, WTO Members lacking experience, particularly developing countries, may well find it difficult to implement appropriate enforcement policies in this area. In addition, as will be elaborated below, there are potential negative externalities or spillovers associated with differing national standards in this area. For example, remedies imposed in one jurisdiction may impinge on behaviour (and potentially on economic welfare) in other jurisdictions. A particularly acute example of this concern relates to situations in which remedies imposed in one jurisdiction require the sharing of proprietary information. In such cases, it may be difficult to prevent the information disclosed (or products manufactured using such information) from "leaking" across borders.[6]

To be sure, even if it is deemed desirable to provide additional guidance for WTO Members regarding these questions, it may not be possible to agree on appropriate standards to govern all practices in all situations. Although approaches to the competition policy-intellectual property interface in major developed jurisdictions have undergone a degree of convergence in recent years and a number of useful guidelines on national enforcement policies are available for reference,[7] there remain important residual

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4 Anderson, id.; see also Robert D. Anderson and Hannu Wager, "Human Rights, Development and the WTO: the Cases of Intellectual Property Rights and Competition Policy," *Journal of International Economic Law*, 9(3), September 2006, pp. 707-747.

5 Abbott, above note 3; see also Frederick M. Abbott, "The 'Rule of Reason' and the Right to Health: Integrating Human Rights and Competition Principles in the Context of TRIPS," in Frederick M. Abbott, Christine Breining-Kaufmann and Thomas Cottier, *International Trade and Human Rights: Foundations and Conceptual Issues* (World Trade Forum, Volume 5, 2005, Ann Arbour: University of Michigan Press, chapter 10, pp. 279-300. Abbott's position is discussed further, below.

6 See the discussion of remedies imposed in recent cases relating to practices of the Microsoft Corporation, below.

7 See *e.g.* US, Department of Justice and Federal Trade Commission, *Antitrust Guidelines on Intellectual Property Licensing* (US Government Printing Office: 1995; available at http://www.usdoj.gov/atr/public/guidelines/0558.htm); European Commission, *Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements* (2004; available at http://europa.eu/eur-lex/pri/en/oj/dat/2004/c

differences even as between the US and the European Community.[8] In the past, even greater divergences have been evident between developed and developing countries regarding issues in this area.[9] It is important, however, not to be defeatist regarding these differences and the consequent scope for development of policies that would enhance global welfare. Even if it is not possible to agree on standards to govern all anti-competitive practices relating to IP in all cases, there could well be gains from an exchange of views on issues in this area in the context of the multilateral trading system.

In addition to pertinent developments at the national level, any discussion of issues concerning the interface of intellectual property and competition policy in the WTO could build effectively on developments and discussions that have already taken place in various intergovernmental fora. The interface of competition policy and intellectual property rights has been an important topic of discussion, *inter alia*, in the OECD Committee on Competition Law Policy and the UNCTAD Intergovernmental Group of Experts on Competition Law and Policy.[10]

Experience in the WTO Working Group on the Interaction between Trade and Competition Policy - which was established at the Singapore Ministerial Conference in December 1996 and met regularly in the years from 1997 through 2004 but is currently "inactive" – is also, very much, of interest in this regard. The application of competition policy vis-à-vis intellectual property rights was an important focus of the Group in the initial years of its work.[11] As discussed in this chapter, the record of those discussions suggests that the state of international thinking has progressed since the more extreme divergences of the past and that there may be more scope than is commonly realised for further work on fostering common approaches among WTO Member countries in this area, centred around sound economic principles.

This chapter reflects on these questions and possibilities. The intention is *not* to provide a definitive answer to the question of what kind of guidance is needed or to take particular positions on current enforcement issues, but to illuminate the need for guidance and some of the issues that would need to be addressed. The overall perspective of the chapter is that, in the long run, there will clearly be a need for greater international co-ordination in this area. This reflects both the technical challenges for enforcement

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101/c_10120040427en00020042.pdf); Canada, Competition Bureau, *Intellectual Property Enforcement Guidelines* (Ottawa: 2000; available at http://strategis.ic.gc.ca/pics/ct/ipege.pdf); and Japan, Fair Trade Commission, *Guidelines for Patent and Know-How Licensing Agreements under the Anti-Monopoly Act* (1999; available at http://www.jftc.go.jp/e-page/legislation/ama/patentandknow-how.pdf) and *Guidelines on Standardisation and Patent Pool Arrangements* (2005; available at http://www.jftc.go.jp/e-page/legislation/ama/Patent_Pool.pdf).

8 See the discussion in Part III, below.

9 See J.P. Palmer and R.J. Aiello (1986). "International Technology Exchange: An Economic Analysis of Legal Proposals", in John J. Quinn, ed., *The International Legal Environment* (Toronto: University of Toronto Press for the Royal Commission on the Economic Union and Development Prospects for Canada).

10 See, in particular, OECD, Committee on Competition Law and Policy, *Competition Policy and Intellectual Property Rights* (DAFFE/CLP/(98)18; 21 December 1998; available at http://www.oecd.org/dataoecd/34/57/1920398.pdf) and UNCTAD, Intergovernmental Group of Experts on Competition Law and Policy, *Competition Policy and the Exercise of Intellectual Property Rights* (TD/B/COM.2/CLP/22/Rev. 1; 19 April 2002; available at http://www.archivioceradi.luiss.it/documenti/archivioceradi/osservatori/intellettuale/Gangi1.pdf). A useful summary of past UNCTAD work in this area is provided in Andreas Heinemann, "Intellectual Property Rights and Competition Policy: the Approach of the WTO Working Group on Trade and Competition," in Roger Zach (ed.), *Towards WTO Competition Rules* (Berne: Staempfli Publishers and the Hague: Kluwer Law International, 1999).

11 See *Report (1998) of the WTO Working Group on the Interaction between Trade and Competition Policy* (document WT/WGTCP/2 of 8 December 1998; available at http://docsonline.wto.org/DDFDocuments/t/WT/WGTCP/2.doc), Part C(III)(c).

policy and the potential negative spillovers from a lack of international co-ordination that are noted above. However, agreement on common standards will not be easy. In the short run, there is a need for renewed international dialogue and reflection on issues concerning the interface of competition policy and intellectual property. Such dialogue should include but not be limited to competition specialists and should take account of recent economic learning and lessons from national enforcement experience in addition to past discussions at the international level, including in the WTO. The scope for resulting guidance and whether such guidance would be of a voluntary nature or otherwise are questions that could be assessed in the scope of such discussions.

The remainder of the chapter is organised as follows. Part II outlines the existing competition policy-related provisions of the TRIPS Agreement, noting in particular the questions that these provisions leave unanswered and the significance of these questions. Part III develops the need for a further learning/policy development exercise in this area at the multilateral level, fleshing out the points noted above. Part IV sets out a number of particular issues on which an exchange of views/further international convergence would be desirable, noting the problems that can flow from differing national standards and approaches in this area. Part V reviews the discussions that took place on this topic in the early work of the WTO Working Group on the Interaction between Trade and Competition Policy, noting the main points of agreement between the participating Members. Part VI provides concluding remarks.

2. The Competition Policy Provisions of the Trips Agreement: Flexibility Provided and Questions Unanswered[12]

The area of intellectual property rights is an important example of a sphere in which the role of competition policy is already directly reflected in an existing WTO Agreement, the Agreement on Trade-Related Intellectual Property Rights (TRIPS).[13] At a broad level, Article 8.2 of the Agreement stipulates that:

> *"Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology."*

In the same spirit but focusing on the specific issue of licensing practices, Article 40.1 of the Agreement notes that:

> *"Members agree that some licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse effects on trade and may impede that transfer and dissemination of new technology."*

To address this concern, Article 40.2 recognises the right of Member governments to take measures to prevent anti-competitive abuses of intellectual property rights, provided that such measures are consistent with relevant provisions of the Agreement. Article 40.2 also contains a short illustrative list of practices which may be treated as abuses.[14] It should be noted that neither Article 8.2 nor Article 40.2 indicates that

12 See also Anderson, note 3 and Anderson and Wager, note 4.

13 Robert D. Anderson, "The Interface Between Competition Policy and Intellectual Property in the Context of the International Trading System," 1 *Journal of International Economic Law* (1998), 655–78; see also Robert D. Anderson and Peter Holmes, "Competition Policy and the Future of the Multilateral Trading System," 5 *Journal of International Economic Law*, 2002, 531–63.

14 These are exclusive grant-back conditions, conditions preventing challenges to validity and coercive package licensing.

specific practices *shall* be treated as abuses or specifies remedial measures that must be taken. In this sense, the competition provisions of the Agreement are permissive rather than mandatory.[15]

Article 40.3 of the Agreement provides that a Member considering action against an intellectual property owner that is a national or domiciliary of another Member can seek consultations with that Member. The latter Member is required to co-operate through the supply of publicly available non-confidential information of relevance, and of other information available to that Member, subject to domestic law and to the conclusion of mutually satisfactory agreements concerning the safeguarding of its confidentiality.

Competition policy considerations are also embodied in the TRIPS Agreement provisions relating to compulsory licensing in respect of patents. Article 31 of the Agreement sets out detailed conditions that must be respected in the granting by Member states of any compulsory licences. However, subparagraph (k) of Article 31 stipulates that Members are not obliged to apply certain of these conditions[16] in circumstances where the compulsory licence is granted "to remedy a practice determined after judicial or administrative process to be anti-competitive." In particular, requirements to show that a proposed user has made efforts to obtain voluntary authorisation from the right holder on reasonable terms and conditions and that such efforts have not been successful within a reasonable period of time are not applicable in these circumstances. In addition, the requirement (in Article 31 (f)) that authorisation for use of a patent under a compulsory licence be predominantly for the supply of the domestic market of the Member authorising such use can also be rendered inapplicable by such a finding.

The existence of the foregoing provisions reflects a concern articulated by some countries, especially developing countries, during the negotiation of the Agreement that the various commitments regarding standards of protection for intellectual property that are embodied therein be balanced by a recognition of the right of Members to take appropriate measures to address resulting abuses.[17] They provide broad discretion to WTO Member governments to implement competition policy remedies in regard to anti-competitive licensing and other practices. As such, they represent an important aspect of the flexibility that is built into the Agreement.

As pointed out in the Introduction to this chapter, however, the foregoing provisions leave unanswered a number of important questions. For example, they do not define the basis on which practices may be deemed to be anti-competitive – *i.e.* the evaluative standards to be employed. In addition, the full set of practices that may be deemed anti-competitive (beyond the three examples mentioned) is left undefined.[18] The Agreement also provides little in the way of guidance regarding the remedies that may be adopted in particular cases, beyond making clear that any measures adopted must be consistent with other provisions of the Agreement. Presumably, one implication of the latter limitation is that the remedy of compulsory licensing cannot be imposed other than in a manner consistent with the provisions of Article 31.

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15 See also Anderson, above note 3.

16 Specifically, those contained in paragraphs (b) and (f) of Article 31.

17 See discussion in World Trade Organisation 1997, above note 3, at pp. 72-74.

18 The latter might not be a problem if the evaluative criteria were specified. It is not uncommon, in domestic statutes, to provide an open-ended illustrative list of acts that are covered by a particular provision. However, in view of the lack of evaluative criteria/defining principles, the open-ended nature of the set of anti-competitive practices could result in arbitrary application of the authority provided in Article 40.2.

3. The Need for Further Guidance for WTO Members in this Area: Technical Challenges, Policy Legitimacy, Avoiding Overly Sweeping Approaches and International Co-Ordination Issues

As noted in the Introduction to this chapter, there may be advantages as well as disadvantages to the lack of guidance provided by the TRIPS Agreement on the matters identified in the preceding section. Abbott, in particular, argues that the broad discretion for governments in the design and implementation of competition policies vis-à-vis intellectual property that results from the wording of the current provisions serves the best interests of developed and developing countries alike.[19] However, even if no amendment to the TRIPS Agreement as such or development of parallel binding rules is deemed to be desirable or feasible in the current circumstances, there are reasons for believing that the current situation is not optimal, and that ways need to be found to provide additional guidance for WTO Members in this area. This part of the chapter considers these reasons. The form that further guidance would take – *i.e.* whether it might be of a binding or non-binding nature – is a question that could be addressed at a later stage.

3.1 Facilitating Desirable Competition Policy Interventions Vis-À-Vis Intellectual Property Licensing and Other Abuses

The application of competition policy vis-à-vis intellectual property is undeniably one of the more complex and technically challenging sub-fields of such policy. It has taken decades for the major jurisdictions applying competition policy in this area (principally the US, the EC, Japan and Canada) to develop the relevant analytical tools and approaches. Therefore, while respecting the right and possible interest of developing countries to follow different approaches, it is important to recognise the practical difficulties that they face in developing and putting into place any approach at all. This is particularly so in regard to anti-competitive practices that are transnational in nature (*e.g.* anti-competitive clauses in international licensing agreements). An obvious way forward is to examine the approaches that have been adopted in regimes with active policies in this area, in conjunction with relevant legal and economic literature, and to consider the adoption of policy approaches. A policy that simply preserves all options in this area may well be synonymous with a policy of non-intervention in regard to IP licensing and other abuses.

For greater precision, the competition authorities of the US, the EC, Canada and Japan have all adopted more or less comprehensive guidelines or other policy statements setting out the analytical and other approaches that they take toward licensing and other IP abuses.[20] Of course, each of these instruments has its own particularities reflecting its institutional and policy context. Of course, none of them purports to represent "the final word" on the optimal application of competition policy vis-à-vis intellectual property. In fact, these instruments are all subject to occasional updates/revision to take account of new learning and policy developments. They nonetheless represent highly useful syntheses of enforcement approaches that both provide guidance to firms and facilitate policy application by responsible officials. As such, they are an essential point of reference for international reflection and for jurisdictions with less experience in this area.

3.2 Ensuring Policy Legitimacy

Guidelines and similar policy statements serve purposes that go beyond the pedagogical. Apart from the technical challenges involved in effective competition policy interventions vis-à-vis licensing and other IP abuses, developing countries may hesitate to apply their competition policies in this area out of fear of

19 Abbott, above note 3.

20 See US, Department of Justice and Federal Trade Commission, above note 7; European Commission, above note 7; Canada, Competition Bureau, above note 7; and Japan, Fair Trade Commission, above note 7.

some kind of retaliation or other pressure.[21] A key benefit of international deliberations/a possible resulting guideline on enforcement issues in this area could be to confer legitimacy on (well-founded) interventions by developing country competition authorities with respect to anti-competitive abuses of IPRs.

3.3 Avoiding Overly Sweeping or Rigid Enforcement Approaches

Competition law and enforcement officials recognise that, in addition to under-enforcement of national competition policies vis-à-vis intellectual property rights, national economic welfare can be reduced by *over*-enforcement of such policies (*i.e.* excessively sweeping or *per se* condemnation of practices that can, in appropriate circumstances, be welfare-enhancing). In this regard, the position articulated in the Antitrust Guidelines for Intellectual Property Licensing promulgated by the US Department of Justice and Federal Trade Commission in 1995 is à propos:

> *Field-of-use, territorial, and other limitations on intellectual property licenses may serve pro-competitive 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.*[22]

Recognition of the potential pro-competitive benefits of licensing and other vertical practices is not an invention of contemporary competition agencies; it is a basic tenet of modern industrial organisation economics.[23]

The fact that licensing and other vertical practices can serve legitimate pro-competitive purposes cautions against excessive reliance on *per se* rules in regard to such practices. Recognising this, for the past two decades or more competition agencies have progressively eschewed such rules in favour of case-by-case or "rule of reason" treatment of such practices. Helping countries to avoid the self-inflicted harm caused by excessively rigid or sweeping rules is another possible benefit of a comparative assessment or policy development exercise encompassing these issues at the multilateral level.

3.4 Possible Negative Spillovers Resulting from Conflicting National Competition Policies vis-à-vis Intellectual Property[24]

Independent of the concerns noted above which relate to the costs of under or over-enforcement of competition policy vis-à-vis IPRs *at the national level*, there are potential externalities or spillovers associated with differing national standards in this area. In some cases, the spillovers will be positive in the

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21 This possibility is recognised by Abbott, above note 3.

22 US, Department of Justice and Federal Trade Commission, above note 10, Part 2.3. See also the thoughtful discussion of current enforcement issues in Deborah Platt Majoras (Chairman, US Federal Trade Commission), *A Government Perspective on IP and Antitrust Law* (Remarks to Conference on The IP Grab: The Struggle Between Intellectual Property Rights and Antitrust, American Antitrust Institute, Washington, D.C., June 21, 2006; available at http://www.ftc.gov/speeches/majoras/060621aai-ip.pdf).

23 See *e.g.* Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organisation* (Boston: Addison Wesley, 4th ed., 2005), chapter 12.

24 This section of the chapter draws on material in Robert D. Anderson and Alberto Heimler, *Abuse of Dominant Position: Enforcement Issues and Approaches for Developing Countries*, 2006, mimeo.

sense that measures taken to protect competition in one market will also benefit consumers in other markets and will have no adverse effects. However, negative spillovers can also arise. For example, remedies imposed in one jurisdiction may impinge on behaviour (and potentially on economic welfare) in other jurisdictions. A particularly acute example of this concern relates to situations in which remedies imposed in one jurisdiction require the sharing of proprietary information. In such cases, it may be difficult to prevent the information disclosed (or products manufactured using such information from "leaking" across borders.

The recent example of remedies implemented by various jurisdictions in respect of practices of the Microsoft corporation illustrates this concern. As is well known, in the course of a number of related cases the competition authorities of the United States and the European Communities have taken different positions - in some respects, only subtly different - regarding aspects of Microsoft's conduct. Although these cases have typically been framed in terms of abuse of dominant position or monopolisation rather than abusive licensing practices as such, the two areas are intimately connected.[25] In reviewing one recent EC decision, the Antitrust Division of the US Department of Justice issued a press release stating as follows:

> *"The U.S. experience tells us that the best antitrust remedies eliminate impediments to the healthy functioning of competitive markets without hindering successful competitors or imposing burdens on third parties, which may result from the EC's remedy. […] Sound antitrust policy must avoid chilling innovation and competition even by 'dominant' companies. A contrary approach risks protecting competitors, not competition, in ways that may ultimately harm innovation and the consumers that benefit from it. It is significant that the U.S. district court considered and rejected a... remedy [similar to that imposed by the EC] in the U.S. litigation."*[26]

As a further (perhaps even more stark) illustration, in early December 2005, the Fair Trade Commission of Korea made public an order requiring Microsoft to sell in Korea a version of its Windows operating system that includes neither Windows Media Player nor Windows Messenger functionality, requiring Microsoft to facilitate consumer downloads of third party media player and messenger products selected by the Commission, and prohibiting Microsoft from selling in Korea a version of its server software that includes Windows Media Services. In response, the Antitrust Division of the US Department of Justice issued a press release stating as follows:

> *"The Antitrust Division believes that Korea's remedy goes beyond what is necessary or appropriate to protect consumers, as it requires the removal of products that consumers may prefer. The Division continues to believe that imposing 'code removal' remedies that strip out functionality can ultimately harm innovation and the consumers that benefit from it. We had previously consulted with the Commission on its Microsoft case and encouraged the Commission to develop a balanced resolution that addressed its concerns without imposing unnecessary restrictions. Sound antitrust policy should protect competition, not competitors, and must avoid chilling innovation and competition even by 'dominant' companies."*[27]

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25 Cases of anti-competitive abuse of intellectual property rights will often be framed as abuses of a dominant position. See *e.g.* Canada, Competition Bureau, *Intellectual Property Enforcement Guidelines*, above note 7.

26 US, Department of Justice, Assistant Attorney-General for Antitrust, R. Hewitt Pate, *Issues Statement on the EC's Decision in its Microsoft Investigation* (Press Release, March 24, 2004; available at http://www.usdoj.gov/opa/pr/2004/March/04_at_184.htm).

27 US, Department of Justice, *Statement of Deputy Assistant Attorney-General J. Bruce McDonald Regarding Korean Fair Trade Commission's Decision in its Microsoft Case* (Press Release, December 7, 2005; available at http://www.usdoj.gov/atr/public/press_releases/2005/213562.htm).

Without taking any position on the substantive merits of the approaches taken in the three jurisdictions (the US, the EC and Korea), the foregoing exchanges illustrate clearly the potential for conflicts where different jurisdictions take different approaches in addressing transnational abuses of a dominant position (or abuses of intellectual property rights). A minimum requirement to avoid conflicts in such cases is adherence to the well-known principle of national treatment (one of the founding principles of the WTO), which broadly requires that countries not impose burdens on foreign producers or products that they do not impose on their own firms/products.[28] However, it is not clear that this, by itself, will answer all possible concerns, particularly where differences in the remedies imposed by particular jurisdictions result not from discrimination as such but from substantive differences in enforcement philosophies and approaches. There may, indeed, be no simple solution. Possibly, the answers can be found in further international discussions aimed at fostering intellectual consensus on the substantive issues involved. However, the potential for conflict in cases of abuses of intellectual property rights (or abuses of a dominant position involving intellectual property rights, particularly as a remedy) at least raises the possibility that something more than this - *i.e.* a system of international co-ordination, whether voluntary or otherwise - will eventually be needed.

4. Issues That Might be Addressed in a Possible International Guideline/Policy-Making Exercise

This section of the chapter sets out some specific issues on which international reflection and (possibly) co-ordination may be desirable. The list of issues derives from the guidelines that have been issued by the competition authorities of the major jurisdictions having experience in this area, and related enforcement experience and jurisprudence. Some of the issues noted concern the basic approach and coverage of competition law vis-à-vis intellectual property; others involve particular practices of current interest. Where possible, an effort is made to identify international co-ordination problems that may arise in relation to the issues and categories of conduct discussed in addition to the basic questions of enforcement policy. The potential international co-ordination problems identified (particularly in regard to the treatment of licensing issues, pooling, anti-competitive patent settlements and refusals to licence) reinforce the case for further discussion of these issues in appropriate international fora.

4.1 The Basic Role of Competition Policy vis-à-vis Intellectual Property Rights

A premise common to the guidelines of major jurisdictions with experience in this area is that, at least at a broad level, the protection of IPRs *per se* is *not* inconsistent with the goals of competition policy. Rather, if properly designed and administered, IPRs strengthen competition in the long run by providing incentives for the development and production of new products and production processes and by facilitating technology transfer.[29] Furthermore, in most (not all) cases, substitutes are available for products

28 The application of the principle of national treatment in the WTO varies as between relevant agreements. See "The Fundamental WTO Principles of Transparency and Non-discrimination" (WT/WGTCP/W/114, 14 April 1999, available at http://docsonline.wto.org/DDFDocuments/t/WT/WGTCP/W114.DOC).

29 The Antitrust Guidelines on Intellectual Property Licensing of the US Department of Justice and Federal Trade Commission describe the basic relationship between intellectual property and competition law as follows: "The intellectual property laws and the antitrust laws share the common purpose of promoting innovation and enhancing consumer welfare. 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

that are protected by intellectual property rights. This implies that the mere existence of intellectual property rights, by itself, should not be seen as proof of the existence of market power.[30] The latter view has now been adopted in US Supreme Court jurisprudence (see *Illinois Tool Works, Inc. v. Independent Ink, Inc*., 126 S. Ct. 1281 (2006)) in addition to relevant enforcement guidelines.[31]

Notwithstanding this overall relationship of complementarity, experience has made clear that IPRs can indeed give rise to significant market power in particular cases and that the exercise of such rights can conflict with the content and/or the objectives of competition law in a variety of ways. Four basic categories of practices which can and do give rise to conflicts with competition law in particular cases are the following: (i) the *acquisition* of IPRs, for example through mergers or simply the assignment of IPRs; (ii) *technology licensing arrangements* (whether domestic or international); (iii) co-operative arrangements among innovating firms, including *patent pools*; and (iv) *anti-competitive settlements in patent infringement cases* that deter entry by generic competitors. These specific aspects of competition law enforcement would constitute important elements of any international policy development exercise/guideline in this area and are discussed further below. Consideration is also given to an issue on which there is no international consensus – namely the treatment of refusals to licence – and to the transcending importance of competition advocacy.

4.2 Competition Issues Regarding the Acquisition of Intellectual Property Rights

An important "threshold" issue that could be addressed in an international guideline or policy-making exercise concerns the basic applicability of competition law to acquisitions of intellectual property rights. Intellectual property rights may be acquired either by themselves or as a consequence of a merger of corporate entities owning such rights. It is of critical importance that acquisitions of intellectual property rights, like other forms of property, be subject to the constraints of competition law. This principle is recognised in the guidelines of major jurisdictions with active enforcement programs in this area; yet it has sometimes been resisted by intellectual property authorities and the courts.[32]

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existing or new ways of serving consumers." US Department of Justice and Federal Trade Commission, *Antitrust Guidelines on Intellectual Property Licensing*, above note 7, section 1.0.

30 Robert D. Anderson and Nancy Gallini, "Introduction to the Issues," in Robert D. Anderson and Nancy Gallini, eds., *Competition Policy and Intellectual Property Rights in the Knowledge-based Economy* (University of Calgary Press for the Industry Canada Research Series, 1998).

31 In the past, competition law in the US was guided by a presumption that the mere existence of patents or copyrights gives rise to the existence of market power, which in turn was an important threshold condition for the application of '*per se* rules' (*i.e.* rules embodying a blanket prohibition of relevant practices) in regard to practices such as tying arrangements. See *Jefferson Parish Hospital District No. 2 v. Hyde*, 466 U.S. 2 (U.S. Supreme Court), and past precedents cited therein. However, economic analysis and Guidelines adopted by the US Department of Justice and Federal Trade Commission in 1995 called this view into question, pointing out the availability of substitutes for many protected works or technologies. Acceding to this approach, the US Supreme Court, in its decision in *Illinois Tool Works, Inc. v. Independent Ink, Inc*., struck down the old presumption, accepting the conclusion that patents do not necessarily confer market power.

32 Recently, the Canadian Competition Bureau found it necessary to make an intervention in a case before the Federal Court of Appeal, *Apotex Inc.* v. *Eli Lilly and Company*, A-579-04, 2005 CAF 361, on the question of whether the assignment of a patent could constitute an agreement or arrangement to lessen competition unduly, contrary to the conspiracy provision of the Canadian *Competition Act*. In its decision, the Court adopted the Bureau's position, holding that Canada's patent legislation "does not immunise an agreement to assign a patent from section 45 of the *Competition Act* when the assignment increases the assignee's market power in excess of that inherent in the patent rights assigned." See, for details and further background, Sheridan Scott (Commission of Competition, Canada), *Competition Law and Intellectual*

4.3 The Treatment of Licensing and Related Practices

The treatment of licensing practices is a central issue at the interface of competition law and intellectual property rights. Licensing practices that may, in particular cases, have anti-competitive effects include grant-backs, exclusive dealing requirements, tie-ins, territorial market limitations, field-of-use restrictions and price maintenance clauses. The overall trend in competition law jurisprudence internationally is to treat such practices on a case-by-case or 'rule of reason' basis.[33] As noted above, economic learning is supportive of such an approach in that it makes clear that these practices can, at least in some circumstances, serve legitimate pro-competitive functions.[34]

Under this approach, licensing arrangements are assessed on the basis of factors such as the following:

- The extent and availability of substitutes for the products and (existing or future) technologies in question (a basic determinant of market power).
- Implications of the arrangements in question for market power, co-ordination of pricing or output, and foreclosure of access to inputs.
- The extent to which they impose exclusivity.
- The extent of rivalry and the pace of innovation in the markets affected.
- Possible efficiencies resulting from the arrangement.[35]

A case-by-case approach to the treatment of licensing practices may strike some as unduly permissive or lenient.[36] In the past, some developing countries have advocated a stricter approach. An unduly strict or *per se* approach is likely, however, to be self-defeating. Sweeping prohibition of restrictive practices in international licensing agreements would raise the costs and/or reduce the incentives for technology owners to enter into voluntary arrangements that are generally pro-competitive and are an important vehicle for international technology transfer. This does *not*, however, imply that restrictive licensing arrangements should be immune from scrutiny; rather, the suggestion is simply that such scrutiny should be carried out using the market power and other screens and tests that are suggested by relevant economic literature and case experience.[37]

Property Law: Getting the Balance 'Just Right' (Notes for an Address to the University of Victoria Faculty of Law International Intellectual Property Law Symposium, July 15, 2006).

33 There are, nonetheless, important residual differences in the treatment of licensing practices among jurisdictions, perhaps particularly between the US and the European Community.

34 See text accompanying footnote 23, above. The central importance of economic learning as the basis for sound competition rules and related analysis is stressed in William E. Kovacic, "The modern evolution of U.S. competition policy enforcement norms," *Antitrust Law Journal*, 2004, 71(2): 377–478.

35 See also Anderson and Heimler, above note 24.

36 Abbott, in particular, emphasises that, in his view, section 40 of the TRIPS Agreement permits *per se* prohibition of licensing practices. Abbott, above note 3.

37 See, for further discussion, US Department of Justice and Federal Trade Commission, above note 7; and the various essays in Robert D. Anderson and Nancy T. Gallini, *Competition Policy and Intellectual Property Rights in the Knowledge-based Economy*, above note 30.

Where licensing arrangements are international in scope, the application of competition law in this area can clearly give rise to international co-ordination problems. In the absence of "comity" or similar considerations, where a particular licensing arrangement is subject to the competition laws of two or more jurisdictions, the arrangement could be deemed illegal under laws of the jurisdiction taking the "strictest" approach notwithstanding that it would be tolerated or even deemed desirable under the approach of the other jurisdiction.

4.4 Issues Concerning Patent Thickets and Pooling

Another important issue meriting attention in any international policy development exercise or guideline is that of patent thickets and pooling. Patent thickets are situations in which an overlapping set of patent rights requires firms seeking to commercialise new technology to obtain licenses from multiple patentees. For example, a single semi-conductor product can be potentially subject to hundreds or *thousands* of patents. The impact of patent thickets is heightened by the risk of "hold-ups" – that is, the danger that new products will inadvertently infringe on patents issued after the products were designed.[38]

Patent pools and/or cross-licensing can be an efficient response to these phenomena in many cases, although they can also raise antitrust concerns. A key insight, in this regard, is that pools combining complementary patents are generally efficiency-enhancing; whereas pools comprised of substitute patents can indeed create market power and are a legitimate focus of antitrust concern.[39] Why might it eventually prove necessary to treat the issue of patent thickets and pooling in an international guideline or policy development exercise, as opposed to merely addressing it at the national level? The answer is that pools raise, potentially in acute form, the international co-ordination issues flagged above. If particular pools or cross-licensing arrangements are permitted in one jurisdiction but not in another, spillovers are likely to arise.

4.5 The Treatment of Patent Settlements

Another important issue that is highlighted by recent enforcement experience in developed jurisdictions concerns anti-competitive "settlements" in patent infringement cases that thwart entry by generic competitors. This possibility is likely to be of particular concern in situations where public policy seeks to facilitate entry by generic competitors. As Majoras explains, under the relevant US legislation:

> *"In nearly any case in which generic entry is contemplated, the profit that the generic anticipates will be much less than the profit the brand-name drug company would make from the same sales. Consequently, it will often be more profitable for the branded manufacturer to buy off generics."*[40]

Of course, "buying off" potential generic competitors is likely to be strongly contrary to the interests of consumers.

As part of the global response to current public health emergencies, recently the TRIPS Agreement has been amended to facilitate generic production of pharmaceutical medicines for countries affected by such crises.[41] It is important that this policy not be undercut by anti-competitive settlements between

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38 Majoras, above note 22.

39 Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting*, March 2000, available on the internet at http://www.nber.org/~confer/2000/ipes00/shapiro.pdf.

40 Majoras, above note 22.

41 See, for details, Anderson and Wager, above note 4.

brand-name and generic drug companies. Accordingly, this issue could be an important focus of international deliberations regarding the interface of competition policy and intellectual property.

4.6 Refusals to License

An additional issue on which it may be difficult to achieve full convergence is that of refusals to license intellectual property rights. In the European Community, the *Magill TV*[42] and *IMS Health*[43] cases have made clear that such refusals can indeed violate relevant competition law provisions, depending on the circumstances and, in particular, on whether they impede the development of new products. On the other hand, in the US, there is a strong or, in the view of many commentators, absolute presumption that patentholders are entitled to refuse to license their patented inventions (the situation is less clear with respect to copyright).[44] Independent of views concerning which side in this debate is "right", the treatment of refusals clearly poses stark problems of international policy co-ordination: where technology is made available by compulsory licence in one jurisdiction (despite possible opposing views in another jurisdiction), it will be difficult to prevent it from "leaking" across borders.[45]

4.7 Competition Advocacy in Relation to Intellectual Property Rights

Recent experience also underlines the importance of advocacy activities by competition agencies aimed at ensuring that patents and other forms of intellectual property rights are not awarded unnecessarily or cast in overly broad terms.[46] Such activities can include public education activities, studies and research undertaken to document the need for market-opening measures, formal appearances before legislative committees or other government bodies in public proceedings, or behind-the-scenes lobbying within government.[47] An important and highly pertinent example of a competition policy advocacy activity in the specific area of intellectual property is the 2003 report of the US Federal Trade Commission entitled *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*.[48] This report provides a penetrating discussion of the harmful effects on competition that can flow from the awarding of unjustified patents (or patents that are cast in overly broad terms), and puts forward a range of proposals to address these problems. Affirming the importance of such activities in relation to intellectual property

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42 *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission (Magill)* [1995] ECR 743, joined cases C-241/91P and C-242/91P.

43 *IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG*, [2004] ECR I-5039, case C-481/01P.

44 See *e.g.* Makan Delrahim [then US Deputy Assistant Attorney-General for Antitrust], *Forcing Firms to Share the Sandbox: Compulsory Licensing of Intellectual Property Rights and Antitrust* (Remarks before the British Institute of International and Comparative Law, London, UK, 2004; available at http://www.usdoj.gov/atr/public/speeches/203627.htm).

45 Such concerns would appear to underlie the concerns voiced by the US Department of Justice in regard to the remedy imposed by the Korea Fair Trade Commission in its recent Microsoft decision, referred to in note 27 above and accompanying text.

46 Majoras, note 22; see also William Kovacic, "The Future of US Competition Policy," *The Antitrust Source*, September 2004 (available at http://www.ftc.gov/speeches/kovacic/kovacicreplytokolasky.pdf).

47 See, generally, Robert D. Anderson and Frédéric Jenny, "Competition Policy, Economic Development and the Possible Role of a Multilateral Framework on Competition Policy: Insights from the WTO Working Group on Trade and Competition Policy," in Erlinda Medalla, ed., *Competition Policy in East Asia*, Routledge/Curzon, chapter 4.

48 US Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, 2003, available at http://www.ftc.gov/os/2003/10/innovationrpt.pdf.

could be another valuable contribution of a international guideline or policy development exercise relating to competition policy and intellectual property at the multilateral level.[49]

5. Past Discussions In The WTO Working Group On The Interaction Between Trade And Competition Policy As A Point Of Reference For Further Policy Development Work At The International Level[50]

At the 1996 Singapore Ministerial Conference, WTO Ministers established a Working Group on the Interaction between Trade and Competition Policy (WGTCP). The mandate given to the Working Group at that time was to consider issues raised by Members relating to the interaction of the two policy fields, including anti-competitive practices, and to identify any areas that might merit further consideration in the WTO framework.[51] Between 1997 and 2003, a wide-ranging examination of the relationships between trade and competition policy, and between competition policy and economic development, was carried out in the WTO Working Group. As is well known, the exploratory work of the Working Group led eventually to a protracted debate, in the Group and outside, of the merits and demerits of a possible "multilateral framework on competition policy." At the WTO Ministerial Conference in Cancun, Mexico, in September 2003, it was not possible to reach a consensus on the launching of negotiations on a multilateral framework on competition policy as had been proposed by the European Union and various other countries in the run-up to the conference. Subsequently, the General Council of the WTO decided, as part of the so-called "July package" of 2004, that *no further work would be undertaken toward negotiations on competition policy* (or on the separate issues of investment and transparency in government procurement) *for the duration of the Doha Round*.[52]

Notwithstanding the failure thus far to reach agreement on the launching of negotiations, the work of the Working Group on the Interaction between Trade and Competition Policy remains an important point of reference for discussions on international competition policy. For most WTO Members, the opposition to negotiations did not reflect a view that the issue of competition policy had no relevance to the goals of the multilateral trading system. Indeed, without yielding a consensus on negotiations, preparatory work in the WTO Working Group catalogued a variety of ways in which anti-competitive practices can adversely impinge on the objectives of the system, and a number of possible synergies between the system and the work of national competition authorities.[53] Even participants who have been openly sceptical of the desirability of negotiations on competition policy in the WTO have noted the usefulness of the work done in the Working Group in promoting positive interest in the subject and wider understanding of competition policy concepts and tools.[54]

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49 The importance of competition advocacy activities vis-à-vis intellectual property policy is also emphasised in Canada's *Intellectual Property Enforcement Guidelines*, cited at above note 7.

50 This section of the paper draws on material in Anderson, above note 3. A complementary discussion is provided in Heinemann, above note 10.

51 *Singapore Ministerial Declaration*, Paragraph 20, available at http://www.wto.org/English/thewto_e/minist_e/min96_e/wtodec_e.htm.

52 WT/L/579, 2 August 2004, available at http://www.wto.org/english/tratop_e/dda_e/draft_text_gc_dg_31july04_e.htm. See, for related discussion, Anderson and Wager, above note 4 and Anderson and Jenny, above note 47.

53 See, for details, the Annual Reports of the WTO Working Group on the Interaction between Trade and Competition Policy to the General Council, 1998-2003, Geneva: WTO, WT/WGTCP/2-8, available at http://www.wto.org/english/tratop_e/comp_e/wgtcp_docs_e.htm.

54 For example, William Kolasky, then US Deputy Assistant Attorney-General for Antitrust and by no means an advocate of WTO competition rules, has stated as follows: "Over the years, we have been told that our

The subject of the relationship between intellectual property rights and competition policy was an important focus of the WTO Working Group in the early years of its work. The debates on this issue contain many elements relevant to possible further work in this subject-area at the multilateral level. For example, the discussion took as a point of departure the recognition that competition policy can be an important factor in balancing the rights of producers under intellectual property legislation, and in counteracting particular abuses thereof. The debate recognised both the costs entailed by overly strict enforcement policies and regulations in the area of technology licensing and the dangers of an overly lax approach. The Working Group also took note of the evolution that has taken place in the enforcement policies of WTO Members with experience in this area, and attached importance to this as a basis for further analysis.[55]

Some additional highlights of the Working Group's deliberations on this subject are as follows:

- There was wide acknowledgement that competition laws are necessary to prevent abusive practices and ensure that interfirm rivalry is not restricted to an extent beyond that intended by the intellectual property laws, and thereby that the market assigns a fair and efficient value to such property.[56]

- The discussion in the Working Group recognised that the availability of substitutes for goods and technologies covered by IPRs is an empirical question to be determined on a case-by-case basis.[57] As noted above, this is a base-line assumption of economics-based approaches to antitrust analysis in this area.[58] Further, even if the intellectual property right concerned generates market power, the right holder's behaviour might not necessarily constitute an abuse of a dominance.

- There was a general recognition that licensing arrangements are normally pro-competitive and are an important vehicle for technology transfer. Where an individual licensing practice needs to be examined, this should normally be done on a case-by-case or "rule of reason" basis by which the pro-competitive benefits are weighed against anti-competitive effects.[59]

- Consistent with the above, the point was made that the proper application of competition law should avoid both excessively stringent enforcement approaches, which can lessen innovation, and the weak or ineffective application of such law, leading to the abuse of market power. Either approach can have an adverse effect on output as well as an inhibiting effect on trade.[60]

WTO papers - dealing with issues like technical assistance, building a culture of competition, and establishing antitrust priorities - have been of enormous help to countries that are in the process of establishing an antitrust regime." William J. Kolasky, *Global Competition Convergence and Co-operation: Looking Back and Looking Ahead*, Remarks to the American Bar Association Fall Forum, Washington, D.C., 7 November 2002.

55 See, for a more comprehensive discussion, Anderson, above note 3.

56 *Report (1998) of the WTO Working Group on the Interaction between Trade and Competition Policy*, above note 11, paragraph 113.

57 *Report (1998) of the WTO Working Group on the Interaction between Trade and Competition Policy*, above note 11, paragraph 115.

58 See text accompanying notes 30 and 31, above.

59 *Report (1998) of the WTO Working Group on the Interaction between Trade and Competition Policy*, above note 11, paragraph 116.

60 *Report (1998) of the WTO Working Group on the Interaction between Trade and Competition Policy*, above note 11, paragraph 117.

- The view was also expressed that more attention should be paid to ensuring that the intellectual property rights themselves are underpinned by sound competition principles and that they promote global welfare. Over-protection of intellectual property rights can contribute to the entrenchment of horizontal and vertical restraints, for example through patent pooling among competitors and the restriction of parallel imports. Some Members suggested, further, that future negotiations in the area of intellectual property rights should give equal weight to recognising the risks of both under- and over-protection of intellectual property rights. Under this approach, advocates of higher levels of protection would be required to demonstrate empirically that the changes they proposed are likely to increase global welfare.[61]

- The point was made that the TRIPS Agreement itself reflects the view that regimes for the protection of intellectual property rights should be balanced by safeguards intended to restrain anti-competitive practices involving the use of intellectual property rights. Some Members stated explicitly that the relevant provisions of TRIPS provide insufficient guidance on the practices that should be treated as abuses and the remedies that would be appropriate, and that more guidance in this area would be useful.[62]

In sum, the discussion of the interface between competition policy and intellectual property rights in the WTO Working Group on the Interaction between Trade and Competition Policy was both wide-ranging and penetrating. The discussion delved into matters such as the objectives of intellectual property laws and their relation to those of competition policy; the potential efficiency benefits of "restrictive" licensing arrangements; the evolution of Member states' competition enforcement policies in this area and the reasons for such evolution; and the implications for economic welfare of the practice of international market segmentation through intellectual property rights. In key respects, the discussion in the Working Group paralleled the evolution of scholarly thinking in this area. As such, it may provide more of a basis for further work in this area than has hitherto been recognised.[63]

6. Concluding Remarks

Recognition of the legitimate role of competition policy vis-à-vis intellectual property rights (IPRs) and licensing practices is an important element of the overall balance embodied in the WTO Agreement on Trade-Related Intellectual Property Rights (TRIPS). The relevant provisions reflect concerns regarding the potential anti-competitive effects of intellectual property rights protected under the Agreement that were expressed particularly by developing countries during the negotiation of the Agreement in the course of the Uruguay Round of multilateral trade negotiations.

The competition-related provisions of the TRIPS Agreement, while representing an essential element of balance in the Agreement, also leave important questions unanswered. For example, they do not define the basis on which practices may be deemed to be anti-competitive – *i.e.* the evaluative standards to be employed. Consequently, the full set of practices that may be deemed anti-competitive (beyond the three examples mentioned) is left undefined. The Agreement also provides little in the way of guidance regarding the remedies that may be adopted in particular cases, beyond making clear that any measures adopted must be consistent with other provisions of the Agreement. These gaps heighten the technical challenges for WTO Members in putting the provisions to good use and also raise potential international

61 *Report (1998) of the WTO Working Group on the Interaction between Trade and Competition Policy*, above note 11, paragraph 118.

62 *Report (1998) of the WTO Working Group on the Interaction between Trade and Competition Policy*, above note 11, paragraph 119.

63 See, for a more comprehensive discussion, Anderson, above note 3.

co-ordination problems. For example, remedies imposed in one jurisdiction may impinge or be felt to impinge on behaviour and on economic welfare in other jurisdictions. The potential for such problems has already been seen in international tensions relating to remedies imposed in the various *Microsoft* cases. Even if no amendment to the TRIPS Agreement as such or development of parallel binding rules is deemed to be called for to address these issues, there could be merit in a policy analysis and development exercise at the multilateral level to consider the relationship between competition policy and intellectual property rights.

Of course, even if it is deemed desirable to provide additional guidance for WTO Members regarding these questions, it may not be possible to agree on appropriate standards to govern all practices in all situations. Although approaches to the competition policy-intellectual property interface in major developed jurisdictions have undergone a degree of convergence in recent years, there remain important residual differences particularly as between the US and the European Community. It is important, however, not to be defeatist regarding these differences and the consequent scope for development of policies that would enhance global welfare. Even if it is not possible to agree on standards to govern all anti-competitive practices relating to IP in all cases, there could well be gains from a further exchange of views on issues in this area, in an appropriate international forum.

Experience in the WTO Working Group on the Interaction between Trade and Competition Policy is of interest in this regard. The application of competition policy vis-à-vis intellectual property rights was an important focus of the Group in the initial years of its work. As discussed in this chapter, the record of those discussions suggests that the state of international thinking has progressed since the more extreme divergences of the past and that there may be more scope than is commonly realised for further work on fostering common approaches among WTO Member countries in this area, centred around sound economic principles.

In any event, for all the reasons discussed in this paper, it seems likely that issues at the interface of intellectual property rights and competition policy will be a growing source of interest and possible international tensions in the years to come. Consequently, what today may seem impossible (*i.e.* a renewed discussion of these issues in the WTO) might yet come to pass.

BIAC

1. The Relationship between Competition Law and Intellectual Property Rights

BIAC appreciates the opportunity to provide its views on the appropriate application of competition laws to issues concerning intellectual property rights, particularly patents. This submission builds on the statements in BIAC's October 18, 2006 position paper on Competition, Patents and Innovation.

Competition authorities almost uniformly recognise that antitrust and intellectual property are complementary areas of law and that each play an essential role in encouraging innovation and dynamic competition. Dynamic competition is driven by the introduction of new products and technologies that strike at the foundations of existing markets.[1] The antitrust laws drive innovation and dynamic competition by encouraging firms to compete with rivals and succeed in the marketplace through the development of new and improved products and production methods.[2] The intellectual property laws create incentives for innovation by enabling firms to appropriate the returns from investments in research and development.[3]

As stated by the United States Depart of Justice and Federal Trade Commission:

> *Over the past several decades, antitrust enforcers and courts have come to recognise that intellectual property laws and antitrust laws share the same fundamental goals of enhancing consumer welfare and promoting innovation. This recognition signalled a significant shift from the view that prevailed earlier in the twentieth century, when the goals of antitrust and intellectual property were viewed as incompatible: intellectual property laws grant of exclusivity was seen as creating monopolies that were in tension with the antitrust law's attack on monopoly power. Such generalisations are relegated to the past.*[4]

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1 See *e.g.* Gregory Werden, *Network Effects and Conditions of Entry: Lessons from the Microsoft Case*, 69 Antitrust L.J. 87, 91 (2001), quoting Joseph Schumpeter, *Capitalism, Socialism and Democracy* ch. 7 (3d ed. 1950). Schumpeter called this form of competition "the process of creative destruction."

2 Jonathan Baker, "Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation" *74 Antitrust L.J.* 575 (2007).

3 *Commission Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements* ("EC Technology Transfer Guidelines"), 2004 O.J. (C101) 2, para. 7; see also Canadian Competition Bureau Intellectual Property Guidelines ("Canadian IPEGs"), p. 1, available at http://strategis. ic.gc.ca/pics/ct/ipege.pdf; United States Department of Justice and the Federal Trade Commission, *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition* (Apr. 2007) ("U.S. IP Report"), p. 1, available at http://www.usdoj.gov/atr/public/hearings/ip/222655.pdf.

4 U.S. IP Report, p. 1.

Both the European Commission and Canadian Competition Bureau also recognise that the antitrust and intellectual property laws share the common goal of encouraging competition.[5]

Competition policy should not create incremental uncertainty with respect to the scope or enforceability of intellectual property rights. Uncertainty will deter firms from making efficient investments in the development of new technologies and will ultimately depress both the development and dissemination of intellectual property.[6]

As with other forms of property, market power does not necessarily arise from the mere ownership of intellectual property. In its discussion paper on Article 82, the European Commission concludes that intellectual property rights "do not as such confer dominance on the holder. The impact of intellectual property rights on expansion and entry depends on the nature and actual strength of the intellectual property held by the allegedly dominant undertaking."[7] Similarly, the Canadian Competition Bureau explains, "the right to exclude others from using the [patented] product or process does not necessarily grant the owner market power. It is only after it has defined the relevant market and examined factors such as concentration, entry barriers and technological change that the Bureau can conclude whether an owner of a valid IP right possesses market power."[8] The United States Supreme Court has expressly held that "a patent does not necessarily confer market power upon the patentee."[9]

Competition policy should treat intellectual property the same as any other form of tangible or intangible property. The U.S. Department of Justice and Federal Trade Commission have stated that "[t]he 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."[10]

In some cases, a patentee may possess dominance within a market, but that fact alone should not create concerns under competition law. "As with any other tangible or intangible asset that enables its owner to obtain significant *supra*competitive 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] To the contrary, the acquisition of market power through the introduction of new products or production methods is the essence of dynamic competition. Even a dominant firm should not

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5 EC Technology Transfer Guidelines, para. 7 ("Indeed, both bodies of law share the same basic objective of promoting consumer welfare and an efficient allocation of resources."); *see also* Canadian IPEGs, p. 1, ("IP laws and competition laws are two complementary instruments of government policy that promote an efficient economy.").

6 Canadian IPEGs, p. 5, para. 3.1.

7 European Commission, DG Competition Discussion Paper on the Application of Article 82 to Exclusionary Abuses, (Dec. 2005) para. 40, *available at* http://ec.europa.eu/competition/antitrust/art82/discpaper2005.pdf.

8 Canadian IPEGs, p. 6, para. 4.1.

9 *Illinois Tool Works, Inc. v. Independent Ink, Inc.*, 546 U.S. 28, 45-46 (2006) ("Today, we reach the same conclusion…"); U.S. Department of Justice and Federal Trade Commission, Antitrust Guidelines for the Licensing of Intellectual Property (Apr. 6, 1995) ("U.S. Licensing Guidelines"), p. 4, para. 2.2, available at http://www.usdoj.gov/atr/public/guidelines/0558.pdf ("The Agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner."); and Canadian IPEGs, p. 6, para. 4.1 ("…the right to exclude others from using the product or process does not necessarily grant the owner market power.").

10 U.S. Licensing Guidelines, p. 3, para. 2.1.

11 U.S. Licensing Guidelines, p. 4, Sect. 2.2, *citing United States v. Grinnell Corp.*, 383 U.S. 563, 571 (1966).

violate the antitrust laws absent "anti-competitive conduct that creates, enhances or maintains market power."[12]

Patents play a particularly important role in driving innovation in certain markets, such as the pharmaceutical sector, where research and development is costly, regulatory hurdles are extremely high, and market success is highly uncertain. Pharmaceutical companies typically suffer many failures relative to each market success. At the same time, the infrequent successes often generate extraordinary consumer benefits that often extend well beyond the life of the patent period. Absent the extraordinary profits that attach to these rare successes, the incentives to take extraordinary risks would be substantially diminished. Competition agencies too often, however, focus on the *supra*-competitive profits – which are relatively easy to quantify – without due analysis and measurement of the related consumer benefits. Thus, it is very important that competition policy not discourage pharmaceutical firms from investing in new product development by undermining patent protections or inhibiting them from taking action against unlawful infringement.

In this regard, BIAC is concerned by the European Commission's characterisations and predisposition with respect to a number of legitimate patent-related activities in its November 2008 Pharmaceutical Sector Inquiry.[13] In particular, the Commission adopts a critical tone with respect to pharma companies filing patent applications, pursuing infringement actions, and entering into settlement agreements that in some cases may delay generic entry[14] without apparently giving sufficient consideration to the fact that no significant patent portfolio can be achieved without very significant R&D investment in this field. The report provides no evidence to suggest that in the aggregate these procedures amount to anything more than the legitimate efforts of originator companies to protect their valuable intellectual property against appropriation by imitators. Moreover, the Commission assumes net competitive harm and fails to address, let alone measure the potentially significant impact on future investments, particularly in add-on development that can often result in significant improvements and the reduction of side-effects. BIAC thus urges the European Commission against adopting competition policies that restrict these legitimate practices.

2. Competition Policy towards Unconditional Unilateral Refusals to Deal

Competition policy with respect to unconditional unilateral refusals to deal must recognise that the economic incentives for firms to make efficient investments in research and development *ex ante* depend critically on the expectation that the rewards from those investments will be appropriable *ex post.*

As the European Commission states:

> *The existence of [an obligation to supply on dominant undertakings]… even for fair remuneration—may undermine undertakings' incentives to invest and innovate, and, thereby, possibly harm consumers. The knowledge that they may have a duty to supply against their will may lead dominant undertakings—or undertakings who anticipate that they may become dominant—not to invest, or to invest less, in the activity in question…competitors may be tempted to free ride on investments by the dominant undertaking instead of investing*

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12 Canadian IPEGs, p. 6, para. 4.1.

13 European Commission, Pharmaceutical Sector Inquiry, Preliminary Report (Nov. 28, 2008), available at http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/preliminary_report.pdf.

14 European Commission, Pharmaceutical Sector Inquiry, Preliminary Report, Executive Summary (Nov. 28, 2008), p. 3, *available at* http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/exec_summary_en.pdf.

> *themselves. Neither of these consequences would, in the long run, be in the interests of consumers.*[15]

Similarly, the Canadian Competition Bureau explains:

> *Property owners must be allowed to profit from the creation and use of their property by claiming the rewards flowing from it. In a market system, this is accomplished by granting owners the right to exclude others from using their property, and forcing those wishing to use it to negotiate or bargain in the marketplace for it, thereby rewarding the owner. This creates incentives to invest in developing, and leads to the exchange of private property, thus contributing to the efficient operation of markets.*[16]

Considering the benefits that flow from innovation and the inextricable relationship between *ex ante* innovative incentives and the right to exclude others from appropriating innovative rewards *ex post*, competition policy should not generally require even dominant firms to share their intellectual property with others. Exceptions to this policy based on "exceptional circumstances" should be rare and predictable. Competition authorities should provide clear standards for identifying exceptional circumstances, and in developing those standards, should not emphasise static competition and follow-on or incremental innovation at the expense of dynamic competition and breakthrough innovation.[17]

Some commentators have raised concerns with respect to the Commission decision, and the judgment of the Court of First Instance ("CFI") in *Microsoft*,[18] worried that the decision unwisely expands the traditional definition of "exceptional circumstances" beyond prior European Court of Justice decisions, and by doing so, risks deterring innovation and dynamic competition.

> *The CFI's interpretation of the "new product" prong of the Magill/IMS test lowered the threshold noticeably compared to Magill/IMS. It shifted the delicate balance, which competition policymakers have long recognised, between dynamic competition, which relies on the prospect of future profits from the exercise of market power to stimulate investment and innovation, and static competition, which limits the exercise of market power in favor of the static competition. There was no obvious reason for such a shift at this point in time.*[19]

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15 European Commission, Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings (Feb. 9, 2009) ("Article 82 Enforcement Guidance"), *available at* http://ec.europa.eu/competition/antitrust/art82/guidance_en.pdf.

16 Canadian Licensing Guidelines, p. 5, para. 3.1.

17 The United States Antitrust Division and Federal Trade Commission have stated that "Antitrust liability for mere unilateral, unconditional refusals to license patents will not play a meaningful part in the interface between patent rights and antitrust protections." U.S. IP Report, p. 6. The United States Supreme Court has also stated that a Section 2 violation based on a unilateral refusal to deal lies "at or near the outer boundary of Section 2 liability." *Verizon Communications v. Trinko*, 540 U.S. 398, 409 (2004). Similarly, the Canadian Competition Bureau has stated that "Since the right to exclude, which is the basis of private property rights, is necessary for efficient, competitive markets, the enforcement of the *Competition Act* rarely interferes with the exercise of this basic right. Canadian Licensing Guidelines, p. 5, para. 3.3.

18 Case COMP/C-3/37.792—*Microsoft Corp., Comm'n Decision*, 2007 O.J. (L 32) 23 (Mar. 24, 2004), *aff'd*, Case T-201/04, *Microsoft Corp. v. Comm'n,* 2007 E.C.R. II-3601 (Ct. First Instance).

19 Christian Ahlborn and David S. Evans, "The *Microsoft* Judgment and its Implications for Competition Policy Towards Dominant Firms in Europe," *75 Antitrust L.J. 887, 915* (2009); see also Robert O'Donoghue, "Microsoft v. EU Commission: Sounds Good in Theory But…" Global Competition

BIAC is concerned that the European Commission's formulation of the "exceptional circumstances" test in its Article 82 Enforcement Guidance creates the same risk by expanding the exception beyond is traditional limits. The current formulation is likely to generate uncertainty regarding the appropriability of the rewards from innovative investments. Particularly, given the relatively low market share thresholds for establishing potential dominance in the EU,[20] this uncertainty poses meaningful risks to dynamic competition and long-run consumer welfare.[21]

Moreover, competition policy has too often proposed mandatory licensing as a means to remedy perceived flaws in the patent system. "From an economic perspective, imposing mandatory licensing on a patent holder who obtains a monopoly would undermine the rights of inventors whose innovations are the most valuable…[b]oth patent and antitrust law and policy are far better served by reforming the patent system than by distorting antitrust law to curtail the rights of patent holders."[22]

3. Standard Setting Organisations

The development of private industry standards by standard setting organisations ("SSOs") has the potential to create both competitive benefits and competitive harm. Private industry standards have the potential to foster competition and increase output, efficiency and consumer welfare.[23]

However, because SSO members typically compete as sellers in downstream product markets, and both buyers and sellers in upstream technology markets, standard setting also creates the risk that SSO members will use the organisation as a vehicle for anti-competitive activities.[24]

Competition policy should encourage the competitive benefits of standard setting while discouraging the risks associated with collective action by competitors.[25]

Policy, (Sept. 2007), *available at* http://www.globalcompetitionpolicy.org/index.php? &id=544&action=907.

20 Article 82 Enforcement Guidance, para. 14. ("The Commission's experience suggests that dominance is not likely if the undertaking's market share is below 40% in the relevant market. However, there may be specific cases below that threshold where competitors are not in a position to constrain effectively the conduct of a dominant undertaking, for example, where they face serious capacity constraints. Such cases may also deserve attention on the part of the Commission.")

21 Similarly, in a recent speech, the US Antitrust Division regrettably emphasised that a monopolist's right to refuse to deal with competitors was not unqualified, without providing clear standards as to when a refusal raises antitrust concerns. Though the discussion does not deal specifically with intellectual property, and the U.S. Supreme Court has already provided clear limits in its *Trinko* decision, vague statements from competition authorities regarding the duty to deal generate uncertainty that risks harming innovative incentives. Christine A. Varney, Asst. Atty. Gen., Antitrust Division, *Vigorous Antitrust Enforcement in this Challenging Era*, Remarks as Prepared for the US Chamber of Commerce (May, 12, 2009), pp. 11-13, available at http://www.usdoj.gov/atr/public/speeches/245777.pdf.

22 Carl Shapiro, "Patent System Reform: Economic Analysis and Critique" *19 Berkeley Tech. L.J. 1017, 1026-1027* (2004).

23 U.S. IP Report, pp. 33-35. See also European Commission, Communication from the Commission on Intellectual Property Rights and Standardisation, at paragraph 2.1.11. ("The underlying objective of formal standardisation is to generate the economic benefits for society that will result from a more rational organisation of supply and demand and greater competition in the market place. Standardisation tends to reduce costs for the supplier and purchaser of goods and services and to increase transparency of the market.")

24 *Id.*

Standards in many high technology industries, including telecommunications and semiconductors, often incorporate patented technologies, which may then become essential to practicing the standard. Competition policy towards the development of industry standards that incorporate intellectual property should reflect the same antitrust principles that apply to standard setting more generally.

Over the past few years, antitrust authorities have begun to debate appropriate competition policy responses to the potential for essential patent holders to engage in "patent hold-up."[26] Responses to the perceived risk of "patent hold-up" include a variety of potential SSO policies, including requiring SSO members to disclose unpatented research efforts, and permitting SSO members to jointly discuss or negotiation royalty rates for essential patents as part of the standard setting process. These policies should be more carefully considered, however, as they may have the perverse result of elevating the risks of collective action already inherent in the standard setting process. Moreover, they may discourage marketplace innovation by exacerbating the risk that innovation will not be appropriated before patent protection can be obtained.

Antitrust law should not create an affirmative duty on SSOs to adopt particular forms of *ex ante* patent policies in response to a perceived risk of patent-holding. Forcing SSOs to adopt particular patent policies could discourage participation in SSOs and undermine the standard setting process in the long run. Competition authorities should instead permit SSOs to balance the various costs, benefits and uncertainties associated with competing policies, and focus on prohibiting collective action that imposes an unreasonable restraint on trade. "A rational [SSO] could recognise benefits in a policy... yet conclude that those benefits are not enough to compensate for the additional personnel, costs and delays that such a policy may require. Antitrust should not second-guess that type of business decision."[27] This approach has traditionally been shared by the European Commission: "To the extent that standards-making bodies are private and voluntary organisations, they are free, within the limits imposed by Articles 85 and 86 of the Treaty, to organise their activities in the way which seems to them to be most appropriate."[28]

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25 *Allied Tube & Conduit v. Indian Head*, 486 U.S. 492, 500-501 (1988).

26 Patent hold up occurs where (1) a patent holder attempts to impose licensing terms for essential patents after a standard is adopted that "SDO members could not reasonably have anticipated," (2) it is not commercially reasonable to replace or modify the standard to avoid the patent(s) at issue, and (3) if the SDO members had anticipated the patent owners demands, the SDO members would not have incorporated the patented technology in the standard. Hill B. Wellford, Counsel to the Asst. Attorney General, Antitrust Division, "Antitrust Issues in Standard Setting," (Mar. 29, 2007), p. 11, available at http://www.usdoj.gov/atr/public/speeches/222236.pdf; see *also* U.S. IP Report, p. 35, n. 11.

27 *Wellford,* p. 17-18; and see also U.S. IP Report, p. 55 ("[t]he Agencies do not suggest that SSOs are required to sponsor such discussions during the standard-setting process. Concerns about legitimate licensing discussions spilling over into dangerous antitrust territory may dissuade some groups from conducting them in the first place. Moreover, it is fully within the legitimate purview of each SSO and its members to conclude that *ex ante* licensing discussions are unproductive or too time consuming or costly. An SSO may also fear that requiring *ex ante* commitments to licensing terms would deter some IP holders from participating in the standard-setting the process…").

28 European Commission, Communication from the Commission on Intellectual Property Rights and Standardisation, (Oct. 27, 1992) at para. 6.1.8, available generally at http://ec.europa.eu/enterprise/standards_policy/reference_documents/index.htm. *See also* Grazyna Piesiewicz and Ruben Schellingerhout, "Intellectual Property Rights In Standard Setting From A Competition Law Perspective", Competition Policy Newsletter 2007, n. 3, at p. 36, available at http://ec.europa.eu/competition/ publications/cpn/cpn2007_3.pdf ("When developing IPR policies standard setting organisations should therefore address the question to what extent, if any, *ex ante* term disclosure is required. The role of the competition authorities in these is not to impose a specific IPR

Equally, competition policy should not discourage SSOs from adopting standards that incorporate patented technologies, which may reflect the optimal competitive outcome. Consumers benefit from standards based on optimal technical solutions, which may include patented technologies. Patented technologies could offer superior performance and features, and/or lower costs or implementation and greater lifespan, resulting in higher value or lower costs for standards compliant products and services, even inclusive of any costs that might be associated with licensing the patented technologies. Though a patented alternative might not always be the preferred course, competition authorities should not suggest that SSOs that adopt standards incorporating patented technologies necessarily face heightened antitrust risks.[29]

policy on standards bodies, but to indicate which elements may or may not be problematic. It is then up to industry itself to choose which scheme best suits its needs within these parameters.").

29 As an example, the Canadian Competition Bureau stated that SSOs should avoid adopting standards that incorporate patented technologies. *See* Draft Information Bulletin on Trade Associations, (Sept. 8, 2008), Sec. 3.7.3, available at http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/Trade%20Associations-090808-e-final.pdf/$FILE/Trade%20Associations-090808-e-final.pdf. European Commissioner for Competition Neelie Kroes has made similar statements. *See* Neelie Kroes, "Being Open About Standards", OpenForum Europe – Breakfast Seminar (June 10, 2008), available at http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/08/317&format=HTML&aged=0&language=EN&guiLanguage=en. It is BIAC's position that if adopted as part of any official enforcement policy, such policies could harm consumers by deterring SSOs from adopting optimal technical solutions.

SUMMARY OF DISCUSSION

Competition Committee Chairman Frédéric Jenny re-opened the discussion, noting that it was a continuation of a roundtable on competition, patents and innovation that was held in 2006. He introduced guest speakers Ciaran McGinley of the European Patent Office (EPO) and Professor Herbert Hovenkamp of the University of Iowa. The Chairman then outlined the discussion, explaining that it would start with the issue of whether patent law and patent granting systems impair competition or innovation, thereby establishing the link with some of the issues addressed in 2006. Next, the discussion would turn to an analysis of the possible anticompetitive uses of pending patents, then standard-setting and the FRAND concept, the issue of whether patent offices and competition authorities can and do co-operate to improve the patent process, and finally, what else competition authorities can do about competition problems associated with pending patents.

1. Introduction

The Chairman invited Professor Hovenkamp to give a general introduction to the topic.

Hovenkamp focused on the US patent system, noting that it was designed to promote the progress of science and useful arts. Ideally, the system would provide enough protection in terms of both patent duration and scope to create the optimal amount of innovation but no more than that.

The grand critique of the US patent system over the last 10 years is that it grants far too many patents, many of which are for trivial improvements or in some cases no improvements whatsoever. The result is a tremendous backlog of patent applications in the Patent and Trademark Office (PTO). Furthermore, patent claims are now frequently so abstract that they do not provide clear guidance on exactly what the patent covers. As a result it has become very difficult to know when one infringes a patent.

Hovenkamp observed that some in the competition community would like to think of patents simply as property rather than as necessarily granting monopolies, as we used to think about them, and he agreed with the notion that patents are property. In some ways, however, they do not behave like property. In fact, the real property system would come crashing to a halt if boundary lines were anything near as poorly defined as they are in the patent system. The two ingredients in a well functioning property system are clear boundary lines and clear rules about priority: Who got there first? Who has a prior claim over whom? The patent system has not been doing very well in that respect, particularly to the extent that it allows virtually unlimited numbers of continuations or late claims that are added to a patent application as part of an ongoing process. It is not uncommon for late claims to be filed ten or more years after an original patent application because the patent has validity as of the date that the application is initially filed; when these late claims come in they are dated retroactively and they become effective as of the date of the application. That creates a situation where patentees can sometimes write claims on technology that others have developed, attach it to a pending patent application and get coverage even though they are writing the claim on someone else's technology. As a property system, the patent system is working fairly poorly.

There have been significant reform efforts in the US, mainly from the judiciary. For example, in the *KSR* decision of about four years ago, the Supreme Court substantially raised the requirement for non-obviousness or inventive step and criticised a lower court for allowing too many trivial patents on devices that were not really great improvements over things that had existed before. Another Supreme Court

decision (*eBay*) concerned patent remedies. It changed a lower court's rule that had made injunctive relief all but automatic for patent infringement. The Supreme Court said that to obtain an injunction, the patentee has to meet the same standards that other plaintiffs asking for an injunction generally have to meet, including that the public interest would be served by the injunction and that there would be probable success on the merits if the patentee were to request a permanent injunction. *eBay* has had a fairly dramatic and positive impact in the area of non-practicing entities or 'patent trolls', which are firms that invent in order to hold portfolios of patents that they license to others. The technology they hold does not exist in practice unless it has been licensed. There is a very high correlation between non practicing entities and ten year long patent continuation, resulting in late claiming that continues on and on and can frequently turn others into infringers on a retroactive basis. One dramatic impact of eBay is that the US is allowing non-practicing entities to obtain injunctions in a far fewer situations.

The patent continuation story is not very promising. The PTO decided to place very restrictive limits on continuations about a year ago. The rules permitted two subsequent applications with new, added claims that could be back dated to the date of the original application, but any additional continuations would be treated as new applications, meaning that they could be enforced only prospectively. The Federal Circuit, an appellate court, struck that rule down because it was inconsistent with a statutory requirement that patents be valid from the date of first application.

Hovenkamp noted that the Federal Circuit took a big step toward amending its jurisprudence in one area in its *Bilski* decision last year. The court held that to be patentable, subject matter must claim something that is either a machine or that transforms a machine, which means that the patent must either be for something physical or it must transform something that is physical into a different state. *Bilski* is a head-on attack on overly abstract patent claims. Business method patents, for example, are rife with them.

In the US, patent law and antitrust law are both federal, so antitrust cannot be used to police the patent system. The PTO is a regulatory agency so it has 'implied immunity,' which essentially means that antitrust has to step aside with respect to the process by which the PTO examines and grants or denies patent applications. There is however one important exception. If the patent applicant withheld information and, for example, tried to create a monopoly by filing an infringement lawsuit based on a patent that was obtained by fraud, that conduct can be violation of Section 2 of the Sherman Act if the market power and substantiality requirements of the Act can be met. Otherwise, the role of antitrust with respect to patents in the US is limited to post-issuance conduct.

The Chairman asked whether there is any evidence that the low quality of patents restricts innovation or competition unduly, or if instead it is just a question of not having a good patent system but without any significant consequences for innovation and competition.

Hovenkamp replied that there is plenty of evidence that patent searching has become so costly and has such uncertain results that many firms find it more profitable simply to go ahead and risk being accused of patent infringement than to do a search. There is a very interesting paper that came out recently by John Allison and Mark Lemley on the extent to which different types of patents are litigated. They concluded that abstract claims are litigated much more than concrete ones, that software patents are among the most litigated, that non-practicing entities are responsible for patent infringement suits by a roughly 5 to 1 ratio, and there is a direct correlation between patent infringement suits and late claiming (the more continuation applications you file the more likely it is that you are going to bring a patent infringement suit). In addition, James Bessen and Michael Meurer wrote an important book about a year ago called *Patent Failure*, in which they looked at the private costs of the system, *i.e.*, the costs that accrue to patentees and innovators or builders within any industry. They concluded that in virtually every industry except pharmaceuticals and chemicals, the patent system was generating greater costs than benefits, so patenting produced greater losses in terms of litigation costs, search costs, and patenting costs. Firms would therefore be better off,

and would innovate more freely, if there were simply no patent system at all. Bessen's and Meurer's findings have not been tested very severely yet, but if what they say is believed it is a devastating critique as it means that, disregarding positive and negative spill over, everything else the patent system, bar a couple of sectors, is not even worthwhile to those who participate in the system,

A delegate from the EC mentioned that in the pharmaceutical sector, generics are usually willing to enter pay for delay agreements, which means that the cost of taking the risk of an infringement is very high for them. On the other hand, if the generators misuse the system there is also a cost as they have to file the patent, and they have to do some research beforehand. There are consequently costs on both sides but also an apparent imbalance. The delegate asked Hovenkamp whether he had any more data on that imbalance.

Hovenkamp said that he did not, but the US experience with pay for delay agreements, or "reverse payments," is that while using the patent process and filing continuations is expensive, those costs are dwarfed by the enormous size of reverse payments. While administrative costs are high (pursuing patent continuations is costly and so is patent litigation), they are nothing like the hundreds of millions of dollars that some patent holders are willing to pay to keep alleged infringers out of their markets.

A delegate from Chinese Taipei noted that there is a pressing issue concerning the boundary between antitrust and the patent misuse principle. After the revision of the Patent Act in the US in 1988, market power has played a very important role in the evaluation of patent misuse. There is also a debate in the US concerning the need to maintain the patent misuse principle in the legal system given that antitrust can serve the same purpose. The delegate then asked Hovenkamp to provide his view on this issue.

Hovenkamp confessed that his current position is a little different from the one he has endorsed in print. He has long held the view that misuse should be governed strictly by antitrust principles, which is to say that conduct cannot be misuse unless it would be an antitrust violation in a slightly different setting. So if the antitrust violation is a per se violation, market power need not be proven, but if it is a rule of reason violation, then market power would have to be proven and some kind of measurement of competitive effects would be necessary, too. Procedurally, there are differences between misuse and antitrust even under that definition. Misuse typically arises as a defence to an infringement claim. There is no affirmative cause of action for misuse in the US, so it comes up in a different context and as a result the remedies are different. Once patent misuse is found, the patentee ordinarily is not entitled to collect royalties or to sue for infringement until the misuse is purged. So the remedial system is quite different from public and private enforcement of the antitrust laws.

Hovenkamp added that he recently concluded that misuse can operate in a few areas where antitrust cannot. Misuse applies in 3 situations:

- Traditional antitrust violations where the concern of the misuse is with restraints on price and output competition.

- Misuse can have an independent role to play with respect to restraints on innovation, which can do a lot more harm to the economy than restraints on price competition simply because the gains from innovation can be so much more explosive than those from price competition. Frequently it is very difficult to measure a restraint on innovation with sufficient precision to create an antitrust cause of action, though, and certainly with respect to private actions where causation has to be proved. Private plaintiffs would be in the position of challenging an innovation that did not occur as a result of a rival's restraint and causation would simply never be provable in such circumstances. But a patent infringement suit used improperly to restrain innovation might be misuse even though, for example, it did not meet the *Walker Process* requirements for an antitrust violation.

- Misuse can also have an independent role when IP activity is an attempt to sequester information that should rightly belong in the public domain. However this is more relevant for copyrights than patents.

2. Do Patent Laws and Patent Granting Systems Impair Competition or Innovation?

The Chairman observed that the question of whether patent laws and systems impair competition or innovation is a direct follow-up of the Committee's 2006 discussion on competition, patents, and innovation. He gave the floor to Ciaran McGinley of the EPO.

McGinley emphasised that he had one basic message, which is that the way in which patents and the patent process are used has changed drastically over the last 30 years and that the change has had consequences for both innovation and competition.

In 14th century Venice, the patent system managed two main risks: from the inventor's perspective patents managed the risk of having one's ideas stolen and copied, and from the state's perspective patents managed the risk of the inventor practicing his invention in secret elsewhere. Today the patent system is increasingly used to manage other risks.

- There is a move from ideas to assets and this brings in new risks to be managed by new stakeholders; concepts such as patent quality now need to be examined from a different perspective, such as those prevailing in the auditing and banking sectors.

- Although the patent process manages certain risks it creates others. As a result, insurance models have been developed to better protect against specific patenting risks such as litigation, although in view of the complicated systems that exist across the world this can only be carried out on a bespoke basis.

- There is an increasing realisation that other institutions are required to manage some risks that are not managed by the patent system. The most obvious - the drug approval authorities - have been active for so long that it is often forgotten that they were created after the patent system and in reaction to health risks that could not and should not be managed by technically-based patent offices. That basic lesson still needs to be learned - regulating how patents may be granted is profoundly different from regulating how they are used.

From a competition perspective, if there are problems they concern the undesired effects of a regulatory environment that was developed for a paradigm different from the one that exists today. McGinley highlighted three of them:

- Patents and/or patent filings are not the same as technical innovation, yet how many companies boast about being the number 1 patent filer in their market? How many policymakers suggest that subsidising patent filings is equivalent to subsidising innovation? Patent filings can be and are manufactured for competitive gain. Patent offices can and do filter out these false patents. EPO has reacted to criticism that it allows unnecessarily broadly written claims, that patents are too easily obtained, and that this leads to harmful effects in competition. One significant outcome of the EPO's efforts in 2008 was that for the first time, fewer than 50% of examination decisions led to a granted patent; the rest were either withdrawn or refused. In the USPTO there is a similar downward trend, but this is a problem we cannot solve on our own. There is applicant pushback, there is simply too much competitive advantage to be had, and therefore too much money that can be directed towards this activity for patent offices to cope with it.

- Pendency is the next problem. It is driven mostly by technology and globalisation. Globalisation drives applicants to request patent protection in multiple regions across the globe. Patent offices are struggling to cope and longer pendency periods and greater pendency volumes are here to stay for the foreseeable future. Most patent systems today have more patents pending than those that have been granted and are still in force. Such a situation leads to pending patents having significant economic value and that in turn drives some applicants to favour not only volumes over quality but delay over timeliness as well as opaqueness over transparency.

- Third, different stakeholders talk in different ways. For example can the word 'abuse' really be used when all the applicants are doing is making full use of the existing legal framework for the benefit of their shareholders? A case in point is divisionals, which at the EPO are a more restrictive equivalent of continuations in the US. There is a perfectly valid reason to allow divisionals in the patent system, but it has become clear that they are being used for reasons for which they were not intended. The challenge therefore in Europe was not to accuse companies of abuse but rather to strike a balance between legitimate interests and unintended effects. The divisional debate also revealed stakeholder bias, as many applicants and attorneys strongly opposed the proposed changes, thereby demonstrating that they have become wedded to the idea that the patent system is somehow there especially for them. This opposition has translated into media and public criticism, but it can also be seen as a necessary transition from a comfortable, well established bilateral expert-based relationship into a multilateral relationship where other stakeholders also have a voice.

Finally, McGinley noted that the EC's pharmaceutical enquiry is an excellent opportunity to highlight the fact that there is a complex institutional framework in the area of competition, patents and innovation. Co-operation is difficult, but the rules and regulations of one institution interact with the rules and regulations of another. Therefore setting standards, granting patents, approving drugs and regulating competition interact with each other. That interaction sometimes leads to undesirable effects and those effects need to be properly identified. The EPO accepts that sometimes such interactions necessitate a legislative change in the patent system, but would like to see all institutional actors recognise that this interaction needs to take place and strive to better understand it because sometimes it can lead to undesirable outcomes. The reflex that the undesirable outcomes are *prima facie* evidence of abuse should be avoided. In short, what is required is that all institutional actors recognise that they may be part of the problem and therefore quite possibly part of the solution.

The Chairman observed that the discussion had already led to a distinction between three areas that may create competition problems: i) the patent process itself; ii) the general relationship between IP law and competition law; and iii) the scope of IP, and for that patentability in genetics and computer programming would be considered. He then turned to ii), the relationship between IP law and competition law, and gave the floor to the EC.

A delegate from the EC stated that although one hears and reads a lot about the tangents and conflicts in this area, the EC's day-to-day experience as enforcers is more often about complementarity than conflict. Three subsets of cases help to distinguish the complementarity from the conflicts.

First, very often there is no tension. Suppose there is a risk that a merger will create market power. One of the typical remedies is a disposal of physical assets. That does not mean that there is a conflict between competition law, ownership or property in general. There is complementarity, not conflict. The same is true if the merger involves IP and the remedy is a licensing arrangement. There is no conflict with IP law there.

The second category involves refusals to supply or to license. Here again there is no tension or conflict between the two sets of rules because competition law intervenes in very specific circumstances. First, dominance has to be proven and in most cases the fact that you hold a patent or an IP right does not confer dominance. Second, there must be a set of exceptional circumstances that make having a license to the IP indispensable for entering the market. It is only in such circumstances that competition law comes into play.

The third category, which Hovenkamp discussed, involves situations where the IP system has shortcomings and is counterproductive, meaning that it does not stimulate innovation. Once again it is not clear that there is a conflict here, but rather there is a common problem. One may be tempted to use competition law with its limited instruments to fix the problem *ex post* but that is not always possible, nor desirable. The EC believes that, in general, the solution to shortcomings directly stemming from the IP system is probably on the side of patent law.

However, as regards the different strategic uses or misuses of the patent system previously discussed, some degree of competition intervention may still be needed. There is a fine line there which is probably one of the most important topics of today's round table.

The Chairman remarked that there is indeed general complementarity between IP law and competition law, but there are gaps in the process of patenting and each of the two communities is looking at the other to see if it can do something to fill those gaps. He then turned to the subject of the scope of patentability, noting that there is a lively debate in many countries regarding computer programs and genetic sequencing. For example, France stated in its 2006 contribution that it was wary of patents in the areas of genetic sequencing and computer programming because they had negative effects on both competition and innovation. But some countries have different views. The Chairman began with the US, asking what its experience has been with these areas. He also asked Switzerland and Belgium to comment.

A delegate from the US said that the patent and competitions system drive toward the same goal, which is to protect innovation. Nevertheless there is tension in how the two systems reach that goal. Obviously the legitimate grant of a patent might (although generally would not) bestow a monopoly and in our world we are concerned with policing anticompetitive abuses of monopoly power. There has been an enormous amount of debate in the US on patent reform, with some arguing that patent rights have been extended so far that they are stifling both innovation and competition. This has led to a vigorous discussion in the legislature about whether the IP system needs to be changed. A number of legislators are very interested in reducing the scope of patentability. That may have made the courts nervous and it may be part of the reason that the Federal Circuit court agreed with the patent office in *Bilski* that Bilski's business method patent application should not be granted because it did not cover patentable subject matter. The Supreme Court will hear the *Bilski* arguments next year.[1]

Regarding software, some commentators believe that copyright protection may be appropriate, but not necessarily patent protection. Genetic sequencing has stirred a different conversation in the US, but the delegate believed it was too early to offer a view about it.

The Chairman remarked that Switzerland's contribution contains an argument that allowing patents on genetic sequencing would rapidly lead to monopolies because genes do not necessarily have substitutes. Nevertheless, Switzerland seems to have overcome that concern.

A delegate from Switzerland explained that there was a revision of the patent law in 2008 and it introduced patent protection for biotechnological inventions. The Competition Commission had been

1 The case was heard in November 2009.

consulted in a general way but not specifically with regard to biotechnological inventions. The patentability of biomaterial and genes in particular were the subject of sharp controversies. The solution that the Parliament chose is a compromise that recognised the patentability of genetic sequences but also imposes some limits. First, to avoid overly broad or speculative claims, patent protection for genetic sequences is allowed only for DNA segments that are essential for the properties and functions of the sequences and that are concretely described in the patent application.

Second, the new law envisages several exceptions to the effects of the patent, such as that it grants a broad research exception: any methodical step taken to obtain knowledge on the object of a patented invention is authorised independently of the objective being pursued. For genetic inventions, that means that the patented gene sequence can be used to seek other useful effects of a technical nature, even without the authorisation of the patent holder and even when the pursued knowledge is sought for business purposes. Generic producers will thus be able to carry out technical tests before the expiry of a patent. Thus these limitations make it possible to avoid abuses and to contribute to maintaining an open market.

Another interesting aspect of the new law, from a competition perspective, is that the patentability of biotechnological inventions was justified by the fact that protection does not benefit only large companies but also the small and medium-size companies in the biotechnology field. It is easier for these companies to find capital when the products of their research are protected by patents.

The delegate added that the revised law contains a shift from the principle of national exhaustion to that of regional exhaustion. That means that patentees will not be able to oppose the imports of patented products when they are put into circulation in the European economic zone. The renunciation of national exhaustion was proposed by the Competition Commission in 2003. Regional exhaustion will make it possible to prevent patents from being used to insulate the Swiss market, especially in relation to the European market. The result is regarded as advantageous for competition, bearing in mind the individual situation of Switzerland.

The Chairman then asked Belgium to explain why its contribution states, after noting that an important change in Belgium's patent regime concerns the patentability of biotechnological inventions, that the new law "constitutes a factor of legal certainty in favour of the development of the investments in a key area".

A delegate from Belgium replied that in light of the discussion so far and a number of reports issued in the last two years, he wondered if these arguments were always well founded. But he added that even though there is a genuine risk of abuse or misuse of patent rights, there is still a good case for patents in the initial phase. Belgium's biotechnology industry consists largely of small to medium size enterprises, mainly start-ups and spinoffs of the major universities. It was generally believed that their development would be significantly facilitated if they could have more certainty about the patentability of their developments and that it would also help them to obtain financing. That has not been proven wrong yet. But whether there will be abuse when they become dominant is another question.

The Chairman observed that one dimension of the interface between innovation, competition and patents not yet touched on was the international dimension. He asked Rob Anderson of the WTO to present his reflections on the discussion and how it fitted with the WTO's work on IP.

Anderson stated that the WTO Secretariat is following the discussion on the relationship between patents and competition policy in the Competition Committee and in other fora with great interest. The discussion may have a bearing on the role and implementation of the WTO agreement on trade-related IP rights (TRIPS). The interface between competition law and IPRs is mentioned in Article 40 of the TRIPS agreement, which states that "*licensing practices or conditions pertaining to IP that restrain competition*

may have adverse effects on trade and may impede the transfer and dissemination of technology". It also stipulates that WTO members may adopt measures to prevent or control IPR-related anticompetitive practices. That poses important questions that are not really answered in the TRIPS agreement, such as what practices in this area should be of interest, what standard should apply in evaluating their anticompetitive impact. There has been a heightened interest in Article 40 in Geneva recently. The IP/competition interface arises, for example, in public health and access to medicines, and guidance is needed there with respect to refusals to license. A closely related issue that has come up in discussions in Geneva is the issue of patent settlements and how they can bear on efforts to facilitate generic entry into the pharmaceutical sector in developing countries. Anderson emphasised that he was not advocating any particular approach to the enforcement of competition law, but simply pointing out that the work that goes on in the Competition Committee and the policy guidelines that may emanate from it will have a broader application, including within the WTO.

The Chairman pointed out that the Committee would hold a roundtable in October 2009 on competition and generic pharmaceutical products.

3. Analysing Anticompetitive Uses of Existing and Pending Patents

The Chairman then addressed the subject of possible anticompetitive uses of pending patents. The UK's contribution acknowledges that pending patents can be used in ways that harm competition, noting that patent application loading could hinder effective competition or the growth of that competition in a market. So there may well be a viable argument that patent application loading and similar strategies could constitute abuse in certain cases, particularly if a strictly objective, "no-fault" approach to abuse is used. He asked the UK to explain what 'patent application loading' was and to describe what is meant by an objective, no-fault approach. He also asked about possible remedies.

A delegate from the UK explained that patent application loading means loading patent offices with a multitude of applications relating to what is really a single inventive concept. This could include making many applications covering every conceivable improvement, however negligible or dubious, on the invention. Patent loading could also involve making a large number of divisional patent applications. Another strategy, patent flooding, is the mirror image of patent loading. With patent flooding one company files a number of improvement patent applications relating to a technology or an invention developed by some other company.

In terms of the approach that competition authorities might take, the UK suggests an objective "no-fault approach". The objective no-fault concept starts with the objective concept of abuse of dominance in Europe, which does not necessarily need to take into account an anticompetitive intention. The UK emphasised they wanted to avoid having to go into the details of analysing the intent that was behind the patent loading applications, especially whether it was bad faith or fraud or any fault on the part of the applicant itself, for two reasons:

- It is very difficult, especially in the UK, to gather evidence and information about whether the intent behind the original patent application was to mislead.

- It is also always arguable what the intent of filing all the applications is. On the one hand an inventor could say that he just wanted to ensure a reasonable return on his investment. On the other hand, competition authorities may be concerned about creating disincentives for inventing around the original patent, delaying entry or raising rivals' costs.

That is why an objective approach might be suitable, though caution is always necessary when interfering with IPRs from a competition policy point of view.

Another delegate from the UK added that the best lessons about the right approach come from experience in other areas, in particular essential facilities and raising rivals' costs. The reason is that in many regards the patent is just an input. For example, IPRs protect knowledge, but knowledge is non rival, meaning that perhaps creating the knowledge might involve a big fixed cost but then the marginal cost of using it might be quite low (subject to the terms of the license agreements). In many instances abuse cases in this arena seem likely to share a lot with cases involving more traditional upstream abuse concerns. For example, if an essential facility case involves access to a port but there are a lot of similar ports along the coastline, then there is not much concern about the market power generated by the ability to control access to one of them. But on the other hand, a merger of many of the ports along the coastline might cause much concern. The analogy to substitute patents is obvious.

One area where patents do look different is in the exercise of patent applications. But even there the analogy to other areas is fairly immediate. For example, in a recent grocery enquiry in the UK, the Competition Commission considered the role of land banks where supermarkets acquire land that is suitable for building supermarkets, file multiple planning applications on those sites, and the applications seem to take quite a long time. Allegedly, the aim is to prevent rival supermarkets from entering. In considering whether a land application or a patent application is likely to be of substantive concern, the right approach for both is to consider the effects of those restrictions. Pending patents might grant a temporary monopoly position or signal entry in a particular place, but in terms of the long run economic effects it may appear that the effects are negligible. However, if another patent application is subsequently filed which effectively protects the same area, this may result in long-run effects from temporary protection.

The UK delegate added that the best approach is to consider the UK's experience in the traditional input context, which involves less of a debate about whether there is a potential issue and is more focused on effects and circumstances. As regards the potential chilling effects associated with antitrust interventions in the patent arena, this is an area of concern whenever there is an intervention and not solely in high tech areas. The magnitude of those chilling effects and the concerns associated with them may differ, but then so may the benefits of intervening in high tech areas where there is the potential of huge gains to society if those interventions are correct and appropriately focused.

4. Standard Setting and the FRAND Concept

The Chairman observed that several contributions discuss the pro-competitive benefits of standard setting organisations (SSOs) while noting the potential danger of 'patent ambushes'. He referred to the distinction already made between jurisdictions with a monopolisation statute and jurisdictions where an abuse of dominance must be shown. The problem with the latter case is that dominance should in principle be shown before abuse can be proved, and therefore not all the practices referred to by McGinley would be covered. However, the Chairman noted that the EC had made some progress in this area by arguing that unreasonable royalties have been imposed after the ambush has occurred. He then asked the delegation from the EC to elaborate with examples.

A delegate from the EC confirmed there were a number of ongoing cases concerning these issues. However, while they could share some theoretical ideas and internal views they could not go into specific details for those cases. The issue is whether EC competition law applies to patent ambushes, even if the mere acquisition of a dominant position is not as such contrary to EC competition law. Under EC competition law it is the finding of an abuse which is key, and the acquisition of a dominant position, even if done by deception, is not equivalent to an abuse. However, a patent ambush where the IP holder exercises its IP rights by requiring a license fee from users of the standard could amount to an abuse and therefore be pursued under Article 82 on certain conditions.

It could be argued that had it not been for the patent ambush the IP rights in question would not have been included in the standard and instead another technology would have been used. In this case the IP holder would have no rights to any royalties. Arguably in these exceptional circumstances the mere fact of asking for any royalties could amount to an abuse of a dominant position. However, a scenario where the counterfactual is technology with a zero percent royalty might not be very common in certain cases. This is because in a standard setting context there would be royalties, and very high royalties, once the standard has been adopted. The difficulty then becomes to decide what is unreasonable in an ambush scenario. One way to demonstrate unreasonableness in this type of case would be to consider the price of the alternative technology that would have been chosen absent the patent ambush. Then another difficult question arises. If for example the counterfactual technology was €1, there may be a case if the patent ambusher asks for a royalty of €10. But what if the patent ambusher asks for €2? There are many questions that are currently unresolved regarding the definition of FRAND, something that is being developed and discussed internally.

A delegate from the US referred to Hovenkamp's earlier statement that companies would either take their chances and infringe a patent hoping that it would be invalid or steer clear of it, both of which incur costs. This applies to pending patent applications all the more so as some of them may be secret and even if the patent has been published, after 18 months it may be rather unclear what the boundaries of the patent will be when it issues, or indeed if it will issue. Businesses have a real problem dealing with situations where there are many patents of uncertain validity or scope and it is difficult for antitrust or for competition authorities generally to deal with these problems. This is particularly true in the US, where courts may issue an injunction requiring infringing firms to remove products from the market. This poses an enormous and unavoidable cost. Competition authorities may regard removing a product from the market as an exercise of market power and exclusion, but in most cases it is simply an exercise of the patent grant once the patent is found valid and infringed. These principles are even more relevant to pending applications. The US should consider having post grant procedures so that if a patent is issued it can be reviewed quickly and perhaps rejected, to avoid substantial investments being made by companies that may be infringing the patent, and years of subsequent litigation. This also applies to standard setting proceedings as the patents can be essential to the manufacture of a product produced in conformity to a standard, and it may be very hard to modify the product later to avoid infringement.

Hovenkamp noted that much of the problem of patent continuations and divisionals would be eradicated or minimised if the priority problem were solved. A valid, meaningful property system requires two things: clear boundaries and clear priority rules. One of the problems with patent continuations is the dating back issue, *i.e.*, the ability to get retroactive patent protection on a patent filed three years ago. A new claim is filed on a patent, and then infringement action taken against a rival whose current technology infringes the newly amended patent, despite the fact that it did not infringe the original application. The real property system would fall apart if it was not clear who got there first and if ownership was not assigned on a first come first served basis. One way to address this problem is to make continuations prospective only after a certain time period, *e.g.*, one or two years, and permit only one or two patent applications. All other continuations thereafter will be enforceable prospectively as of the day they are filed. The alternative way is to create exemptions, *i.e.*, user rights for people who have invented/developed their technology so that a subsequently approved patent claim by the patentee cannot be used retroactively against them. Hovenkamp reiterated that these would be very significant improvements in the system. The USPTO attempted to carry these improvements out last year but a court held that this was a violation of the statutory requirement that the patent validity date goes back to its original application.

The Chairman turned to the contribution from Japan, and inquired about the 'refusal without justifiable ground' test used there. The JFTC has issued specific guidelines on how it analyses conduct involving standards and standard setting. They state that a patent holder taking part in standardisation activities and who initiates the adoption of his patented technology in a standard while refusing without

justifiable ground to grant a license, would go against the Antimonopoly Act (AMA). The Chairman asked Japan to explain the definition of refusal without justifiable ground, and whether it has to be naked refusal or whether acceptance with an unreasonably high license fee would be considered to be refusal.

A delegate from Japan confirmed that not granting a license for the use of the technology without justifiable grounds after joining positively in standardisation activity would be a violation of the AMA. Furthermore, the request for prohibitively high royalties by the licensor may in effect be deemed equivalent to a naked refusal to licence. However, no cases have as yet arisen which bring about a decision concerning an equivalency between the two. Judgment would be made by consideration of business activities and undertakings requiring the patent license, and would be given on a case by case basis. As regards justifiable grounds for refusing, this is also decided on a case by case basis. Examples of justifiable grounds for refusal are where the royalty payments offered by the firm wishing to adapt the standard are very low, or where those who want to adopt the standards cannot preserve the confidentiality.

The Chairman observed that some concept of unreasonableness was implicit in both the Japanese and EC approaches. He then turned to Germany's contribution and its discussion of a case in which a German court was very reluctant to give a precise interpretation of the concept of a fair and reasonable fee. The Chairman asked Germany what this case implied for competition law, and whether fairness is a concept that should be abandoned or whether the courts will eventually establish a useful standard of fairness that could be used in such cases.

A delegate from Germany clarified that the case, concerning a patent in the IT sector, was brought in private litigation. The German Federal Court of Justice rendered its decision in May 2009. The patent was essential for the production of a certain type of electronic data storage device and the dominant patent holder granted companies a license to the patent on the basis of a standard license agreement. However, one company argued the patent holder was charging it an excessive and discriminatory licence fee and therefore manufactured and marketed the product without a licence. The German Federal Court of Justice held that, under competition law, a patent holder cannot discriminate against a company wishing to conclude a license agreement by charging higher license fees without any objective justification as this would constitute an abuse of a dominant position. Patent holders who violate this ban on discrimination cannot enforce a claim for injunction under patent law. The court also held that under certain circumstances a company that manufactures a product under a patented industrial standard without a license could invoke competition law as a defence against the patent holder. The court set out two requirements for the patent use to fulfil. It must (i) make an unconditional offer which the patent holder cannot refuse and (ii) pay an appropriate licence fee or deposit money without the possibility of withdrawal. The fee should correspond to the 'appropriate amount' for the licence fee in the eyes of the user, to be determined by the patent holder at his reasonable discretion. Court proceedings would clarify whether the licence fee imposed was within the limits set by competition law. The case separated (i) the issue of the license agreement at non discriminatory terms from (ii) setting the adequate license fee amount, which facilitated the arrival at a swift conclusion on the issue of whether a license should be granted in the first place. In the case under review the user company was not successful in court as it had failed to make any licence payments to the patent holder.

The Chairman commented that while there is an attempt to use competition law as a solution, progress is slow. The Chairman then handed over to the US delegation to discuss measures used by Standard Setting Organisations (SSOs) to prevent patent ambushes and how competition authorities should tackle cases with SSO involvement.

A delegate from the US explained that in 2002 the DoJ, the FTC and the PTO conducted hearings concerning SSOs that culminated in the development of two main principles. The first concerns recognising the legitimacy of certain forms of collective action to avoid post contractual opportunism or

reneging that might take place once the standard is established. Collective action of this nature is judged by a rule of reason taking into consideration both the benefits to competition created by the safeguard against ambush and the harm to innovation incentives. The second general principle concerns the default rules in the standard setting context and whether a reasonableness standard as opposed to a categorical prohibition is the best tool for evaluating measures taken by the participants. Given the enormous variance in approaches, cultures and established norms of the SSOs, agencies are hesitant in establishing a general code of conduct or specific default rule that must be adhered to. One exception involves the requirement by some SSOs that SSO participants disclose the nature of their intellectual property rights – including existing and proposed patents – during the course of SSO proceedings. This exception was considered in the *Rambus* case, with the agency finding that Rambus's deceit regarding its patent rights during the standard-setting process led to Rambus obtaining monopoly power and thereby harming competition. The agency's finding of liability, however, was overturned by a US federal Court of Appeals. There is a convergence with Europe on some of the analytical issues faced under the legal framework in deciding what sequence of behaviour can be considered to be an abuse of dominance.

As SSOs vary enormously in their make-up and goals, agencies are not inclined to impose any common uniform set of rules. However, these organisations are trying to protect themselves from patent ambush and some argue that there should be a role for the competition authorities to assist an SSO in that effort. If an SSO's disclosure or licensing rules allow a party to obtain and exploit a dominant position, then that becomes a legitimate object of interest to the competition authorities. There are two main types of breach: (i) breach of disclosure duties due to deceptive conduct or failure to disclose as required and (ii) some would argue, breach by the patent holder, who has promised to licence on 'fair, reasonable, and non-discriminatory' (FRAND) terms. The violation under (ii) is not the price *per se* regarding the royalty right, it is the breach concerning whether the patent holder is offering a reasonable term or not, and if the breach is established then this is a competition issue. Therefore 'gentle' advice might be given to SSOs to be more explicit about what 'fair and reasonable' means.

The standard which is very widely welcomed by economists (and which was put forward as early as 1996) is the *ex ante* competition standard, namely the terms and conditions that would have arisen from licensing before the patents were incorporated into the standard. Since both breaches of disclosure duties and breaches by patent holders of agreements to licence on FRAND terms affect entire markets and consumers downstream, competition authorities arguable should be involved. If an SSO's rules are viewed as too demanding, the holder of patents that may be essential to the implementation of a standard may (due perhaps to concerns over licensing revenue limitations) simply not participate in an SSO. This would allow the patent holder to engage in *ex post* 'ambushing' without causing any contract breach or deception. This arises partly due to a feature of the US patent system which allows an SSO to put forward a technology and incorporate it into a standard, independent of the patent holder who filed the application. Changing this feature would require an amendment to the patent system to encompass user rights or priority rules, but competition policy conceivably might also offer a way of working around the problem.

The Chairman stated that the solution is reasonably clear in some extreme cases, but not so clear otherwise. BIAC was then given the floor to discuss the doubts expressed in its contribution in allowing certain *ex ante* measures that SSOs might implement to deter patent ambushes.

A delegate from BIAC confirmed that in their view the misuse of IP rights should be solved by the revision of the IP laws not by manipulation of competition law. Concerns regarding patent ambush may overshadow the traditional concern in standard settings *i.e.* that of collective action and the formation of a de facto cartel. Assuming there is no IP right involved (*e.g.* the applicant is simply the only one having built a plant offering that technology) should competition allow the remedies of joint action *i.e.* should the members of the SSO be able to jointly negotiate a price ahead of time in order to allow that particular standard to be considered by the organisation as proposed. Under traditional antitrust principles the answer

should be no, as that would be regarded as a restraint beyond what is necessary for the operation of the standard setting. Ignoring these issues due to the involvement of IP rights is of concern in a theoretical situation where SSO members use their collective power to negotiate licence rates *ex ante* that are lower than the IP holder would be able to achieve absent the standard setting activities. This equates to an exercise of collective power that historically has been seen as inappropriate.

The Chairman summarised that in BIAC's view the US approach was unappealing as the type of contract used was similar to a cartel agreement. Therefore while under contract law, the contract should not be breached, there is a risk of negative effects from a competition law perspective. The Chairman therefore asked BIAC what an appropriate solution for patent ambushes would be.

A delegate from BIAC clarified that they focused on one aspect of the various different solutions that had been offered and there had been no criticism of, for instance, requirements for disclosure of existing IP rights (which had been suggested in the *Rambus* case). The suggestion was not an absolute per se rule, and a rule of reason could be used, but anticompetitive effects or potential effects would have to be seriously considered. In many cases it would be a complex analysis, but the risk of patent ambush should not be elevated above other anticompetitive risks.

5. Can Patent Offices And Competition Authorities Co-Operate To Improve The Patent Process?

The Chairman referred to the 2006 contribution from Chinese Taipei which argued that the two processes, the patent process and the competition process, were different and should be treated separately. However, in its 2009 contribution, Chinese Taipei seems to go further than it did in 2006 and identifies some of the anticompetitive issues that can arise from the patent granting process, *e.g.* pending patent portfolios being can be used to block entry due to the informational asymmetry they may create. It also suggests that co-operation and information exchange between the patent office and the competition authorities would help facilitate a bigger picture of the portfolio effects that may lead to anti-competitive practices. The Chairman asked Chinese Taipei to elaborate on what a competition authority could bring to the process, how it would know the risks of a pending patent portfolio that could block entry, what kind of information it would have access to that the patent office would not have and whether it would have to treat all the information coming from the patent office from the angle of the portfolio and therefore the angle of competition.

A delegate from Chinese Taipei clarified that in the 2006 contribution, when the IPO reviewed the patent applications neither competitive issues, nor the definition of relevant market were taken into account. Firstly, it was understood that the market referred to tangible goods, and there would only be a market once the patent technology had been put into practice and the product had been produced. There was no substitutability between technology and focus was on pre-requirements for granting a patent such as novelty, utility etc. Secondly, under the Fair Trade Act (FTA) the competition agency should respect the decision made by the patent office. Article 45 stipulates that any exercise of the patent rights by the patentee should be respected unless it has been improperly exercised. The term 'improperly' is still a concept under development but it could include the substantive abuse of a patent right such as refusal to deal, charging discriminatory royalties, or procedural abuse such as issuing a warning letter or engaging in some kind of predatory litigation.

Over the past few years there has been a change in the interaction between the agencies for two reasons. Firstly there have been developments in the international community, with antitrust and patent law becoming interlinked. The IPO and the Fair Trade Commission of Taiwan (TFTC) are alert to this and are trying to engage in increased dialogue to solve the more complicated issues that arise in patent licensing. Secondly there have been some controversial cases. Following the *Rambus* case, lawyers from technology

companies in Chinese Taipei contacted competition and IP agencies to ascertain their views on standardisation and technology licensing. The TFTC also decided an important domestic case concerning patent licensing for the production of CD Rom. The patent for producing CD Rom is controlled by three large companies: Philips, Sony and Toshiba. In 1996 a couple of leading producers of CD Rom in Chinese Taipei filed a complaint alleging the collusion and abuse of monopoly power of the three patent holders during the licensing process. They had allegedly set the royalty fee too high and incorporated unfair licensing agreements during the licensing process. The three patent holders were found guilty of violating the FTA. The IPO then, unilaterally, took the drastic measure of imposing compulsory licensing obligations on the three patent holders, causing great controversy which was widely covered by the media both in Chinese Taipei and internationally. Both the decisions of the TFCT and the IPO were revoked after the process, but *Rambus* and the domestic CD Rom case created the impetus for encouraging a constructive dialogue. If the TFTC understood more about patent pools, and the IPO understood that compulsory licensing should be reserved as the last resort, controversial and convergent decisions could be avoided. However, while there is an improvement in the relationship between the two agencies, interaction is still very limited and there is no means for the TFCT to provide an opinion to the IPO about whether a patent application should be approved. Instead the TFCT can offer their expertise, and suggest the careful consideration of patents especially where they consider the novelty or non obvious requirement to avoid the threshold being too low. The TFCT can then defer to the IPO on the technological issues regarding the patent.

The Chairman then turned to Chile to discuss the new authority dealing with IP, and how this new agency will interact with the competition authority.

A delegate from Chile referred to the two recent competition cases in 2006 and 2007, summarised in their contribution, which dealt with patents. Both cases related to international pharmaceutical patent holders trying to prevent the entry of rival domestic firms and both were dismissed on the grounds that the challenged actions were within the scope of patent protection rights. The Chilean competition agency is now working towards a focused advocacy program targeted at the IP community and activity commenced to some extent last year when the head of the competition agency, the Fiscalía Nacional Económica was invited to speak at the annual IP conference. This provided an opportunity for the agency to review its recent overlaps between IP law and competition law enforcement, although most of the cases brought to the competition tribunal related to trademarks and not patents. One of the main challenges identified for any IP/competition focused advocacy programme is the lack of experience of agency staff in dealing with both areas, in addition to the competition agency's current priorities which focus on cartel enforcement. It will also be a challenge to introduce a framework focused on competition and market effects, as opposed to the current framework which is focused on property and constitutional rights.

The Chairman then turned back to the US and stated that while it seemed clear the US patent system has severe problems, nonetheless the co-operation between competition authorities and patent offices appeared to be the strongest there. Competition authorities in the US have a mandate to consider the economic effects and restraints of any other conducts including in IP. The Chairman therefore asked the US whether the patent system was problematic due to the co-operation with competition authorities or in spite of it.

A delegate from the US stated that legal reform, rather than mere reliance on litigation, has been a Committee theme in the competition context in recent years. In considering the experiences of the two US agencies over the last fifteen years in the context of mergers and abuse of dominance, a number of reoccurring phenomena appear to be rooted not in the competition issues *per se*, but in the manner of developing and applying the right IP screening process. If the screening process is not operating robustly, too many patents are issued which do not fulfil the obligations specified in the original legislation, and it is the competition agency or the competition court which is obliged to carry out the 'clean up' operation. This

is a decidedly second best outcome. Perhaps, in the copyright context, cases such as *McGill* and *IMS* are fundamentally rooted in the failure of the IP screening process to robustly test and evaluate the copyright interests in question. The 2002 joint hearings and the 2003 report entitled 'To Promote Innovation' focused attention on the first best solution to reform the process of granting and enforcing patents. This report also laid out the foundation for a three dimensional strategy towards improving the dialogue between the IP and the competition policy communities.

The first aspect of the strategy is to create a basis for going to the courts. The issuance of the report coincided with a renewed interest on the part of the U.S. Supreme Court about the functioning of the IP rights screening process. In the *KSR* and *eBay* cases the Supreme Court sided prominently with the FTC's Innovation Report, and it is a significant intellectual component in the reasoning of both decisions. There has been a decided progression in the Court's modern jurisprudence to re-examine the manner in which the patent screening process operates and in some instances to second guess prevailing interpretations about patentability standards and matters such as remedies.

Secondly there needs to be a relationship between the competition policy agencies and the U.S. PTO. Since 2002, when the PTO joined the twenty five days of hearings on the patent system held by the FTC and the DoJ, the PTO has collaborated with the FTC in three other ways, through (i) regular conversations between senior FTC and PTO officials, (ii) discussions between middle managers and case handlers and (iii) interaction between Bar and nongovernmental associations in IP and competition law. The PTO has also been pursuing a number of administrative reforms, and the big question now concerns legislative reform, and the framework within which that reform should take place. It is expected that the two agencies will continue the process of committing resources to IP reform efforts. This interagency activity, co-ordinated in part by the National Economic Council, brings together competition authorities and other interests including the PTO. In addition to the legislative issues, there is a general discourse on technology policy and innovation. Although the US patent system does have some problems, the US also has an extremely innovative economy with venture capital systems, education systems, and other elements of the national innovation system. It is arguably the information technology and biotechnology sectors where the patent system is not working as well, and needs some adjustment, and the administration is sensitive to that as part of its innovation policy.

Thirdly the Supreme Court and Solicitor General need to remain active in this area. Almost all the changes over the last five years have been the result of court decisions, indicating a movement away from pro patent towards pro competition. The competition agencies continue to be active in advising the Solicitor General of competition issues in cases before they go before the Supreme Court, for example in the *Bilski* case concerning business method patents.

The Chairman then turned to the contribution from Korea, which called for closer co-operation not only between the Korean Fair Trade Commission (KFTC) and the Korean Intellectual Property Office to enhance enforcement activities against the abuse of IPRs, but also between the KFTC and the Korea Food and Drug Administration and the Ministry for Health. In Korea IPR abuse predominantly occurs in the pharmaceutical sector and it is these ministries which are responsible for overseeing this industry. The Chairman asked Korea to describe in more detail the network and monitoring system referred to in its contribution.

A delegate from Korea clarified that the monitoring network was not yet operational so it would not be possible to describe the system in detail, but he would explicate further why the KFTC felt this network was necessary. Korean legislation such as the Copyright Act, Patent Act etc are not subject to competition law. The KFTC has therefore not been active in enforcement against IPR abuse as the agency has not always been aware of how patent systems are working and whether patent rights are being abused by patent holders. However, the KFTC has recently strengthened its supervision and enforcement activities in

this sector, finding that a closer co-operation with the relevant authorities, such as the patent office and the Food and Drug Authority, is essential to ensure a clear overview of the relevant activities in the market. The KFTC recently dealt with a case involving unfair trade practices by a pharmaceutical company producing original patented drugs, who tried to block generic manufacturers entering the market. Although the patent right was filed, the KFTC had difficulty in achieving a comprehensive understanding of the generic drugs registration and price setting system, which could have been facilitated through assistance from the Food and Drug Authority. It is for this reason that a network of concerned authorities is needed. Furthermore, provided the system works well, it could also provide the opportunity for the KFTC to advocate competition policy to the regulatory authorities.

The Chairman summarised this section of the round table as indicating a clear movement towards more co-operation between competition authorities and patent offices, but also a range of different levels of co-operation.

6. What Else Can Competition Authorities Do?

The Chairman asked the EC for details on the pharmaceutical sector enquiry, and also added that the US delegation had a question concerning the *McGill* and *IMS* cases and whether they were an attempt to demonstrate a faulty IP system.

A delegate from the EC firstly explained that the EPO had seconded an experienced member of staff to assist the EC with its enquiry. The main conclusions would come from the preliminary report as the final version, in addition to any recommendations that might flow from it, was still being discussed within the EC with the final version expected to come out before the summer break.[2] Following the preliminary investigations, it was found that originator companies engage in certain practices that contribute to delays in market entries of competing generic medicines. The practices considered in the enquiry included certain patent filing strategies, in addition to patent litigation strategies, patent settlements and interventions from regulatory bodies. The EC found that some originator companies filed so-called 'patent clusters', which contained a request for numerous patents, and divisionals, across the EU member states but often relating to one single medicine.

These patent cluster applications, in addition to divisional applications, can keep an application pending for a long time, leading to increased legal uncertainty for generic companies as to whether they can enter the market with their generic products without infringing any of the relevant patents. Of the sample cases reviewed, nearly 700 involved litigation with generic companies lasting on average three years, with generic companies winning in almost two thirds of the decided cases.

As regards patent settlements, 200 were concluded in the EU between originator companies and generic companies in which terms were agreed for ending on-going litigation or dispute. In about 50% of these settlements the entry of generics was restricted, and in about 50% of these cases there was a value transfer from the originator company to the generic company. Direct payments from originator to generic companies amounted in total to more than €200 million. Originator companies intervened in national procedures for the approval of generic medicines in a significant number of cases, which on average took four months longer than those procedures where no such intervention took place. When generic companies challenged before the court the decisions of market authorisation bodies, only 2% of these cases were won. Generic entry on the market leads to a significant decrease in prices for the medicine. Based on the sample of generic medicines entering the market between 2000 and 2007, the average price level for these medicines decreased by almost 20% after the first year following the generic entry. In rare cases the

[2] Final report now available here: http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/staff_working_paper_part1.pdf.

decrease was as much as 90% but the average was 20%. At the same time an average delay of generic market entry of seven months was observed. For a small sample that was analysed which corresponded to an aggregated turnover of €50 billion, total savings gain by the generic entry amounted to €15 billion in this period and an additional saving of €3 billion would have been possible if generic entry had taken place immediately.

Turning to the second aspect of the report, the competition between originator companies, it was found that originator companies practiced so-called defensive patenting strategies which are primarily aimed at blocking competitors in the development of new medicines. This may hamper innovative efforts of competition, lead to higher costs for competing pharmaceutical companies and may delay consumer access to innovative medicines.

In terms of the regulatory framework, both originator and generic companies called for a single community patent and the creation of unified specialised patent registry in Europe. These calls are supported by the findings of the sector enquiry as it was discovered 11% of final judgments in litigation across member states contradicted each other. The direct costs associated with patent litigation amounted to €420 million. The need for a community patent ties in with earlier discussions concerning the need for early clarification of whether a patent is valid or not. In a highly fragmented patent system like that in Europe, a generic may have to litigate through all the different member states in order to have clearance on the validity of the patent. Any necessary legislation changes within the regulatory framework would be supported by the EC, in addition to opening competition enforcement procedures in cases.

Under the European system IP laws are national. Therefore the EU does not interfere with the way in which national laws are applied and cannot decide whether IP protection should be granted in a particular case. The EU is limited to looking at whether these IP rights have been exercised in a way that would be abusive, and that would result in harm to consumers. As regards the *IMS* case, the European Court of Justice ("ECJ") gave a preliminary ruling on how Article 82 would apply in the situation should the right be granted. However, this right is as yet not clarified as the German courts are still considering whether protection should be granted. The question before the ECJ was therefore purely theoretical, *i.e.* assuming there was an IPR, was there an abuse in the way this IPR was exercised. In the *McGill* case, the situation was similar – it was assumed that the IPR concerned had been properly granted by the Irish competition authorities and the question was therefore whether this right has been exercised in an abusive way.

The Chairman agreed that the courts did not and could not make a judgment on whether or not these IPRs were justified. In the case of *McGill*, the competition authorities were called to fix a problem which really originated from the fact that a right had been granted when it should not have been. However, this is the responsibility and privilege of the Irish competition authority and there is no action that can be taken from the competition perspective. The Chairman then gave the floor to BIAC to highlight the scepticism on the part of the business community concerning the enquiry.

A delegate from BIAC explained that the pharmaceutical enquiry is extremely important, and that since the preliminary report is not final it is important to provide a critical response. BIAC's paper was intended to raise some of the issues raised elsewhere, including the concern that the decline of new molecules vis-à-vis a reference period is a poor measure of industry output and the methodology of gauging whether entry of generics has actually slowed down should be carefully evaluated. More broadly, BIAC do see IP laws and competition laws as complementary but starting from different premises. If the consequences of the effects of IP laws are undesirable, it is important not to simply 'put a band aid on them' through manipulation of the antitrust laws. BIAC therefore questions whether the enquiry focuses too much on protecting the entry of generics. This could result in too critical an approach being taken towards the efforts of originators to enforce the legitimate rights they have under IP laws, and to instead characterise these rights as a tool kit. If the balance is not properly determined, too much emphasis will be

placed on generic entry at the expense of creating adequate incentives for the dynamic and important changes facilitated by the introduction of new categories of pharmaceuticals.

A delegate from the EC responded that as regards the decline of entries as a flaw, this was taken from industry data though EFPIA (European Federation of Pharmaceutical Industries and Associations) data. As regards the generic entry period, while it is laudable that generic entry has increased within the last decade, this does not exempt a consideration of some of the delays that still exist. The concept of a 'tool kit', which has also been disputed, is a term found in the documents of the companies examined by the EC. A sector enquiry will consider companies' behaviour and also the terminology used by them. The exercise of legitimate patent rights and the exercise of patent law enforcement are part of fundamental rights, namely the rights to property and access to the courts, but while something is legitimate under one particular regime, it may be problematic under competition law. The intention is not to remedy all problems with competition law and there is a concerted response by all services and directorates of the EC. As for problems that originate in industry, and issues that the industry might have with innovation, the EC has certain initiatives to deal with these. One example is the innovative medicine initiative which looks at bottlenecks which are funded by both the industry and the EC. Problems that companies may have regarding receiving marketing authorisations are dealt with by DG Enterprise, whereas DG Competition will consider companies' behaviour. In summary, there are multiple causes to the problems but they require different solutions and DG Competition will take enforcement actions when appropriate.

The Chairman reflected that there are increasingly more issues where actions that are perfectly legal are objected to by a certain segment of society, for example bonuses and stock options. Therefore something may be perfectly legal under IP law, but may still be abusive under competition law. The Chairman then turned to the delegation from Canada to present the main findings of the conference held by the Canadian Competition Bureau in 2007 on the interface between competition and IP law.

A delegate from Canada explained that the purpose of the symposium, was to provide guidance on the future of policy development in Canada, help the Bureau re-examine its enforcement approach to matters involving IP to ensure it was in line with the current economic thinking, and to verify the Bureau's enforcement guidelines with respect to IP were up to date and relevant. Approximately 50 people attended the one day symposium, which was high level and interactive, including academics, practitioners and government representatives with responsibilities in IP or competition. Five topics were chosen (authorised generics, extent of IPRs, collective management of copyright, compulsory licensing and time bundling in the IP contest) and an international editorial panel oversaw the work on each topic. The authors presented papers and then engaged in in-depth discussion with the participants. All the papers highlighted various areas of interests and raised important issues, but the Bureau did not think there were substantive conclusions that necessitated a change in the current enforcement guidelines. Therefore the approach that has been adopted since the guidelines were drafted appears to still be the correct approach, and the Bureau will not be focusing any further on these specific areas. However, they will likely feed into the ongoing advocacy work of the Bureau. The delegate from Canada also pointed out that all the papers have been published in a book which was available from the Canadian delegation.

Hovenkamp added that in his view reverse payment settlements had been one of the most abysmal failures of US antitrust policy over the last ten years, despite valiant attempts by the FTC to deal with them. However, under the new administration there would hopefully be a change. Fundamentally it is a problem of patent policy, which has unclear boundaries coupled with a long held judicial reluctance to pre-empt settlements. Therefore a $300 million reverse settlement case can be agreed without a serious inquiry into patent validity or infringement. The cases have been relatively consistent, which indicates a failure on the part not of the FTC, but the antitrust tribunals.

The Chairman concluded that the discussion had been quite precise on what each side could and could not do, and what the specific competition problems were. The most intractable problem at this point appears to be the competition issues raised by the process of patentability. There is a very different atmosphere surrounding this discussion than there was at one of the Committee's initial discussions on IP and competition law in the 1990's, which treated IP as something sacred. Now the debate has evolved and become much more informed and serious. IP agencies are now seeking the co-operation of competition authorities and vice versa, and the competition authorities are trying to establish bridges with them to solve some of the problems due to the process but also the possible abuses of the patent system.

COMPTE RENDU DE LA DISCUSSION

Le Président du Comité de la concurrence, Frédéric Jenny, rouvre les débats en précisant qu'ils se situent dans le prolongement d'une table ronde sur la concurrence, les brevets et l'innovation qui s'était tenue en 2006. Il présente les invités d'honneur, Ciaran McGinley, de l'Office européen des brevets (OEB), et le professeur Herbert Hovenkamp de l'Université d'Iowa. Il dresse ensuite les grandes lignes des débats en expliquant qu'ils seront dans un premier temps consacrés à la question de savoir si le droit des brevets et les systèmes de délivrance des brevets entravent la concurrence ou l'innovation, en reprenant ainsi certains des points qui avaient été abordés en 2006. Il précise que les débats porteront ensuite sur une analyse des utilisations contraires aux règles de concurrence qui peuvent être faits des brevets en instance, sur la normalisation et le concept des clauses « équitables, raisonnables et non discriminatoires », sur le point de savoir si les offices des brevets et les autorités de la concurrence ont la possibilité de coopérer et coopèrent effectivement dans le but d'améliorer le processus de délivrance des brevets et, enfin, sur les mesures que les autorités de la concurrence peuvent prendre en ce qui concerne les problèmes que posent les brevets en instance.

1. Introduction

Le Président invite le professeur Hovenkamp à présenter une introduction générale du sujet.

M. Hovenkamp indique qu'il s'en tiendra essentiellement au système de délivrance des brevets en vigueur aux Etats-Unis, qui vise essentiellement à promouvoir le progrès scientifique et technologique. Idéalement, ce système devrait offrir une protection suffisante tant en termes de durée que de portée des brevets pour engendrer le volume optimal d'innovation, sans plus.

Le principal reproche qui peut être formulé contre le système américain de délivrance des brevets au cours des dix dernières années est qu'il délivre beaucoup trop de brevets, dont la plupart n'apportent que des améliorations négligeables, voire aucune amélioration. Cette situation entraîne un retard considérable dans le traitement des demandes de brevets par le *Patent and Trademark Office* (PTO). En outre, il arrive si souvent de nos jours que les revendications de brevets soient si abstraites qu'il est difficile de savoir avec précision ce que couvre les brevets concernés et de déterminer en quoi on les enfreint.

M. Hovenkamp relève que certains spécialistes de la concurrence préféreraient considérer que les brevets sont simplement des biens et qu'ils ne confèrent pas nécessairement un droit de monopole comme on le pense habituellement. Il estime lui aussi que les brevets sont des biens. Or, ils ne fonctionnent pas comme des biens : par exemple, le système immobilier s'effondrerait rapidement si ses limites étaient aussi mal définies que celles du système de délivrance des brevets. Deux éléments sont nécessaires pour qu'un régime de propriété fonctionne correctement : des lignes de démarcation bien définies et des règles claires de priorité : qui était là le premier ? Qui a un droit de priorité sur qui ? À cet égard, le système de délivrance des brevets laisse à désirer, en particulier parce qu'il permet qu'un nombre quasiment illimité de demandes de continuation ou de revendications tardives s'ajoutent à une demande de brevet initiale dans le cadre d'un processus permanent. Il n'est pas rare que de nouvelles revendications soient présentées dix ans ou plus après le dépôt de la demande de brevet initiale, la validité du brevet commençant à courir à partir de la date du dépôt de la demande initiale. Ces revendications tardives ont un effet rétroactif et deviennent valides à compter de la date de la demande. C'est ainsi que des titulaires de brevets peuvent parfois formuler des revendications relatives à une technologie que d'autres ont élaborée, les adjoindre à une

demande de brevet en cours d'examen et bénéficier d'un brevet même s'ils présentent des revendications relatives à une technologie élaborée par un tiers. En tant que régime de propriété, le système de délivrance de brevets fonctionne assez mal.

Aux États-Unis, d'importantes réformes ont été lancées, principalement par le pouvoir judiciaire. Par exemple, dans l'arrêt *KSR* qu'elle a rendu il y a environ quatre ans, la Cour suprême a durci l'exigence de non-évidence et d'activité inventive et critiqué une juridiction inférieure pour avoir autorisé la délivrance d'un trop grand nombre de brevets insignifiants concernant des appareils qui n'apportaient aucun perfectionnement réel à ceux qui existaient déjà. Dans une autre décision (*eBay*), elle s'est penchée sur les sanctions en matière de brevets et elle a réformé une décision rendue par une juridiction inférieure qui prononçait presque systématiquement une injonction en cas d'allégation de contrefaçon de brevet. Elle a en effet jugé que, pour bénéficier d'une injonction, le titulaire d'un brevet doit satisfaire aux mêmes exigences que celles imposées à tout demandeur, et notamment que l'injonction soit dans l'intérêt public et que le titulaire du brevet ait probablement gain de cause sur le fond s'il devait demander une injonction permanente. L'arrêt *eBay* a eu un effet assez considérable et positif concernant les « entités inactives » ou « chasseurs de brevets », c'est-à-dire des entreprises qui produisent des inventions dans le but de détenir des portefeuilles de brevets et de vendre des licences à d'autres entreprises. La technologie qu'elles détiennent n'existe pas dans la pratique tant qu'elle n'a pas fait l'objet d'une licence. Il existe une corrélation très étroite entre ce type d'entreprises et la continuation de brevets sur dix ans, qui se traduit par des revendications tardives à répétition et, souvent, une entreprise peut se retrouver rétroactivement en situation de contrefaçon. Grâce à l'arrêt *eBay*, les États-Unis ont drastiquement réduit le nombre de cas dans lesquels les « chasseurs de brevets » peuvent bénéficier d'injonctions.

S'agissant de la continuation des brevets, il ne faut rien en attendre de très bon. Il y a environ un an, le PTO a décidé d'imposer des limites très strictes à la continuation des brevets : dorénavant, il ne sera possible de déposer que deux demandes ultérieures contenant de nouvelles revendications avec effet rétroactif à la date de la demande initiale ; une demande supplémentaire de continuation sera traitée comme une nouvelle demande, ce qui signifie qu'elle n'aura plus d'effet rétroactif. Le *Federal Circuit*, une cour d'appel, a invalidé cette décision jugée non conforme à l'obligation légale qui impose que les brevets soient valables à compter de la date de la première demande.

M. Hovenkamp fait observer qu'en rendant sa décision *Bilski* l'année dernière, le *Federal Circuit* a ouvert d'excellentes perspectives quant à une modification de sa jurisprudence. Pour pouvoir être breveté, l'objet de la demande doit, en application de cette décision, être une machine ou transformer une machine existante, ce qui signifie que le brevet doit être quelque chose de matériel ou conférer un autre état à quelque chose qui existe déjà. La décision *Bilski* s'en prend directement aux revendications de brevets trop abstraites, ce qui par exemple est très souvent le cas pour les brevets portant sur des méthodes de gestion des affaires.

Aux États-Unis, la législation des brevets et la législation de la concurrence étant de nature fédérale, la législation de la concurrence ne peut régir le système de délivrance des brevets. Le PTO est une instance réglementaire qui jouit d'une « immunité implicite », ce qui signifie essentiellement que la législation antitrust ne peut interférer avec le processus par lequel le PTO examine et fait droit aux demandes de brevets ou les rejette. Il existe cependant une exception importante : si l'auteur de la demande de brevet n'a pas divulgué toutes les informations et a, par exemple, tenté de créer un monopole en entamant des poursuites pour contrefaçon de brevet qui ont pour fondement un brevet délivré sur la base d'informations frauduleuses, ces agissements pourront constituer une violation de l'article 2 du *Sherman Act* s'il s'avère qu'ils répondent aux critères de pouvoir de marché et de substantialité. Sinon, le droit de la concurrence aux États-Unis n'intervient dans le domaine des brevets que pour les actes postérieurs à la délivrance du brevet.

Le Président demande s'il apparaît que la faible qualité des brevets entrave outre mesure l'innovation ou la concurrence ou si, bien que le système de délivrance des brevets ne soit pas performant, cela n'a pas de conséquences notables pour l'innovation et la concurrence.

M. Hovenkamp répond que les preuves ne manquent pas qui montrent que la recherche de brevets est devenue à ce point onéreuse et donne des résultats à ce point aléatoires que de nombreuses entreprises estiment qu'il leur est plus rentable d'aller simplement de l'avant et de risquer d'être accusées de contrefaçon de brevet que de mener cette recherche. John Allison et Mark Lemley ont récemment rédigé un document très intéressant sur l'intensité du contentieux pour les différents types de brevets. Leur conclusion est que le contentieux est bien plus fréquent pour les revendications abstraites que pour les revendications concrètes, qu'il concerne le plus souvent des brevets relatifs à des logiciels, que dans environ un cas sur cinq ce sont des « entités inactives » qui intentent des poursuites en contrefaçon de brevet, et qu'il existe un lien direct entre les poursuites en contrefaçon de brevet et le dépôt de revendications tardives (plus de demandes de continuation sont déposées, plus la probabilité est élevée d'une action future en contrefaçon). En outre, James Bessen et Michael Meurer ont, il y a un an, écrit un ouvrage important intitulé « *Patent Failure* », dans lequel ils examinaient le coût « privé » du système, c'est-à-dire le coût pour les titulaires de brevets et les innovateurs ou les créateurs dans une branche d'activité. Ils sont arrivés à la conclusion que, pour tous les secteurs à l'exception des secteurs pharmaceutique et chimique, le système de délivrance des brevets engendre plus de coûts que d'avantages, et donc que le brevetage crée de plus fortes pertes en termes de frais de procès, de coût de recherche et de brevetage même. Ainsi, les entreprises y gagneraient et innoveraient plus librement s'il n'existait aucun système de délivrance de brevets. Les conclusions de Bessen et de Meurer n'ont pas encore été sérieusement testées, mais si l'on croit ce qu'ils avancent, elles constituent une critique sans appel puisque, mis à part les quelques effets positifs et négatifs et à l'exception de quelques secteurs, une participation au système de délivrance de brevets n'aurait aucun intérêt.

Un délégué de la Commission européenne signale que, dans le secteur pharmaceutique, les fabricants de produits génériques sont disposés à conclure des accords en vertu desquels ils sont payés pour retarder la commercialisation de produits, les coûts liés aux risques d'une contrefaçon de brevet étant pour eux très élevés. En revanche, si les fabricants de princeps abusent du système, ils doivent également faire face à des coûts dans la mesure où ils doivent déposer une demande de brevet et effectuer des recherches préalables. Ainsi, il y a des coûts des deux côtés, mais avec un déséquilibre apparent. Le délégué demande à M. Hovenkamp s'il dispose de plus d'informations sur ce déséquilibre.

M. Hovenkamp répond par la négative et explique que, s'agissant des accords visant à retarder contre paiement la commercialisation de produits, bien que le recours au système de délivrance de brevets et le dépôt de demandes de continuation engendrent des coûts élevés, ces coûts ne représentent rien par rapport aux sommes dont il est question dans le cadre de ces accords. En effet, bien que les frais administratifs soient élevés (le dépôt de demandes de continuation est onéreux tout comme les poursuites en contrefaçon), ils ne sont rien face aux centaines de millions de dollars que certains titulaires de brevets sont disposés à payer pour empêcher que des contrefacteurs présumés accèdent au marché.

Un délégué du Taipei chinois note que la frontière qui existe entre la répression antitrust et le principe d'abus de brevet devient une question pressante. Après la révision du *Patent Act* aux États-Unis en 1988, le pouvoir de marché a joué un rôle très important dans l'évaluation des cas d'abus de brevets. Des débats ont également lieu aux États-Unis sur la nécessité de préserver le principe d'abus de brevet dans le système juridique puisque les lois antitrust couvrent déjà cet aspect. Le délégué demande à M. Hovenkamp de donner son avis sur le sujet.

M. Hovenkamp reconnaît que ses vues actuelles sont quelque peu différentes de celles qu'il avait exposées dans ses travaux. En effet, il a longtemps estimé que l'abus de brevet devait strictement être régi

par les principes antitrust, c'est-à-dire qu'il n'y a abus que si le comportement reproché constitue une violation des lois antitrust dans un contexte légèrement différent. Ainsi, si la violation de la législation antitrust est une violation per se, il n'est pas nécessaire de prouver l'existence d'un pouvoir de marché, mais s'il s'agit d'une violation faisant intervenir la règle de raison, l'existence d'un pouvoir de marché doit alors être prouvée et il faut alors également une mesure des effets sur la concurrence. Sur le plan procédural, il existe en vertu de cette définition des différences entre l'abus et la violation des lois antitrust. L'abus est habituellement invoqué comme moyen de défense lors d'une action en contrefaçon. Aux États-Unis, l'abus de brevet ne crée pas une cause explicite d'action en justice, si bien qu'il doit être invoqué dans un autre contexte, les sanctions étant donc différentes. Dès lors que l'abus de brevet a été établi, le titulaire du brevet n'a généralement pas le droit de percevoir les redevances ou il doit remédier à l'abus pour pouvoir agir en contrefaçon. Les mesures correctrices sont donc fort différentes de celles qui sont en vigueur pour l'application de la législation antitrust en droit public et en droit privé.

M. Hovenkamp ajoute qu'il a récemment conclu que l'on peut faire jouer l'abus dans quelques domaines où les lois antitrust ne sont pas applicables. Il y a abus dans trois situations :

- Les infractions traditionnelles aux lois antitrust lorsque l'abus est lié à des restrictions affectant les prix et la production.

- L'abus peut jouer un rôle propre s'agissant des restrictions à l'innovation, lesquelles peuvent avoir des effets beaucoup plus néfastes sur l'économie que les restrictions à la concurrence par les prix, ne serait-ce que parce que les effets bénéfiques de l'innovation peuvent être infiniment supérieurs à ceux de la concurrence par les prix. Cependant, il est souvent très difficile de mesurer une restriction à l'innovation avec une précision suffisante pour pouvoir ouvrir une action pour infraction aux lois antitrust, et en particulier une action relevant du droit privé, pour laquelle l'existence d'un lien de causalité doit être démontrée. Le demandeur devra alors invoquer une innovation qui n'a pas eu lieu parce qu'un rival y a fait obstacle, et il ne sera alors jamais possible de prouver un lien de causalité. Cependant, des poursuites en contrefaçon de brevet intentées dans le seul but d'entraver l'innovation peuvent constituer un abus de droit même si, par exemple, elles ne répondent pas aux critères qu'exige la jurisprudence *Walker Process* pour qu'il y ait violation des lois antitrust.

- L'abus peut également jouer un rôle propre lorsque l'activité en matière de propriété intellectuelle vise à séquestrer des informations qui devraient relever du domaine public. Cette question concerne cependant davantage les droits d'auteur que les brevets.

2. Le droit des brevets et les systèmes de délivrance des brevets entravent-ils la concurrence ou l'innovation ?

Le Président observe que la question de savoir si le droit des brevets et les systèmes de délivrance des brevets entravent la concurrence ou l'innovation s'inscrit directement dans le prolongement des débats tenus en 2006 par le Comité sur la concurrence, les brevets et l'innovation. Il donne la parole à M. Ciaran McGinley, de l'OEB.

M. McGinley indique qu'il n'a qu'un simple message à faire passer : la manière dont sont utilisés les brevets et la procédure de délivrance des brevets a radicalement évolué au cours des 30 dernières années, et cette évolution a eu des conséquences tant pour l'innovation que pour la concurrence.

À Venise au XIV^{è} siècle, le système de brevets visait à écarter deux risques principaux : pour l'inventeur, un éventuel brevet le protégeait contre le vol et la copie de ses idées ; pour l'État, un éventuel

brevet empêchait qu'un inventeur exploite son invention dans un autre pays. De nos jours, le système de délivrance des brevets tend de plus en plus souvent à gérer d'autres risques.

- Les idées sont de plus en plus traitées comme des biens, ce qui engendre de nouveaux risques que doivent gérer de nouveaux acteurs ; des concepts tels que la qualité des brevets doivent aujourd'hui être examinés sous d'autres angles, comme ceux qui prévalent dans l'audit et le secteur bancaire.

- Le processus de délivrance de brevets permet de gérer certains risques, mais il en crée d'autres. C'est pourquoi des modèles d'assurance ont été élaborés afin d'offrir une meilleure protection contre les risques particuliers qui s'attachent aux brevets, notamment le risque de contentieux, encore qu'en raison de la complexité des systèmes qui existent à travers le monde on ne puisse le faire qu'au coup par coup.

- On constate de plus en plus souvent que d'autres institutions sont amenées à gérer certains risques que le système de brevets ne gère pas lui-même. À l'évidence, les autorités chargées d'autoriser les médicaments sont à l'œuvre depuis si longtemps que l'on oublie souvent qu'elles ont été créées après la mise en place des systèmes de brevets et pour faire face à des risques sanitaires qui ne pouvaient et ne devaient pas être gérés par des offices de brevets dont la spécialité était la technique. C'est la leçon élémentaire qu'il reste à tirer : la manière dont on réglemente la délivrance des brevets est fondamentalement différente de la manière dont on réglemente leur utilisation.

Du point de vue de la concurrence, les problèmes éventuels sont liés aux effets indésirables d'un cadre réglementaire qui a été élaboré selon des conceptions différentes que celles qui ont cours aujourd'hui. M. McGinley en évoque trois :

- Les brevets et/ou les demandes de brevets ne sont pas la même chose qu'une innovation technique. Or, combien d'entreprises ne se vantent-elles pas d'avoir déposé le plus grand nombre de demandes de brevet sur leur marché ? Combien de responsables politiques ne laissent-ils pas entendre que subventionner le dépôt de brevets revient à subventionner l'innovation ? Certaines demandes de brevets peuvent être et sont déposées dans le but de tirer un avantage concurrentiel. Les offices de brevets peuvent débusquer et débusquent ces faux brevets. L'OEB a répondu aux critiques qui lui étaient adressées selon lesquelles il accepte des revendications rédigées avec une trop grande imprécision et il délivre des brevets trop facilement, pratiques ayant des effets néfastes sur la concurrence. En 2008, grâce aux initiatives qu'il a prises, pour la première fois moins de 50 % des demandes ont donné lieu à la délivrance d'un brevet, les autres demandes étant soit retirées, soit rejetées. La même tendance à la baisse été également observée à l'Office des brevets des Etats-Unis (USPTO), mais nous ne pouvons pas à nous seuls résoudre ce problème. Les demandeurs exercent trop de pressions, l'avantage concurrentiel qui est en jeu est trop important et, par conséquent, trop d'argent est consacré à cette activité pour que les offices de brevets puissent faire face.

- Vient ensuite le problème des demandes en instance. Il tient principalement à la technologie et à la mondialisation. C'est d'ailleurs en raison de cette dernière que des demandes de brevets sont déposées dans de nombreuses régions du globe. Les offices de brevets peinent à faire face, et l'avenir proche sera marqué par un allongement des délais de traitement et un gonflement des volumes de demandes en instance. Aujourd'hui, le nombre de brevets en instance auprès de la plupart des systèmes est plus élevé que le nombre de brevets qui ont été délivrés et qui sont toujours en vigueur. C'est pourquoi les brevets en instance revêtent une valeur économique

importante, ce qui à son tour encourage certains demandeurs à préférer non seulement le volume à la qualité, mais également les retards à la ponctualité et l'opacité à la transparence.

- Troisièmement, les différents acteurs ne parlent pas le même langage. Par exemple, le terme « abus » est-il réellement judicieux quand tout ce que font les demandeurs de brevets est simplement tirer pleinement parti du cadre légal en place au profit de leurs actionnaires ? C'est notamment le cas des demandes divisionnaires qui, à l'OEB, équivalent de façon plus restrictive aux demandes de continuation aux États-Unis. Il est tout à fait acceptable d'autoriser des demandes divisionnaires dans le système de délivrance de brevets, mais il est évident qu'elles sont aujourd'hui utilisées à des fins différentes de celles qui avaient été prévues. En Europe, le problème n'est donc pas d'accuser des entreprises d'avoir commis des abus, mais plutôt d'établir un équilibre entre des intérêts légitimes et des effets indésirables. Le débat autour des demandes divisionnaires a également mis en lumière un parti pris des acteurs, de nombreux demandeurs et avocats s'opposant farouchement aux changements proposés, ce qui montre qu'ils sont convaincus que le système de délivrance des brevets a été spécialement conçu pour eux. Cette opposition a été relayée par des critiques dans la presse et le public, mais il se peut qu'elles témoignent d'une transition nécessaire d'une relation bilatérale confortable et bien établie entre experts vers une relation multilatérale dans laquelle d'autres parties intéressées ont également leur mot à dire.

Enfin, M. McGinley souligne qu'il faut se réjouir que l'enquête menée par la Commission européenne sur le secteur pharmaceutique ait permis de mettre en exergue l'existence d'un cadre institutionnel complexe dans le domaine de la concurrence, des brevets et de l'innovation. La coopération est malaisée, mais les règlements d'une institution interagissent avec ceux des autres. C'est ainsi que la normalisation, la délivrance de brevets, l'autorisation de médicaments et la réglementation de la concurrence interagissent. Il arrive que cette interaction engendre des effets indésirables, lesquels doivent être identifiés correctement. L'OEB accepte que ces interactions puissent parfois nécessiter une modification des lois concernant le système de brevets, mais il souhaiterait que tous les acteurs institutionnels reconnaissent que cette interaction doit avoir lieu et s'attachent à mieux la comprendre car elle a parfois des résultats indésirables. Il faudrait ne pas systématiquement considérer que ces résultats indésirables constituent une présomption d'abus. En bref, ce qu'il faut c'est que tous les acteurs institutionnels reconnaissent qu'ils contribuent au problème et qu'il est donc fort probable qu'ils peuvent contribuer à le résoudre.

Le Président fait observer que les débats ont déjà permis d'établir une distinction entre trois domaines susceptibles de poser des problèmes en termes de concurrence : i) le processus de délivrance des brevets lui-même ; ii) le lien général entre le droit de la propriété intellectuelle et le droit de la concurrence ; et iii) la portée de la propriété intellectuelle, notamment pour ce qui est de la brevetabilité dans le domaine génétique et de la programmation informatique. Il passe alors au point ii), à savoir le lien entre le droit de la propriété intellectuelle et le droit de la concurrence et donne la parole à la Commission européenne.

Un délégué de la Commission européenne indique que, bien que beaucoup de choses soient dites et écrites à propos des divergences et des conflits dans ce domaine, la Commission, dans ses activités quotidiennes d'application, constate souvent une grande complémentarité plutôt qu'un antagonisme. Trois sous-ensembles de cas permettent de distinguer entre la complémentarité et les conflits.

Premièrement, il n'y a très souvent pas de tensions. Supposons qu'une fusion risque d'engendrer un pouvoir de marché. L'une des solutions sera habituellement la cession d'actifs matériels. Ce qui ne veut pas dire qu'il y ait conflit entre le droit de la concurrence, la propriété ou les biens en général. Il y a complémentarité, mais pas conflit. Il en va de même si la fusion porte sur la propriété intellectuelle et si la solution est alors la conclusion d'un contrat de licence. En l'espèce, il n'y a pas de conflit avec le droit de propriété intellectuelle.

La deuxième catégorie concerne le refus de vendre ou de concéder une licence. Dans ce cas, on n'observe également pas de tension ou de conflit entre les deux ensembles de règles puisque le droit de la concurrence intervient dans un contexte très particulier. Tout d'abord, il faut prouver l'existence d'une position dominante ; or, dans la plupart des cas le fait de détenir un brevet ou un droit de propriété intellectuelle ne confère pas une position dominante. Ensuite, on doit être en présence d'un contexte exceptionnel qui rend une licence de propriété intellectuelle indispensable pour pouvoir entrer sur le marché. C'est uniquement dans ce contexte que le droit de la concurrence intervient.

La troisième catégorie évoquée par M. Hovenkamp concerne les cas dans lesquels le système de propriété intellectuelle est dysfonctionnel et contreproductif dans la mesure où il ne stimule pas l'innovation. Ici encore, il n'est pas du tout sûr qu'on soit en présence d'un conflit ; on constate plutôt un problème commun. On pourra tenter d'avoir recours au droit de la concurrence et à ses outils limités pour régler le problème *ex post*, mais cela n'est pas toujours possible, ni souhaitable. Pour la Commission européenne, la solution aux lacunes dues directement au système de propriété intellectuelle sera probablement à chercher du côté du droit des brevets.

Cependant, s'agissant des différents usages ou abus stratégiques du système de brevets qui ont été évoqués plus haut, un type d'intervention au niveau du droit de la concurrence sera sans doute nécessaire. Il faut donc opérer une distinction subtile, laquelle constitue peut-être l'un des thèmes les plus importants de la table ronde d'aujourd'hui.

La Président fait observer que le droit de la propriété intellectuelle et le droit de la concurrence sont dans l'ensemble complémentaires, mais qu'il existe en même temps des lacunes dans la délivrance des brevets et que les deux camps se rejettent la responsabilité de combler ces lacunes. Il aborde ensuite la question de la portée de la brevetabilité, en signalant les débats animés qui ont actuellement lieu dans de nombreux pays à propos des programmes informatiques et du séquençage du génome humain. Par exemple, la France a déclaré dans sa contribution de 2006 qu'elle se méfiait des brevets dans les domaines du séquençage et des logiciels informatiques car ils ont des effets néfastes tant sur la concurrence que sur l'innovation. Cependant, certains pays pensent différemment. Le Président s'adresse d'abord aux États-Unis en leur demandant de faire état de leur expérience dans ces domaines. Il demande également à la Suisse et à la Belgique de donner leur avis.

Un délégué des États-Unis explique que le système des brevets et celui de la concurrence tendent vers le même objectif, à savoir protéger l'innovation. Il existe cependant des tensions quant à la manière dont ces deux systèmes réalisent cet objectif. Manifestement, la délivrance d'un brevet légitime peut (mais ce n'est pas le cas en général) conférer une position de monopole ; or, dans le monde qui est le nôtre, nous nous attachons à éliminer les situations de monopole qui portent atteinte à la concurrence. Nombreux sont les débats aux États-Unis qui ont été consacrés à la réforme des brevets, certains faisant valoir que les droits qui s'attachent aux brevets ont été à ce point élargis qu'ils étouffent tant l'innovation que la concurrence. Cette situation a engendré une discussion vigoureuse au sein des instances législatives sur l'éventuelle nécessité de réformer le système de propriété intellectuelle. De nombreux législateurs appellent de leurs vœux une réduction de la portée de la brevetabilité, ce qui a pu faire sourciller les tribunaux et explique peut-être pourquoi, dans l'affaire *Bilski*, le *Federal Circuit* s'est rallié à l'avis de l'office des brevets selon lequel il ne devait pas être fait droit à la demande de brevet de méthode de gestion des affaires déposée par Bilski car elle ne concernait pas un sujet susceptible d'être breveté. La Cour suprême entendra les arguments des parties dans l'affaire *Bilski* l'année prochaine[1].

S'agissant des logiciels, certains commentateurs estiment que la protection par les droits d'auteur est judicieuse, mais pas nécessairement la protection par un brevet. Le séquençage du génome humain a

[1] L'audience a eu lieu en novembre 2009.

suscité un autre débat aux États-Unis, mais le délégué indique qu'il serait prématuré pour lui de se prononcer à ce sujet.

Le Président fait observer que la contribution de la Suisse avance l'argument selon lequel la délivrance de brevets pour le séquençage du génome humain engendrerait rapidement des monopoles car on ne voit pas quel pourrait être le substitut d'un gène. Cependant, la Suisse semble avoir pu lever ces préoccupations.

Un délégué de la Suisse explique que la loi sur les brevets a été modifiée en 2008 et qu'elle offre désormais une protection des brevets pour les inventions dans le domaine biotechnologique. La Commission de la concurrence a été consultée de manière générale, mais pas en particulier pour les inventions en biotechnologie. La brevetabilité des biomatériaux et des gènes a notamment suscité une vive controverse. En guise de solution, le Parlement a opté pour un compromis qui reconnaît la brevetabilité des séquences génétiques, mais qui impose également certaines limites. Premièrement, pour éviter des revendications trop floues ou spéculatives, une protection par brevet des séquences génétiques n'est autorisée que pour les segments d'ADN qui sont essentiels pour les propriétés et les fonctions des séquences et qui font l'objet d'une description concrète dans la demande de brevet.

Deuxièmement, la nouvelle loi envisage plusieurs exceptions quant aux effets du brevet, et notamment une exception générale dans le domaine de la recherche : toute étape méthodologique visant à obtenir des informations sur l'objet d'une invention brevetée est autorisée quel que soit l'objectif poursuivi. Pour les inventions dans le domaine de la génétique, cela signifie que la séquence de gènes brevetée peut être utilisée pour obtenir d'autres effets techniques utiles, et ce même sans l'autorisation du titulaire du brevet et même lorsque les informations recherchées le sont à des fins commerciales. Les fabricants de produits génériques sont en mesure de mener des tests techniques avant l'expiration d'un brevet. Les limites qui sont imposées permettent donc d'éviter les abus et de garder le marché ouvert.

Un autre aspect intéressant de cette nouvelle loi du point the vue de la concurrence est que breveter des inventions biotechnologiques apparaît justifié dans la mesure où la protection qui est alors offerte ne profite pas seulement aux grandes entreprises mais également aux PME du secteur des biotechnologies. En effet, il est plus facile pour ces entreprises de trouver des capitaux dès lors que les résultats de leurs recherches sont protégés par des brevets.

Le délégué ajoute que la nouvelle loi délaisse le principe d'épuisement national au profit de celui d'épuisement régional. Les titulaires de brevets ne pourront donc plus s'opposer aux importations de produits brevetés lorsque ces derniers sont mis en circulation dans l'Espace économique européen. L'abandon du principe d'épuisement national a été proposé par la Commission de la concurrence en 2003. Grâce à l'épuisement régional, il sera possible d'empêcher que des brevets soient utilisés pour isoler le marché suisse, en particulier par rapport au marché européen. Les effets sont considérés comme positifs pour la concurrence, tout en tenant compte de la situation propre à la Suisse.

Le délégué demande ensuite à la Belgique pourquoi, dans sa contribution, après avoir relevé qu'un changement important dans le régime belge des brevets concernait la brevetabilité d'inventions biotechnologiques, elle a indiqué que la nouvelle loi « constitue un facteur de sécurité juridique en faveur du développement des investissements dans un domaine clé ».

Un délégué de la Belgique répond que, sur la base des débats qui ont eu lieu jusqu'à présent et des nombreux rapports qui ont été publiés au cours des deux dernières années, il se demande si ces arguments sont toujours fondés. Il ajoute toutefois que, même s'il existe un risque réel d'abus des droits de brevets, les brevets restent tout à fait judicieux dans la phase initiale. En Belgique, le secteur biotechnologique se compose surtout de PME, et principalement de très jeunes entreprises et d'entreprises issues d'un

essaimage des plus grandes universités. Nombreux sont ceux qui pensent que leur développement serait grandement favorisé si elles pouvaient bénéficier d'une plus grande certitude quant à la brevetabilité de leurs créations, certitude qui les aiderait également à obtenir des financements. Cela s'est vérifié jusqu'à présent. Reste toutefois à savoir si des abus seront commis lorsqu'elles occuperont une position dominante.

Le Président relève que la dimension internationale de la relation qui existe entre l'innovation, la concurrence et les brevets n'a pas encore été abordée. Il demande à M. Rob Anderson, de l'OMC, de faire part de ses réflexions sur les débats et de commenter la place de ces questions dans les travaux menés par l'OMC dans le domaine de la propriété intellectuelle.

M. Anderson déclare que le Secrétariat de l'OMC suit avec grand intérêt les débats sur la relation entre les brevets et la politique de la concurrence au Comité de la concurrence et dans d'autres instances. Ces débats peuvent avoir une influence sur le rôle et la mise en œuvre de l'Accord de l'OMC sur les aspects des droits de propriété intellectuelle qui touchent au commerce (ADPIC). La relation qui existe entre le droit de la concurrence et les droits de propriété intellectuelle est énoncée à l'article 40 de l'Accord sur les ADPIC, lequel précise que « *certaines pratiques ou conditions en matière de concession de licences touchant aux droits de propriété intellectuelle qui limitent la concurrence peuvent avoir des effets préjudiciables sur les échanges et entraver le transfert et la diffusion de technologie* ». L'article 40 dispose également que les membres de l'OMC peuvent prendre des mesures appropriées pour prévenir ou contrôler les pratiques en matière de propriété intellectuelle ayant un effet préjudiciable sur la concurrence. Cela pose des questions importantes qui restent sans véritable réponse dans l'Accord sur les ADPIC, telles que les pratiques visées dans ce domaine ou les normes qu'il convient d'appliquer pour l'évaluation des effets préjudiciables sur la concurrence. L'article 40 a récemment suscité un regain d'intérêt à Genève. La relation entre la propriété intellectuelle et la concurrence est, par exemple, mise en avant aujourd'hui dans le domaine de la santé publique et de l'accès aux médicaments, et des orientations sont nécessaires à l'égard des refus de concession de licences. Lors des débats tenus à Genève s'est également posée une question étroitement liée, celle des accords transactionnels de brevets pour les médicaments génériques et des effets qu'ils peuvent avoir sur les efforts déployés pour favoriser la pénétration des produits génériques dans le secteur pharmaceutique des pays en voie de développement. M. Anderson souligne qu'il ne préconise aucune approche particulière concernant l'application du droit de la concurrence ; il se contente d'observer que les travaux entrepris par le Comité de la concurrence et les orientations qui peuvent en découler auront un champ plus vaste, y compris au sein de l'OMC.

Le Président indique que le Comité organisera une table ronde en octobre 2009 sur la concurrence et les produits pharmaceutiques génériques.

3. Analyse de l'utilisation anticoncurrentielle des brevets en vigueur ou en instance

Le Président aborde ensuite la question de l'utilisation anticoncurrentielle qui peut être faite des brevets en instance. Dans sa contribution, le Royaume-Uni reconnaît que les brevets en instance peuvent être utilisés d'une manière préjudiciable à la concurrence et relève que l'accumulation de demandes de brevets peut entraver une concurrence efficace ou l'intensification de la concurrence sur le marché concerné. On serait donc tout à fondé à faire valoir que l'accumulation de demandes de brevets et le recours à des stratégies similaires peuvent constituer des abus dans certains cas, en particulier si l'on se place dans une optique objective, « sans faute », vis-à-vis des abus. Le Président demande au Royaume-Uni d'expliquer ce qu'est la stratégie de « chargement de brevets » et de préciser ce qu'il entend par une optique objective « sans faute ». Il lui demande également de proposer d'éventuelles solutions.

Un délégué du Royaume-Uni explique que la stratégie de « chargement » consiste à submerger les offices de brevets d'une multitude de demandes portant en réalité sur un concept inventif unique. Il peut également s'agir de nombreuses demandes portant sur toute amélioration, fût-elle négligeable ou douteuse.

Cette pratique peut également consister à déposer un grand nombre de demandes divisionnaires. Une autre stratégie, celle de l' « inondation », consiste à déposer un grand nombre de demandes de brevets de perfectionnement concernant une technologie ou une invention mise au point par une autre entreprise.

S'agissant de la politique que peuvent adopter les autorités chargées de la concurrence, le Royaume-Uni préconise une approche objective « sans faute ». Cette dernière prend comme point de départ le concept objectif d'abus de position dominante en Europe, lequel n'est pas nécessairement fondé sur l'intention de porter atteinte à la concurrence. Le Royaume-Uni souligne qu'il souhaite, pour deux raisons, éviter de devoir se livrer à une analyse approfondie de l'intention sous-jacente à l'accumulation de demandes de brevets par « chargement », et surtout de devoir répondre à la question de savoir si cela a été fait de mauvaise foi ou dans une intention frauduleuse ou avec faute de la part du demandeur :

- Il est très difficile, surtout au Royaume-Uni, de recueillir des preuves et des informations permettant de montrer que l'intention sous-jacente à la demande de brevet originale était de tromper.

- L'intention réelle qui a motivé le dépôt de toutes les demandes est toujours discutable. D'un côté, l'inventeur peut simplement faire valoir qu'il souhaitait s'assurer un retour raisonnable sur son investissement. De l'autre, les autorités de la concurrence peuvent craindre que le but soit de décourager les inventions liées au brevet original, de retarder l'entrée sur le marché ou d'augmenter les coûts des rivaux.

C'est pourquoi il serait peut-être judicieux d'adopter une approche objective, bien qu'il faille toujours être prudent lorsque l'on traite des droits de propriété intellectuelle sous l'angle de la politique de la concurrence.

Un autre délégué du Royaume-Uni ajoute que les meilleures leçons qui ont été tirées s'agissant de la bonne approche à adopter l'ont été dans d'autres domaines, en particulier les installations essentielles et l'augmentation des coûts des rivaux. En effet, le brevet n'est, à plusieurs égards, qu'un facteur de production. Par exemple, les droits de propriété intellectuelle protègent les connaissances, mais les connaissances sont non rivales, ce qui veut dire que la création de connaissances engendrera peut-être un coût fixe élevé, mais le coût marginal de leur exploitation pourra être assez faible (en fonction des conditions des contrats de licence). Très souvent, les cas d'abus dans ce domaine semblent s'apparenter largement aux cas liés à des abus plus traditionnels en amont. Par exemple, s'il s'agit dans un cas d'installation essentielle d'avoir accès à un port mais qu'il existe de nombreux ports similaires le long de la côte, le pouvoir de marché obtenu grâce à la capacité de contrôler l'accès à l'un de ces ports ne suscitera aucune préoccupation. En revanche, la fusion de nombreux ports sur la côte sera très problématique. L'analogie avec les brevets de substituts est évidente.

L'exercice des demandes de brevets est l'un des domaines dans lequel les brevets se singularisent effectivement. Encore qu'ici l'analogie avec d'autres domaines saute facilement aux yeux. Par exemple, lors d'une récente étude consacrée aux magasins d'alimentation au Royaume-Uni, la Commission de la concurrence a examiné le rôle des réserves foncières que les grandes surfaces constituent en acquérant des terrains pouvant accueillir ce type de magasins ; elles présentent ensuite plusieurs demandes de permis de construire pour ces sites et les dossiers semblent prendre beaucoup de temps. On peut voir dans cette pratique un moyen d'empêcher que des concurrents pénètrent sur le marché. Pour déterminer si une demande de permis de construire ou une demande de brevet est susceptible d'être problématique, la bonne approche dans les deux cas est d'examiner les effets de ces restrictions. Des brevets en instance peuvent certes conférer provisoirement une position de monopole ou signalent l'entrée dans un domaine, mais les effets économiques à long terme semblent négligeables. Cependant, si une autre demande est déposée

ultérieurement dans le but d'obtenir un brevet qui offre une protection efficace dans le même domaine, cette demande est susceptible d'avoir des effets à long terme et non plus temporaires.

Le délégué du Royaume-Uni ajoute que la bonne approche est de prendre en compte l'expérience britannique dans le contexte traditionnel, lequel ne suscite pas vraiment de débat quant aux éventuels problèmes qui peuvent se poser et qui est davantage axé sur les effets et les circonstances. S'agissant des freins éventuels que peuvent constituer les interventions des autorités de la concurrence dans le domaine des brevets, il y a problème dès qu'il y a intervention, et pas uniquement dans le secteur des hautes technologies. L'ampleur de ces freins et les préoccupations qu'ils suscitent peuvent varier, mais il en va de même pour les avantages offerts par une intervention dans le secteur des hautes technologies, où les bénéfices que peut tirer la société sont énormes si ces interventions sont judicieuses et correctement ciblées.

4. La normalisation et le concept des clauses « équitables, raisonnables et non discriminatoires »

Le Président a relevé que, dans leurs contributions, plusieurs pays évoquent les avantages que procurent les organisations de normalisation du point de vue de la concurrence, tout en soulignant le danger potentiel que représentent l'« embuscade tendue au moyen d'un brevet ». Il évoque la distinction déjà établie entre les juridictions dont la loi repose sur la notion de monopolisation et celles pour lesquelles l'abus de position dominante doit être prouvé. Le problème dans ce dernier cas est que la position dominante devrait en principe être démontrée avant que l'abus soit prouvé, toutes les pratiques évoquées par M. McGinley n'étant dans ce cas pas couvertes. Cependant, le Président fait observer que la Commission européenne a réalisé certains progrès dans ce domaine en faisant valoir que des redevances excessives avaient été imposées après l'embuscade. Il demande ensuite à la délégation de la Commission européenne de fournir des exemples.

Un délégué de la Commission européenne confirme qu'elle traite actuellement plusieurs affaires liées à cette question. Cependant, bien qu'il puisse exposer quelques idées théoriques et faire part d'avis internes, il n'est pas en mesure d'évoquer ces affaires en détail. La question est de savoir si le droit communautaire de la concurrence s'applique aux embuscades par brevet, même si la simple acquisition d'une position dominante n'est pas en soi contraire à ce droit. En application du droit communautaire de la concurrence, c'est le constat d'abus qui est fondamental et l'acquisition d'une position dominante, même si elle est le fruit de manœuvres frauduleuses, n'équivaut pas à un abus. Cependant, une embuscade par brevet grâce à laquelle le titulaire d'un droit de propriété intellectuelle exerce ses droits de propriété intellectuelle en demandant aux utilisateurs d'une norme de s'acquitter d'une redevance de licence peut constituer un abus et faire, dans certaines conditions, l'objet de poursuites au titre de l'article 82.

On peut faire valoir que, s'il n'y avait pas eu embuscade par brevet, les droits de propriété intellectuelle en question n'auraient pas été inclus dans la norme et une autre technologie aurait alors été utilisée. Dans ce cas, le titulaire de la propriété intellectuelle n'aurait droit à aucune redevance. On peut soutenir que, dans ce contexte exceptionnel, le simple fait de demander le paiement de redevances peut constituer un abus de position dominante. Cependant, le scénario en contre-épreuve dans lequel on a une technologie sans aucune redevance ne sera probablement pas très courant dans certains cas. Et pour cause : en cas de normalisation, des redevances, très élevées du reste, devraient être payées une fois la norme adoptée. La difficulté consiste alors à déterminer ce qui est déraisonnable en cas d'embuscade. Pour ce faire, il conviendrait, dans ce type de situation, d'examiner le prix de l'autre technologie qui aurait été choisie s'il n'y avait pas eu d'embuscade. Une autre difficulté se pose alors. Si, par exemple, l'autre technologie coûtait 1 euro, il y aurait abus si l'auteur de l'embuscade demandait une redevance de 10 euros. Mais qu'en serait-il si l'auteur de l'embuscade demandait 2 euros ? De nombreuses questions restent sans réponse s'agissant la définition des clauses « équitables, raisonnables et non discriminatoires », un concept qui est en cours d'élaboration et de discussion en interne.

Un délégué des États-Unis revient sur ce que M. Hovenkamp avait indiqué plus tôt, à savoir que les entreprises soit prennent le risque de contrefaire un brevet, en espérant qu'il ne sera pas valable, soit se tiennent à l'écart, avec un coût dans les deux cas. Cela se vérifie d'autant plus pour les demandes de brevets en instance dans la mesure où certaines de ces demandes peuvent être secrètes, et où, si le brevet a été publié, on ne saura pas très bien après 18 mois quel sera le champ d'application exact du brevet lors de sa délivrance ou même s'il sera effectivement délivré. Les entreprises se trouvent réellement confrontées à des situations difficiles lorsqu'il existe de nombreux brevets dont on ne sait pas très bien quelle est leur validité ou quel est leur champ d'application et les autorités chargées de la lutte antitrust ou, plus généralement, de la concurrence ont généralement des difficultés à régler ces problèmes. C'est en particulier le cas aux États-Unis où les tribunaux peuvent contraindre les entreprises contrevenantes à retirer leurs produits du marché, ce qui engendre inévitablement des coûts considérables. Pour les autorités de la concurrence, le retrait d'un produit du marché peut être considéré comme l'exercice d'un pouvoir de marché et une mesure d'exclusion, mais c'est le plus souvent le résultat de la délivrance du brevet une fois que le brevet a été jugé valable et violé. Ces principes concernent encore plus les demandes en instance. Les États-Unis devraient envisager de mettre en place des procédures pour la période suivant la délivrance d'un brevet, de façon qu'un brevet publié puisse faire l'objet d'un examen rapide voire d'un rejet, afin d'éviter que des investissements considérables soient réalisés par des entreprises susceptibles de violer le brevet et afin d'écarter tout risque de procès pouvant durer plusieurs années. Il en va de même pour les procédures de normalisation dans la mesure où les brevets peuvent être essentiels à la fabrication d'un produit conforme à une norme, et où il peut être très difficile de modifier un produit ultérieurement pour éviter une violation du brevet.

M. Hovenkamp fait observer que le problème des demandes de continuation et des demandes divisionnaires serait éliminé ou minimisé si le problème de priorité était éliminé. Pour être valable et utile, un système de propriété a besoin de deux choses : un cadre bien défini et des règles de priorité claires. L'un des problèmes qui grèvent les demandes de continuation est celui de la rétroactivité, c'est-à-dire la possibilité d'obtenir une protection par brevet rétroactive pour une demande de brevet déposée trois ans auparavant. Une nouvelle revendication est déposée pour un brevet, et une action en contrefaçon de brevet est intentée contre un concurrent dont la technologie actuelle viole le brevet qui vient d'être modifié, et ce même si elle n'était pas en violation de la demande initiale. Le système de propriété immobilière qui existe aujourd'hui s'effondrerait si l'on ignorait qui était là en premier et si le droit de propriété n'était pas octroyé selon la règle « premier arrivé, premier servi ». On pourrait, pour régler ce problème, rendre prospectives les demandes de continuation après un certain temps, par exemple un ou deux ans, et n'autoriser qu'une ou deux demandes. Toutes les autres demandes ultérieures de continuation seraient valables à compter de la date de leur dépôt. Une autre solution est d'instaurer des exemptions, c'est-à-dire des droits d'usage pour les personnes qui ont inventé/élaboré leur technologie afin qu'une demande de brevet déposée par le titulaire et approuvée ultérieurement ne puisse pas être utilisée rétroactivement contre elles. M. Hovenkamp répète que de telles mesures permettraient d'améliorer sensiblement le système. L'Office des brevets américain a tenté de mettre en œuvre ces améliorations l'année dernière, mais un tribunal a conclu qu'elles étaient contraires à la loi, laquelle prévoit qu'un brevet est valable à compter de la date du dépôt de la demande originale.

Le Président demande alors au Japon plus d'informations sur le critère du « refus sans motif légitime » que ce pays applique. Au Japon, la JFTC adopte des lignes directrices précises quant à la manière dont elle analyse les pratiques faisant intervenir des normes et la normalisation. En application de ces lignes directrices, un titulaire de brevet qui participe à des activités de normalisation et initie l'adoption de sa technologie brevetée dans une norme tout en refusant sans motif légitime d'en concéder une licence, irait à l'encontre de la loi antimonopole. Le Président demande au Japon de préciser la définition de refus sans motif légitime et s'il doit s'agir d'un refus pur et simple ou si l'acceptation assortie d'une redevance excessivement élevée constitue un refus.

Un délégué du Japon confirme que le refus sans motif légitime de concéder une licence pour l'utilisation d'une technologie après avoir participé à la procédure de normalisation constitue une violation de la loi antimonopole. En outre, le fait pour le donneur de licence d'exiger des redevances prohibitives peut en effet être considéré comme un refus pur et simple de concéder une licence. Cependant, aucune affaire n'a encore abouti à une décision établissant une équivalence entre les deux situations. Pour trancher une telle affaire, il conviendrait d'examiner les activités commerciales et les entreprises ayant besoin de la licence de brevet et la décision serait une décision d'espèce. S'agissant des motifs légitimes de refus, ils doivent également être examinés au cas par cas. On est, par exemple, en présence de motifs légitimes de refus lorsque les redevances proposées par l'entreprise qui souhaite adopter la norme sont très basses ou lorsque les entreprises qui souhaitent adopter les normes ne peuvent pas assurer la confidentialité.

Le Président relève qu'il existe un concept implicite de « déraisonnabilité » tant dans l'approche du Japon que dans l'approche de la Commission européenne. Il passe ensuite à la contribution de l'Allemagne et à l'affaire commentée dans laquelle un tribunal allemand s'est montré réticent à donner une interprétation précise du concept de redevance équitable et raisonnable. Le Président demande à l'Allemagne ce que cette affaire implique au regard du droit de la concurrence et si l'équité est un concept qu'il conviendrait d'abandonner ou si les tribunaux finiront par fixer un critère utile d'équité pouvant être appliqué dans de tels cas.

Un délégué de l'Allemagne précise que l'action en question, qui concernait un brevet dans le secteur informatique, avait été intentée dans le cadre d'une action privée. La Cour fédérale de justice a rendu sa décision en mai 2009. Le brevet était indispensable pour la production d'un certain type de dispositif de stockage de données électroniques, et le titulaire du brevet, qui occupait une position dominante, concédait des licences aux entreprises sur la base d'un contrat de licence standard. Cependant, une entreprise a fait valoir que le titulaire du brevet exigeait une redevance excessive et discriminatoire et a, par conséquent, fabriqué et commercialisé le produit sans licence. La Cour fédérale de justice a conclu qu'au regard du droit de la concurrence, un titulaire de brevet ne peut pas défavoriser une entreprise qui souhaite conclure un contrat de licence en lui imposant des redevances plus élevées sans motif objectif dans la mesure où une telle pratique constitue un abus de position dominante. Les titulaires de brevets qui ne respectent pas cette interdiction des mesures discriminatoires ne peuvent pas demander une injonction au titre du droit des brevets. La Cour fédérale de justice a également jugé que, dans certains cas, une entreprise qui fabrique sans licence un produit répondant à une norme industrielle brevetée peut invoquer le droit de la concurrence à l'encontre du titulaire de brevet. Elle a imposé deux exigences pour l'utilisation du brevet : l'entreprise doit i) faire une offre inconditionnelle que le titulaire du brevet ne peut pas refuser et ii) s'acquitter d'une redevance appropriée ou constituer un dépôt sans possibilité de retrait. La redevance doit correspondre au « montant approprié» du droit de licence aux yeux de l'utilisateur, à déterminer raisonnablement par le titulaire de brevet. La procédure judiciaire établira si le droit de licence qui a été imposé est dans les limites fixées par le droit de la concurrence. Dans le cadre de cette affaire, une distinction a été établie entre i) la question du contrat de licence à des conditions non discriminatoires et ii) la fixation d'un montant adéquat pour la redevance de licence, ce qui a permis à la Cour de trancher rapidement la question de savoir s'il doit y avoir en premier lieu concession d'une licence. Dans cette affaire, l'entreprise utilisant la technologie n'a pas eu gain de cause car elle n'avait versé aucune redevance au titulaire du brevet.

Le Président ajoute que, bien que des efforts soient déployés dans le but d'utiliser le droit de la concurrence comme solution, les progrès sont lents. Il donne ensuite la parole à la délégation des États-Unis afin qu'elle commente les mesures auxquelles ont recours les organisations de normalisation pour prévenir les embuscades par brevet et la manière dont les autorités chargées de la concurrence traitent les cas de participation à des activités de normalisation.

Un délégué des États-Unis explique qu'en 2002 le ministère américain de la Justice, la FTC et l'USPTO ont organisé des auditions concernant les organisations de normalisation qui ont débouché sur l'élaboration de deux grands principes. Le premier concerne la reconnaissance de la légitimité de certaines formes d'action collective visant à prévenir tout opportunisme ou toute rétractation post-contractuels une fois que la norme a été établie. Une action collective de cette nature est jugée sur la base d'une règle de raison en tenant compte aussi bien des effets positifs sur la concurrence qu'exercent les protections contre les embuscades que le préjudice occasionné aux mesures stimulant l'innovation. Le deuxième principe général concerne les règles qui sont appliquées par défaut dans le cadre de la normalisation et la question de savoir si la règle de raison et non une interdiction catégorique est le meilleur outil pour évaluer les mesures prises par les participants. Étant donné l'immense variété des approches, des cultures et des normes établies par les organisations de normalisation, les autorités de la concurrence hésitent à établir un code de conduite général ou à imposer une règle particulière par défaut qui soit obligatoire. Une exception existe : l'obligation imposée par certaines organisations à leurs participants de communiquer la nature de leurs droits de propriété intellectuelle – y compris de leurs brevets existants et envisagés – au cours de la procédure de normalisation. Cette exception avait été examinée dans l'affaire *Rambus*, l'autorité de la concurrence ayant conclu que la dissimulation par Rambus de droits de brevet pendant le processus de normalisation lui avait permis d'acquérir une position de monopole, entravant ainsi la concurrence. Une Cour d'appel fédérale a toutefois annulé la décision de l'autorité de la concurrence par laquelle elle a conclu à la responsabilité du défendeur. On relève des points communs avec l'Europe au niveau de certains problèmes analytiques dans le cadre juridique lorsqu'il s'agit de déterminer quelle séquence de comportements constitue un abus de position dominante.

Dans la mesure où les organisations de normalisation se différencient énormément dans leur composition et leurs missions, il ne se dégage aucune tendance en ce qui concerne un quelconque ensemble de règles communes. Cependant, ces organisations tentent de se protéger contre les embuscades par brevet et certaines font valoir que les autorités chargées de la concurrence devraient intervenir et leur prêter main-forte dans ce domaine. Si les règles d'une organisation de normalisation en matière de divulgation d'informations ou de concession de licence permettent à une partie d'obtenir et d'exploiter une position dominante, cette question suscitera l'intérêt légitime des autorités de la concurrence. Il existe deux types principaux de violation : i) le manquement aux obligations de communication d'informations par suite de manœuvres frauduleuses ou l'absence de communication selon les modalités imposées et ii) pour certains observateurs, violation par le titulaire de brevet qui a promis de concéder des licences selon des clauses « équitables, raisonnables et non discriminatoires ». La violation commise au titre du point ii) ne tient pas au prix en soi de la redevance ; elle concerne la question de savoir si le titulaire du brevet offre des conditions raisonnables ou non, et, si la violation est établie, c'est une question à examiner au regard de la concurrence. Il serait dès lors souhaitable que les organisations de normalisation soient plus précises quant au sens des termes « équitable et raisonnable ».

Le critère qui a été retenu par la plus grande partie des économistes (et qui a été préconisé dès 1996) est le critère de concurrence *ex ante*, à savoir les conditions qui auraient découlé d'une licence obtenue avant que les brevets soient intégrés dans la norme. Dans la mesure où tant les manquements aux obligations de communication que les infractions aux contrats de licence commises par les détenteurs de brevets s'agissant des clauses « équitables, raisonnables et non discriminatoires » touchent des marchés entiers et les clients en aval, une intervention des autorités de la concurrence serait justifiée. Si les règles d'une organisation de normalisation étaient jugées trop exigeantes, le titulaire de brevets susceptibles d'être indispensables à la mise en œuvre d'une norme pourrait (par crainte peut-être de perdre des recettes de redevances de licence) simplement choisir de ne pas participer à une organisation de normalisation. Cela permettrait au titulaire du brevet de se livrer à une embuscade *ex post* sans violation de contrats ou manœuvres frauduleuses. Cette situation est due en partie à une caractéristique du système américain de délivrance des brevets qui autorise une organisation de normalisation à préconiser une technologie et à l'intégrer dans une norme, et ce quel que soit le titulaire du brevet qui a déposé la demande. Modifier cette

caractéristique supposerait une modification du système de brevet pour couvrir les droits d'utilisation ou les règles de priorité, mais on peut concevoir qu'une action dans le domaine de la concurrence puisse également permettre de contourner le problème.

Le Président déclare que la solution est relativement évidente dans certains cas extrêmes, mais qu'elle ne l'est pas dans d'autres. Il donne ensuite la parole au BIAC pour commenter les doutes exprimés dans sa contribution concernant certaines mesures *ex ante* que les organisations de normalisation pourraient prendre pour décourager les embuscades par brevet.

Un délégué du BIAC confirme que le BIAC estime que l'abus des droits de propriété intellectuelle doit être résolu par une modification de la législation relative à la propriété intellectuelle et pas par une manipulation du droit de la concurrence. Les préoccupations que suscitent les embuscades par brevet ne sont sans doute que le reflet du problème traditionnel de la normalisation, c'est-à-dire celui de l'action collective et de la création d'une entente de facto. Supposons qu'aucun droit de propriété intellectuelle ne soit en cause (c'est-à-dire que le demandeur soit le seul qui ait construit une usine offrant la technologie en question), la concurrence devrait-elle autoriser comme mesure correctrice l'action conjointe ? Autrement dit, les membres de l'organisation de normalisation devraient-ils pouvoir négocier conjointement un prix à l'avance afin que l'organisation puisse examiner la norme en question comme cela était envisagé. En vertu des principes traditionnels de droit de la concurrence, la réponse devrait être négative, dans la mesure où une telle approche serait considérée comme une entrave qui va au-delà de ce qui est nécessaire pour que la normalisation fonctionne. Il serait préoccupant d'ignorer ces problèmes en présence de droits de propriété intellectuelle dans un contexte théorique où les membres d'une organisation de normalisation mobilisent leur pouvoir collectif pour négocier des droits de licence *ex ante* qui sont inférieurs à ce que le titulaire du brevet serait en mesure d'obtenir sans initiative de normalisation. Tout cela revient à exercer un pouvoir collectif qui, historiquement, s'est révélé inadéquat.

Le Président résume en considérant que, de l'avis du BIAC, l'approche retenue par les États-Unis n'est pas séduisante car le type de contrat utilisé est similaire à un accord collusoire. Sachant qu'en vertu du droit des contrats aucune infraction au contrat ne doit être commise, au regard du droit de la concurrence, il y a un risque d'effets négatifs. Le Président demande alors au BIAC quelle pourrait être une solution adéquate pour les embuscades par brevet.

Un délégué du BIAC précise que le BIAC s'est concentré sur un aspect des différentes solutions qui ont été proposées et qu'aucune critique n'a été formulée à l'encontre, par exemple, de l'obligation de communication des droits de propriété existants (ce qui a été proposé dans l'affaire *Rambus*). La proposition qui a été faite n'est pas celle d'une règle automatique absolue – et la règle de raison pourrait être utilisée – mais les effets négatifs sur la concurrence devraient être sérieusement étudiés. Très souvent, il s'agirait d'une analyse complexe, mais le risque d'une embuscade par brevet ne doit pas prendre le pas sur les autres risques pour la concurrence.

5. Les offices des brevets et les autorités de la concurrence peuvent-ils coopérer en vue d'améliorer le processus de délivrance des brevets ?

Le Président se réfère à la contribution de 2006 du Taipei chinois qui faisait valoir que les deux processus, celui de délivrance des brevets et celui de concurrence, étaient différents et devaient par conséquent être traités de façon distincte. Or, dans sa contribution de 2009, le Taipei chinois semble aller plus loin qu'il ne l'avait fait en 2006 et recense certains des problèmes que pose pour la concurrence le processus d'octroi des brevets, c'est-à-dire les portefeuilles de brevets en instance pouvant être utilisés pour bloquer l'accès au marché en raison de l'asymétrie de l'information qu'ils peuvent créer. Le Taipei chinois estime également que la coopération et l'échange d'informations entre les offices des brevets et les autorités de la concurrence permettraient de mieux cerner l'ensemble des effets des portefeuilles de brevets

pouvant déboucher sur des pratiques néfastes à la concurrence. Le Président demande au Taipei chinois de préciser le rôle que l'autorité de la concurrence pourrait jouer, comment elle pourrait connaître les risques que ferait courir un portefeuille de brevets en instance pour l'accès au marché, le type d'informations qu'elle pourrait exploiter et que l'office des brevets ne pourrait pas exploiter et si elle devrait traiter toutes les informations communiquées par l'office des brevets sous l'angle du portefeuille de brevets et donc de la concurrence.

Un délégué du Taipei chinois indique à propos de la contribution de 2006 que lorsque l'Office de la propriété intellectuelle examinait les demandes de brevets, il ne tenait pas compte des questions de concurrence ou de définition du marché en cause. Premièrement, le principe était que le marché concernait des biens corporels, et qu'il y aurait seulement un marché une fois que la technologie brevetée serait mise en pratique et que le produit aurait été fabriqué. Aucune substituabilité n'était envisagée entre les technologies, et l'accent était mis sur les conditions préalables requises pour l'octroi d'un brevet telles que la nouveauté, l'utilité, etc. Deuxièmement, en vertu de la loi sur la loyauté dans le commerce, l'autorité de la concurrence doit respecter la décision prise par l'office des brevets. L'article 45 dispose que l'exercice des droits de brevet par le titulaire de ce dernier doit être respecté, sauf en cas d'exercice abusif. Le terme « abusif » reste un concept en cours d'élaboration mais il pourrait couvrir l'abus substantiel d'un droit de brevet, comme le refus de traiter ou la perception de redevances discriminatoires, ou l'abus procédural comme l'envoi d'une lettre d'avertissement ou l'ouverture d'une action en justice à des fins prédatrices.

Au cours de ces dernières années, on a observé pour deux raisons une évolution de l'interaction entre les différentes autorités. Premièrement, des événements sont survenus dans la communauté internationale, le droit de la concurrence et le droit des brevets étant aujourd'hui liés. L'Office de la propriété intellectuelle et la Commission pour la loyauté dans le commerce de Taiwan en sont parfaitement conscients et s'emploient à renforcer leur dialogue dans le but de résoudre les problèmes complexes liés à la concession de licences de brevets. Deuxièmement, il y a eu plusieurs affaires controversées. Après l'affaire *Rambus*, des avocats issus des entreprises du secteur technologique au Taipei chinois ont contacté les autorités de la concurrence et de la propriété intellectuelle afin de connaître leur position sur la normalisation et la concession de licences de technologie. La Commission pour la loyauté dans le commerce a également tranché une affaire importante au niveau national concernant l'octroi de licences de brevets pour la production de CD-Rom. Le brevet pour la production de CD-Rom est détenu par trois grandes entreprises : Philips, Sony et Toshiba. En 1996, plusieurs des principaux fabricants de CD-Rom au Taipei chinois ont déposé une plainte faisant valoir que les trois titulaires du brevet s'étaient livrés à une collusion et à un abus de position de monopole lors de la concession de licences. Ils auraient fixé une redevance trop élevée et conclu des contrats de licence inéquitables. Les trois sociétés concernées ont été reconnues coupables d'avoir violé la loi sur la loyauté dans le commerce. Unilatéralement, l'Office de la propriété intellectuelle a alors pris la mesure draconienne d'obliger ces trois entreprises à concéder des licences, suscitant une grande controverse qui a été largement relayée par la presse aussi bien au Taipei chinois que dans le reste du monde. Tant la décision de la Commission pour la loyauté dans le commerce que celle de l'Office de la propriété intellectuelle ont été annulées après coup, mais l'affaire *Rambus* et l'action intentée au niveau national concernant les CD-Rom ont encouragé l'instauration d'un dialogue constructif. Si la Commission pour la loyauté dans le commerce saisissait mieux les problèmes liés aux brevets et l'Office de la propriété intellectuelle comprenait que la licence obligatoire ne doit être qu'une mesure en dernier ressort, ils pourraient éviter de prendre des décisions convergentes controversées. Cependant, même si les relations entre ces deux agences se sont améliorées, les interactions restent très limitées et la Commission pour la loyauté dans le commerce n'a pas la possibilité de communiquer à l'Office de la propriété intellectuelle un avis concernant l'octroi ou le rejet d'une demande de brevet. La Commission peut toutefois proposer son expertise et recommander l'examen attentif des brevets, surtout en ce qui concerne le critère de nouveauté et de non-évidence, afin d'éviter que le seuil soit trop bas. La Commission peut alors s'en remettre à l'Office de la propriété intellectuelle pour les questions technologiques liées au brevet.

Le Président demande ensuite au Chili de présenter la nouvelle autorité qu'il a créée pour les questions de propriété intellectuelle et d'expliquer comment ce nouvel organisme interagira avec l'autorité de la concurrence.

Un délégué du Chili évoque les deux récentes affaires de brevets liées à la concurrence qui ont été traitées en 2006 et en 2007, décrites brièvement dans la contribution de son pays. Ces deux affaires mettaient en cause des titulaires de brevets pharmaceutiques internationaux qui essayaient de bloquer l'accès au marché d'entreprises nationales rivales. Leurs demandes ont toutes été rejetées dans les deux cas au motif que les actes reprochés relevaient des droits en matière de protection de brevets. L'autorité chilienne de la concurrence œuvre actuellement à la mise en place d'un programme de sensibilisation ciblé à l'intention des professionnels de la propriété intellectuelle et elle a entamé ses premières activités lorsque le chef de l'autorité de la concurrence, la *Fiscalía Nacional Económica*, a été invité à pendre la parole devant la conférence annuelle de la propriété intellectuelle. À cette occasion, l'autorité de la concurrence a pu passer en revue les domaines qui sont couverts tant par le droit de la propriété intellectuelle que par le droit de la concurrence, bien que la plupart des affaires dont a été saisi le tribunal de la concurrence concernaient des marques et non des brevets. L'un des défis majeurs que doit relever tout programme de sensibilisation à la concurrence des responsables des questions de propriété intellectuelle est le manque d'expérience du personnel de l'autorité de la concurrence dans ces deux domaines, outre que les priorités actuelles de l'autorité de la concurrence concernent essentiellement la répression des ententes. Il sera également difficile de mettre en place un cadre axé sur la concurrence et ses effets sur le marché, par opposition avec le cadre actuel centré sur les droits de propriété et les droits constitutionnels.

Le Président se tourne alors vers les États-Unis et indique que, même s'il apparaît que le système américain des brevets présente de graves dysfonctionnements, la coopération entre les autorités de la concurrence et les offices de brevets semble très étroite. Aux États-Unis, les autorités de la concurrence ont pour mission d'examiner les effets et les restrictions économiques résultant de tout comportement répréhensible, y compris en matière de propriété intellectuelle. C'est pourquoi le Président demande aux États-Unis si le système de brevets connaît des problèmes en raison ou en dépit de la coopération avec les autorités.

Un délégué des États-Unis observe que la réforme juridique, et pas simplement le contentieux judiciaire, a été l'un des thèmes de prédilection du Comité ces dernières années. Si l'on considère l'expérience des deux autorités américaines au cours des quinze dernières années en matière de fusions et d'abus de position dominante, on s'aperçoit que plusieurs phénomènes récurrents semblent trouver leur source non pas dans des questions de concurrence en soi, mais dans la façon dont le processus adéquat d'examen de la propriété intellectuelle est élaboré et appliqué. Si le processus d'examen ne fonctionne pas correctement, un trop grand nombre de brevets sont délivrés qui ne répondent pas aux exigences imposées par la législation originale, et c'est alors l'autorité de la concurrence ou la juridiction compétente pour les questions de concurrence qui est obligée de redresser la situation. Il s'agit là résolument d'un pis-aller. Peut-être que, dans le contexte des droits d'auteur, des affaires telles que *McGill* et *IMS* découlent fondamentalement de l'incapacité du système d'examen de la propriété intellectuelle de vérifier et d'évaluer efficacement les intérêts en présence au niveau des droits d'auteur. Les auditions conjointes qui ont eu lieu en 2002 et le rapport de 2003 intitulé « *To Promote Innovation* » ont focalisé l'attention sur la meilleure solution possible pour réformer le processus de délivrance et de protection des brevets. Ce rapport a également jeté les bases d'une stratégie tridimensionnelle en vue d'intensifier le dialogue entre les professionnels de la propriété intellectuelle et les responsables de la politique de la concurrence.

Le premier aspect de cette stratégie est d'établir les fondements de l'action juridictionnelle. La publication du rapport a coïncidé avec un regain d'intérêt de la Cour suprême des États-Unis pour le fonctionnement du processus d'examen des droits de propriété intellectuelle. Dans les affaires *KSR* et *eBay*, la Cour suprême a très clairement pris le parti du rapport de la FTC sur l'innovation, élément

intellectuel important dans la motivation des deux décisions. On observe une progression incontestable dans la jurisprudence récente de la Cour, qui s'attache désormais à réexaminer la manière dont fonctionne le processus d'examen des brevets et, dans certains cas, revient sur les interprétations actuelles des critères de brevetabilité et de questions telles que les mesures correctrices.

Deuxièmement, une relation doit être instaurée entre les autorités de la concurrence et l'Office américain des brevets, le PTO. Depuis 2002, lorsqu'il a participé pendant 25 jours à une audition sur le système de brevets organisée par la FTC et le Ministère de la Justice, le PTO a collaboré avec la FTC à trois égards : i) des conversations régulières ont eu lieu entre de hauts fonctionnaires de la FTC et du PTO, ii) des discussions se tiennent entre des cadres moyens et des chargés de dossier, et iii) des interactions ont eu lieu entre le Barreau et des organisations non gouvernementales actives dans le domaine du droit de la propriété intellectuelle et de la concurrence. Le PTO a également entamé plusieurs réformes administratives, la grande question actuelle étant celle de la réforme juridique et du cadre dans lequel cette réforme doit être menée. Les deux organismes devraient continuer à consacrer des ressources aux réformes concernant la propriété intellectuelle. Ces interactions entre les autorités concernées, coordonnées en partie par le Conseil économique national, réunissent les autorités de la concurrence et les autres organismes intéressés, notamment le PTO. Outre les questions législatives, des échanges de vues ont lieu sur la politique technologique et l'innovation. Bien que le système américain des brevets connaisse certains problèmes, les États-Unis jouissent toute de même d'une économie extrêmement innovante, avec des systèmes de capital-risque, des systèmes d'enseignement, et d'autres éléments du système d'innovation national. C'est manifestement dans les secteurs de l'informatique et de la biotechnologie que le système de brevets présente des dysfonctionnements et doit être adapté, et le gouvernement est tout à fait sensible à ce volet de la politique d'innovation.

Troisièmement, la Cour suprême et le *Solicitor General* doivent poursuivre leur action dans ce domaine. Presque tous les changements survenus au cours des cinq dernières années découlent de décisions judiciaires, ce qui montre qu'on est passé d'une attitude pro-brevets à une attitude pro-concurrence. Les autorités de la concurrence continuent de donner des avis au *Solicitor General* sur des questions de concurrence avant qu'elles soient jugées par la Cour suprême, comme ce fut le cas pour l'affaire *Bilski* concernant la brevabilité de méthodes de gestion des entreprises.

Le Président évoque ensuite la contribution de la Corée, laquelle appelle de ses vœux une plus étroite coopération non seulement entre la Commission coréenne pour la loyauté dans le commerce (KFTC) et l'Office coréen de la propriété intellectuelle pour renforcer leur action dans le domaine de la répression des abus des droits de propriété intellectuelle, mais également entre la KFTC, l'administration coréenne chargée des aliments et des médicaments et le ministère de la Santé. En Corée, la plupart des abus de droits de propriété intellectuelle sont commis dans le secteur pharmaceutique, et ce sont ces ministères qui supervisent ce secteur. Le Président demande à la Corée de décrire en détail le réseau et le système de surveillance qu'elle a évoqués dans sa contribution.

Un délégué de la Corée précise que le réseau de surveillance n'est pas encore opérationnel et qu'il n'est dès lors pas possible de décrire ce système en détail, mais il explique pourquoi la KFTC estime que ce réseau est nécessaire. Des lois comme celles sur les droits d'auteur ou sur les brevets ne sont pas soumises au droit de la concurrence. La KFTC n'a donc pas participé à la répression des abus des droits de propriété intellectuelle puisqu'elle n'a pas toujours su comment fonctionnaient les systèmes de brevets et si les titulaires de brevets violaient les droits de brevets. Néanmoins, elle a récemment renforcé ses activités de supervision et de répression dans ce secteur, considérant qu'une coopération plus étroite avec les autorités compétentes, telles que l'Office des brevets et l'Administration chargée des aliments et des médicaments, est essentielle pour avoir une bonne vue d'ensemble des activités concernées. La KFTC a récemment été saisie d'une affaire concernant des pratiques commerciales inéquitables auxquelles s'est livrée une entreprise pharmaceutique fabriquant des médicaments brevetés originaux, laquelle a tenté

d'empêcher des fabricants de produits génériques de pénétrer sur le marché. Bien que le brevet ait été déposé, la KFTC a eu du mal à cerner de façon globale le système d'autorisation des médicaments génériques et d'établissement des prix, ce qui n'aurait pas été le cas si elle avait bénéficié du concours de l'Administration chargée des aliments et des médicaments. C'est la raison pour laquelle il importe d'instaurer un réseau des autorités compétentes. En outre, pour autant que le système fonctionne bien, un tel réseau permettrait à la KFTC de sensibiliser les autorités de réglementation à l'action qu'elle mène en matière de concurrence.

Le Président résume cette partie de la table ronde et en mettant en exergue une tendance claire en faveur d'une plus grande coopération entre les autorités de la concurrence et les offices des brevets, et ce à plusieurs niveaux de coopération.

6. Quelles autres mesures les autorités de la concurrence peuvent-elles prendre ?

Le Président demande à la Commission européenne qu'elle donne plus d'informations sur l'enquête qu'elle a menée sur le secteur pharmaceutique et il ajoute que la délégation américaine a une question concernant les affaires *McGill* et *IMS,* se demandant si elles étaient censées illustrer un système de propriété intellectuelle défaillant.

Un délégué de la Commission européenne commence par expliquer que l'OEB a détaché un membre expérimenté de son personnel en vue d'aider la Commission à mener son enquête. Les principales conclusions seront communiquées dans un rapport préliminaire, la version finale du rapport, ainsi que toutes les autres recommandations pouvant en découler, faisant toujours l'objet de discussions à la Commission et devant être publiées avant les vacances d'été[2]. Les enquêtes préliminaires ont montré que les fabricants originaux se livrent à certaines pratiques qui contribuent à retarder l'entrée sur le marché de médicaments génériques concurrentiels. Parmi les pratiques évoquées dans l'enquête figurent certaines stratégies de dépôt de demandes de brevets, en plus des stratégies d'action en justice relatives à des brevets, des accords transactionnels de brevets et des interventions des instances réglementaires. La Commission européenne a conclu que certains fabricants originaux déposaient ce que l'on appelle « grappes de brevets » -- contenant une demande de nombreux brevets – et des demandes divisionnaires, pour l'ensemble des États membres de l'Union européenne, mais qui portaient souvent sur un seul médicament.

Le dépôt de ces grappes de brevets, outre les demandes divisionnaires, peut entraîner un prolongation importante des délais de traitement des demandes, et donc une plus grande incertitude juridique pour les fabricants de produits génériques qui ne savent pas s'ils peuvent commercialiser leurs produits sans contrefaire l'un des brevets concernés. Sur les cas évoqués, près de 700 ont impliqué un contentieux en justice de plus de trois ans avec des fabricants de produits génériques, ces derniers ayant eu gain de cause dans près de deux tiers des affaires.

Pour ce qui est des accords transactionnels de brevets, 200 ont été conclus dans l'Union européenne entre des fabricants du produit princeps et des fabricants de produits génériques pour mettre un terme à un contentieux. Dans environ 50 % de ces accords, l'entrée de produits génériques sur le marché a été restreinte, et dans environ 50 % de ces cas, il y a eu un transfert à titre onéreux de la part du fabricant original au profit du fabricant de produits génériques. Les paiements directs effectués par les fabricants originaux aux fabricants de produits génériques se sont élevés au total à plus de 200 millions d'euros. Dans de nombreux cas, des fabricants originaux sont intervenus dans les procédures nationales concernant l'autorisation de produits génériques, la procédure durant en moyenne quatre mois de plus qu'en l'absence

[2] Rapport final disponible à l'adresse suivante : http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/staff_working_paper_part1.pdf.

d'une telle intervention. Lorsque des fabricants de produits génériques ont contesté devant les tribunaux les décisions rendues par les instances chargées d'autoriser la mise sur le marché, ils n'ont eu gain de cause que dans 2 % des affaires. La commercialisation de produits génériques entraîne une diminution importante des prix des médicaments. Si l'on considère les médicaments génériques qui ont été mis sur le marché entre 2000 et 2007, le prix moyen de ces médicaments a diminué de près de 20 % après leur commercialisation. Dans de rares cas, cette baisse a atteint 90 %, mais la moyenne est de 20 %. Dans le même temps, on a observé qu'en moyenne la commercialisation des produits génériques n'avait lieu que sept mois après l'autorisation de mise sur le marché. Pour un petit échantillon de produits qui a été examiné et qui correspondait à un chiffre d'affaires global de 50 milliards d'euros, les économies totales réalisées grâce à la commercialisation des produits génériques se sont élevées à 15 milliards d'euros durant cette période, et des économies supplémentaires de trois milliards d'euros auraient été possibles si les produits génériques avaient été commercialisés immédiatement.

S'agissant du deuxième volet du rapport, à savoir la concurrence entre les fabricants de produits princeps, on a constaté qu'ils se livraient à ce que l'on appelle des stratégies de brevetage défensif, qui visent essentiellement à empêcher les concurrents de mettre au point de nouveaux médicaments. Des telles pratiques sont susceptibles de réduire les effets positifs qu'a la concurrence sur l'innovation, d'entraîner une augmentation des coûts pour les sociétés pharmaceutiques concurrentes et de retarder le moment auquel les clients peuvent bénéficier de médicaments innovants.

S'agissant du cadre réglementaire, tant les fabricants de produits princeps que les fabricants de produits génériques ont préconisé un seul brevet communautaire et la création en Europe d'un registre de brevets unique et spécialisé. Ces approches sont en réalité étayées par les conclusions de l'enquête sur le secteur, qui montrent que 11 % des jugements définitifs rendus dans les États membres sont contradictoires. Les coûts directs liés au contentieux des brevets s'élèvent à 420 millions d'euros. La nécessité d'un brevet communautaire a également été évoquée dans le cadre de débats antérieurs portant sur la nécessité de répondre rapidement à la question de savoir si un brevet est valable ou non. Dans un système de brevets aussi fragmenté que le système européen, un fabricant de produits génériques sera peut-être amené à intenter une action dans tous les États membres pour obtenir une décision sur la validité d'un brevet. La Commission européenne soutiendrait toute réforme législative du cadre réglementaire, en plus de l'ouverture de procédures visant à faire respecter les règles de concurrence.

Dans le système européen, les lois concernant la propriété intellectuelle sont adoptées au niveau national. Ainsi, l'Union européenne n'intervient pas dans les modalités d'application des lois nationales et elle ne peut pas décider si la protection de la propriété intellectuelle doit être octroyée dans un cas particulier. Son rôle se limite à déterminer si ces droits de propriété intellectuelle ont été exercés d'une manière jugée abusive et susceptible de porter préjudice aux consommateurs. S'agissant de l'affaire *IMS*, la Cour de justice de l'Union européenne (CJUE) a rendu une décision préjudicielle sur les modalités d'application de l'article 82 au cas où le droit serait octroyé. Cependant, ce droit reste à préciser car un tribunal allemand doit encore décider si une protection doit être octroyée. La question portée devant la CJUE était donc purement théorique : à supposer qu'un droit de propriété intellectuelle existe bel et bien, un abus a-t-il été commis dans la manière dont il a été exercé. Dans l'affaire *McGill*, la situation était similaire : l'hypothèse était que le droit de propriété intellectuelle avait été dûment octroyé par les autorités irlandaises et il s'agissait donc de savoir si ce droit avait été exercé de manière abusive.

Le Président convient que les tribunaux n'ont pas tranché (et ils ne le pouvaient pas) la question de savoir si oui ou non ces droits de propriété intellectuelle étaient justifiés. Dans l'affaire *McGill*, les autorités de la concurrence ont été saisies pour régler un problème qui, en réalité, était dû au fait qu'un droit avait été octroyé alors qu'il n'aurait pas dû l'être. Cependant, il incombe aux autorités irlandaises de la concurrence d'agir et aucune mesure ne peut être prise sous l'angle de la concurrence. Le Président

donne ensuite la parole au BIAC afin qu'il exprime le scepticisme des entreprises vis-à-vis de l'enquête sur le secteur pharmaceutique.

Un délégué du BIAC explique que l'enquête sur le secteur pharmaceutique revêt une importance extrême et que, dans la mesure où le rapport préliminaire n'est pas définitif, il importe de réagir de manière critique. La contribution du BIAC vise à soulever certaines des questions évoquées à d'autres occasions ; on peut notamment douter que la diminution du nombre de nouvelles molécules sur une certaine période de référence soit un bon indicateur de la production du secteur et, il en est de même pour la méthode utilisée pour établir si la mise sur le marché de produits génériques s'est effectivement ralentie. Plus généralement, le BIAC estime que les lois sur la propriété intellectuelle et sur la concurrence sont complémentaires, mais qu'elles portent sur des principes différents. Si les lois sur la propriété intellectuelle ont des effets indésirables, il ne faut pas se contenter d'un palliatif en manipulant les lois antitrust. Le BIAC se demande par conséquent si l'enquête n'a pas accordé une trop grande part à la protection de la mise sur le marché des produits génériques. Une approche trop critique a sans doute été réservée aux efforts déployés par les fabricants de produits princeps pour faire valoir les droits légitimes qui leur ont été octroyés en vertu du droit de la propriété intellectuelle, et les ravaler au rang de simple instrument ne se justifie pas. Si l'équilibre à respecter n'est pas dûment établi, une trop grande attention sera consacrée à la mise sur le marché des produits génériques et non à la création de mesures incitatives adéquates en faveur des changements dynamiques et importants facilités par la commercialisation de nouvelles catégories de produits pharmaceutiques.

Un délégué de la Commission européenne répond que, s'agissant du déclin des entrées sur le marché qui sont à déplorer, elle a consulté les données sectorielles de l'EFPIA (*European Federation of Pharmaceutical Industries and Associations*). S'agissant des délais de mise sur le marché des produits génériques, même si l'on peut se féliciter de ce que le nombre de produits commercialisés ait augmenté au cours des dix dernières années, il faut continuer à tenter de comprendre pourquoi il y a encore certains retards. Le concept d'« instrument », également contesté, a été trouvé dans les documents des entreprises étudiées par la Commission européenne. Une enquête sectorielle prend en compte les comportements des entreprises et aussi sur la terminologie qu'elles utilisent. L'exercice de droits de brevet légitimes et la protection par brevets relèvent des droits fondamentaux, à savoir le droit à la propriété et le droit à un recours judiciaire, mais ce qui peut être légitime dans un régime particulier peut poser problème au regard du droit de la concurrence. Il ne s'agit pas ici de vouloir résoudre tous les problèmes en s'appuyant sur le droit de la concurrence, et on observe une réponse concertée par tous les services et toutes les directions de la Commission. Quant aux problèmes qui surviennent dans le secteur, et aux problèmes qu'il peut rencontrer dans le domaine de l'innovation, la Commission a lancé certaines initiatives pour y remédier. À titre d'exemple, citons une initiative innovante pour les médicaments consistant à éliminer les goulets d'étranglement, qui est financée tant par le secteur que par la Commission. Les problèmes que les entreprises peuvent rencontrer pour l'obtention d'autorisations de commercialisation sont du ressort de la DG des entreprises, tandis que la DG de la concurrence examine elle le comportement des entreprises. En bref, les problèmes ont des causes multiples, mais ils nécessitent des solutions différentes, et la DG de la concurrence prendra s'il le faut des mesures répressives.

Le Président fait observer qu'il y a de plus en plus de points sur lesquels des recours parfaitement légaux font l'objet de critiques de la part d'un certain segment de la société, comme par exemple les bonus et les options sur actions. Ainsi, un comportement pourra être tout à fait légal au regard du droit de propriété intellectuelle, mais il pourra constituer un abus en application du droit de la concurrence. Le Président demande à la délégation du Canada de présenter les conclusions principales de la conférence que le Bureau de la concurrence Canada a organisée en 2007 sur les relations entre le droit de la concurrence et le droit de la propriété intellectuelle.

Un délégué du Canada explique que l'objet de ce colloque était de définir des orientations pour l'élaboration future des politiques au Canada, d'aider le Bureau à réévaluer son approche en matière d'application des lois pour les questions de propriété intellectuelle afin de s'assurer qu'elle soit conforme à la doctrine économique actuelle, et de vérifier que les lignes directrices du Bureau en matière de répression des infractions dans le domaine de la propriété intellectuelle étaient à jour et pertinentes. Environ 50 personnes ont assisté à ce symposium d'une journée, qui se voulait interactif et de haut niveau, et auquel ont participé des universitaires, des praticiens et des fonctionnaires actifs dans les domaines de la propriété intellectuelle et de la concurrence. Cinq thèmes ont été sélectionnés (les produits génériques autorisés, la gestion collective des droits d'auteur, le prolongement des droits de propriété intellectuelle, les licences obligatoires et la vente liée), et une équipe rédactionnelle internationale a supervisé les travaux pour chacun des thèmes. Les intervenants ont présenté des exposés et tenu des débats approfondis avec les participants. Tous les exposés ont mis en exergue plusieurs domaines d'intérêt et soulevé des questions importantes, mais le Bureau n'a pas jugé qu'il y avait eu des conclusions sur le fond nécessitant de modifier les lignes directrices actuelles d'application. Ainsi, l'approche qui a été adoptée depuis la rédaction des lignes directrices semble rester la bonne, et le Bureau ne privilégiera plus ces questions particulières, lesquelles alimenteront probablement les travaux que mènent en permanence le Bureau dans le domaine de la sensibilisation. Le délégué du Canada précise également que tous les exposés ont été publiés dans un ouvrage disponible auprès de la délégation canadienne.

M. Hovenkamp ajoute que, pour lui, les paiements aux fabricants de génériques ont été l'un des plus cuisants revers de la politique antitrust américaine au cours de ces dix dernières années, en dépit des efforts courageux de la FTC. Cependant, on peut espérer que le nouveau gouvernement apportera les changements nécessaires. Essentiellement, il s'agit d'un problème de politique des brevets, dont les contours sont flous, les juges se montrant par ailleurs depuis longtemps réticents à remettre en cause les accords transactionnels. Ainsi, il est possible de conclure un accord transactionnel avec paiement de 300 millions de dollars du fabricant du princeps au fabricant de génériques sans examen sérieux de la validité ou de la violation du brevet. La jurisprudence est relativement cohérente, ce qui montre bien que la situation est imputable aux tribunaux antitrust et pas à la FTC.

Le Président conclut que les débats ont été assez précis sur ce que chacune des parties peut ou ne peut pas faire, et sur les problèmes particuliers dans le domaine de la concurrence. À ce stade, le problème le plus difficile à surmonter semble être celui des questions de concurrence que soulève le processus de brevetabilité. Ces débats se sont tenus dans une atmosphère très différente de celle qui avait prévalu lors des discussions initiales du Comité sur la propriété intellectuelle et la concurrence dans les années 1990, où l'on considérait comme sacrée la propriété intellectuelle. Aujourd'hui, le débat a évolué ; il repose sur des informations plus complètes et a gagné en sérieux. Les autorités chargées de la propriété intellectuelle cherchent à coopérer avec les autorités de la concurrence, et les autorités de la concurrence s'efforcent d'établir des liens avec les autorités chargées des brevets dans le but de résoudre certains des problèmes liés au processus de brevetabilité, mais également les abus éventuels du système de brevets.