AVOIDING COLLISIONS AT THE INTERSECTION OF ANTITRUST AND INTELLECTUAL PROPERTY LAWS

by
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INTRODUCTION

In a marketplace rife with embedded chips, nanobots and monoclonal antibodies, is it still possible to build, patent and license a better mousetrap without running afoul of antitrust laws? Yes, but as headlines in recent years regarding Microsoft and various pharmaceutical companies suggest, doing so is neither for the faint of heart nor the uninitiated.

Recent cases and agency activity point to the intersection of antitrust prohibition and intellectual property (IP) protection as a hot spot in an economy increasingly driven by IP-rich industries such as communications, aerospace and biotechnology. To navigate this hot spot without getting burned, corporate counsel and business executives will need to arm themselves with some practical tactics for ensuring antitrust compliance in managing an IP portfolio.

The guidelines presented here, together with reference to more detailed sources, will help executives balance the benefits of intellectual property protection against the risks of antitrust liability.

I. PROTECTING INNOVATORS AND CONSUMERS

Intellectual property and antitrust laws share the common goals of fostering innovation and enhancing consumer welfare. IP laws provide incentives for technological innovation by giving owners the right to disseminate and commercialize

their inventions to the exclusion of others for a limited period of time. Antitrust laws promote innovation by prohibiting restraints of trade that diminish competition, including competition in the development of new IP. Despite this complementary relationship, an inherent tension exists between laws granting a monopoly to intellectual property owners and those intended to prevent the undue concentration of economic power.

The potential栏 nd actual conflict between intellectual property rights and antitrust legislation has increased exponentially in recent years as pharmaceutical, software and other high-technology companies create and market revolutionary intellectual property. The federal antitrust agencies and the courts in the U.S. as well as the European Commission and the courts in the EU and its member states are focusing increasingly on antitrust concerns raised by the ownership and exercise of intellectual property rights. Here担 a brief summary of recent developments:

• ***IP Guidelines* promulgated**. In 1995, the Federal Trade Commission (FTC) and the Antitrust Division of the Department of Justice (DOJ) promulgated the Antitrust Guidelines for the Licensing of Intellectual Property (*IP Guidelines*)[1] to provide guidance to antitrust counsel and businesses regarding the application of antitrust laws to a variety of intellectual property licensing contexts.

• **Feds challenge the effects of mergers on innovation**. The FTC and DOJ have challenged mergers and acquisitions based on the potential effect of the merger on innovation of new products and technology, including for metallic mirror paints;[2] aerospace products;[3] high-performance microprocessors;[4] intravascular ultrasound catheters;[5] plastic manufacturing technology;[6] automatic transmissions;[7] radar reconnaissance satellite systems[8]; and crop protection chemicals.[9]

• **Pharmaceutical patent litigation settlements challenged**. Within the last three years, the FTC has brought several cases challenging settlements and other agreements in connection with pharmaceutical patent litigation in which the producer of a brand-name drug allegedly paid the producer of a generic drug to refrain from marketing the generic drug for a period of time. On the grounds that such agreements constituted unlawful agreements by competitors not to compete, the FTC has recently challenged:

▸Hoechst Marion Roussel担 agreement to pay Andrx to refrain from marketing its generic version of Hoechst担 Cardizem CD hypertension drug.[10]

▸Agreements between Schering and Upsher-Smith and Schering and

American Home Products wherein Schering agreed to dismiss patent-infringement suits and to pay each of the other manufacturers to refrain from marketing a generic form of Schering担 K-Dur 20 potassium chloride supplements for a certain period of time.[11]

‣Abbott担 agreement with Geneva Pharmaceuticals in connection with a patent-infringement suit under which Abbott agreed to pay Geneva $4.5 million to refrain from marketing a generic version of Abbott担 brand drug Hytrin off the market for a period of time.[12]

‣In a somewhat different but related case, the FTC sued Biovail Corporation for allegedly obtaining an exclusive patent to a form of Tiazac, a blood pressure drug, for the purpose of blocking new entry by a competitor.[13]

‣Similarly, the FTC challenged Bristol-Myers Squibb担 listing of patents with the Food and Drug Administration for two anti-cancer drugs and one anti-anxiety agent as an unlawful attempt to block new generic competitors. In connection with the anti-anxiety drug, the FTC additionally challenged a patent-infringement settlement agreement between Bristol-Myers Squibb and Schein Pharmaceutical whereby Schein agreed to refrain from marketing any generic bioequivalent version of Bristol-Myers Squibb担 brand name drug, BuSpar.[14]

• **Microsoft担 license restrictions ruled illegal monopoly**. In 1998, DOJ brought the *Microsoft* case, the most highly publicized antitrust case in recent history. In 2001, the U.S. Court of Appeals for the District of Columbia Circuit[15] held that Microsoft illegally monopolized the market for personal computer (PC) operating systems. The Court rejected as 捷 order[ing] on the frivolous,□ Microsoft担 claim that its license restrictions were legally justified because it was 摇 xercising its rights as the holder of valid copyrights.□[16] In 2000, the European Commission[17] also opened proceedings against Microsoft担 discriminatory licensing and refusal to supply software information on its operating systems.[18]

• **FTC/DOJ hold fact-finding hearings to explore the effect of patent-law policy on innovation**. During 2002, the FTC and DOJ conducted a series of joint hearings on 擧 ompetition and Intellectual Property Law and Policy in the Knowledge-Based Economy.? The hearings examined the implications of competition and patent law and policy for innovation and consumer welfare. Information about the hearings is available at the FTC担 web site (www.ftc.gov).

• **New economic approach in the EU?** In the EU, the European Commission has shifted its policy from a legalistic to a more economic approach that is more attuned to encouraging technological innovation. This is best shown by the Commission担 so-called Block Exemption Regulation on Technology Transfer Agreements (TT-Regulation),[19] setting the relevant antitrust rules in the IP sector, which is significantly more liberal than its predecessor.

• **IMS Health担 refusal to grant a license**. In July 2001, the Commission ordered IMS Health, the world leader in data collection on pharmaceutical sales, to license its copyright to its ? 860 brick structure□ arguing that IMS□ refusal to grant that license constituted a prima facie abuse of a dominant position.[20] The execution of this unusual interim measure was suspended, however, by the European Court of First Instance in Luxembourg.[21] Following a judgment by a national court allowing IMS Health担 competitor to market the ? 860 brick structure,□ the Commission recently withdrew its order.[22]

Given this increased focus, it is important for in-house counsel and executives at companies with significant IP portfolios to understand the restrictions that antitrust laws may impose on intellectual property-related activities such as licensing, forming joint ventures to develop new products or processes, and mergers and acquisitions.

The following discussion has been organized into three sections:

1) an overview of common antitrust issues raised by the exercise of IP rights,

2) a contextual framework for analyzing these issues, and

3) an illustrative case study.

II. SEVEN ISSUES RAISED BY THE EXERCISE OF IP RIGHTS

What are IP-rich companies doing that is attracting the attention of antitrust regulators and private plaintiffs? The following is an overview of the principal antitrust issues raised by the exercise of IP rights:

A. Refusals to License

There are two general categories of refusals to deal involving intellectual

property that can raise antitrust concerns: First, a unilateral refusal to license by an IP owner and second, a refusal to deal that is based on an agreement between the IP owner and another party. As these examples demonstrate, there is some precedent for both raising IP-related antitrust issues.

1. A unilateral refusal to license by an IP owner

As a general matter, the antitrust laws provide wide latitude to an intellectual property owner to make unilateral decisions regarding whether and under what circumstances to license its IP. In at least one instance, however, a unilateral refusal to deal was held to be a violation of Section 2 of the Sherman Act, which prohibits monopolization, where the refusal to license was part of a strategy to eliminate competition between the IP holder and a competitor in a downstream market. In a 1997 decision, Kodak was required to sell or license photocopier parts to independent service providers with which it was competing to service Kodak photocopiers.[23]

Conversely, in 2000, a court held in a similar case that Xerox was not required to sell or license photocopier parts or manuals to independent service providers because it determined that even where it exists, 歷 market power does not impose on the intellectual property owner an obligation to license the use of that property to others.□[24]

2. A refusal to license based on an agreement with another party

This type of refusal may violate Section 1 of the Sherman Act, which prohibits conspiracies in restraint of trade. One example is a refusal based on an exclusive license between an IP holder and an existing licensee, which is discussed below under 掏 xclusivity in licensing.□ Another example is an agreement between two parties who hold competing IP not to license to a third party, which may constitute a *per se* illegal group boycott under Section 1, and also is discussed below in 揚 rice-fixing and other *per se* illegal agreements.□

B. Exclusivity in Licensing

There are two principal forms of exclusivity in intellectual property licensing, each of which may raise concerns under Section 1 of the Sherman Act.

1. Licensor agreement

An intellectual property license may be exclusive in that the *licensor* agrees not to license any other licensee and, perhaps, not to use the IP itself. Such conditions

may be limited to a certain geographic area or end use. This type of license can be procompetitive in that it creates an incentive for the licensee to develop the intellectual property fully knowing that it will capture all of the benefits. It also may be anticompetitive, however, if, for example, the licensor and licensee are competitors who would have developed competing IP in the absence of the exclusive license.

2. Licensee agreement

A license also can be exclusive in that the *licensee* agrees not to license competing intellectual property. For example, the licensing restrictions imposed by Microsoft wherein Original Equipment Manufacturers (OEMs) of PCs were discouraged from using rival Web browsers. This type of restriction, which is referred to as 摇 xclusive dealing,□ may provide incentives for the licensee to develop the licensed IP more fully, but, as in the *Microsoft* case, it also may foreclose competing suppliers of intellectual property from such a substantial portion of the relevant market that they are not able to compete. In *Microsoft*, the court held that licensing restrictions imposed by Microsoft on OEMs constituted illegal monopolization because they served to reduce usage share of competing Web browsers that could undermine Microsoft担 PC operating-system monopoly.[25]

C. Grantbacks

Another license restriction raising concerns under Section 1 of the Sherman Act is that requiring the licensee to grant back to the licensor any improvement patents (or licenses to improvement patents) secured by the licensee. A grantback can encourage innovation, particularly if it is nonexclusive, by allowing a licensor and licensee to share the risks and rewards of innovation. It also makes the innovation available to other licensees. A grantback may harm competition, however, if it limits the licensee担 incentive to innovate.[26]

D. Price-fixing and Other *per Se* Illegal Agreements

When firms that hold competing intellectual property agree to fix licensing fees, allocate markets, customers or licensees, or to engage in a group boycott against certain licensees, these agreements are treated as *per se* illegal under Section 1 of the Sherman Act; *i.e.*, they never can be legally justified. Similarly, an agreement between a licensor and a licensee that the licensee will not charge less than a certain price for a product created using the licensor担 intellectual property constitutes minimum resale price maintenance, which also is *per se* illegal.

E. Consolidating IP Through Joint Ventures, Acquisitions and Mergers

Joint ventures between firms with competing intellectual property may bring about innovations and improvements that neither of the parties could have achieved on its own. However, if no significant competing intellectual property exists in the marketplace, such joint ventures also may reduce the incentive each firm would otherwise have had to invest in research and development. This is because, by joining forces, the two firms no longer face competition from each other. Similar concerns can be raised when a firm acquires competing intellectual property or when two firms with competing intellectual property merge. These concerns are analyzed under Section 7 of the Clayton Act, which prohibits joint ventures, acquisitions and mergers that may substantially lessen competition.

F. Monopolization

In many instances, the 搕 onopoly□ granted to the holder of a patent or copyright will not constitute a monopoly for antitrust purposes because of the existence of competing patents, copyrights, technologies or end-use products. In some cases, however, an IP monopoly will constitute an antitrust monopoly as well. A monopoly resulting from the development of intellectual property does not violate the antitrust laws if it is solely 揳 consequence of a superior product, business acumen or historic accident.□[27, 28]

Section 2 of the Sherman Act, however, prohibits the 揅 illful acquisition or maintenance□ of monopoly power through anticompetitive means, such as prohibiting suppliers or customers from dealing with competitors. For example, in the *Microsoft* case, Microsoft was found to have monopolized the market for PC operating systems by pressuring computer OEMs and other entities not to use or distribute competing Web browsers and other products that might facilitate the development of competition for Microsoft担 Windows operating system.[29]

G. Enforcement of Invalid Intellectual Property Rights

Enforcement or attempted enforcement of a patent obtained by fraud on the Patent and Trademark Office (PTO) or the Copyright Office may constitute actual or attempted monopolization under Section 2 of the Sherman Act, or unfair competition under Section 5 of the FTC Act. Inequitable conduct before the PTO, absent knowing and willful fraud, will not form the basis of a Section 2 claim, but in some instances such conduct may nevertheless violate Section 5 of the FTC Act.[30]

III. HOW TO ANALYZE IP-RELATED ANTITRUST ISSUES IN THE U.S.

Now that the issues have been identified, it is useful to introduce a contextual framework for situation-specific analysis. What are antitrust regulators targeting? How is a market defined? Against what standards are practices evaluated? How are agreements and relationships among companies analyzed?

A. Market Power

搂 arket power is the ability profitably to maintain prices above, or output below, competitive levels for a significant period of time.□[31] Sellers with market power can lessen competition on price, product quality or quantity, or innovation.[32] Buyers with market power楞 eferred to as 挬 onopsony power敨 can depress prices below competitive levels, thereby lowering output.[33]

A fundamental goal of U.S. antitrust law is to prevent the creation, enhancement or exercise of market power.[34] The *Department of Justice and Federal Trade Commission Horizontal Merger Guidelines* (*Merger Guidelines*) state that 挬 ergers should not be permitted to create or enhance market power or to facilitate its exercise.□[35]

The *IP Guidelines* also weigh in here.[36] In the IP context, market power means the ability to maintain license fees above or below competitive levels, to demand onerous license terms, to depress research and development efforts, and to reduce innovation incentives栓 s well as to affect the price and output of related goods in an anticompetitive manner.

In analyzing whether a particular licensing arrangement is likely to create or enhance market power, it is necessary first to define the relevant market in which this issue should be evaluated. Under the *IP Guidelines*, the agencies will look at three different types of markets: goods markets, technology markets, and innovation markets. This three-market analysis has been applied in merger and acquisition contexts as well.[37]

- **Goods markets** refer to the relevant markets for the goods affected by the licensing arrangements. Where the effects of the exercise of IP rights 插 an be adequately assessed within the relevant markets for the goods affected by the arrangements,□ courts and the agencies will look at the markets for these goods, including final goods and intermediate goods and goods that are close substitutes for these.[38]

- **Technology markets** consist of the IP that is licensed or acquired and its close substitutes梩 n other words, the technologies or goods that are close enough substitutes that they can significantly restrain the exercise of market power with respect to the licensed or acquired IP.[39]

- **Innovation markets** consist of the research and development of particular new or improved goods or processes, as well as the substitutes for that research and development.[40]

B. *Per Se* Illegal Versus Rule of Reason

As noted above, certain restraints that are clearly anticompetitive will be considered illegal *per se*. Most other restraints will be analyzed using the 揜 ule of reason,□ under which any anticompetitive effects of the restraint are weighed against its procompetitive benefits based on a comprehensive evaluation of market conditions.[41] For some of the restraints analyzed under the rule of reason that appear unlikely to raise anticompetitive concerns, the agencies will conduct a truncated analysis. Finally, under the *IP Guidelines*, restraints meeting certain criteria that indicate that they are unlikely to result in any anticompetitive effects may qualify for one or more 撈 afety zones? from antitrust scrutiny.[42]

1. *Per se* illegal

In the intellectual property context, even a practice long considered illegal *per se* may be permissible if it performs an efficiency-enhancing function. Under the *IP Guidelines*, the *per se* rule applies only if the restraint will not result in an 摇 fficiency-enhancing integration of economic activity□ and is of the type usually accorded *per se* treatment (*i.e.,* price-fixing, output restraints, market allocation, group boycotts, resale price maintenance).[43] Here are two examples of licensing arrangements that the agencies will consider *per se* illegal:

- Example 7 in the *IP Guidelines* concerns a company that licenses its patented process to its competitors, even though that process does not represent an economic improvement over its competitors□ processes, and none of the competitors actually use the licensed process. The licenses, however, provide that each licensee has the exclusive right to market its product in a certain geographic area and may not market the product outside that area. In the absence of the licenses, the licensees would compete with each other outside their assigned areas. Although the agencies will not assume that this arrangement is an impermissible horizontal restraint without first considering whether the restraint has efficiency-enhancing effects, the agencies likely would conclude that the

arrangement is *per se* illegal as a horizontal market allocation scheme.

- Example 9 in the *IP Guidelines* concerns two companies with nonblocking patents (*i.e.,* each can be used without infringing the other) for two different circuit designs for a consumer electronics product. The two companies form a separate, wholly owned joint venture to which they assign their two patents. The new company licenses the circuit designs to other manufacturers of the product and sets the royalties at which the patents will be licensed. The joint determination of royalties results in higher royalties and higher goods prices than would have resulted had the two companies competed. Unless there is evidence of efficiency enhancement resulting from the formation of the third company, it is likely the agencies would conclude that this arrangement is *per se* illegal, as it constitutes horizontal price fixing.

- The *IP Guidelines* also make clear that resale price maintenance is *per se* illegal in the IP context. Nevertheless, the agencies will not condemn even a resale price maintenance scheme in the IP context without first examining whether there are efficiency-enhancing effects from the arrangement.[44]

2. Rule of reason

The vast majority of restraints involving intellectual property will be analyzed under the rule of reason.[45] In general, a restraint is analyzed under the rule of reason by inquiring whether the restraint is likely to have anticompetitive effects, and, if so, whether the restraint is reasonably necessary to achieve procompetitive benefits that outweigh those anticompetitive effects.[46]

Analysis of a restraint under the rule of reason requires a comprehensive inquiry into market conditions挽 ncluding factors such as market structure, duration of the restraint, whether the restraint facilitates coordination regarding setting of prices or output, and whether the restraint will foreclose others from the market. Any procompetitive efficiencies should be weighed against the anticompetitive effects to determine the probable net effect on competition in each relevant market.

Where a restraint has no likely anticompetitive effects, a truncated analysis is used. Such a restraint will be considered reasonable without an elaborate analysis of market power or the justification for the restraint.

C. Safety Zone

Recognizing that licensing arrangements can promote innovation and enhance competition, the *IP Guidelines* establish a safety zone to provide some degree of certainty and, thus, to encourage arrangements that are likely to have beneficial effects.

- The *IP Guidelines* safety zone is not available to arrangements that amount to transfers of IP to which merger analysis is applied.[47]

  Where the relevant market for analyzing a licensing arrangement is the goods market, the arrangement may fall within the safety zone if:

  (1) it is not facially anticompetitive (*e.g.,* it does not constitute price-fixing or a market allocation); and

  (2) the licensor and its licensees collectively account for no more than 20 percent of each relevant market significantly affected by the arrangement.[48]

- Where the relevant market for analyzing a licensing arrangement goes beyond the goods market to the technology or innovation markets, the

arrangement may fall within the safety zone if:

(1) it is not facially anticompetitive; and

(2) there exist four or more independently controlled, substitutable technologies in addition to the technology controlled by the parties to the licensing arrangement, or four or more independently controlled entities in addition to the parties to the licensing agreement who possess the assets, characteristics and incentive to engage in substitutable research and development.[49]

D. Horizontal Versus Vertical Relationships

Another factor in the antitrust analysis of IP arrangements is whether the relationship among the parties is primarily horizontal or vertical or both. Generally, an arrangement has a **horizontal component** when it affects activities by competitors. A horizontal relationship will be subject to stricter antitrust scrutiny than an arrangement that is entirely vertical.

- Relationships between a licensor and its licensees, or between licensees, are considered horizontal when the parties would have been actual or likely potential competitors in the absence of the license. Types of restraints that typically involve parties in a horizontal relationship include: agreements to facilitate price-fixing, agreements to divide markets or allocate customers, group boycotts, joint ventures, agreements not to compete, and conspiracies to eliminate a competitor by unfair business conduct.

- Where there is a horizontal relationship between the parties to a restraint, there are concerns that the restraint may facilitate coordination regarding prices and/or output. Moreover, there are concerns that competition will be harmed because the restraint may pose a significant risk of retarding or restricting the development of new or improved goods or processes.

In analyzing the potential for harm to competition, the agencies will apply the principles of the *Merger Guidelines* to examine the degree of concentration of the market, the difficulty of entry into the market, and the responsiveness of supply and demand to changes in price in the relevant markets.[50]

An arrangement has a **vertical component** when it affects entities at

different levels in the chain of distribution or activities that are in a complementary relationship棍 or example, an arrangement between a supplier and a customer.

- A manufacturer of a product who licenses that product to a distributor is in a vertical relationship with that distributor because they serve different functions in the product distribution chain and they are not direct competitors.

- With vertical IP arrangements, the principal antitrust issue is whether the arrangement forecloses competitors□ access to the IP needed to make a product, or limits access to the customers these competitors need to compete effectively.

- Vertical intellectual property arrangements may raise concerns where they limit the circumstances under which an IP holder can license other licensees, the circumstances under which a licensee can sell a product incorporating the IP, or the ability of a licensee to license competing IP.

- Restraints that typically are vertical in nature include resale price maintenance (which, as noted above, is *per se* illegal when it concerns minimum prices, even though vertical in nature), exclusive distributorship and exclusive or reciprocal dealing arrangements, unilateral distributor terminations, unilateral refusals to deal, unilateral territorial or customer restrictions on distributors, and tying arrangements.

IV. HOW TO ANALYZE IP-RELATED ANTITRUST ISSUES IN THE EU

Antitrust issues arising in the EU relating to IP are similar to those in the U.S. While Community antitrust law may follow different approaches to solve these issues the practical results rarely differ from what has been shown above for the U.S.

A. Single Market

The basic EU antitrust rules are laid down in Article 81 of the EC Treaty, which prohibits 捷 ilateral or multilateral□ anticompetitive agreements and concerted practices between undertakings (*e.g.,* horizontal price-fixing or vertical exclusive distributorship agreements), as well as in Article 82 of the EC Treaty, which prohibits

the 搖 nilateral? abuse of a dominant position (*e.g.*, unilateral refusal to license).

For the Community antitrust rules to apply, any restrictions of competition or abuse must 揳 ffect trade between the EU member states.? Otherwise the anticompetitive conduct is subject to the national antitrust laws of individual member states. An agreement affects intra-Community trade if it is designed to alter or may have the effect of altering the competitive structure within a single market to an appreciable extent. This may, however, not only apply to transborder licensing agreements but also to domestic agreements or parallel networks of agreements.

In establishing the relevant market, the Commission applies the same principles as the U.S. agencies as outlined above.[51] Starting from the parties□ position in the markets for existing products including their close substitutes and the technology currently marketed, it puts particular emphasis on potential competition and analyzes whether new products/technologies will replace existing ones or create a completely new demand.

B. No Rule of Reason

Unlike U.S. antitrust law, Community antitrust law does not formally recognize the rule of reason.[52] The Commission, when applying the prohibition in Article 81 (1) EC Treaty, does not weigh the pro- and anti-competitive effects of an agreement. It does not, however, apply that prohibition wholly abstractly and without distinction to all agreements whose effect is to restrict the freedom of action of one or more of the parties. In assessing the applicability of Article 81 (1) to an agreement, it takes account of all actual conditions in which the agreement functions, in particular the economic context in which the participating companies operate. Hence, certain restrictive agreements may nevertheless fall outside the scope of Community antitrust rules:

- In franchise agreements, restrictions that do not go beyond what is necessary to ensure the legitimate protection of the franchisor担 intellectual property or know how are not covered by Article 81 (1).[53]

- The transfer of an undertaking (business) often involves the licensing of patents or similar rights. Such licensing may be regarded as necessary to the implementation of the concentration (sale or merger) and therefore not falling within the scope of Community antitrust law even if the licenses are exclusive or limited to certain fields of use. However, territorial limitations are normally not regarded as necessary to the implemenation of the transaction.[54]

C. Block Exemption Versus Individual Exemption

According to Article 81 (3) EC Treaty, anticompetitive agreements related to intellectual property rights may be exempted from the prohibition in Article 81 (1) EC Treaty if these agreements contribute to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, unless the restrictions imposed on the parties are not indispensable to the attainment of these objectives or afford the parties the possibility of eliminating competition. At this point, one recognizes substantive elements of the EU antitrust analysis that appear to be part of the U.S. rule of reason doctrine.

Exemption may currently be granted either in the form of an individual decision taken by the Commission in respect of a specific agreement or in the form of a regulation exempting certain categories of agreements (the so-called block or group exemption). Following the entry into force of the new EC Antitrust Procedure Regulation[55] on May 1, 2004, Article 81 (3) EC Treaty will have 揹 irect effect,□ which means that national courts and authorities also may directly apply this exemption rule.

In the IP context the Technology Transfer (TT-) Regulation is of particular importance. It provides that Article 81 (1) EC Treaty does not apply to pure or mixed patent and/or know-how licensing agreements and those agreements containing ancillary provisions relating to IP rights other than patents, subject to the following conditions:

- **Permitted Restrictions**: Restrictions that are permitted are *e.g.,* the obligation of exclusive licensing put on the licensor, the obligation of the licensee not to exercise the license in territories reserved to the licensor or not to market the licensed product actively in the territory of other licensees.[56]

- ***Hard core* restrictions**: The TT-Regulation does not exempt so-called *hard-core* restrictions that are contained in the *black list* in its Article 3. These include restrictions in the determination of price for the licensed products, non-competition obligations in respect of research and development, production or use of competing products, absolute territorial restrictions, customer restrictions and maximum quantities of licensed products that may be manufactured. Here, it appears that *hard-core* restrictions clearly overlap with *per se* illegal restrictions under U.S. law.

D. Essential Facility

The right to enforce an intellectual property right does not necessarily give rise to a dominant position and the exercise of such right by suing for infringement or refusing to license such right does not in itself constitute an abuse within the meaning of Article 82 EC Treaty. However, the Commission has established an abuse in the registration of trade marks to divide markets, in the enforcement of unfair terms in license agreements, in bringing infringement suits to force the defendants to enter into restrictive licenses, or in the acquisition by a dominant competitor of an exclusive patent right.

Also, in certain circumstances the refusal to license may be considered abusive. This was the case in *Magill*[57] where the European Court of Justice held that the refusal of English and Irish organizations to grant licenses to third parties to reproduce their copyright television program schedules was in violation or Article 82 EC Treaty, since there was no actual or potential substitute for a weekly television guide and by their refusal the applicants reserved to themselves the (secondary) market of these guides. The line of reasoning of the Court shows many similarities with the case involving Kodak discussed above as a refusal to deal. The Commission used a similar argument in the *IMS Health* case mentioned above. This case, however, did not include a 捺 onopoly-leveraging? situation as the abuse was found to occur on the market where the IP right was held.

E. IP Rights Versus Free Movement of Goods

In the EU, the difficulties of reconciling the protection of intellectual property rights with the need to avoid unjustified restrictions on competition are compounded by the fact that intellectual property rights are still substantially governed by the laws of the EU member states.[58] Hence, the owner of a national copyright, trade mark or patent may, by bringing an action for infringement, prevent the importation of products lawfully marketed in another member state, thereby hindering the free movement of goods in the single market as guaranteed under Articles 28 and 30 EC-Treaty. An importer may use these provisions as the basis for an additional defense to such infringement action:

- If he can show that the products in question have been previously marketed in another EU member state by the owner of the right or with his consent. This principle is known as the 摇 xhaustion of rights? or

- If he can show that the exercise of the right amounts to 揳 rbitrary discrimination or a disguised restriction on trade.□

Based on these defenses, for example, a parallel importer who lawfully buys trade marked goods in one EU member state may therefore repack and resell them in another member state if (i)the trade mark holder upholds a marketing system that artificially partitions the single market, (ii) the repackaging does not adversely affect the product, (iii) the trade mark holder is notified prior to the repackaging, and (iv) the new packaging names the repackaging importer.[59]

V. MINING THE INTELLECT IN THE NEW ECONOMY

Clearly, the legal dynamic between intellectual property and antitrust law is only heating up as new high-tech industries increasingly mine the intellect for new sources of competition and profit. As the knowledge-based sector becomes ever more important to the economy, it will be fascinating to watch for further activity and legal precedent in this area.

The guidelines set forth here are intended to assist counsel and business executives in managing IP portfolios. Realizing the competitive benefits of intellectual property梮 ithout risking undue antitrust liability棍 orms the core of competitive leadership.

VI. A CASE STUDY: BIOCO

Having presented the issues within the context of an analytical framework, the discussion now can turn to analyzing these issues in a case study featuring a hypothetical IP-rich company.[60]

A. Background

BioCo is a biotech company that specializes in developing cutting edge drugs to treat serious illnesses such as cancer and HIV/AIDS. As a result of its research and development efforts, BioCo holds numerous patents to a variety of drugs. As a research-focused entity, BioCo does not have any commercial manufacturing or distribution capacity. It therefore frequently licenses the drugs it develops to major pharmaceutical companies to manufacture and distribute. In some cases, these pharmaceutical companies are developing and/or marketing drugs that compete with the drug that is being licensed to them by BioCo.

BioCo has developed a new cancer drug, ImmuCan, that works with the

body担 immune system to destroy cancer cells with fewer side effects than conventional therapies such as radiation and chemotherapy. There currently are five other biotech and pharmaceutical companies that have developed similar drugs. While ImmuCan generally is viewed as the most effective of these drugs in killing cancer cells, it also tends to cause more damage to healthy cells surrounding the cancer cells. Collectively, ImmuCan and these competing drugs, which BioCo refers to as 揃 nticancer immune boosters? or 揇 IBs,? are not considered close substitutes for traditional cancer therapies both because they present far fewer side effects and because they tend not to be as effective as traditional therapies in very advanced cases. At times, however, AIBs are used in combination with radiation and chemotherapy.

BioCo and each of its competitors maintain an active research and development program for purposes of making further improvements to these drugs. In addition to ImmuCan, BioCo also holds patents on a series of other immune boosters, 揵 Bs,? designed to reduce the side effects of traditional radiation and chemotherapy treatments.

B. Licenses to Noncompetitors

In the following set of scenarios, BioCo wishes to license ImmuCan to various pharmaceutical companies for purposes of manufacturing and distributing the drug. While the manufacture of ImmuCan and other AIBs requires certain specialized facilities, there are a number of pharmaceutical companies in the U.S. capable of manufacturing these drugs. BioCo is considering the feasibility of including several types of conditions in its licenses.

1. Scenario #1 ? Exclusivity arrangements

Facts: BioCo is considering offering an exclusive license to manufacture and distribute ImmuCan to PharmCo, a large U.S. pharmaceutical company that owns 25 percent of the manufacturing capacity capable of producing AIBs. BioCo will agree not to license ImmuCan to any other pharmaceutical company. PharmCo, in turn, will agree to an *exclusive dealing* arrangement whereby it cannot license, use or sell any AIB other than ImmuCan.

Analysis: Exclusive licenses typically raise antitrust concerns only when the licensor and licensee are in a horizontal relationship.[61] Here, BioCo has developed ImmuCan but cannot manufacture or distribute it commercially, while PharmCo has a license to manufacture and distribute ImmuCan. PharmCo does not control any technology that competes with ImmuCan. BioCo and PharmCo therefore are in a vertical relationship. Furthermore, the exclusive license portion of the arrangement

clearly has procompetitive benefits: PharmCo, receiving an exclusive right to manufacture and distribute ImmuCan, has an incentive to develop and promote the product because the commercial success of ImmuCan redounds primarily to its benefit. As a result, the exclusive license is unlikely to be viewed as anticompetitive under the rule of reason.

The exclusive dealing aspect of the license梖 hich here restrains PharmCo担 ability to license or use technologies that compete with BioCo担 梡 oses a different set of issues. Such restraints may harm competition by precluding competitors from having access to an important outlet, and they may even facilitate price increases or output decreases in the drug. They also may have procompetitive benefits, however, such as encouraging the licensor to license its technology and encouraging the licensee to develop and promote the licensed technology.[62]

Here, the exclusive dealing arrangement required by BioCo担 license precludes a significant player in the AIB manufacturing market from licensing or using competing technologies. This foreclosure makes it more difficult for BioCo担 competitors to have their AIB products manufactured and distributed.

PharmCo is only one of a number of pharmaceutical companies in the U.S. capable of manufacturing AIBs, however, and the AIB manufacturing market is relatively unconcentrated, with firms other than PharmCo commanding a significant market share (75 percent). In addition, ImmuCan is only one of six AIBs.

Verdict: Where there are a number of technologies that are close enough substitutes for the restrained technology such that the controller of the technology does not have and cannot exercise market power, the potential for harm to competition arising from exclusive dealing arrangements is lessened. Similarly, where a licensor enters into an exclusive license that forecloses its competitors from only a relatively small percentage of the relevant market (*e.g.,* less than 30%), anticompetitive effects are unlikely. Applying the rule of reason to the facts of this restraint, it is unlikely that the anticompetitive effects of the exclusive dealing arrangement, if any, will outweigh the procompetitive benefits.

Comments: Contrast BioCo担 and PharmCo担 lack of market power in their respective markets with Microsoft担 overwhelming dominance in the PC operating-system market. The licensing restrictions Microsoft attempted to place on its OEM担 in the recent *Microsoft* case discouraged OEM担 from using or distributing non-Microsoft products. This produced serious impediments to the competitive process, including effectively foreclosing developers of competing software from access to key customers.

2. Scenario #2 ? Resale price restrictions

Facts: BioCo offers PharmCo a nonexclusive license to manufacture and distribute ImmuCan, but with a provision obligating PharmCo to sell ImmuCan at a price 10 percent higher than other AIBs.

Analysis: The antitrust laws do not preclude entirely BioCo担 ability to exert some influence over the resale price of ImmuCan. In most instances, a licensor can agree with a licensee on the maximum price that the licensee will charge for a product incorporating the licensor担 IP. Such maximum resale price maintenance agreements are analyzed under the rule of reason and are legal, in general, unless they constitute below-cost predatory pricing.[63] Further, it would not be illegal for BioCo to include a term in its license to PharmCo suggesting a resale price for ImmuCan relative to other AIBs窠 o long as use of the suggested price is truly voluntary.

In this example, however, BioCo would as a condition in its license dictate to PharmCo the minimum price level at which PharmCo is to resell ImmuCan. It is *per se* illegal for a licensor of an intellectual property right in a product to fix a licensee担 minimum resale price for that product.

Verdict: As such, the arrangement constitutes resale price maintenance, otherwise known as vertical price-fixing.

3. Scenario #3 ? Tying

Facts: BioCo offers PharmCo a license to ImmuCan on the condition that PharmCo also license BioCo担 IBs that reduce the side effects of conventional cancer treatments. Here, BioCo is attempting to condition the granting of a license to ImmuCan (the tying product) upon PharmCo担 agreeing to license BioCo担 IBs (the tied product). IBs require the same specialized manufacturing facilities as AIBs, and PharmCo also has 25 percent of the capacity for producing IBs.

Analysis: Under the *IP Guidelines*, 捧 onditioning the ability of a licensee to license one or more items of intellectual property on the licensee担 purchase of another item of intellectual property斟 as been held in some cases to constitute illegal tying.□[64] Tying arrangements have been analyzed both under the *per se* rule and the rule of reason. Under the *per se* rule, a tying arrangement is illegal if a seller has sufficient market power in the tying product to restrain trade in the market for the tied product *and* a not insubstantial amount of commerce in the tied product is affected.[65] Some courts also have required the plaintiff to establish an anticompetitive effect in the market for the tied product.[66] In general, the rule of reason applies to

tying where the seller lacks market power in the tying product, and the analysis focuses on whether the tie has an adverse effect on competition in the market for the tied product.[67]

The antitrust agencies have adopted something of a hybrid of these two rules for purposes of the *IP Guidelines*. Under the *IP Guidelines*, the agencies would be likely to challenge a tying arrangement only if the licensor has market power in the tying product, the arrangement has an adverse effect on competition in the relevant market for the tied product, and the procompetitive benefits of the arrangement do not outweigh the anticompetitive effects. For litigation purposes, however, the agencies reserve their right to employ the *per se* and rule of reason approaches to tying that have been defined by the courts.[68]

Because of the superiority of ImmuCan over competing AIBs due to its greater effectiveness, it is conceivable that ImmuCan could command sufficient economic power in the market for AIBs to effectuate an appreciable restraint in the IB market. On the other hand, if BioCo lacks market power (*e.g.*, because the other superior qualities of the competing AIBs neutralize ImmuCan担 advantages), the tie is unlikely to result in an antitrust violation. The issue would be whether the tie results in an anticompetitive degree of foreclosure for competitors in the relevant market for IBs.

Verdict: Assuming that, based on its share of manufacturing capacity, PharmCo represents only 25 percent of the market for licensing and manufacturing IBs, the degree of foreclosure is unlikely to raise antitrust concerns.[69]

4. Scenario #4 ? Grantbacks

Facts: BioCo offers PharmCo an exclusive license to ImmunCo, but with a provision that, for the next 10 years, PharmCo will grant back to BioCo any improvement patents that PharmCo obtains. BioCo would not be obligated to pay PharmCo for the grantback, but PharmCo would retain an exclusive license to use the intellectual property granted back to BioCo.

Analysis: Although the Supreme Court has held that grantbacks may violate the antitrust laws because they may discourage innovation by the licensee,[70] grantback provisions are nevertheless analyzed under the rule of reason.[71]

Grantbacks have procompetitive effects, such as allowing a patent-owner to license its technology without the risk that it will be made obsolete by the licensee担

subsequent development of the technology. Grantbacks also can raise antitrust concerns, however, because, by requiring licensees to relinquish ownership or control of their intellectual property in subsequent improvements to the original patent, they can discourage innovation by licensees.[72] In analyzing grantbacks under the rule of reason, courts have identified a number of relevant factors, including: (1) whether the grantback is exclusive, and if so, whether the licensee retains the right to use its own improvements; (2) the duration of the grantback; (3) whether the grantback is royalty-free; (4) the market power of the parties; (5) whether the parties are competitors; and (6) the effect of the grantback on innovation.

In this case, BioCo担 grantback is exclusive, and BioCo does not have to compensate PharmCo for the grantback. However, PharmCo retains the exclusive right to use its own improvements. As a result, PharmCo retains a strong incentive to invest in and develop improvements to ImmuCan despite the grantback秋 ecause the commercial success of any such innovation redounds primarily to the benefit of PharmCo.

Furthermore, BioCo receives some measure of protection from subsequent innovations undermining the value of the ImmuCan patent (but not for longer than the life of the patent), thereby encouraging it to grant licenses to ImmuCan.

Verdict: Based on the competitive conditions described above, BioCo and PharmCo together have insufficient economic power in the markets for AIB products and innovation to AIB products to restrain competition in a significant way. For these reasons, it is unlikely that the grantback provision in BioCo担 patent license would raise significant antitrust concerns.

5. Scenario #5 — Field of use, territorial or customer restrictions

Facts: BioCo offers PharmCo a nonexclusive license to ImmuCan, but with one of the following provisions: PharmCo will supply ImmuCan only to hospitals (BioCo will use a different manufacturer and distributor for 揺 lternate sites□ such as freestanding oncology centers and physicians□ offices) and PharmCo will distribute ImmuCan only west of the Mississippi.

Analysis: Field-of-use, territorial and customer restrictions in intellectual property licenses are typically legal because they do not foreclose access to competing

technologies, and they allow the owner of the intellectual property the ability to exploit its property rights in the manner it believes is most efficient and effective.

Verdict: In this example, the restrictions proposed for ImmuCan merely limit PharmCo担 use of BioCo□s intellectual property rights to specific customers and geographies, but they do not restrict BioCo from licensing ImmuCan to other pharmaceutical companies who sell to the same or different customers or territories. The restrictions also do not prevent PharmCo from licensing competing IP in order to serve these or other customers or geographies. The proposed restraints are therefore unlikely to raise antitrust concerns.

C. Licenses with Competitors

In the next set of examples, BioCo wishes to license one or more pharmaceutical or biotech companies that own competing AIB patents to manufacture and/or distribute ImmuCan. There are five other independently controlled AIB technologies comparable to ImmuCan. Moreover, there are a number of firms that have the capability to manufacture ImmuCan and other AIBs. BioCo is contemplating several different potential arrangements.

1. Scenario #1 ? Nonexclusive licenses

Facts: BioCo offers nonexclusive licenses to all companies capable of manufacturing ImmuCan, including companies that own competing AIBs.

Analysis: Nonexclusive licenses of intellectual property that do not include restraints on the competitive conduct of either the licensee or the licensor do not typically present antitrust concerns. The parties to the licenses compete in the development and/or manufacture of comparable products and are thus in a horizontal relationship. However, the nonexclusive and otherwise nonrestrictive nature of these licenses does not foreclose the ability of any of these parties to engage in competitive activity and does not suppress any innovation that would occur in the absence of the licenses.

Verdict: Here, BioCo担 competitors will be able to continue to manufacture all of the AIBs they were manufacturing prior to the grant of the ImmuCan license. In addition, they each will be able to avail themselves of ImmuCan担 innovative features. BioCo and its competitors also will retain the incentive to compete with each other to improve ImmuCan and their respective other AIBs. The ImmuCan license likely has no anticompetitive effect, thus making unnecessary any additional inquiry into market power or justifications for the license.

2. Scenario #2 ? Exclusivity arrangements

Facts: BioCo offers PharmTech楳 pharmaceutical company whose business includes developing and manufacturing AIBs and IBs楳 n exclusive license to ImmuCan. In addition to owning a patent to an AIB that competes with ImmuCan, PharmTech also holds a nonexclusive license to manufacture a second rival AIB. None of these patents are blocking of the others. Pursuant to the license with PharmTech, BioCo will not grant any other licenses to manufacture or distribute ImmuCan. PharmTech, in turn, will not license, manufacture or sell any AIB (including licensing out or manufacturing the AIB it owns) other than ImmuCan.

Analysis: This example involves an exclusive license with an exclusive dealing provision, like the earlier example between BioCo and PharmCo. Here, however, licensor and licensee are not in a vertical relationship, but rather are competitors in the markets for AIB technology and research and development. Because the participants in this example are in a horizontal relationship, their exclusivity arrangements are subject to stricter scrutiny than the arrangements in the previous example.[73]

By granting an exclusive license to PharmTech, BioCo has limited competition in the manufacture of ImmuCan. If BioCo and PharmTech were the only two companies with this type of technology, the license would raise serious concerns, including that PharmTech would have a reduced incentive to improve on the AIB patents it owns and licenses and an increased incentive to raise the price of ImmuCan. Given the presence of at least four independent competing technologies, however, there should be a strong incentive for PharmTech to innovate and sufficient competition to constrain its pricing of ImmuCan. As a result, the exclusive license, standing alone, is unlikely to be anticompetitive.

By obligating PharmTech to deal exclusively with BioCo in the area of AIBs, however, BioCo has blocked competing licensors of AIBs□ access to PharmTech as a potential manufacturer of their products. Depending upon market conditions, including, in particular, PharmTech担 share of the total capacity in the market to manufacture these products, such a foreclosure could result in reduced output and higher prices for AIBs. Moreover, the exclusive dealing arrangement obligates PharmTech to cease the manufacture of two rival AIBs椀 ts own, which it also is prohibited from licensing to third parties, and the one it licensed prior to receiving the ImmuCan license. This affects output and, at least with respect to PharmTech担 own product, constitutes a *per se* illegal agreement not to compete unless the arrangement results in an 摇 fficiency-enhancing integration of economic activity.□[74]

Verdict: BioCo and PharmTech control parallel technologies that are not

blocking of each other; thus, no efficiencies are gained by consolidating the rights to the two companies□ respective products in PharmTech. Moreover, because of the restrictive terms of the license, the consolidation results in the loss of PharmTech担 AIB as a competing technology and product. In sum, then, this exclusive dealing provision is likely to violate Section 1 of the Sherman Act under the *per se* rule and may be a violation under the rule of reason as well.

3. Scenario #3 ? Cross-licensing or license pools

Facts: BioCo exchanges licenses for all current and future AIB technologies with PharmTech and a third company that owns an AIB patent. Although BioCo担 current product is arguably superior to the other two companies? current AIBs because ImmuCan is more effective in killing cancer cells, the other companies□ current AIBs have certain superior characteristics, including fewer side effects that, were BioCo to replicate them in ImmuCan, would cause BioCo to risk patent infringement. Under this cross-licensing arrangement, the pooled rights would be exclusive to participants only.

Analysis: The *IP Guidelines* recognize that cross-licensing or pooling arrangements 挃 ay provide procompetitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation.□[75] The *IP Guidelines* also recognize that cross-licensing or pooling arrangements can, in certain circumstances, have anticompetitive effects梡 articularly on innovation.[76] For example, in a pooling arrangement where participants are required to license all current and future technology to each other, participants can be deterred from engaging in research and development because members of the pool gain a 撾 ree ride□ on the advancements of other members. In determining whether the procompetitive benefits of a cross-licensing or pooling arrangement outweigh the anticompetitive effects, a key consideration is whether the pooled intellectual property confers market power in a relevant market.[77]

The pooling arrangement in this example appears to raise antitrust concerns. The participants in the arrangement are probably in a horizontal relationship because the technologies they control, although superior to each other in various respects, are nonetheless reasonably substitutable for each other.

Further, together the parties control three of six currently existing AIB technologies. Assuming each firm has a roughly equal market share, the arrangement consolidates half of the AIB technology market. The arrangement certainly does not qualify for the *IP Guidelines* safety zone (which, in a situation involving pooled technology, requires that at least four independently controlled technologies exist outside of the arrangement). The arrangement also could have adverse effects on

innovation in AIBs, because it obligates the participants梮 ho represent a substantial proportion of pharmaceutical and biotech firms with the ability and incentive to conduct research and development on AIBs梩 o grant their competitors access to any future technological improvements to their existing patents.

Verdict: To be sure, the arrangement generates procompetitive efficiencies; for example, it encourages participants to share current and future intellectual property in their respective AIBs so that each company can integrate the complementary capabilities of each pool member担 patents into its products. Despite this likely benefit to consumers in the form of increased AIB effectiveness and reduced side effects, the potential market power of the pool participants梩 ogether with the effect of the arrangement on the AIB technology and innovation markets梙 akes the arrangement vulnerable to an antitrust challenge.

D. Joint Venture with Competitor

Facts: BioCo is considering entering into a joint venture with PharmTech to research and develop an integrated AIB/IB that would have the effectiveness of ImmuCan, the reduced side effects of PharmTech担 AIB, and also could be used to reduce the side effects of radiation and chemotherapy for patients receiving a combination of AIBs and conventional therapies.

The joint venture would call for the formation of a separate operating unit, owned in equal parts by BioCo and PharmTech, to research and develop the new product. Any intellectual property resulting from the joint venture would be licensed exclusively to BioCo and PharmTech. It should be noted that each of the other four companies with AIB technology have their own IBs that could be combined with their AIBs to achieve properties similar to those BioCo and PharmTech are hoping to achieve, but none of these competitors has been willing to license its complementary technology to BioCo or PharmTech.

Analysis: Research and development joint ventures are often procompetitive because they allow firms to combine technological and other resources to improve or invent products, to lower costs through economies of scale, and to share the often substantial risks of research and development梙 ll of which encourage innovation. The formation of a joint venture, however, can raise two types of antitrust concerns.

First, the joint venture can raise structural concerns under Section 7 of the Clayton Act if the collaboration between firms will create or enhance market power.

Second, the joint venture can raise operational concerns under Section 1 of the

Sherman Act if it facilitates collusion between the joint-venture partners on nonventure products or between a partner and the venture itself on products on which they compete.

Structural Concerns. With respect to market power, the agencies will apply *IP Guidelines*' principles in analyzing the joint venture. Pursuant to the *IP Guidelines*, the agencies will consider the market affected by the joint venture and the number of market participants.[78]

For arrangements that primarily affect the development of a good that does not yet exist, the agencies will look at the effect of the arrangement on the innovation market for the research and development necessary for the new product. The innovation market consists of the R&D directed at the new good and the close substitutes for that research and development.[79]

In this example, there are four other firms beside BioCo and PharmTech that own AIB and IB intellectual property. They, like BioCo and PharmTech, likely have the technological capabilities and the incentive to engage in the kind of research and development that can serve as a close substitute to that being contemplated by the joint venture. As such, these four firms can be considered competitors of the proposed joint venture in the innovation market for integrated AIB/IB products.

Operational Concerns. Even in joint ventures that do not raise structural concerns, both the partners and the venture must be cognizant of various antitrust concerns that may be triggered by the operation of the venture.

One threshold operational issue is whether the joint venture is legitimate; *i.e.,* whether it is being formed to create a new product or achieve significant efficiencies that neither party to the joint venture could achieve independently, or whether it is a 撈 ham? *i.e.,* a pretextual collaboration formed to raise prices or engage in other anticompetitive behavior.

Another operational concern is whether the joint venture will compete with its partners. If so, the simultaneous management of the joint venture and the marketing of a competing product create the risk that exchange of price, cost, or other competitively sensitive information will be viewed as a means of facilitating collusion between the venture and its partners on prices or output.

The operation of a joint venture by partners who are competitors outside the venture also creates risk of anticompetitive spillover to nonventure business. Although partners to a legitimate joint venture who are competitors are permitted to share information and make joint decisions, including on prices, in connection with

developing and/or marketing the venture products, their participation in the venture creates opportunities to exchange competitive information and collude on terms of sale for products on which they compete outside the venture.

In this case, the joint venture is being formed to research and develop a new product that the venture partners could not棈 ithout significant cost or effort棅 ave created acting separately. In addition, the complementary products and technology are not available from other manufacturers. By integrating the two partners□ skills and assets in developing the new AIB/IB, the joint venture likely will result in significant efficiencies.

Verdict: Because of the existence of a number of competitors, it is likely that the joint venture being contemplated by BioCo and PharmTech will not be challenged by the agencies based on structural concerns. Indeed, the venture likely falls within the *IP Guidelines* safety zone.[80]

In addition, there is little concern that the joint venture proposed by BioCo and PharmTech is a pretext for collusion. The venture partners, however, are not only competing with each other, but arguably with the joint venture as well, in both the AIB and IB markets. To reduce the risk that BioCo and PharmTech will be viewed as engaging in illegal collusive activities with each other and/or the venture, the joint venturers can institute various measures.

Among the most effective of these precautions is the establishment of a 孽 hinese wall□ or screen, whereby a complete separation of the decision makers for the competing products at the joint venture and at the venture partners is effectuated, and venture personnel are prohibited from exchanging information relating to the venture product with partner personnel involved with competing products.

In addition to the Chinese wall (or as an alternative if the Chinese wall is not practical), the partners and the venture should institute strict, written guidelines prohibiting the exchange of information among employees of the partners regarding competing products and services outside the scope of the venture. These restrictions also should apply to employees of the partners and employees of the venture relating to products on which either partner and the venture compete.

E. Merger with Company with Competitive Intellectual Property

Facts: BioCo is considering merging with PharmTech, creating a new company, BioPharmTech.

Analysis: The structural issue raised by mergers under Section 7 of the Clayton Act is similar to the structural issue already described for joint ventures. The fundamental issue a merger raises under the antitrust laws is whether the transaction will create or enhance market power. Because the *IP Guidelines* technically do not apply to mergers and other acquisitions,[81] the agencies will apply the *Merger Guidelines* to analyze the competitive effects of a merger-borrowing principles set forth in the *IP Guidelines* where applicable.

Under the *Merger Guidelines*, four factors generally are considered when analyzing a merger. The first factor is whether the merger will increase market concentration significantly in the relevant market and result in a concentrated market. The agencies define the relevant market in the merger context much as they do in the licensing context. The relevant market can be the goods market, the technology market or the innovation market, depending upon the nature of the merger. Each market consists of the goods, technology or research capability provided by the merging parties, as well as the goods, technologies or research capabilities that are close substitutes to those of the merging parties.

In determining concentration in a goods market, market shares based on production capacity or sales will be evaluated. In determining concentration in a technology or innovation market, where market-share data may not be available, buyers□ and market participants□ assessments of the competitive significance of each market participant will be considered, as well each participant担 possession of comparable technology. Alternatively, in an innovation market, assets or characteristics upon which research and development depend form a basis for such consideration. When entities have comparable technology or innovative capabilities and incentives, an equal market share can be assigned to them.[82]

The second factor under the *Merger Guidelines* is whether, in light of market concentration, the merger is likely to have anticompetitive effects. The merger may have unilateral anticompetitive effects if the merged entity will have a greater ability to raise prices on its own than the merged parties had separately. In general, a combined market share of less than 30 percent is unlikely to raise unilateral market-power concerns.[83] The merger may have coordinated anticompetitive effects if the reduction in the number of competitors caused by the merger gives the remaining competitors a greater ability to collude on prices and other terms of competition than competitors had prior to the merger.

The third factor is whether new entry, or expansion by existing market participants, will be likely, timely (*i.e.*, accomplished within two years), and sufficient in magnitude to deter any anticompetitive effects of the merger.

The fourth factor is whether the merger will produce efficiencies, such as cost savings, that cannot be achieved through other means.

Here, the merger of PharmTech and BioCo to create BioPharmTech is unlikely to create or significantly enhance market power. As previously discussed, currently there are six firms that control six independent AIB technologies in the relevant market. The merger would reduce the number of market participants to five. (There are even more competitors in the market for IBs, making it even less likely that the merger would produce any anticompetitive effects in that market).

Although BioCo担 ImmuCan is arguably superior to the other five AIBs on the market because of its superior effectiveness, the other AIBs have fewer side effects than ImmuCan. As a result, each AIB enjoys roughly the same market share栏 pproximately 16 percent栲 ith ImmuCan enjoying perhaps slightly more.

By this calculation, the merged entity will have a combined market share for AIBs of about 33 percent. Because of the number of competitors remaining after the merger, and because of the relatively modest market share of the merged entity, the level of concentration effectuated by the merger is unlikely to raise market-power concerns.

Verdict: As a result, even if there were significant barriers to new entry or expansion taking place in accordance with *Merger Guidelines* requirements, the merger is unlikely to result in anticompetitive effects. Finally, the merger is also likely to be procompetitive because it will produce certain efficiencies as a result of the integration of the two firms? AIB and IB research and development

ENDNOTES

1. Reprinted in 4 TRADE REG. REP. (CCH) 13,132 at 20,733-44 (Apr. 6, 1995).

2. *Valspar Corp.*, No. C-3991 (F.T.C. Jan. 26, 2001) (alleging that acquisition would affect innovation in metallic mirror paints).

3. *United States* v. *Allied Signal, Inc. & Honeywell, Inc.*, No. Civ. A 99-2959, 2000 WL 33115901, at * 17 (D.D.C. Mar. 22, 2000) (alleging that merger would affect innovation in aerospace products).

4. *Digital Equip. Corp.*, No. C-3818 (F.T.C. July 14, 1998) (alleging that acquisition would affect innovation in high-performance, general purpose microprocessors).

5. *Boston Scientific Corp.*, No. 951-0002 (F.T.C. Feb. 23, 1995) (alleging that merger would affect innovation in intravascular ultrasound catheters).

6. *Dow Chem. Co. & Union Carbide Corp.*, No. C-3999 (F.T.C. Mar. 16, 2001) (alleging that merger would affect innovation in plastic manufacturing technology).

7. *United States v. General Motors Corp.*, No. 93-350 (D. Del. Nov. 16, 1993) (alleging that acquisition would affect innovation in automatic transmissions for buses and heavy refuse trucks).

8. *United States* v. *Northrop Grumman Corp. & TRW Inc.*, No. 1:02CV02432 (D.D.C. 2002) (alleging that acquisition would affect innovation in radar reconnaissance satellite systems).

9. *Bayer AG & Adventis S.A.*, No. 011-0199 (F.T.C. 2002) (alleging that acquisition would affect innovation in certain insecticides, herbicides and defoliants).

10. *Hoechst Marion Roussel, Inc.*, 66 Fed. Reg. 18636 (Apr. 10, 2001).

11. *Schering-Plough Corp., Upsher-Smith Labs. & American Home Prods.*, 2001 FTC LEXIS 39,*20-*21 (Apr. 2, 2001).

12. *Abbott Labs*, 65 Fed. Reg. 17,502 (Apr. 3, 2000).

13. *Biovail Corp.*, 67 Fed. Reg. 21,248 (Apr. 30, 2002).

14. *Bristol-Myers Squibb*, No. 011-0046 (F.T.C. 2003).

15. *United States v. Microsoft*, 253 F.3d 34 (D.C. Cir.), *cert. denied*, 122 S. Ct. 350 (2001).

16. *Id.* at 62-63.

17. The Commission is the responsible body for implementing and enforcing the antitrust rules in the EU.

18. IP/00/141 and IP/00/906, available under http://europa.eu.int/rapid.

19. Reg. No 240/96, OJ 1996 L 31/2.

20. OJ 2002 L 59/18.

21. Case T-184/01 R *IMS Health Inc.* v. *Commission* [2001] ECR II-3193; confirmed by the ECJ, Case C-481/01 R NDC *Health* v. *IMS Health Inc. and Commission* [2002] ECR I-3401.

22. *See* press release IP/03/1159.

23. *Image Technical Servs.* v. *Eastman Kodak Co.*, 125 F.3d 1195, 1226-1227 (9th Cir. 1997) (requiring Kodak to sell or license photocopier parts to independent service providers with whom it was competing to service Kodak photocopiers), *cert. denied*, 523 U.S. 1094 (1998).

24. *Independent Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322, 1326 (Fed. Cir. 2000) (holding that Xerox was not required to sell or license photocopier parts or manuals to independent service providers; 摇 ven where it exists,屠 market power does not 挹 mpose on the intellectual property owner an obligation to license the use of that property to others攸 ? (quoting *Intergraph Corp.* v. *Intel Corp.*, 195 F.3d 1346 (Fed Cir. 1999) and *IP Guidelines*, § 2.2), *cert. denied*, 531 U.S. 1143 (2001).

25. *Microsoft*, 253 F.3d at 59-64 (holding that licensing restrictions imposed by Microsoft on OEMs constituted illegal monopolization because they served to reduce usage share of competing Web browsers that could undermine Microsoft担 PC operating system monopoly).

26. *IP Guidelines*, ? 5.6.

27. *United States* v. *Grinnell Corp.*, 384 U.S. 563, 571 (1966) (monopoly that is solely 揼 consequence of a superior product, business acumen or historic accident? does not violate the antitrust laws).

28. *IP Guidelines*, ? 2.2.

29. *Microsoft*, 253 F.3d at 59-78.

30. *IP Guidelines*, ? 6.

31. *Id.*, ? 2.2.

32. *Merger Guidelines*, ? 0.1.

33. *IP Guidelines*, ? 2.2 n.10.

34. *Id.*, ? 2.2.

35. *Department of Justice and Federal Trade Commission Horizontal Merger Guidelines (Merger Guidelines)*, ? 0.1.

36. *IP Guidelines*, ? 2.2 (揟 arket Power is the ability profitably to maintain prices above, or output below, competitive levels for a significant period of time.?

37. Although the *IP Guidelines* technically apply only to the licensing of intellectual property, and specify in Section 5.7 that 揳 c]ertain transfers of intellectual property rights are most appropriately analyzed by applying the principles and standards used to analyze mergers, particularly those in the 1992 Horizontal *Merger Guidelines*,□ recent enforcement activity and case law demonstrate that the FTC, DOJ and the courts have adopted *IP Guidelines* concepts in analyzing acquisitions of intellectual property. For example, *see supra* notes 2-9.

38. *IP Guidelines*, Ë 3.2, 3.2.1.

39. *Id.*, ? 3.2.2.

40. *Id.*, ? 3.2.3.

41. *Id.*, ? 3.4.

42. *Id.*, ? 4.3.

43. *Id.*, ? 3.4.

44. *Id.*, § 5.2. At the time the *IP Guidelines* were released in 1995, both minimum and maximum resale price maintenance were *per se* illegal. *See Albrecht* v. Herald Co., 390 U.S. 145 (1968). In 1997, however, the Supreme Court held in *State Oil Co.* v. *Kahn*, 522 U.S. 3, 22 (1997) that maximum resale price maintenance agreements should be evaluated under the rule of reason. As a result, only minimum resale price maintenance agreements now should be subject to the per se rule in the IP context.

45. *Id.*, ? 3.4.

46. *Id.*

47. *IP Guidelines*, Ë 4.3, 5.7.

48. *IP Guidelines*, ? 4.3.

49. *Id.*

50. *IP Guidelines*, § 4.1.1. For a more detailed description of the analysis under the *Merger Guidelines*, *see* 搁 erger with company with competitive intellectual property? in the case study.

51. Commission Notice: Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements, OJ 2001 C 3/2, at paras. 43- 54.

52. Case T-112/99 *M闋 ropole t閒 閔 ision (M6)* v. *Commission* [2001] ECR II-2459.

53. Case 161/84 *Pronuptia* [1986] ECR 353.

54. Commission Notice on restrictions directly related and necessary to concentrations, OJ 2001 C 188/5, at paras. 21-24.

55. Regulation (EC) No. 1/2003, OJ 2003 L 1/1.

56. Article 1 (1) TT-Regulation.

57. Cases C-241 & 242/91 P *RTE and ITP* v. *Commission* [1995] ECR I-743 (□*Magill*? .

58. Only some minor, but important harmonization has taken place. *See*, *e.g.*, the establishment of the Community Trade Mark system under Reg. No 40/94, OJ 1994 L 11/1, which provides for the right to obtain a EU-wide trade mark granted by the Office for Harmonization of the Internal Market (OHIM) in Alicante, Spain, or Directive 98/44/EC, OJ 1998 L213/13 on the legal protection of biotechnological inventions.

59. Case 102/77 *Hoffman-La Roche* v. *Centrafarm* [1978] ECR 1139.

60. The hypothetical companies used in this article, as well as their products, patents, licenses and business combinations, are entirely fictitious and are not intended to bear any likeness to, or represent, any real company, business, product, item of intellectual property or event.

61. *IP Guidelines*, ? 4.1.2.

62. *Id*.

63. *State Oil Co*. v. *Kahn*, 522 U.S. 3, 22 (1997).

64. *IP Guidelines*, ? 5.3.

65. *Fortner Enters*. v. *United States Steel Corp*., 394 U.S. 495, 498-99 (1969).

66. *Crossland* v. *Canteen Corp*., 711 F.2d 714, 722 (5th Cir. 1983).

67. *Jefferson Parish Hosp. Dist*. No. 2 v. Hyde, 466 U.S. 2, 29-31 (1984).

68. *IP Guidelines*, ? 5.3 n.37.

69. *Jefferson Parish*, 466 U.S. at 46 (1984) (O扑 onnor, J., concurring) (an arrangement foreclosing 30 percent or less of the relevant market is unlikely to be held anticompetitive).

70. *Hartford-Empire Co.* v. *United States*, 323 U.S. 386, 400 (1945).

71. *Transparent-Wrap Mach. Corp. v. Stokes & Smith Co.*, 329 U.S. 637, 648 (1947).

72. *IP Guidelines*, ? 5.6.

73. *IP Guidelines*, § 4.1.2. (exclusive licenses may raise antitrust concerns when the licensor and licensee are in a horizontal relationship).

74. *IP Guidelines*, ? 3.4.

75. *Id.*, ? 5.5.

76. *Id.*

77. *Id.*

78. *IP Guidelines*, ? 3.

79. *Id.* at ? 3.2.3.

80. *IP Guidelines*, § 4.3 (? bsent extraordinary circumstances, the agencies will not challenge [an arrangement] that may affect competition in an innovation market if (1) [it] is not facially anticompetitive and (2) four or more independently controlled entities [have the ability to engage in research and development comparable to that of the parties in the arrangement].?

81. *IP Guidelines*, ? 5.7.

82. *IP Guidelines*, ? 3.2.3.

83. *United States v. Philadelphia Nat? Bank*, 374 U.S. 321, 364 & n.41 (1963). *See also Merger Guidlines*, ? 2.2 (unilateral effects unlikely at combined market share below 35 percent).

