CHAPTER 6

COMPETITIVE ISSUES REGARDING PRACTICES THAT EXTEND THE MARKET POWER CONFERRED BY A PATENT BEYOND ITS STATUTORY TERM

A portion of the Hearings focused on the competitive impact of practices that firms may use to extend the reach of a patent beyond the expiration of a patent's statutory term.[1] Such practices traditionally have been challenged under the doctrine of patent misuse.[2] By contrast, there have been few antitrust challenges to these practices, perhaps because they cause competitive concern only if the patent in question has conferred market power, i.e., the patent holder can profitably "maintain prices above, or output below, competitive levels for a significant period of time,"[3] and the practice unreasonably extends that market power beyond the patent's expiration.[4]

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[1] Utility patents have a statutory term of twenty years from the date of filing. 35 U.S.C. § 154 (2000). A design patent has a term of fourteen years from the date of grant. 35 U.S.C. § 173 (2000). The value of a patent declines for one of two reasons: either its term expires or new noninfringing products or processes become available that "diminish any market power the [patent] may have commanded." May 14, 2002 Hr'g Tr., Antitrust Analysis of Specific Intellectual Property Licensing Practices: Bundling, Grantbacks and Temporal Extensions (Morning Session) at 119 (Dick), http://www.ftc.gov/opp/intellect/020514trans.pdf [hereinafter May 14 Tr.]; *see also* Richard C. Levin, Alvin K. Klevorick, Richard R. Nelson & Sidney G. Winter, *Appropriating the Returns from Industrial Research and Development*, 1987 BROOKINGS PAPERS ON ECON. ACTIVITY 783, 808, 810-11 (explaining that one to three years was the median estimate by industry respondents surveyed about the time required for imitators to duplicate a major patented new process or product and "to have a significant impact on the market") (internal quotation marks omitted). This Chapter does not address these and other complex issues that may arise when patent-conferred market power may decline due to the entry of noninfringing substitutes before patent expiration.

[2] *See* 1 HERBERT HOVENKAMP, MARK D. JANIS & MARK A. LEMLEY, IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW § 3.2c, at 3-8 to -10 (2002 & Supp. 2005) [hereinafter 1 HOVENKAMP ET AL., IP AND ANTITRUST]; *see also infra* note 12 and accompanying text. *See generally* 1 HOVENKAMP ET AL., IP AND ANTITRUST § 3.3b, at 3-12 to -36 (Supp. 2005).

[3] "The Agencies will not presume that a patent . . . confers market power upon its owner." U.S. DEP'T OF JUSTICE & FEDERAL TRADE COMM'N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY § 2.2 (1995), *reprinted in* 4 Trade Reg. Rep. (CCH) ¶ 13,132, *available at* http://www.usdoj.gov/atr/public/guidelines/0558.pdf [hereinafter ANTITRUST-IP GUIDELINES]. The U.S. Supreme Court recently confirmed that market power should not be presumed merely from the existence of a patent. *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 126 S. Ct. 1281, 1293 (2006) ("Congress, the antitrust enforcement agencies, and most economists have all reached the conclusion that a patent does not necessarily confer market power upon the patentee. Today, we reach the same conclusion . . . .").

[4] The Agencies have stated that "[i]f a patent or other form of intellectual property does confer market

This Chapter discusses certain practices that have been alleged to have the potential to harm competition by unreasonably extending market power conferred by a patent beyond the patent's expiration: collecting royalties beyond the statutory term, the use of exclusive contracts that deprive rivals or potential entrants of a source of supply or access to customers, or bundling trade secrets with patents.[5] Most of the practices discussed in the Chapter, such as exclusive dealing, are not unique to patent licenses. Moreover, although some of these practices may have the *potential* to extend the ability to exercise the market power conferred by a patent, most practices do not actually do so, and as many Hearings panelists[6] observed, many may, in fact, offer significant efficiencies.[7] Accordingly, panelists identified the fundamental question for assessing competitive harm that may result from such practices to be whether the patent holder is exercising market power arising solely from the patent beyond its statutory term to prevent expansion by those already in the market or to deter the entry of substitute products or processes into the market.[8]

I. COLLECTING ROYALTIES BEYOND THE STATUTORY TERM

Some have viewed a requirement that a licensee pay royalties beyond a patent's expiration as unreasonably extending the market power conferred by the patent. Panelists discussed whether such a requirement can actually extend a patent's market power.[9] One panelist

power, that market power does not by itself offend the antitrust laws." ANTITRUST-IP GUIDELINES § 2.2.

[5] Other practices might also extend the market power of a patent beyond the end of that patent's statutory term. *E.g.*, May 14 Tr. at 129-33 (Dick) (discussing a covenant not to compete that was entered in connection with a joint venture, but extended beyond the life of the joint venture and any intellectual property associated with the joint venture); *id.* at 138 (Dick) (noting that grantbacks may raise the question whether the acquisition of rights in improvement patents by the original patentee may enable that patentee to use its expired core patents as a means to obtain control over later-generation products); *id.* at 133-37 (Dick) (discussing a patent holder that includes unnecessary, but later-expiring patents in a pool, or that makes unwarranted modifications to a standard in order to justify inclusion of later-expiring patents); *id.* at 128-29 (Dick) (discussing rebate programs and incentive sales agreements that extend beyond the life of the patented technology and have the potential to extend the market power conferred by the patent).

[6] Panelists addressing this topic at the May 14, 2002 Hearing were: Rebecca P. Dick, Of Counsel, Swidler Berlin Shereff Friedman, LLP; Joseph Farrell, Professor of Economics and Chair of the Competition Policy Center, University of California, Berkeley; and David S. Sibley, John Michael Stuart Professor of Economics, University of Texas at Austin. The session was moderated by Michael L. Katz, then-Deputy Assistant Attorney General, Antitrust Division, U.S. Department of Justice and David L. Scheffman, then-Director, Bureau of Economics, U.S. Federal Trade Commission. They were joined by C. Edward Polk, Jr., then-Associate Solicitor, U.S. Patent and Trademark Office.

[7] *See, e.g.*, *infra* notes 24-25 and accompanying text (discussing the efficiencies of contract provisions involving exclusivity).

[8] *See generally* Rebecca P. Dick, *Extending the Useful Life of Intellectual Property: Antitrust Risks and Safety Zones* (May 14, 2002 Hr'g R.) (slides), http://www.ftc.gov/opp/intellect/020514dick.pdf [hereinafter Dick Presentation]; May 14 Tr. at 119-45 (Dick); *id.* at 146-49 (Sibley).

[9] At the Hearings, panelists considered, for example, whether reach-through royalty agreements that continue beyond the life of a research tool patent raise antitrust concerns. *See, e.g.*, Nov. 6, 2002 Hr'g Tr., Relationships Among Competitors and Incentives to Compete: Cross-Licensing of Patent Portfolios, Grantbacks, Reach-Through Royalties, and Non-Assertion Clauses (Afternoon Session) at 157-58

suggested that agreements that seek "royalties that run past the lifetime of a patent" may pose an antitrust problem because a patent licensor with market power may be using the agreement to extend royalty payments beyond the patent term and get the same royalty "for 50 years instead of 20."[10] Over forty years ago, in *Brulotte v. Thys Co.*,[11] the U.S. Supreme Court condemned an agreement in which the licensor demanded royalties for practicing an invention beyond the life of its patents as *per se* patent misuse.[12] *Brulotte*, however, did not involve an antitrust claim,[13] and its holding reaches only agreements in which royalties actually *accrue* on post-expiration use.[14] Thus, courts tend to apply the opinion narrowly.[15] In addition, *Brulotte* has been strongly criticized on the ground that

(Fromm), http://www.ftc.gov/opp/intellect/021106ftctrans.pdf [hereinafter Nov. 6 Tr.]; *id.* at 162 (Shapiro); *id.* at 170-72 (Rule). In a reach-through royalty agreement, the royalty is based on downstream sales of a product that was created with the use of the research tool patent. *See supra* Chapter 4, *Variations on Intellectual Property Licensing Practices* Part IV. *See generally* Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCIENCE 698 (1998). Questions related to the duration of market power conferred by the patent arise when the product continues to be sold, subject to royalties, beyond the expiration date of the research tool patent. *See* Robin C. Feldman, *The Insufficiency of Antitrust Analysis for Patent Misuse*, 55 HASTINGS L.J. 399, 443-47 (2003); Nov. 6 Tr. at 157-58, 163 (Fromm).

[10] Nov. 6 Tr. at 163 (Fromm); *see also supra* Chapter 4, *Variations on Intellectual Property Licensing Practices* Part IV.

[11] 379 U.S. 29 (1964).

[12] *Id.* at 30-32. "Patent misuse is an equitable defense to patent infringement" and is not a separate cause of action. *U.S. Philips Corp. v. Int'l Trade Comm'n*, 424 F.3d 1179, 1184 (Fed. Cir. 2005). Patent misuse is said to be broader than antitrust liability as it extends to "some sorts of conduct antitrust law would not reach." 1 HOVENKAMP ET AL., IP AND ANTITRUST § 3.2c, at 3-10. Over the years, however, patent misuse has become more "coextensive" with antitrust doctrine, *see id.*, and the United States Court of Appeals for the Federal Circuit applies antitrust principles in deciding cases involving allegations of patent misuse. *See id.* § 3.2a, at 3-6.

[13] In *Brulotte*, the patent owner sued the licensee to recover royalty payments. 379 U.S. at 29-30.

[14] *See Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 136-37 (1969) ("Recognizing that the patentee [in *Brulotte*] could lawfully charge a royalty for practicing a patented invention prior to its expiration date and that the payment of this royalty could be postponed beyond that time, we noted that the post-expiration royalties were not for prior use but for current use, and were nothing less than an effort by the patentee to extend the term of his monopoly beyond that granted by law. *Brulotte* thus articulated in a particularized context the principle that a patentee may not use the power of his patent to levy a charge for making, using, or selling products not within the reach of the monopoly granted by the Government.").

[15] *See Bayer AG v. Housey Pharms., Inc.*, 228 F. Supp. 2d 467, 472-73 (D. Del. 2002) (finding it permissible for a patentee to agree to postpone royalty payments when the payments were clearly in exchange for practicing the patented technology prior to the expiration of the patent); *see also Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 264-66 (1979) (permitting, consistent with *Brulotte*, enforcement of a royalty agreement that required payment for use of an invention for which a patent never issued because the agreement was "freely undertaken . . . with no fixed reliance on a patent or a probable patent grant"); *cf. Pitney Bowes, Inc. v. Mestre*, 701 F.2d 1365, 1373 (11th Cir. 1983) (holding that licensing rights and obligations applying in both the pre- and post-expiration period signaled that "at least some part of the post-expiration payment" compensated "for patent rights beyond the patent period"), *cert. denied*, 464 U.S. 893 (1983); *Meehan v. PPG Indus., Inc.*, 802 F.2d 881, 886 (7th Cir. 1986) (holding licensing terms unlawful *per se* because contract "fail[ed] to distinguish between pre-expiration and post-expiration royalties"), *cert. denied*, 479 U.S. 1091 (1987); *Boggild v. Kenner Prods.*, 776 F.2d 1315, 1321 (6th Cir. 1985), *cert. denied*, 477 U.S. 908 (1986) (same). *See generally* 1 HOVENKAMP ET AL., IP AND ANTITRUST §§ 23.2a-e, at 23-5 to 23-22.3 (2002 & Supp. 2005) (discussing, *inter alia*, the treatment of post-expiration royalties and royalties collected on unissued patents in light of *Brulotte*).

"post-expiration royalties merely amortize the price of using patented technology."[16] According to Judge Posner, writing for the court in *Scheiber v. Dolby Laboratories, Inc.*, "[f]or a licensee . . . to go on paying royalties after the patent expires does not extend the duration of the patent . . . because . . . if the licensee agrees to continue paying royalties after the patent expires the royalty rate will be lower."[17] Economists agree, contending that agreements that extend royalty payments beyond the patent term actually can "reduce the deadweight loss from a patent monopoly" because per-period royalties are low, and yet the licensor recoups the same present value rent from licensing the patent.[18] This point was reiterated at the Hearings.[19] It is generally better, one panelist asserted, to have a "long[,] small stream of royalties rather than a short[,] large stream" because the former collects the same intellectual property rent with the same incentives for innovation but with a lower deadweight loss.[20] Another panelist suggested that collecting royalty payments beyond the patent's enforceable life is not an antitrust concern because a patentee is entitled to appropriate value from its intellectual property and a licensee will not pay a royalty that exceeds the value of that intellectual property.[21] Because the purpose of patent protection is to provide incentives for innovation, measures that permit a patentee to capture more fully the value of its patent may lead to a more efficient level of innovation, this panelist opined.[22]

Another possibility is that agreements that require royalties to be

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[16] 10 PHILLIP E. AREEDA, EINER ELHAUGE & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION § 1782c, at 492 (2004); Richard Gilbert & Carl Shapiro, *Antitrust Issues in the Licensing of Intellectual Property: The Nine No-No's Meet the Nineties*, 1997 BROOKINGS PAPERS ON ECON. ACTIVITY, MICROECONOMICS 233, 322 ("Legal reasoning here . . . although rhetorically appealing, does not seem to reflect commercial reality or basic economics.").

[17] 293 F.3d 1014, 1017 (7th Cir. 2002). The *Scheiber* court strongly criticized the holding in *Brulotte*, but felt compelled to follow it and hold the patent license agreement at issue unenforceable. The U.S. Court of Appeals for the Seventh Circuit invited the Supreme Court to reconsider the matter. *Id.* at 1018 ("[W]e have no authority to overrule a Supreme Court decision no matter how dubious its reasoning strikes us, or even how out of touch with the Supreme Court's current thinking the decision seems."). But the Supreme Court declined to grant certiorari. *Scheiber v. Dolby Labs., Inc.*, 537 U.S. 1109 (2003).

[18] Gilbert & Shapiro, 1997 BROOKINGS PAPERS ON ECON. ACTIVITY, MICROECONOMICS at 322. Once a patent expires, a licensee can use the patent for no charge. It is therefore unclear how a licensor could persuade a licensee to pay more than the amount the licensee would be willing to pay to use the patent during its term. *Scheiber*, 293 F.3d at 1017; Gilbert & Shapiro, 1997 BROOKINGS PAPERS ON ECON. ACTIVITY, MICROECONOMICS at 322.

[19] *See, e.g.*, Nov. 6 Tr. at 162-64 (Shapiro) ("[S]preading out royalties over a larger brace and a lower rate could be better.").

[20] May 14 Tr. at 149-50 (Farrell) (discussing Gilbert & Shapiro's analysis); *see also* Stephen M. Law, *Inter-temporal Tie-ins: A Case for Tying Intellectual Property Through Licensing*, 11 INT'L J. ECON. BUS. 3, 15 (2004) ("The countervailing benefit to society from allowing the licensor greater freedom to contract is the reduction in royalty rate, and hence prices, during the patent period that occurs as the licensor adjusts the license to induce a licensee to accept the longer term."). Moreover, the antitrust laws are not concerned with agreements that allow a licensee to amortize royalty payments beyond the life of the licensed patent if the patent itself does not confer market power.

[21] Nov. 6 Tr. at 171-72 (Rule).

[22] *See, e.g.*, *id.* at 171 (Rule) (using metering to capture the value created by intellectual property "is a good thing" because "[i]t tends to disseminate technology broader oftentimes than a single price").

paid beyond the statutory term may enable a licensor to overcome incomplete contracting. Incomplete contracting occurs when imperfect contracting conditions prevent a licensor from negotiating a satisfactory royalty rate that reflects the patent's true value. To resolve this problem, there may be an incentive and ability to require the payment of royalties after the patent expires as a condition of licensing during the patent period, thus allowing a licensor to capture the patent's full value.[23]

II. LONG TERM CONTRACTS INVOLVING EXCLUSIVITY

An exclusive patent license can offer significant efficiencies. Such a license can, for example, encourage the exclusive licensee to commercialize and distribute the patented invention to consumers and make improvements without the threat of free-riding by the patent holder or its other licensees.[24] Exclusivity provisions, such as field-of-use or territorial restrictions, can ease the threat of misappropriation, which can mitigate competitive concerns over a potentially anticompetitive agreement.[25]

Panelists discussed how agreements involving exclusivity might be used instead to extend a patent's market power beyond the patent's statutory term. One panelist used the example of long-term contracts that extend past patent expiration to demonstrate that such activities can cause competitive harm.[26] The panelist explained that exclusive dealing can profitably deter entry if an incumbent firm can convince enough customers to carry its product exclusively, leaving too few customers for a new entrant to reach a minimum viable scale. For example, the panelist said that it might be in the interest of the incumbent seller to give hefty inducements to one or more buyers to sign long-term contracts instead of awaiting new entry. Once a critical mass of buyers has signed up, later buyers may be willing to sign contracts at higher prices. These buyers would not receive the price inducements from the incumbent seller nor enjoy the prospect of new entry because they know that their contracting decisions cannot attract new entrants who need to have a minimum number of buyers in order to enter.[27]

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[23] For example, if a licensee valued a patent at $100 during the patent period, but imperfect contracting conditions would allow the patent holder to extract only $70 during the patent period, the licensee would be willing *ex ante* to agree to pay up to $30 of royalties after the patent expired, even though the patent then could be used at no charge. An analogous incentive is well recognized, for example, in regulated industries in which a seller has an incentive to tie a regulated service, whose regulated price is below the maximum value a customer would pay, with an unregulated service to raise the price of that unregulated service and extract additional rents. *See* DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 319-20 (4th ed. 2005).

[24] ANTITRUST-IP GUIDELINES § 2.3.

[25] *Id.* §§ 2.3, 4.1.2.

[26] May 14 Tr. at 146-49 (Sibley); *see also* George G. Gordon & James P. Denvir, III, Is There Life After a Patent?: Strategies to Maximize the Value of Product Life-Cycles After a Patent Expires, Presentation Before the American Bar Association, Antitrust Section 281-84 (May 3-4, 2001) (on file with the Department of Justice and Federal Trade Commission) [hereinafter Gordon & Denvir, Is There Life After a Patent?].

[27] May 14 Tr. at 146-49 (Sibley); *see also* David S. Sibley, *Long Term Contracts as a Barrier to Entry* (May 14, 2002 Hr'g R.) at 2-3, http://www.ftc.gov/opp/intellect/020514sibley.pdf.

Others have explored the conditions that would induce a consumer to sign a long-term contract with an incumbent monopolist.[28] If enough consumers sign such an agreement, the probability of entry may become very low, allowing the incumbent to continue charging higher prices. However, the *individual* buyer, in signing a long-term contract—perhaps in return for a discount—may ignore the resulting lower probability of entry that its contract causes. The reduced probability of entry gives the incumbent more scope to get buyers to accept higher prices for a long-term contract.[29] This activity could extend the market power conferred by the patent beyond patent expiration.

In addition, one panelist addressed how the discounts associated with incentive sales agreements or rebate programs could be used to extend the market power conferred by a patent beyond the patent's expiration.[30] In an incentive sales agreement or rebate program, the price a licensee pays over time can be based on the use of the patented technology both during the life of the patent and after the patent has expired. To illustrate how such programs might be used to extend the market power conferred by a patent beyond the patent's expiration, this panelist pointed to one district court case in which an aggrieved competitor argued that its rival's rebate program was an anticompetitive attempt to extend the monopoly conferred by a valuable patent beyond its expiration. According to the panelist, the program was designed so that a customer would forfeit rebates on prior purchases of the patented product if the customer's purchasing volume fell after the patent expired and generic alternatives were available;[31] the risk of forfeiture allegedly coerced the customer into using the branded product exclusively.[32] This panelist stated that in analyzing such practices antitrust enforcers should consider, *inter alia*, whether "calculating a total discount based on purchases both pre- and post-expiration improperly extends the term of the patent."[33]

III. BUNDLING PATENTS WITH TRADE SECRETS

The panel also discussed whether antitrust issues can arise if a patent holder tries to extend the market power conferred by a patent beyond its expiration by bundling the patent license with trade secrets or know-how.[34] Unlike

[28] *See, e.g.*, Philippe Aghion & Patrick Bolton, *Contracts as a Barrier to Entry*, 77 AM. ECON. REV. 388 (1987); Eric B. Rasmusen, J. Mark Ramseyer & John S. Wiley, Jr., *Naked Exclusion*, 81 AM. ECON. REV. 1137 (1991); Ilya R. Segal & Michael D. Whinston, *Naked Exclusion: Comment*, 90 AM. ECON. REV. 296 (2000); John Simpson & Abraham Wickelgren, *The Use of Exclusive Contracts to Deter Entry* (Bureau of Econ., Fed. Trade Comm'n, Working Paper No. 241, 2001), *available at* http://www.ftc.gov/be/workpapers/wp241.pdf.

[29] Aghion & Bolton, 77 AM. ECON. REV. at 396-97.

[30] *See* May 14 Tr. at 126-28 (Dick).

[31] *See id.* at 127-28 (Dick) (discussing private litigation against Monsanto involving its incentive sales agreements regarding its patented Roundup herbicide); *see also* Complaint and Jury Demand paras. 3, 24-27, *Chem. Prods. Techs., LLC v. Monsanto Co.*, No. 4:01-4384-12 (D.S.C. Nov. 13, 2001) (settled Nov. 2002).

[32] Complaint and Jury Demand paras. 25, 54-56, 69, 73-74, 83, *Chem. Prods. Techs.*, No. 4:01-4384-12.

[33] May 14 Tr. at 128-29 (Dick).

[34] *Id.* at 121-26 (Dick); *see also* Gilbert & Shapiro, 1997

patents, trade secrets enjoy perpetual protection provided the proprietary information remains secret.[35] If the patent in such a "hybrid agreement" expires, or if the trade secrets hold little or no value, the licensing of these rights may incorporate restrictions that effectively establish a cartel. That was the Department of Justice's allegation in *United States v. Pilkington plc*.[36] Pilkington had once held patents on a process for making flat glass. During the life of those patents, Pilkington set up a worldwide licensing regime with exclusive territories in which each licensee could practice the patent. By the early 1980s, the principal U.S. patents on the process had expired. Nevertheless, Pilkington continued to enforce a worldwide licensing scheme with exclusive territories based solely on the licensing of trade secrets. The Department challenged this scheme in 1994, alleging that any remaining trade secrets consisted of engineering solutions with no substantial value over equally efficacious engineering alternatives. The Department argued that the licensing of the know-how was a sham, and it had simply become a device for implementing a cartel.[37] Most intellectual property bundling agreements, in contrast, are not sham agreements, and they often serve as mechanisms for reducing transaction costs, alleviating blocking positions, or creating other efficiencies.[38]

BROOKINGS PAPERS ON ECON. ACTIVITY, MICROECONOMICS at 322 (stating such "hybrid" bundling agreements are a "common tactic" that is used to extend the term of the agreement beyond the patent's expiration); *Pitney Bowes*, 701 F.2d 1365 (involving a "hybrid" patent and a know-how license); *Indus. Promotion Co. v. Versa Prods., Inc.*, 467 N.W.2d 168, 169 (Wis. Ct. App. 1991) (same).

[35] Trade secrets can be licensed to others, much like patents and copyrights. As one panelist explained, trade secret protection offers the benefit of no expiration of the rights as long as the trade secrets are not disclosed in the public domain. Trade secrets have no fixed term and are governed by state law, operating entirely outside the federal patent or copyright regimes. (Although the Model Uniform Trade Secrets Act drafted by the National Conference of Commissioners on Uniform State Laws, provides some guidance about what constitutes know-how and how rights to it can be enforced, there are variations in the state schemes and some states have not adopted the Act in any form.) Trade secrets, however, usually leak out. Apart from Coca-Cola's close holding of its secret formula, few firms have been able to protect their trade secrets for long periods, the panelist stated. May 14 Tr. at 121-22 (Dick); *see also* Edwin Mansfield, *How Rapidly Does New Industrial Technology Leak Out?*, 34 J. INDUS. ECON. 217, 219-21 (1985) (explaining that information about the detailed nature and operations of a new product or process is in the hands of at least some rival firms within a year, on the average, after a new product is developed, and sometimes within six months).

[36] Complaint paras. 26-31, *United States v. Pilkington plc*, No. 94-345, 1994-2 Trade Cas. (CCH) ¶ 70,842, 1994 WL 750645 (D. Ariz. Dec. 22, 1994), *available at* http://www.usdoj.gov/atr/cases/f0000/0014.pdf; *see also* United States v. Pilkington plc and Pilkington Holdings Inc.; Proposed Final Judgment and Competitive Impact Statement, 59 Fed. Reg. 30,604, 30,508-10 (June 14, 1994), *available at* http://www.usdoj.gov/atr/cases/f220800/220860.pdf, http://www.usdoj.gov/atr/cases/f220800/220861.pdf.

[37] Dick Presentation at 4-5; May 14 Tr. at 122-24 (Dick). The consent decree eliminated all territorial and use limitations Pilkington imposed on U.S. licensees and allowed them to manufacture on their own or sublicense any third party to do so anywhere in the world, free of charge, using the float technology disclosed and licensed to those licensees. The decree also provided, in effect, a similar "safe harbor" for any other American individual or firm who was not a Pilkington float glass licensee to use any float technology in its possession without liability to Pilkington. *Pilkington*, 1994-2 Trade Cas. (CCH) ¶ 70,842, at 73,668-71, 1994 WL 750645, at *2-5.

[38] ANTITRUST-IP GUIDELINES § 5.3; *Philips*, 424 F.3d at 1192-93 (noting the efficiencies of package licensing); May 14 Tr. at 133 (Dick) (stating package licenses can be "a very efficient means for transferring IP rights"); *see also id.* at 19-20, 25 (Vistnes) (stating there are greater, or at least a greater potential for, efficiencies

IV. THE AGENCIES' ANALYSIS

The Agencies review most agreements that have the potential to extend the market power conferred by a valuable patent beyond that patent's expiration pursuant to the rule of reason.[39] The first step in the Agencies' analysis is to assess whether the patent at issue confers market power upon its holder, and if so, whether the patent holder's conduct unreasonably extends that market power beyond the patent's statutory term. In performing that inquiry, the Agencies consider, as panelists suggested, whether a firm is exercising such market power beyond the patent's statutory term so as to prevent expansion by those already in the market, or deter entry of substitute products or processes.[40]

Few antitrust cases involving the improper extension of patent rights have been brought in recent years. Panelists at the Hearings explained that this may be because few practices that could extend the market power conferred by a patent beyond the patent's expiration actually do so.[41] Moreover, many restrictions that have the potential to extend the market power conferred by a valuable patent beyond its term can have demonstrable efficiencies. The Agencies have recognized, for example, that contracts that require exclusive dealing may encourage a licensee to further develop the licensed technology. It is also possible that collecting royalties over a longer term than the patent grant will reduce the deadweight loss associated with a patent monopoly and allow the patent holder to recover the full value of the patent, thereby preserving innovation incentives. Although some agreements may have anticompetitive effects, patent licenses can often be "expected to contribute to an efficiency-enhancing integration of economic activity,"[42] and thus the Agencies generally analyze them pursuant to the rule of reason. Of course, with regard to any of these practices, *per se* treatment would be warranted if a particular practice is a sham—if, for

associated with intellectual property bundles); 1 HERBERT HOVENKAMP ET AL., IP AND ANTITRUST § 22.5, at 22-32 (making a similar observation); Evans & Salinger, 22 YALE J. ON REG. at 41 ("Bundling . . . can provide efficiencies such as marginal cost savings, quality improvements, and customer convenience.").

[39] ANTITRUST-IP GUIDELINES § 3.4 ("In the vast majority of cases, restraints in intellectual property licensing arrangements are evaluated under the rule of reason. . . . If there is no efficiency-enhancing integration of economic activity and if the type of restraint is one that has been accorded per se treatment, the Agencies will challenge the restraint under the per se rule. Otherwise, the Agencies will apply a rule of reason analysis.").

[40] *See supra* note 8 and accompanying text.

[41] *See, e.g.*, May 14 Tr. at 149-50 (Farrell); *id.* at 156 (Katz). In addition, legal doctrines may limit antitrust challenges in this area. For example, successful lobbying that leads to enactment of a legislative or regulatory regime with rules inhibiting entry might well extend the duration of patent-conferred market power. *See id.* at 145 (Dick) (noting copyright holders successful efforts to extend copyright protection for an additional number of years which resulted in the Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, 112 Stat. 2827 (1998)); *see also* Gordon & Denvir, Is There Life After a Patent? at 279-81 (discussing an antitrust challenge to a branded firm's activities and related publicity campaigns directed at excluding generic competition). The *Noerr-Pennington* doctrine exempts from antitrust enforcement certain bona fide petitioning conduct directed toward a governmental decision maker. *See United Mine Workers v. Pennington*, 381 U.S. 657 (1965); *E. R.R. Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961).

[42] ANTITRUST-IP GUIDELINES § 3.4.

example, it is designed to implement a market division agreement among competitors.[43]

[43] *Id.*