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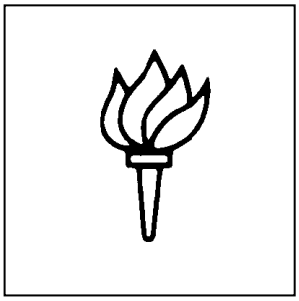

Exploitative Abuses of Intellectual Property Rights

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Introduction

It is the standard view in the United States that U.S. antitrust law does not reach acts of exploitation by a monopolist. The focus in monopolization cases is on exclusionary conduct—conduct that excludes competitors on some basis other than efficiency and thereby allows a firm either to gain or to maintain monopoly. Courts do not pay attention to a monopolist's conduct that is just unfair to its rivals, or even to conduct that is flat-out deceptive. Section 2 of the Sherman Act is concerned with harm to competition, the courts remind us, not harm to competitors.[1] Indeed, and perhaps surprisingly, courts in Section 2 cases are not even concerned with higher prices in themselves—"rent extraction." As the D.C. Circuit Court of Appeals wrote in *Rambus* (a case to which we will return), "Even if deception raises the price secured by a seller, . . . it is beyond the antitrust laws' reach."[2]

When it comes to the use of intellectual property rights, this unwillingness to look at exploitation would appear to be even stronger. Early-on the Supreme Court affirmed

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[1] *See, e.g.*, United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001) ("harm to one or more competitors will not suffice").

[2] Rambus, Inc. v. FTC, 522 F. 3d 456, 464 (D.C. Cir. 2008). See also Berkey Photo, Inc. v Eastman Kodak Co., 603 F.2d 263, 297 (2d Cir. 1979) ("[a] pristine monopolist … may charge as high a rate as the market will bear").

the right of a monopoly patent holder to exploit its rights to the fullest, constrained only by market demand. In *United States v. General Electric*, decided in 1926, the Court allowed GE to license its lightbulb patents to a competing lightbulb manufacturer and to set the price at which the competitor could sell its bulbs. Chief Justice Taft wrote: "[T]he patentee may grant a license . . . under the specifications of his patent for any royalty or upon any condition the performance of which is reasonably within the reward which the patentee by the grant of the patent is entitled to secure. . . . One of the valuable elements of the exclusive right of a patentee is to acquire profit by the price at which the article is sold. The higher the price, the greater the profit, unless it is prohibitory."[3]

Outside the United States, however, the law seems to be otherwise. Article 102 of the TFEU prohibits "abuse" of a dominant position, with a specific clause to catch the imposition of "unfair" selling prices or trading practices. Many countries follow the EU's approach. China's condemnation of abuse of dominance includes selling at "unfairly high prices," or "other abusive practices" as determined by the enforcement authority (Art. 17). South Africa specifically condemns, as an abuse of dominance, the charging of an "excessive price" (Sec. 8). India prohibits a dominant firm from imposing "unfair" prices in the purchase or sale of goods or services (Sec. 4(2)(a)(ii)). Korea prohibits a dominant firm from pricing "unreasonably" or "unreasonably interfering" with the business activities of other enterprises (Art. 3-2). Japan prohibits "private monopolization" à la U.S.(Art. 3), but also condemns unfair trade practices, which

[3] United States v. General Electric Co., 272 U.S. 476, 489-90 (1926).

includes "dealing at unjust prices" and dealing with another party on terms that "restrict unjustly" the other party's business (Arts. 19, 2(9)).

Without denying this substantial divergence in general between the U.S. and the rest of the world, it turns out that there may be fewer differences between the U.S. and other jurisdictions when it comes to judging exploitative behavior by intellectual property rights holders with market power. For despite the oft-stated unwillingness to condemn exploitation under U.S. antitrust laws, and even despite the broad license given to intellectual property rights holders in *General Electric*, legal doctrine and enforcement policy in the U.S. is much more willing to rein in exploitative behavior by intellectual property rights holders than might otherwise be supposed.

The purpose of this chapter is to describe the areas in which antitrust law (or competition law, as it is generally referred to outside the United States) constrains intellectual property rights holders from unduly exploiting their monopoly power when licensing or using their intellectual property rights. "Exploitation" is here used in the sense of "taking advantage" of downstream purchasers by extracting rents, either through higher prices or though the imposition of non-price terms (Akman 2009, O'Donoghue and Padilla 2006). Some forms of exploitation might lead to exclusion, for example, where exploitative behavior raises rivals' costs or increases entry barriers, and thus the line between exploitation and exclusion is not always perfectly clear. Nevertheless, a critical distinction is the focus on harm to the immediate buyer (or licensee) without any necessary concern for ultimate effects on consumer welfare or deadweight welfare loss.

From a normative standpoint, this chapter argues that intervention to prevent this type of exploitation is consistent with sound competition policy. Preventing intellectual

property rights holders from undue exploitation of their rights is an important aspect of economizing on the reward that we give intellectual property rights holders to incentivize innovation. The argument over how much short-term monopoly loss we are willing to incur so as to get long-term innovation is a familiar one in the intellectual property literature (First 2007). Although some argue, in effect, that "too much is not enough" (Scotchmer 1991), antitrust tradition is on the side of placing some limits on monopoly profits and placing greater reliance on the incentives that competitive markets provide. Many of the cases this chapter discusses are in that tradition.

This chapter focuses on three areas in which antitrust enforcers have intervened to prevent exploitation. The first involves patents subject to FRAND (fair, reasonable, and non-discriminatory) licensing obligations (FRAND-committed patents[4]), a major area in which courts and agencies have been willing to prevent excessive pricing. The second area involves disclosure requirements that can be imposed on patent holders to prevent the exploitation of licensees or potential licensees. The third is post-expiration royalties. The chapter concludes with some observations about the emerging policy consensus regarding abusive licensing by patent holders with market power.

I. Excessive Pricing: FRAND Obligations

A. The General Problem

FRAND licensing obligations have arisen in the context of the establishment of industry standards that allow interoperability among diverse products. These standards have been adopted through the efforts of private industry standard setting organizations

[4] Commentators generally call such patents "FRAND-encumbered." This chapter will use the term "FRAND-committed," reflecting the commitment a patent holder makes to get its patent adopted as part of a standard, a commitment from which the patent holder benefits substantially.

(SSOs) and have been particularly important in high technology industries, such as electronics and communications equipment, where common platforms are necessary if firms are to manufacture compatible but competing products.

SSOs have adopted FRAND obligations to solve a particular problem. Industry participants know that once a standard is chosen, firms will design products that incorporate the standard. If there are patents that are essential for utilizing the standard ("standard essential patents," or SEPs), firms that use the standard will be liable for royalties. When an SSO chooses a standard, it will, of course, give consideration to issues of technical superiority, but industry participants will also want to minimize royalty rates. The SSO could try to negotiate royalties in advance of adopting a standard, but the SSO is just a collective of buyers and its negotiations could be viewed as a buyer's cartel, raising the potential for antitrust liability. On the other hand, if implementers of the standard wait until they design products that need to use SEPs, they might be subject to opportunistic behavior from patent holders. Implementers will likely have made substantial investments in standards-compatible products and become effectively locked into the standard. Patent holders would then be able to hold up licensees for high royalties, not because of the intrinsic innovative value of the patent but because of the value of the investments that the potential licensee has made.

To solve this hold-up problem SSOs began requiring firms that owned patents reading on a proposed standard to agree to license those patents on RAND (or FRAND)

terms (FRAND and RAND are used interchangeably) (Crane 2010).[5] What might be "reasonable," however, was left to later bargaining between licensees and licensors.

Besides leaving royalty rates unspecified, the FRAND approach did not take account of two particularly difficult problems in a number of industries heavily reliant on multiple SEPs. Products in the electronics and communications industries use a large number of patents (in contrast to pharmaceutical drugs, for example), and product innovations tend to be incrementally made within a broad portfolio of patents. Under FRAND, how would one assess, ex post, the value of any particular patent to the production of, say, a smartphone that uses 250,000 patents (Contreras 2015a)? And even if any individual patent holder asked for a "reasonable" royalty, the stack of patents necessary to produce a complicated electronics product might lead to extremely high royalties in total, with potentially adverse effects on downstream pricing and innovation.[6]

B. United States: Private Litigation and Government Enforcement

Not surprisingly, FRAND obligations have led to litigation brought by implementing firms that believe that holders of FRAND-committed patents are demanding excessively high royalty rates. The major example of this type of litigation has been the "smartphone wars" (Maldonado 2014). Some of this litigation has been framed as breach of contract, with the implementer arguing that the patent holder had effectively agreed to bargain in good faith, but had breached that agreement.[7] Other

[5] For a broader discussion of the reasons for using FRAND, see Tsai and Wright 2015.

[6] The potential for royalty stacking, derived from the theory of double marginalization by monopolists of complementary products, was developed by Lemley and Shapiro 2007. See also Shapiro 2001.

[7] On the problematics of contract enforcement, see Contreras 2015b.

cases, however, have been framed as Sherman Act Section 2 cases. No matter how framed, however, the key competition concern has been the exploitation of the patent licensee through rent extraction.

For example, in *Microsoft Corp. v. Motorola* Microsoft alleged that Motorola had breached its RAND obligations when it offered to license two SEP portfolios based on 2.25% of the price of the end product in which they were incorporated (which was all computers running Windows, no matter the manufacturer, and all Xbox video game consoles). The district court found that the RAND royalty rate should have been much lower—$.00555 per unit for one portfolio and $.0371 for the other.[8] Even though this was a contract action, the Ninth Circuit Court of Appeals spoke the language of competition policy, supporting its liability decision by referring to competition and rent extraction: "The development of standards . . . creates an opportunity for companies to engage in anti-competitive behavior. . . . Using that standard-development leverage, the SEP holders are in a position to demand more for a license than the patented technology, had it not been adopted by the SSO, would be worth. . . . [and] extract more than the fair value of its patented technology."[9]

A direct antitrust attack on high FRAND rates came in *Broadcom v. Qualcomm*. Broadcom was a manufacturer of chipsets for mobile phones that employed the Wide Band Code Division Multiple Access standard (WCDMA).[10] Qualcomm's patents were

[8] Microsoft Corp. v. Motorola, Inc., 795 F.3d 1024, 1033 (9th Cir. 2015). The patent portfolios were for Wi-Fi and for playing back high-definition video. Id. at 1046.

[9] Id. at 1030-31.

[10] Code Division Multiple Access is one of the two mobile telephony "paths," or families of standards, used in countries around the world. The other "path" is the Universal Mobile Telecommunications System

essential for that standard. Broadcom alleged that Qualcomm had monopolized the WCDMA technology market by making a "false promise" to license its WCDMA essential patents on FRAND terms, a promise on which the relevant standards development organizations had relied when adopting the WCDMA standard, and then had refused to license its technology on FRAND terms. The district court dismissed the complaint, but the court of appeals reversed.

The court of appeals put weight on Broadcom's bare allegation of deception, but the court's policy concerns focused on rent extraction: "In [its] unique position of bargaining power, the patent holder may be able to extract supracompetitive royalties from the industry participants." Qualcomm's alleged deception "obscure[ed] the costs of including proprietary technology in a standard."[11]

U.S. antitrust enforcement agencies have also been concerned that patent owners have been "imposing excessive royalty obligations on licensees" (FTC, 2011). The FTC, which has been the more active of the two federal U.S. agencies in this area, has recommended that courts, when awarding reasonable royalty damages in patent litigation in general, should base the award on the "incremental value of the patented invention" as of the time the alleged infringer makes its design choice so as not to "overcompensate" the patentee. Similarly, the Antitrust Division and the Patent and Trademark Office have

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(UMTS), also known as the Global System for Mobility (GSM), created by the European Telecommunications Standards Institution (ETSI) and its standards organization counterparts in the United States and elsewhere. Wideband CDMA is a component of the technologies for the UMTS standard.

[11] Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297. 310, 314 (3d Cir. 2007). For a more recent antitrust case making similar allegations, see Microsoft Mobile Inc. v. InterDigital, Inc., Case 1:15-cv-00723-UNA, ¶¶ 4, 6 (D. Del., filed Aug. 20, 2015) (alleging monopolization of technology markets by falsely promising to license its SEPs on FRAND terms and then demanding "excessive and discriminatory royalties").

argued that owners of FRAND-committed SEPs can "hold up" the patent holder to "obtain a higher price" for the use of patented technology "than would have been possible before the standard was set, when alternative technologies could have been chosen" (U.S. Department of Justice and U.S. PTO 2013).

This concern for excessively high royalty rates has been reflected in more than government reports. In 2013, for example, the FTC issued a complaint against Google, alleging a violation of Section 5 of the Federal Trade Commission Act arising out of Google's breach of commitments to license certain SEPs on FRAND terms, commitments to which its newly-acquired subsidiary, Motorola Mobility, had previously agreed. The breach was alleged to be the likely result of Google's prosecution of claims for infringement of its SEP patents before the International Trade Commission and the courts, seeking, respectively, exclusion orders and injunctions. Of course, patent holders are generally thought to be able to seek this sort of relief when their patents are infringed, so why are such relief requests an "unfair method of competition" when FRAND-committed SEPs are involved? The Commission explained: threats to use injunctions to deprive implementers of future sales allowed Google to "demand licensing terms that tended to exceed the FRAND range." The "anticompetitive effect" of this conduct was "increase[ed] costs," which the Commission termed a "substantial consumer injury." The Commission alleged that "[i]f Google's practices are allowed to continue, many consumer electronics manufacturers will agree to pay unreasonable royalties simply to

avoid an injunction or exclusion order. Manufacturers will likely pass on some portion of these costs to end consumers."[12]

The FTC had made an even more direct attack on high licensing rates in *Negotiated Data Solutions* (*N-Data*), decided five years before the Google case. *N-Data* involved the standard setting process, but not a commitment to license on undefined FRAND terms. Rather, N-Data's predecessor, in the course of an SSO's adopting an Ethernet standard that allowed backward compatibility, had promised to license the patents covering the technology to any requesting party for a one-time fee of $1000. The relevant patents were later assigned to another company, and eventually to N-Data. The later assignees, although aware of the commitment, decided that the patents were worth more and set out to collect the higher royalties from a group of target companies that included many large computer hardware manufacturers. The royalties demanded represented a "substantial increase" over the original $1000 fee.[13]

The FTC's complaint charged that N-Data's conduct was an "unfair method of competition" in violation of Section 5 of the FTC Act. The "threatened or actual anticompetitive effects," the FTC asserted, included "increased royalties" for the manufacture or sale of products that implement the standard.[14] As the Commission

[12] In the Matter of Motorola Mobility LLC and Google, Inc., Docket No. C-4410, Complaint ¶¶ 25-28, 30 (2013), https://www.ftc.gov/sites/default/files/documents/cases/2013/07/130724googlemotorolacmpt.pdf.

[13] In the Matter of Negotiated Data Solutions, LLC., Docket No. C-4234, Complaint, ¶ 28 (2008), https://www.ftc.gov/sites/default/files/documents/cases/2008/09/080923ndscomplaint.pdf.

[14] Id. ¶ 37a.

explained, even if N-Data's conduct did not violate the Sherman Act, the conduct "threatened to raise prices for an entire industry."[15]

The Commission's concerns were not exclusively focused on price raising. These cases arose in the context of the standard setting process. The Commission emphasized that protecting the integrity of that process by bolstering assurances against hold-up was critical to innovation as an overall matter. It wasn't just that buyers (licensees and downstream consumers) should be free of excessively high prices. The Commission felt that industries that innovate around standards will be more innovative if royalties for implementing the standards are ex ante fairer and if participants keep their promises. [16]

In neither of these cases, however, did the Commission focus on whether the patent holder had monopoly power in some well-defined market or whether it exercised that power in an exclusionary matter. No real attention was even paid to the extent that the practices restricted output or raised entry barriers. Rather, the Commission talked about exploitation. Patent holders, the Commission wrote, should not be allowed to "exploit the power [they] enjoy" over firms that "lack[] any practical alternatives" because they are locked into a standard.[17]

What of the legal argument that the antitrust laws don't reach pure exploitation? The legal answer is that the Commission felt that it was operating under a "stand-alone"

[15] N-Data, Analysis of Proposed Consent Order to Aid Public Comment, at 4, https://www.ftc.gov/sites/default/files/documents/cases/2008/01/080122analysis.pdf.

[16] E.g., id. at 6; Motorola Mobility/Google, Analysis of Proposed Consent Order to Aid Public Comment, at 2-3, https://www.ftc.gov/sites/default/files/documents/cases/2013/01/130103googlemotorolaanalysis.pdf.

[17] N-Data, Analysis to Aid Public Comment, at 5. See Motorola Mobility/Google, Analysis to Aid Public Comment at 5 ("opportunistic breach of its licensing commitment had the tendency of leading to higher prices for consumers and undermining the standard-setting process").

approach to Section 5 of the FTC Act. Section 5 gives the Commission authority to stop "unfair methods of competition," but Congress chose not to define that vague term when enacting the FTC Act. All agree that the inner bounds of the term include anything that violates the Sherman Act, but the outer bounds are highly contested. Both *Google* and *N-Data* represent significant efforts by the Commission to mark an outer bound that would be sensitive to the exploitative behavior of patent holders, albeit exploitative behavior that still had an adverse (if quantitatively undefined) effect on competition in downstream markets and on innovation generally.

Whether the courts would accept the Commission's legal approach to this type of conduct, however, is uncertain. Both cases were settled by consent and no court has recently been called on to review the Commission's approach to a stand-alone theory of Section 5. Indeed, the Commission continues to struggle with its own interpretation of its authority under Section 5, subsequently releasing a one-page statement that attempts to set out a general approach to the issue but that does not specifically address the question of exploitative pricing of FRAND-committed patents (or patents more generally).[18] (FTC 2015). Whatever the legal uncertainties, however, the Commission continues to investigate abuses in licensing FRAND-committed patents.[19]

C. Enforcement and Litigation Outside the United States

[18] U.S. Federal Trade Comm'n, Statement of Enforcement Principles Regarding "Unfair Methods of Competition" Under Section 5 of the Federal Trade Commission Act, 80 Fed. Reg. 57056 (Sept. 21, 2015). Commissioner Olhausen, in dissent, noted the lack of specificity with regard to breach of standard-setting commitments, id. at 57058.

[19] Qualcomm (2015), reporting that the FTC notified it in 2014 that it is investigating Qualcomm's licensing practices, "including potential breach of FRAND commitments."

Competition enforcement authorities outside the United States do not face the same legal constraint as U.S. enforcers do with regard to reprehending high prices, leaving these agencies (and private litigants) freer to pursue cases of excessive pricing by patent holders. Four jurisdictions have been particularly active: China, the European Union, Japan, and Korea.[20]

1. China

Huawei v. InterDigital was a suit for damages brought under the Antimonopoly Law by the Chinese mobile phone producer, Huawei Technologies, against InterDigital, a U.S. licensor of patents related to mobile communications standards. Among Huawei's claims were that InterDigital abused its dominance when it charged unreasonably high and discriminatory patent royalty rates, in violation of its FRAND commitments (Chin 2015). In 2013 the Guangdong High People's Court, affirming the court of first instance, found that each of InterDigital's SEPs constituted a relevant market and that InterDigital had a dominant position in each market because Huawei had no substitutes if it wanted to continue to produce mobile phones. Dominance thus established, the court found that InterDigital's rates were unreasonable—at least seven times higher than the rates it charged other licensees—a difference that was not cost-justified (Hou 2015a). The court imposed $3.2 million in damages and, in a companion case, set the royalty rate for InterDigital's SEPs at 0.019 percent of the sales price of Huawei's products, which

[20] For similar developments in India, see Gandhi et al. 2015.

was not only lower than the original rate but apparently lower than what Huawei itself was charging licensees for its own handset patents (Chin 2015, InterDigital 2016).[21]

On the government side, the National Development and Reform Commission (NDRC), which is responsible for conduct involving price-related anticompetitive conduct, also investigated InterDigital's licensing practices. Following the High Court's 2013 decision in *Huawei*, however, the NDRC suspended its investigation, receiving commitments from InterDigital to lower its royalty rates for its portfolio of patents for 2G, 3G, and 4G wireless mobile technology (Chin 2015).

More high-profile was the NDRC's investigation of Qualcomm and the settlement of that investigation in 2015. The NDRC found that the licensing of each of Qualcomm's SEPs constituted a relevant market and that the relevant market for the case was a "collection" of those markets.[22] As in the High Court decision in *Huawei*, the NDRC concluded that Qualcomm had a dominant position in its SEP markets. Each SEP is "indispensable and irreplaceable" for terminal equipment manufacturers, making these manufacturers "highly reliant on Qualcomm's patent portfolios," and firms with competing technologies are not able to enter the market with standards-compliant technology.[23]

Having found dominance, the Commission then decided that Qualcomm abused its dominant position by charging "unfairly high royalties" in violation of Article 17 of

[21] The parties have settled their disputes in every jurisdiction other than China, agreeing to binding arbitration (Chin 2015). The Chinese court's royalties order is under review in a proceeding before the Supreme People's Court (InterDigital 2015).

[22] See Case *Qualcomm*, NDRC [2015] Nr. 1, Feb. 9, 2015, sec. I.1 (MLex translation).

[23] Id. sec. I.1c. The case is also usefully discussed in Hou 2015b.

the Antimonopoly Law, which forbids unfair high prices. Unlike the High Court's approach in *Huawei v. InterDigital*, however, the NDRC did not compare Qualcomm's rates to those it gave other licensees. Instead, the NDRC based its decision on three of Qualcomm's practices that it felt resulted in improperly high rates: not offering its licensees a list of the patents they were licensing (Qualcomm might require payment for patents that had already expired), requiring licensees to give it royalty-free grant-back licenses (for which presumably Qualcomm would otherwise have had to pay), and requiring licensees to take a patent portfolio that included non-SEPs as well as SEPs.[24] (Hou 2015b). "The combination of these factors," the Commission explained, "[led] to high licensing fee[s]."[25]

The NDRC not only ordered Qualcomm to stop its abusive licensing practices, but also required Qualcomm to pay a 6.088 billion yuan fine (nearly $1 billion), which was eight percent of Qualcomm's revenue in China for 2013.[26] Qualcomm accepted both orders, further agreeing to reduce the royalty base for Chinese licensees from 100 percent of the net wholesale price for devices sold for use within China to 65 percent (a "sharp discount" from what Qualcomm charged elsewhere) (Mozur and Hardy 2015) and to "continue to invest" in China.[27] In doing so, it avoided the possibility of even more

[24] Case *Qualcomm*, secs. II.1.1-.2.

[25] Press Release, NDRC, National Development and Reform Commission ordered rectification Qualcomm monopolistic behavior and fined six billion yuan (Aug. 30, 2015) at 3, http://jjs.ndrc.gov.cn/gzdt/201502/t20150210_663872.html (Google translation).

[26] Case *Qualcomm* sec. III.2 Note that the conduct for which the fine was imposed also included a finding of abuse of dominance in baseband chips by imposing "unfair" trading conditions . Id. sec. II.3.

[27] NDRC Press Release at 2.

serious penalties, such as being required to provide royalty-free licenses or to pay the maximum penalty under the Antimonopoly Act of ten percent of sales (Dou 2015).

2. Europe

High royalty rates by SEP holders have also been a concern in Europe. In 2007, the European Commission, acting on complaints lodged by six of Qualcomm's competitors and customers (Ericsson, Nokia, Texas Instruments, Broadcom, NEC, and Panasonic), opened an investigation into Qualcomm's licensing practices for Wideband CDMA (WCDMA). The "economic principle" on which the complaints were based, the Commission wrote, "is that essential patent holders should not be able to exploit the extra power they have gained as a result of having technology based on their patent incorporated in the standard."[28] This "extra power," one might argue, could be viewed as the legitimate return to innovation that comes from the grant of patents that are essential for the mobile telephone standard. Apparently, though, the Commission felt that the exercise of that power might lead to rates that were not "fair," in contravention of Qualcomm's commitment to FRAND licensing.

Two years later the complaints were withdrawn and the Commission abandoned its investigation into Qualcomm's licensing practices, recognizing that pricing assessments "may be very complex, and any antitrust enforcer has to be careful about

[28] Press Release, European Comm'n, Antitrust: Commission initiates formal proceedings against Qualcomm, MEMO/07/389 at 1 (Oct. 1, 2007), http://europa.eu/rapid/press-release_MEMO-07-389_en.htm?locale=en.

overturning commercial agreements."[29] Nevertheless, the Commission did not abandon its concern over the ability of SEP holders to extract high licensing fees.

In 2011 the Commission issued Horizontal Cooperation Guidelines which discussed, among other topics, standards agreements. The Commission pointed out that the holder of an essential intellectual property right could hold up users ex post "by extracting excess rents by way of excessive royalty fees."[30] Although the Commission stated that it viewed this behavior as "anti-competitive," it eschewed a firm conclusion on whether such behavior would be an abuse of dominance under Article 102, leaving for a case-by-case determination the question whether a SEP holder had "market power" and whether the rates it was charging would be considered excessive under Article 102 and European case law.[31]

Shortly thereafter the Commission opened two proceedings under Article 102, one against Samsung, the other against Motorola/Google, dealing with their efforts to seek injunctions against Apple in various European courts to enforce their standard essential patents relating to smartphone technology. In 2014 the Commission concluded that Motorola/Google had abused its dominant position under Article 102 because Apple was "not unwilling" to accept a license on FRAND terms, as Motorola had promised the

[29] Press Release, European Comm'n, Antitrust: Commission closes formal proceedings against Qualcomm, MEMO/09/516 (Nov. 24, 2009), http://europa.eu/rapid/press-release_MEMO-09-516_en.doc

[30] Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, para. 269 [2011] OJ C11/01.

[31] Id. With regard to the case law, the Commission referred to *United Brands*, [1978] ECR 207, the leading EU case on the standard for judging when a price is excessive.

standards setting organization it would offer.[32] At the same time Samsung entered into a commitment (the Commission's form of a binding settlement) that specified detailed procedures that Samsung would be required to follow to ensure that its licensing terms were fair and reasonable.[33] Both the decision and the commitment were bottomed on the notion expressed in the Horizontal Cooperation Guidelines that the holder of a FRAND-committed SEP is entitled only to "appropriate remuneration." Seeking an injunction for infringement against a SEP licensee that would be willing to accept FRAND terms constitutes an abuse of dominance because the result of a threat of an injunction would result in improper rent extraction.[34]

3. Japan

Japan has also been interested in excessive prices charged by the holders of FRAND-committed SEPs. In 2006 the Japan Fair Trade Commission began a long-running proceeding against Qualcomm focused on two of its practices regarding the licensing of FRAND-committed SEPs for CDMA technology. One required Japanese handset manufacturers to grant Qualcomm royalty-free licenses to their patents; the other

[32] Case AT.39985 - Motorola - Enforcement of GPRS standard essential patents, C(2014) 2892 (April 29, 2014), available at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39939/39939_1501_5.pdf.

[33] See Case AT.39939 - Samsung - Enforcement of UMTS standard essential patents, C(2014) 2891,paras. 75-118 (April 29. 2014), available at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39939/39939_1501_5.pdf. Although the Commission in both cases adhered to its view that a SEP holder does not automatically have dominance, the Commission rested a finding of dominance on the parties' 100% market share in the licensing of their SEP technologies necessary for practicing the relevant standard, the indispensability of the standard for manufacturers of standards-compliant products, and industry lock-in to that standard as a result of heavy investment in standards-compliant products and assets. See Motorola, paras. 221-26; Samsung, paras. 41-51.

[34] E.g., Motorola, para. 76; Samsung, para. 58. The European Court of Justice has also accepted the idea that the effort of a holder of a FRAND-committed SEP to enjoin a willing licensee can be an abuse of dominance under Article 102, although the Court did not base its decision on a desire to prevent improper rent extraction. See Huawei Technologies Co. v ZTE Corp., C-170/13, EU:C:2015:477 .

forbade Japanese manufacturers from asserting their patents against Qualcomm or Qualcomm's customers (a non-assertion of patents clause).[35] Both practices prevented licensees from taking actions that could have lowered the net royalties due Qualcomm.

In 2009 the JFTC found Qualcomm's practices to be a violation of the Antimonopoly Act, not as monopolization but as a designated "Unfair Trade Practice," specifically, "trading on restrictive terms."[36] Unlike China's similar case against Qualcomm, the JFTC did not focus its attention on high prices. Instead, the Commission argued that the inability of Japanese manufacturers to get royalties from Qualcomm "impeded their incentive to engage in research and development" (presumably because they were denied royalties on their innovations). In this sense the JFTC's policy concerns were more like the U.S. FTC's concerns in *Google/Motorola* and *N-Data* regarding the effect of a SEP-holder's practices on innovation. The difference is that the U.S. FTC was concerned about the effect on innovation in a standards-setting environment if royalties are ex ante fair whereas the JFTC was more explicitly focused on downstream innovation. The Commission thus made an implicit trade-off between upstream innovation (Qualcomm's) and downstream innovation (Japanese manufacturers'). Figuring this trade-off is difficult, though, and the Commission's result is, at best, speculative (something one could say about the U.S. FTC's conclusions about innovation in *Google/Motorola* and *N-Data* as well). The more predictable result of the

[35] Non-assertion of patents clauses were also involved in the NDRC proceeding against Qualcomm. See Case *Qualcomm* sec. II.1.b.

[36] See Cease and Desist Order against QUALCOMM Incorporated (English version), Sept. 30, 2009, available at http://www.jftc.go.jp/en/pressreleases/yearly-2009/sep/individual-000038.files/2009-Sep-30.pdf.

JFTC's decision—whether intended or not—is easier to see. Qualcomm's licensees will pay lower net royalties to Qualcomm for Qualcomm's FRAND-committed SEPs.[37]

The JFTC's willingness to side with downstream licensees over upstream SEP holders was carried forward in its subsequent decision to amend its intellectual property guidelines to cover the case of a FRAND-committed SEP holder attempting to enforce its patent against a willing licensee by seeking to enjoin the licensee from practicing the patent rather than entering into a licensing agreement.[38] Consistently with the views of the U.S. Department of Justice, the U.S. FTC, and the European Commission (to which the JFTC referred), the Commission announced that such efforts would be treated as violations of the Antimonopoly Act.[39] The Commission indicated that it viewed such conduct as the equivalent of a refusal to trade, violating two designated Unfair Trade Practices ("refusal to trade" and, depending on the businesses of the licensor and licensee, "interference with a competitor's transactions") as well as possibly violating the Antimonopoly Act's prohibition on private monopolization (JFTC 2015).[40] Consistently with its approach in its case against Qualcomm, the Commission did not focus on rent extraction. In fact, the Commission specifically noted that U.S. and EU competition

[37] The JFTC began hearing proceedings against Qualcomm in 2010, see Decision to Commence Hearing Procedures against QUALCOMM Incorporated (English) (Jan. 7. 2010), available at http://www.jftc.go.jp/en/pressreleases/yearly-2010/jan/individual-000033.files/2010-Jan-7.pdf, but the proceedings have not yet been concluded.

[38] See Japan Fair Trade Comm'n, Guidelines for the Use of Intellectual Property under the Antimonopoly Act, sec. 3(1)(i)(e), http://www.jftc.go.jp/en/pressreleases/yearly-2016/January/160121.files/IPGL_Frand_attachment.pdf.

[39] See Japan Fair Trade Comm'n, Survey Report on Issues Related to Essential Patent at 6 (July 8, 2015), http://www.jftc.go.jp/en/pressreleases/yearly-2015/July/150708.files/Attachment2.pdf.

[40] Id. at 11. The legal grounds for the Commission's conclusion are different than the ones it asserted against Qualcomm, supra. For critical comment on the draft of the JFTC Guidelines, see Wright and Ginsburg (2015).

authorities believe that the charging of high royalties "is not considered as a [competition policy] problem."[41] Instead, the JFTC continued to emphasize the impact of seeking an injunction on the ability of downstream firms to "research & develop, produce and sell the products adopting the standards."[42] Of course, this effect does not come from actually withholding licenses or excluding downstream firms from markets—SEP holders are in the business of licensing downstream users, after all—but from the impact of "prohibitively expensive" royalties has on downstream producers that succumb to the threat of an injunction.[43] In other words, the problem really is rent extraction.

4. Korea

In 2006 the Korea Fair Trade Commission began a three-year investigation of Qualcomm that culminated in a 2009 finding that Qualcomm's licensing of its FRAND-committed SEPs violated the Monopoly Regulation and Fair Trade Act (MRFTA). Korea fined Qualcomm more than $200 million, the largest fine it had ever imposed on a single company (Lee 2012).

The KFTC's case is a rare example of a competition enforcement agency focused on the "non-discriminatory" part of FRAND. The KFTC found that Qualcomm had charged discriminatory rates in three ways: (1) for domestically-sold mobile phones, Qualcomm deducted from royalties the value of chips and components that the manufacturer purchased from Qualcomm but not from other providers; (2) for mobile phones sold for export, Qualcomm similarly charged lower royalties for phones that

[41] Survey Report, supra, at 7.

[42] Id. at 12.

[43] Id. at 14.

included Qualcomm modem chips; and (3) Qualcomm capped its per phone royalties at a lower amount if the manufacturer used Qualcomm modem chips and not a competitor's.[44] After finding that the rates were discriminatory, the Commission then did a very thorough analysis of the competitive impact of that discrimination on competitors that Qualcomm faced in downstream markets for modem and other types of chips. In its 188-page opinion, the Commission analyzed Qualcomm's successful effort to use its position in licensing CDMA technology to exclude competitors (such as Samsung, EoNex, VIA Telecom, and Texas Instrument) in the downstream CDMA chip market. This market-impact analysis is probably the most thorough that any competition enforcement agency has provided in FRAND cases.

The Commission found that Qualcomm's discriminatory rates were an abuse of dominance under Section 3-2 of the MRFTA, for "unreasonably interfering" with the business activities of other enterprises. The Commission also found that the rates constituted an Unfair Trade Practice under Article 23 (1), which forbids "unjustly . . . treating a trading partner in a discriminatory manner." Although the latter does not require proof of dominance, and is not necessarily grounded in proof of competitive effects, the Commission's unfairness analysis nevertheless focused on the effect of Qualcomm's discriminatory rates on competition from chip competitors it was attempting to exclude in downstream markets (Kim and Yang 2015).[45]

[44] Korea Fair Trade Comm'n, Qualcomm, Decision and Order No. 2009-281 (2009) (Korean) (translation, author's files).

[45] In 2013 the Seoul High Court affirmed the KFTC for the most part; the case is on appeal to the South Korea Supreme Court. The Seoul High Court did not pass on the Article 23 theory, perhaps because that theory was unnecessary for its decision (Kim and Yang 2015).

The Commission's case against Qualcomm's discrimination was thus bottomed on exclusionary effect in other markets in which Qualcomm was competing, and not on unfair pricing in the licensing of its patents. Nevertheless, the Commission also hinted that it might take the view that the decision of a SEP holder to renege on a commitment to FRAND rates might in itself raise competitive concerns (Kim and Yang 2015). Indeed, the KFTC continues to investigate Qualcomm's licensing of its SEPs, apparently now focusing on whether it is "unfair" for Qualcomm to base royalties on the price of a handset rather than using some other measure (Mu-hyun 2015).[46]

II. Disclosure Requirements and Deception

A second area in which an intellectual property right holder can unfairly exploit its licensees involves the refusal of a right-holder to disclose information to its licensees (or potential licensees). These cases generally do not have as clear a price-raising effect as the FRAND-committed SEP cases have and they tend to be closer to the border between exploitation and exclusion. Nevertheless, decisions in these cases show more of an immediate concern for the effect of this behavior on customers, with weaker proof of a diminution of competition in downstream markets.

An early case to examine a patent holder's refusal to disclose information is the U.S. FTC's 1995 complaint against the computer manufacturer, Dell.[47] Involved in that case was an effort by a standard setting organization to set a design standard for technology to improve the transmission of video technology between a computer's CPU

[46] Qualcomm reports a KFTC notification on March 17, 2015, with regard to an investigation of its "licensing business" (Qualcomm 2015).

[47] In the Matter of Dell Computer Corp., 121 FTC 616 (1996).

and peripheral devices. The Commission alleged that Dell, as a member of the SSO, had failed to disclose a pre-existing patent that the standard would infringe. After the standard was adopted, and after 1.4 million computers were sold with this technology, Dell informed computer manufacturers that their implementation of the standard infringed its patent. Dell threatened enforcement unless royalties were paid.

Dell eventually settled with the FTC, agreeing not to enforce its patent for ten years. The Commission's analysis of the effects of Dell's actions was brief. The Commission noted that Dell's collection of royalties "would likely" have increased prices to end-user consumers and that Dell violated Section 5 of the FTC Act because it was trying to "take advantage" of market power resulting from the standard rather simply getting royalties based on the "inherent value of the patent."[48] Put otherwise, Dell was unfairly trying to exploit the computer-maker licensees.

Three years after settling the Dell case the FTC filed a complaint against Intel for withholding proprietary technical information that it had previously furnished to three computer manufacturers, done in retaliation for their assertion of patent rights adverse to Intel and to force these customers to license their technology to Intel.[49] The FTC alleged that Intel had monopoly power in the general-purpose microprocessor market, that all three customers were highly dependent on Intel microprocessors, and that the proprietary information Intel withheld was important for enabling these customers to make computers compatible with Intel chips. Although the Commission framed its case as one

[48] See id. at 624 n.2 (Statement of the Commission); 60 Fed. Reg. 57872 (Nov. 22, 1995) (Analysis of Proposed Consent Order To Aid Public Comment).

[49] In the Matter of Intel Corp.,128 FTC 213, ¶ 26 (1998), https://www.ftc.gov/sites/default/files/documents/cases/1998/06/intelcmp_0.pdf.

involving exclusionary conduct, "entrenching" Intel in its dominant position in the microprocessor market, none of these computer manufacturers competed with Intel in that market nor was it clear how Intel's behavior might have made it more difficult for competing microprocessor chip makers to succeed in the market.

What was actually critical to the Commission's complaint was that the three OEMs were highly-dependent customers, subject to Intel's "coercive business tactics."[50] The "[c]ontinued denial of advance technical information to an OEM by a dominant supplier can make a customer's very existence as an OEM untenable."[51] The only way to avoid this potential exclusionary impact was to accede to Intel's demands to give up their patent rights. In this way Intel had effectively raised the prices these customers were paying to Intel, extracting rents through the imposition of non-price terms. The Commission was never put to the test of proving that Intel's coercive tactics violated Section 5, however, because the parties settled the case just before the start of the FTC's administrative hearing.[52]

Intel was followed by two cases that returned to the problem of patent-holder deception of a standards-setting body. One, *Rambus*, brought in 2002, involved the alleged deception of a private standard setting organization that developed technical

[50] Id. at ¶ 14.

[51] In the Matter of Intel Corp., Analysis of Proposed Consent Order to Aid Public Comment (1999), available at https://www.ftc.gov/sites/default/files/documents/cases/1999/03/d09288intelanalysis_0.htm.

[52] Intel agreed not to withhold certain advanced technical information for reasons related to an intellectual property dispute. See In the Matter of Intel Corp., Docket No. 9288, Decision and Order (1999), https://www.ftc.gov/sites/default/files/documents/cases/1999/08/intel.do__0.htm.

standards for a form of computer memory known as SDRAM.[53] The other, *Unocal*, brought in 2003, involved the alleged deception of the California Air Resources Board, a state agency that set standards for low-emissions reformulated gasoline to be sold in California.[54]

The complaints in the two cases were quite similar. In both the Commission alleged that the patent holder had failed to disclose the existence of its patents prior to the decision adopting the standard. Both cases also had similar allegations as to competitive harm. In each the Commission alleged that the respondents' conduct led to increased prices to licensees and, eventually, to increased prices to the purchasers of the licensees' products.[55] Finally, in both cases the Commission charged the respondents not only with monopolization and attempted monopolization of the technology markets involved (that is, the licensing of their patents), but also with "unreasonably restrain[ing] trade" in those technology markets.[56] The implication of the third charge was that improper price-raising conduct by a single firm harms competition even if it doesn't result in monopoly, a position not recognized under the Sherman Act but potentially recognized as an "unfair method of competition" under Section 5 of the Federal Trade Commission Act.

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[53] In the Matter of Rambus, Inc., Docket No. 9302 (2002), available at https://www.ftc.gov/sites/default/files/documents/cases/2002/06/020618admincmp.pdf.

[54] In the Matter of Union Oil Co. of Cal., Docket No. 9305 (2003), available at https://www.ftc.gov/sites/default/files/documents/cases/2003/03/030304unocaladmincmplt.pdf

[55] Rambus Complaint ¶ 120; Unocal Complaint ¶ 98 (alleging 90 percent pass-through to consumers of higher royalty costs).

[56] Rambus Complaint ¶ 124; Unocal Complaint ¶ 102. The Complaint in Unocal added a similar violation with regard to the downstream market for gasoline, ¶ 103; Rambus did not include a similar allegation with regard to prices in the downstream DRAM market.

Only Rambus litigated its case.[57] The Commission decided that Rambus's deceptive conduct violated the FTC Act under a monopolization theory, finding that the SSO either would have chosen a different standard or would have required Rambus to license on FRAND terms. The FTC dropped its potentially more expansive theory that Rambus's conduct violated the FTC Act simply because Rambus's deception raised royalty rates and increased the prices of DRAM chips. Still, as part of its remedy the Commission ordered Rambus to license its patents at lower "reasonable" royalty rates, otherwise unspecified.[58]

On appeal to the D.C. Circuit, Rambus argued that the Commission erred in not deciding whether a truthful disclosure would have caused the SSO to choose a different standard that would not have infringed Rambus's patents, thus improperly excluding Rambus's competitors, or would have only resulted in lower FRAND prices. The court of appeals agreed that the failure to decide between the two outcomes was error. Preventing the FRAND outcome was not "anticompetitive" because (as noted at the beginning of this chapter) the only harm from Rambus's deception would then have been higher prices. The Commission had therefore not met its burden of proving that Rambus's conduct caused harm to competition.

[57] The Unocal complaint was settled as part of an agreement allowing Chevron to acquire Unocal, with the parties agreeing that Unocal would neither enforce the patents in question nor attempt to collect royalties for their use. In the Matter of Union Oil Co. of Cal., Docket No. 9305, Decision and Order (2005), https://www.ftc.gov/sites/default/files/documents/cases/2005/08/050802do.pdf.

[58] See In the Matter of Rambus Inc., Docket No. 9302, Final Order at 2-4 (2007), https://www.ftc.gov/sites/default/files/documents/cases/2007/02/070205finalorder.pdf; In the Matter of Rambus, Docket No. 9302, Opinion of the Comm'n on Remedy at 22-23.

The decision in *Rambus* has been criticized on its facts (Besen and Levinson 2009), even by those who generally view rent extraction as not subject to antitrust scrutiny (Cotter 2009). Although in a broad sense the D.C. Circuit's decision was consistent with the general view that U.S. antitrust law does not protect against rent extraction *simpliciter*, the court's decision appears to be an outlier in the intellectual property context. Neither subsequent litigation nor administrative practice has been constrained by *Rambus*'s holding. As our earlier discussion indicates, the FTC and the courts continue to be concerned about the effects of excessive pricing by intellectual property rights holders, particularly in the FRAND context.

III. Post-Expiration Royalties

Royalties imposed in a patent license that continue past the expiration of the patent would seem to be an obvious target for competition enforcers seeking to restrict the ability of patent holders to extract rents from licensees in excess of what is necessary to incentivize innovation. In the United States, however, such clauses have not been the subject of antitrust attack. Rather, they have been litigated by private parties as a matter of patent law rather than antitrust.

The U.S. Supreme Court confronted the issue in a 1964 decision, *Brulotte v. Thys Co.*[59] That case involved the sale of a patented hop-picking machine for a flat sum plus a license to use the machine subject to annual royalties (for a fixed number of years) based on the amount of hops the machine harvested. When some of the patents on the machine expired, the purchaser refused to pay further royalties, claiming that the patent holder had

[59] 379 U.S. 29 (1964).

misused the patent by extending its terms beyond its expiration. The lower courts found the license agreement enforceable, but the Supreme Court reversed. The Court acknowledged that a patentee can use the "leverage" of the patent to "exact royalties as high as he can negotiate," but held that the patentee cannot "enlarge" the power of the patent by "project[ing] those royalty payments beyond the life of the patent."[60]

Brulotte's condemnation of post-sale royalties has been much criticized for its misperception of the economics of the licensing transaction, its potential adverse effect on innovation from denying licensors and licensees the ability to structure their transactions optimally, and its indifference to competition issues (Dreyfuss 1968). From a competition viewpoint, critics have argued that a patent loses its exclusionary effect once it expires, because then others are free to enter the market and use the technology without paying royalties to the inventor. Even if the former licensee is saddled with higher costs, consumers could have lower cost alternatives to choose from, at least if entry barriers are low.[61] Consumer welfare would not necessarily be harmed.

Despite these criticisms, however, the U.S. Supreme Court turned away a challenge to *Brulotte*'s bright-line rule in *Kimble v. Marvel Entertainment*, decided in 2015. Although the Court basically agreed with the criticism that *Brulotte* got its economics wrong in terms of competitive effects, the Court also pointed out that *Brulotte* "did not undertake to assess that practice's likely competitive effects." Instead, the Court chose to follow the judgment that it believed Congress made in the Patent Act—"the day

[60] Id. at 33.

[61] See, e.g., Scheiber v. Dolby Labs., Inc., 293 F.3d 1014 (7th Cir. 2002) (pointing out, inter alia, that "[a]fter the patent expires, anyone can make the patented process or product without being guilty of patent infringement. The patent can no longer be used to exclude anybody from such production) (Posner, J.).

after a patent lapses, the formerly protected invention must be available to all for free."[62] The Court concluded that if *Brulotte*'s rule is to be changed, it is up to Congress to do the changing.

In two cases outside of the United States, however, competition authorities have attacked post-expiration royalties as a violation of competition law. One case was brought by China's NDRC, the other by the Korea Fair Trade Commission. Both involved Qualcomm's licensing of its SEPs for wireless communications technology and both were part of the broader challenges to Qualcomm's licensing described earlier.

In the China case, Qualcomm argued that the royalties collected on expired patents were made up for by royalties not collected on new patents that were added to the portfolio during the term of the license. The Commission found, however, that Qualcomm did not prove that the value of the added patents was equivalent to the expired ones and did not provide licensees with a list of what patents were being licensed in the portfolio at any given time (Harris 2015). "Qualcomm's practice," the Commission concluded, "obscured the specific objects being licensed, and the licensees had to keep paying for the expired SEPs."[63] This was an abuse of dominance in violation of Article 17 of the AML, which prohibits sales at "unfairly high prices." Qualcomm agreed to discontinue the practice.[64]

In the Korea case, Qualcomm's SEP licenses required post-expiration royalties at 50 percent of the level charged during the life of the patent. Qualcomm argued that the

[62] Kimble v. Marvel Entertainment, LLC, 135 S.Ct. 2401, 2413 (2015).

[63] NDRC, Case *Qualcomm*, supra, at II.1.a.

[64] NDRC, Press Release, supra, at 2.

provision should not be found violative of MRFTA because the provision had not been implemented (none of the patents had yet expired) and was unlikely to be implemented. The KFTC disagreed. Qualcomm had a dominant position in the market and its post-expiration royalties would have "unreasonably increased the financial burden of local handset manufacturers."[65] Despite the Commission's finding of dominance, however, the Commission did not charge Qualcomm under the Article dealing with abuse of dominance, perhaps because post-expiration royalties had not yet been imposed, which meant that anticompetitive effects in the handset market could not be shown. Instead, the Commission found that Qualcomm had engaged in the "unfair trade practice" of unreasonably taking advantage of its superior position in violation of Article 23 of the Act (Lee 2012). The possibility that a dominant firm could raise rates in the future on customers that lacked alternative supplies was enough to constitute unfair exploitation.[66]

The difference between how post-expiration royalties are handled in the United States and how they are handled in China and Korea offers three useful insights. First, handling this as a competition law matter rather than a matter of patent law interpretation allows for a more careful assessment of the economic impact of the practice. Taking the patent law approach, it does not matter whether the patent holder has monopoly power, either when the license is negotiated or when the patent expires; under a competition law approach, however, the market power of the licensor is critical because a violation depends on whether the licensor has a dominant position. Second, assuming that the

[65] Korea Fair Trade Comm'n, 2010 Annual Report, at 51, http://eng.ftc.go.kr/bbs.do?command=getList&type_cd=53&pageId=0301

[66] Qualcomm did not appeal this part of the Commission's decision.

dominant position continues into the post-expiration period (as is likely in the Qualcomm cases in China and Korea), such that the licensee lacks competitive alternatives, the result will be continued high prices, that is, continued rent extraction beyond the legislative determination of what is sufficient to incentivize innovation. Third, the FRAND setting of the China and Korea cases offer an example of a possible exception to the standard criticism of the ban on post-expiration royalties. Commentators have argued that higher prices post-expiration simply make up for lower prices during the patent term, with the parties choosing to spread the payments as a way to allocate risk. In other words, the net will be the same.[67] But in a FRAND setting, that will not be the case. The SEP holder's pricing is constrained in the patent period, for it has committed to pricing below a monopoly level. This means that there are unrealized monopoly profits to be had. Getting them in the post-expiration period is one way to do it, effectively raising the net above FRAND rates and extracting rents from licensees beyond what the parties had considered fair.

IV. Conclusion

The goal of antitrust law is generally considered to be to promote competition (or at least to remove restraints that hinder competition). The goal is not generally thought to be to prevent exploitation. Yet the examples reviewed in this chapter show that courts and enforcement agencies, in the United States and around the world, have taken a different view when it comes to intellectual property rights exploitation. Contrary to conventional wisdom, antitrust law is being used today to control the ability of

[67] See Schreiber, 293 F.3d at 1017 ("The duration of the patent fixes the limit of the patentee's power to extract royalties; it is a detail whether he extracts them at a higher rate over a shorter period of time or a lower rate over a longer period of time.").

intellectual property rights holders to exploit their licensees through excessively high prices or the imposition of particular non-price terms.

These decisions are most apparent in the area of FRAND licensing—by its terms, a restriction on the prices that the patent holder can charge—but they also occur outside the area of FRAND-committed patents when intellectual property rights holders use their monopoly power (or dominant position) to impose onerous terms on their licensees, whether through direct price-raising or through other terms that will effectively raise price. The critical insight from competition policy is that the ability to raise prices is not just a reflection of the existence of a patent—which does not, in itself, grant an economic monopoly—but from market power, assessed through conventional market analysis that considers substitutes for the technology involved and barriers that restrict the ability of competitors to enter and compete in that market. Outside of monopoly, patent holders are free to charge what the market will bear for their technology, just like other sellers.

The examples reviewed in this chapter also show that enforcers concerned about monopoly exploitation by intellectual property right holders have tended to look for some conduct in addition to the imposition of high prices. Enforcers have focused on the effort of SEP holders to bring infringement cases seeking injunctions or exclusion orders, or the deception of standards setting organizations or regulators that leads to high prices. This effort to look for specific conduct is true both for enforcers in the United States, constrained by the current view that Section 2 of the Sherman Act does not make monopoly prices illegal, and for enforcers outside the United States that operate without this legal constraint. The reason for this focus is not that these enforcers are concerned with deceit (the allegations of deceit are often quite thin) or think that litigation is a bad

thing. The reason is that it is administratively challenging to judge whether prices are sufficiently high as to be "excessive."

Competition agencies and courts may fear the administrability problem too much in the patents area. Litigants are often forced into court to determine damages in patent cases, which may involve determining what constitutes a reasonable royalty; FRAND rates are a particular subcategory of this type of litigation. In this patent litigation part of the effort in assessing a reasonable rate is to avoid overcompensating the patent holder so as to not discourage follow-on innovation (Lee and Melamed 2016). If reasonable rates can be determined in the context of patent infringement litigation, in which overcompensation is a concern, why is it so much harder to figure out reasonable rates in the context of antitrust litigation?

Intellectual property rights that give their holders long-term monopoly power are particularly costly for society. Competition law intervention that can reduce this cost is warranted. This intervention is consistent with the rough judgment made through patent law's limited term that returns to innovation can be limited without destroying the "progress of Science and useful Arts." Preventing exploitation through high prices in the area of intellectual property rights can thus be a welcome departure from the general view that such conduct is not the province of competition law.

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