

## The Effect of Competition Law on Patent Remedies

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### 6.1 INTRODUCTION

More than 130 jurisdictions around the world now have competition, or antitrust,<sup>2</sup> systems in place. Many of these, to prevent firms from distorting competition in a free market economy, stand upon three main substantive pillars:

- i. provisions prohibiting restrictive agreements (e.g., in the United States (U.S.) and the European Union (EU), Section 1 of the Sherman Act 1890 and Article 101 of the Treaty on the Functioning of the European Union (TFEU), respectively);
- ii. provisions prohibiting monopolization (or attempts to monopolize) or abusive conduct of dominant firms<sup>3</sup> (Sherman Act Section 2 and Article 102 TFEU); and
- iii. provisions prohibiting mergers that will substantially lessen or significantly impede competition (Clayton Act 1914 Section 7 and the EU Merger Regulation, Council Regulation 139/2004).

This chapter considers the extent to which, in the area of complex products, competition laws can, or should, (i) affect remedies available for patent infringement; and/or otherwise (ii) limit the conduct of patentees, particularly when transferring or licensing their patents.

In examining the tensions that have arisen between patent and antitrust law in this sphere of complex products, this chapter scrutinizes issues that have arisen in a series of cases across the globe; these have principally emerged in relation to a subset of

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<sup>2</sup> The European Commission in the European Union (EU) describes the enforcement of TFEU arts. 101 and 102 as “antitrust” and distinguishes it from merger enforcement. In the United States (U.S.), the term “antitrust” encompasses both merger and nonmerger enforcement. In this chapter we use the term antitrust in the broader U.S. manner as encompassing all areas of competition law.

<sup>3</sup> Broadly, dominance in the European Union is defined as a position of economic strength on a market that allows the undertaking to act independently (significant market power), *see, e.g., United Brands Co. and United Brands Continental B.V. v. Commission of the European Communities* (CJEU 1978) (EU).

patents that are “essential” to the implementation of standardized technologies (standard-essential patents – SEPs). It explains that, in most jurisdictions, competition law accepts both the importance of patents to the competitive process and that standards are critical to innovation in industries where compatibility between manufacturers’ products is expected by customers. Nonetheless, antitrust enforcers worldwide have been concerned about the potential anticompetitive consequences that may flow from standardization processes (particularly in relation to mobile communication standards) and especially the behavior of SEP owners.

Section 6.2 considers the objectives of both antitrust and patent law focusing on whether, and if so how, they respectively seek to increase efficiency and welfare in markets – through promoting competition that delivers lower prices, greater quality of products, greater consumer choice, and/or innovation and dynamic efficiency. Despite relatively broad acceptance of the complementary nature of the antitrust and IP laws, it examines the inherent tension arising from the different methods deployed by the two systems to increase efficiency – grant of exclusionary rights versus protecting competition – and interactions between them. Further, Section 6.2 considers whether competition law should simply assume that the protection conferred by IP law is required for the creation and commercialization of new technology or whether competition law should intervene where conduct based on patent law seems to go beyond what is necessary and, for example, may be distorting competition in a downstream market and/or allowing the patentee to exploit users of the technology.

Section 6.3 examines whether and when there might be scope for antitrust law to “override” patent law, in particular in two interconnected circumstances, by:

- preventing a patentee from seeking, or limiting when it may seek (restorative), patent remedies, for example, an injunction to prevent future infringement of its patent or damages for past infringement, and thus the judicial protection of its rights; and
- limiting the commercial exploitation of patents, for example, by controlling the pricing of patent licenses (price levels or methodologies and how the requirement in some antitrust systems that dominant firms may not charge excessive or exploitative prices for their products or discriminate in prices between customers relates to fair, reasonable, and nondiscriminatory (FRAND)<sup>4</sup> licensing requirements); the structure of patent licenses (e.g., portfolio licensing, the bundling of patents in licenses, or the level at which the license is granted); collective licensing through patent pools; and the splitting or sale of patent portfolios.

When examining the antitrust jurisprudence one question arising is whether some cases have arisen, partly at least, as a response to a perceived failure of the

<sup>4</sup> See *infra* note 35 and accompanying text.

patent system or as a result of concern that patent law has been unable to deal adequately or effectively with remedies and breakdowns in licensing negotiations. Broader questions, therefore, are whether there would be a need for competition law to play such an important supplemental role in this sphere if a more efficient and principled system of patent remedies is put in place, in line with that proposed in this book, or whether, even with such a system in place, competition law systems provide more flexible techniques for solving some of the problems arising in this sphere.

Finally, the chapter considers whether antitrust remedies allow competition law to be effectively enforced and thus serve as a helpful supplement to other patent law solutions without becoming too intrusive or regulatory in nature. The answer to this question may shape the contours of substantive antitrust liability.

## 6.2 OBJECTIVES OF INTELLECTUAL PROPERTY AND COMPETITION LAW

It is often said that patent law (and intellectual property (IP) law more broadly) and competition law “constitute complementary components of a modern industrial policy” that aims to improve innovation and consumer welfare.<sup>5</sup> However, because of the different approaches they employ to achieve their objectives – the conferral of exclusive rights compared to the maintenance of effective competition – sometimes patent and competition law solutions to an identical issue appear to collide. Furthermore, even if it is recognized that they strive to achieve complementary goals, it does not mean that antitrust law should not sometimes constrain patent law, or vice versa; these distinct areas of law must be interpreted to accommodate each other.

Before examining those apparent collisions in the subsequent sections, this part considers the ostensible tension<sup>6</sup> between competition and patent law, focusing on the question of whether they are designed to achieve the same objectives – that is to improve welfare<sup>7</sup> and solve the same basic economic problem. Do they both aim to optimize the use of scarce resources in pursuit of providing the things that consumers want and need?<sup>8</sup> If so, the systems should then work harmoniously together and yield to each other when required. Where exclusion or unrestrained exploitation is necessary for the creation and commercialization of a new technology, competition law should defer to patent law. In contrast, where unconstrained exercise of IP rights goes beyond what is necessary for the creation and commercialization of a new technology and is detrimental to competition and efficiency, patent law should defer to competition law. With their unified goals, such trade-offs and concessions should be quite natural. In practice, however, things are not so simple and harmonious for a number of reasons.

<sup>5</sup> See, e.g., Anderman & Kallaugher 2006; DOJ & FTC 2007, 1; Gilbert & Shapiro 1997.

<sup>6</sup> Bowman 1973, vii.

<sup>7</sup> *Id.* at 1.

<sup>8</sup> *Id.* at 2.

First, although in some jurisdictions, including the United States, there has, until recently at least, been a growing consensus that competition law is “technocratic”<sup>9</sup> and built on the “broad professional and policy consensus” that surrounds the basic microeconomic model of perfect competition,<sup>10</sup> such an approach is by no means universal or without challenges.<sup>11</sup> Further, there is no broad consensus on objectives on the patent side. Rather it is generally recognized that the patent system is a welfare enhancing, multipurpose instrument serving a variety of objectives, including<sup>12</sup> the provision of incentives to innovation and technology development,<sup>13</sup> the promotion of technology dissemination,<sup>14</sup> and the coordination of “the search for technological and market enhancement” (like prospects signal territories of interest to mine developers).<sup>15</sup> Furthermore, despite broad accord that innovation is crucial to technological growth, some disagreement as to how to foster such growth exists. For example, it may be difficult to know how best to incentivize both innovation and follow-on innovation or improvements. Although conferral of patents may incentivize innovation, it is possible that in some circumstances, rights conferred may be used to stifle competition that uses those patents and, consequently, subsequent innovation.

Secondly, in each field, agreement is lacking on how to achieve the objectives pursued.<sup>16</sup> Even in jurisdictions where a competition consumer welfare goal is clearly pursued, there is still considerable scope for debate as to how to reflect that underpinning aim, and in particular how to balance competing economic factors and, for example, how allocative efficiency (e.g., price equals marginal cost or price efficiency), productive efficiency (e.g., cost optimization), and/or dynamic efficiency (e.g., supply of improved and or new products/services) can be ensured. For example, a policy of *ex post* antitrust enforcement that prioritizes allocative efficiency over dynamic efficiency would almost inevitably upset a patent policy that aimed *ex ante* to maximize innovators’ rewards through extensive patent protection.<sup>17</sup>

Another important issue relevant in the context of complex products is whether competition law should ever “regulate” the conduct of a dominant firm (or IP holder) by preventing it from engaging in exploitative conduct, for example through extracting “unfair” licensing terms from a licensee or implementer.<sup>18</sup> This matter is

<sup>9</sup> Blair & Sokol 2013, 2505.

<sup>10</sup> Bohannon & Hovenkamp 2012, 45.

<sup>11</sup> Khan 2017; Nazzini 2011, 11–50.

<sup>12</sup> It is also argued that the purpose of the patent system is tied to the concept that natural law conveys to the inventor some sort of property right regarding the invention; see Machlup 1958, 19–80.

<sup>13</sup> Scherer 1980, 632.

<sup>14</sup> Gallini & Winter 1985.

<sup>15</sup> Kitch 1977, 276.

<sup>16</sup> We leave aside other, less consensual goals, like the promotion of consumer choice, the protection of small businesses, or the fight against inequality. For a catalogue of such goals and their analysis from a normative perspective, see Nazzini 2011, 11–50.

<sup>17</sup> See Chapter 2 and *infra* note 29 and accompanying text.

<sup>18</sup> Three main conceptual challenges suggesting a cautionary approach to excessive pricing cases are that the markets are self-correcting, the prohibition is tantamount to prohibiting the dominant

controversial not only from a competition perspective but also because it seems to go so fundamentally against the grain of patent law, which aims to incentivize by giving a patentee freedom to exploit the fruit of its invention for a limited period of time. Purely exploitative pricing behavior of dominant firms is not prohibited by monopolization laws set out in Section 2 of the Sherman Act in the United States,<sup>19</sup> but is specifically prohibited in the European Union and a number of other jurisdictions.<sup>20</sup> Although the European Commission (the Commission), like many other competition agencies, has to date rarely intervened in cases that purely involve unfair pricing,<sup>21</sup> and has generally preferred to focus its resources on exclusionary conduct (see Section 6.3), it is now clear that a number of competition agencies are becoming increasingly interested in such cases, especially in the sphere of SEPs and pharmaceutical products.<sup>22</sup>

Thirdly, antitrust and patent laws involve different processes and are not enforced by common institutions. Rather, antitrust agencies and patent offices generally operate at arm's length from each other. This may create an initial disconnect that needs to be resolved *ex post* when competition enforcement action is taken in individual cases or where patent issues are litigated in the courts.

As a result of these factors, the interface between patent and competition law can be mired in an uneasy stand-off. In an ideal world, there should not be such a disconnect. Rather a rational social planner should ensure wholesale consistency across policies in both fields and conflicts should not occur. Reality does not, however, match such an abstract model.

The tension between antitrust and patent laws should not be exaggerated, however. Competition law is case specific. It is generally respectful of patent rights and only prohibits certain types of conduct, leaving patent owners free to behave as they see fit outside of its strictures.<sup>23</sup> In particular, it generally only interferes with unilateral conduct of a patentee where that patentee is dominant or has a significant degree of market power.<sup>24</sup> This point means that innovation-minded patent practitioners should not overreact to antitrust enforcement.

position, and exploitative practices serve an important dynamic role, thereby increasing welfare: *see Gal 2013*.

<sup>19</sup> *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP* (U.S. 2004) (U.S.). An important question, however, is the extent to which FTC Act, 15 U.S.C. § 45, which provides the FTC with a broad mandate to prohibit “[u]nfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce,” applies beyond the reach of practices prohibited by the Sherman (and other antitrust) statutes.

<sup>20</sup> *See* TFEU art. 102(a).

<sup>21</sup> Apart from the regulatory nature of any such intervention and, for example, broader concerns as to when intervention of this type is desirable, the difficulties involved in determining whether selling prices imposed are unfair (or excessive) are acute.

<sup>22</sup> *See, e.g., infra* note 81; Jones & Stothers 2018.

<sup>23</sup> Unlike alternative remedies like heavy-handed price regulation or blanket compulsory licensing legislation.

<sup>24</sup> *See* Section 6.1.

Indeed, coordination between competition law and patent law is, frequently, left to doctrinal tools and techniques that are designed to balance the laws on a case-by-case basis, such as:

- a. **Division of competences.** Competition law application may recede in spheres that the legislature has previously covered with IP rights. The idea behind this doctrine is that there is a core of IP law with which competition law cannot interfere. For example, in the European Union, the case law has accepted that EU competition law cannot deprive the holder of an IP right of the specific subject matter of its IP right but can only regulate the exercise of the right.<sup>25</sup>
- b. **An enhanced intervention threshold.** Competition law frequently sets the bar particularly high for a finding of breach of its rules when an IP right is involved (the rules of engagement of antitrust liability are set higher than in non-IP rights cases). Put differently, antitrust law is only likely to interfere with the exercise of IP rights in “exceptional circumstances.” Exceptionalism has been the approach ordinarily followed in, for example, refusal-to-license cases, both in the United States<sup>26</sup> and the European Union, although the authorities in the European Union have arguably been more willing to find that exceptional circumstances exist than their U.S. counterparts. For example, in *Microsoft*<sup>27</sup> the General Court upheld the Commission’s finding that Microsoft had unlawfully withheld essential interoperability information from rivals, in a bid to leverage its dominant position on the market for Operating Systems (OS) for PCs into the adjacent market for

<sup>25</sup> See, e.g., *Centrafarm BV v. Sterling Drug Inc.* (CJEU 1974) (EU); *Windsurfing Int’l Inc. v. Comm’n of the European Communities* (CJEU 1986, ¶¶ 45, 92) (EU).

<sup>26</sup> Although the Federal Circuit put in place a virtually irrebuttable presumption of legality for refusals to license, holding that the subjective motivation of a patentee in refusing to license its IP rights should be irrelevant (antitrust laws should not interfere with an IP rights holder’s right to refusal to license, even if the conduct was adopted for an anticompetitive purpose, *unless* the IP right had been acquired through fraud, the lawsuit to enforce the patent was a sham, or the owner was seeking to extend its monopoly beyond the exclusivity granted, see *CSU, LLC v. Xerox Corp.* (Fed Cir. 2000, p.1327) (U.S.)). In *Image Tech. Servs. v. Eastman Kodak Co.* (9th Cir. 1997, p.1218–19) (U.S.) the Ninth Circuit held that a unilateral refusal to license a patent or copyright could constitute exclusionary conduct but that a monopolist’s “desire to exclude others from its [protected] work is a presumptively valid business justification for any immediate harm to consumers.” In this case, the court was willing to go behind the exercise of the IP right and look to the intent of the IP rights holder and determine whether the presumption should be rebutted on the grounds of “pretext.” “Neither the aims of intellectual property law, nor the antitrust laws justify allowing a monopolist to rely upon a pretextual business justification to mask anticompetitive conduct.” *Id.* at 1219.

<sup>27</sup> See *Microsoft Corp. v. Comm’n of the European Communities (Microsoft I)* (CJEU 2007, ¶ 331) (EU) (“It is only in exceptional circumstances that the exercise of the exclusive right by the owner of the intellectual property right may give rise to such an abuse.”); *Microsoft Corp. v. European Comm’n (Microsoft II)* (CJEU 2012, ¶¶ 139–40) (EU) (though the General Court did not explicitly mention exceptional circumstances, it ruled that the *IMS Health* conditions were fulfilled in *Microsoft I*). See also *Radio Telefís Eireann (RTE) and Independent Television Publications Ltd. (ITP) v. Comm’n of the European Communities* (CJEU 1995) (EU); *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG* (CJEU 2004) (EU).

work group servers OS. The theory of exceptionalism has also been applied to IP remedy cases in the European Union.

- c. **Complementarity.** Given their complementary goals, the *ex post* application of competition law generally takes into account the need to protect investment in a patented invention. Thus, competition law recognizes that dynamic efficiency, and in particular the need to preserve the incentives to innovate provided by patent and IP law, could, under certain circumstances, be a crucial factor in crafting a test to identify anticompetitive conduct or a valid business justification of conduct that would otherwise be held to be anticompetitive.<sup>28</sup> Indeed in the European Union, the Commission has published a Communication on SEPs that sets out two objectives pursued in this sphere, “incentivising the development and inclusion of top technologies in standards, by preserving fair and adequate return for these contributions, and ensuring smooth and wide dissemination of standardized technologies based on fair access conditions.”<sup>29</sup>
- d. **Patent Misuse.** In the United States, the patent/antitrust interface had, historically, been governed by the judge-made patent misuse doctrine. Today, the doctrine has been significantly narrowed. Congress explicitly removed some practices from patent misuse<sup>30</sup> and the remainder of the doctrine has been narrowly interpreted by the courts.<sup>31</sup>
- e. **Misrepresentation by a patentee.** In some jurisdictions a relevant factor in determining whether antitrust liability should ensue may be whether a patentee has made misrepresentations to an authority (such as a patent office), for example to acquire IP protection or otherwise to exclude a competitor.<sup>32</sup>

<sup>28</sup> See, e.g., Section 6.3.2; *Microsoft Corp. v. Comm’n of the European Communities (Microsoft I)* (CJEU 2007, ¶¶ 697–710) (EU).

<sup>29</sup> European Commission, at 2, COM (2017) 712 final (Nov. 29, 2017) (Commission Communication on SEPs). The Draft Council Conclusions on the IP rights Enforcement Package broadly endorses the Communication: see Council of the European Union, at ¶¶ 3, 11–13, 5753/18 (Jan. 29, 2018).

<sup>30</sup> See U.S. Patent Act, 35 U.S.C. § 271(d) (“No patent owner . . . shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following: (1) derived revenue from acts which if performed by another without his consent would constitute contributory infringement of the patent; (2) licensed or authorized another to perform acts which if performed without his consent would constitute contributory infringement of the patent; (3) sought to enforce his patent rights against infringement or contributory infringement; (4) refused to license or use any rights to the patent; or (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.”).

<sup>31</sup> See *Princo Corp. v. Int’l Trade Comm’n* (Fed. Cir. 2010) (U.S.) (en banc).

<sup>32</sup> See *AstraZeneca v. Commission* (CJEU 2010) (EU) (it can be an abuse for a dominant undertaking to make misrepresentations to regulatory authorities or to take steps with regard to regulatory procedures in order to exclude competitors) and *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.* 382 U.S. 172 (1965) (if a patent holder obtained its patent by knowingly and willfully misrepresenting facts, such behavior may be sufficient to strip it of an exemption from antitrust laws).

### 6.3 ANTITRUST LIABILITY FOR ENFORCEMENT OR EXPLOITATION OF PATENTS

#### 6.3.1 Background

In the area of complex products, tensions arising at the interface of patent and antitrust law have largely emerged in relation to the exploitation, commercialization, or enforcement of SEPs. Many of these cases initially focused on the risk of capture of the standard-setting process or the conduct of a patentee that resulted in the nondisclosure of the existence of a relevant patent during a standardization process.<sup>33</sup> In more recent years, attention has concentrated on the risk that SEP holders might use market power acquired as a result of the standardization process to exploit customers and/or to hold up implementers of the standard and adversely impact on innovation and the quality, variety, and cost of products/services available in a downstream market. This could, for example, be through demanding unreasonable, excessive (in excess of the patentee's true contribution),<sup>34</sup> or discriminatory royalties/licensing terms or through seeking injunctive relief against an implementer that does not agree to the patentee's licensing demands.

It is true that to minimize such risks many, or most, standard-development organizations (SDOs) have for some time required participating firms to disclose SEPs and to commit, as a condition to having their technology integrated into the standard, to licensing of any SEPs on FRAND terms.<sup>35</sup> It is well known, nonetheless, that SDO rules, which mainly relate to technical issues, leave open the answer to a number of complex questions, including how valid patents can be identified and invalid assertions quickly weeded out; how infringement can be tested in relation to a portfolio of SEPs (how it can be determined whether over-declarations of essentiality have been made); whether and how FRAND commitments can be enforced, initially or following transfer of the SEP to a third party; exactly how a FRAND

<sup>33</sup> See, e.g., the European Commission's and U.S. Federal Trade Commission's (FTC) proceedings against Rambus, Inc.: Commission Decision of 9 December 2009, COMP/38.636—RAMBUS; European Commission Press Release IP/09/1897; European Commission Memorandum MEMO/09/544 (frequently asked questions); and *Rambus, Inc.* (FTC Aug. 2, 2006) (Opinion of the Commission), *reversed by Rambus Inc. v. Fed. Trade Comm'n* (D.C. Cir. 2008) (U.S.). See also *infra* note 87 and accompanying text.

<sup>34</sup> Lemley & Shapiro 2007b, 1993.

<sup>35</sup> See *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.* (Pat 2017, ¶ 92) (UK) (“The underlying purpose of the FRAND undertaking is to secure a proper reward for innovation whilst avoiding ‘hold up’, i.e., the ability of the owner of a SEP to hold implementers to ransom by reason of the incorporation of the invention into the standard by declining to grant them a licence at all or only granting one on unfair, unreasonable or discriminatory terms.”). The FRAND commitment precludes private profit maximizing by a SEP owner that “could impede the success of the standard, reducing profits for other SEP owners and for implementers and decreasing consumer surplus through higher prices and reduced output. Because many SEP owners have this private incentive to charge royalties that in aggregate lower the welfare of SEP owners and implementers alike, these parties find themselves in a prisoners’ dilemma-like strategic situation in which they are likely to be worse off unless SEP owners can credibly commit *ex ante* to restrain their *ex post* opportunism.” Ratliff & Rubinfeld 2013, 5.



royalty can be assessed (whether an *ex ante* definition and specification of FRAND can be identified); and how a FRAND commitment deals with the potential risk of royalty stacking.<sup>36</sup> As a result of these open issues FRAND commitments have not been as effective as hoped, and negotiating firms have frequently been unable to agree on FRAND licensing arrangements. Many disputes have thus required resolution *ex post* not only before courts and in alternative dispute resolution, but also before competition agencies.<sup>37</sup> Amongst other things, such courts and agencies have frequently been asked to consider whether SEP owners who seek injunctions to prevent infringement of their patents or who pursue other ways to monetize their patents (e.g., through licensing practices or splitting portfolios) may be violating competition law.<sup>38</sup>

These types of action might be reduced if SDO rules and processes were improved. The Commission Communication on SEPs thus calls upon SDOs to improve their processes and policies in several respects, including by:

- a. providing more detailed and accessible information on their databases to facilitate patentees, implementers, and third parties obtaining information on declared patents and their current status, for example, by providing links to information held by patent offices on patent status, ownership, and transfer;<sup>39</sup>
- b. providing for the possibility, and incentives, for patentees and technology users to report cases on declared SEPs, particularly on essentiality and patent validity;<sup>40</sup>
- c. providing for a balanced and proportionate system of essentiality checks by a qualified third party, at the request of patentees or implementers, limiting, for example, the checks to one patent per family or samples (with patent offices being well placed to carry out such essentiality checks);<sup>41</sup> and
- d. introducing systems whereby SEPs may be certified as complying with transparency criteria.<sup>42</sup>

Although the Commission believes that its proposals may facilitate FRAND negotiations between SEP holders and implementers,<sup>43</sup> it remains to be seen whether, and to what extent, they will be followed. Further, even if SDOs were to accept such recommendations, which are not binding, the process improvements

<sup>36</sup> Resulting from the fact that numerous complementary SEPs read on a product, or a component of it, and each of the SEP holders charge a royalty that aggregated together, significantly exceeds the rate that would be charged by a single owner of all the patents (or the standard) involved and/or exceeds the level that would make it economically feasible to operate in the downstream market.

<sup>37</sup> Yet, the question that remains is (i) whether the *ex ante* specification of FRAND terms is a desirable policy option, and (ii) in turn, whether this falls within the remit of private ordering institutions or of public interest agencies like antitrust authorities and regulators.

<sup>38</sup> *Huawei Techs. Co. Ltd. v. ZTE Corp.* (CJEU 2015) (EU).

<sup>39</sup> European Commission, at 3, COM (2017) 712 final (Nov. 29, 2017).

<sup>40</sup> *Id.* at 4.

<sup>41</sup> *Id.* at 5.

<sup>42</sup> *Id.*

<sup>43</sup> *Id.* at 3–5.

proposed are unlikely to resolve, by themselves, the problems that are discussed in this chapter. No matter how transparent, accurate, and robust SDOs' processes and procedures are, competition law issues cannot be completely avoided or resolved *ex ante*, particularly because, in the current context, it is not the role of SDOs to set royalties and the terms and conditions of licenses or to make final and binding determinations on the validity and essentiality of SEPs, which is where most of the problems arise.

A preliminary issue in cases raising antitrust law arguments is, as discussed in Section 6.2, how antitrust law should interact with IP (and contract) law in this area and, in particular, whether there should be any role for antitrust law at all.<sup>44</sup> In many jurisdictions it has been accepted that competition law can play a role in certain circumstances, subject perhaps to application of the type of doctrinal tools described in Section 6.2 above. Thus in the European Union, in the 2015 landmark ruling of the Court of Justice of the European Union (CJEU) in *Huawei*,<sup>45</sup> the Court stressed that (i) a balance must be maintained between free competition and safeguarding IP rights, and their effective judicial protection,<sup>46</sup> and (ii) although the exercise of an exclusive IP right (e.g., seeking an injunction against an alleged infringer) cannot, in itself, constitute a violation of EU competition law, in exceptional circumstances competition law might constrain the conduct of a SEP holder that holds a dominant position.<sup>47</sup>

### 6.3.2 Antitrust Limits on a Patent Holder Seeking Restorative Patent Remedies (and Judicial Exploitation of Patents)

#### 1 Seeking an Injunction Following a Failure of Licensing Negotiations

An explosion of disputes and worldwide litigation in the mobile communication sector has, in recent years, raised a plethora of patent, contract, and competition law issues. These cases followed the change in incentives and the shift in bargaining position between SEP holders and implementers created when, in particular:<sup>48</sup> (1) a number of implementers entered the market, for example, Apple (with the iPhone), Google (with its open-source Android operating system), and Microsoft

<sup>44</sup> These issues are, therefore, now frequently arising both before courts, in the context of civil litigation between private parties, and before competition agencies, the recipients of complaints about the conduct of SEP holders.

<sup>45</sup> *Huawei Techs. Co. Ltd. v. ZTE Corp.* (CJEU 2015) (EU).

<sup>46</sup> *Id.* at ¶ 42 (“Court must strike a balance between maintaining free competition . . . and the requirement to safeguard that proprietor’s intellectual-property rights and its right to effective judicial protection.”).

<sup>47</sup> See *supra* note 3 and 29. For the view that antitrust law should be applied in China, see Wang 2017.

<sup>48</sup> Initially, there was relatively little patent litigation in the mobile telephony markets; most of the core players, for example, Samsung, Nokia, Ericsson, Motorola, Alcatel-Lucent, and Qualcomm, were both SEP holders and implementers in the market and cross-licensed each other licenses to a portfolio of their patents, see Jones 2014.

(with Windows Mobile), which did not originally have the same number of patents essential to European Telecommunications Standards Institute (ETSI) standards<sup>49</sup> as their competitors (although Apple and Microsoft, for example, held a significant portfolio of design and software patents that are not standard-essential (non-SEPs)); and (2) some of the original players in the market either sold off their patent portfolios to patent assertion entities (PAEs) or their position in the final product market began to decline.

The cases have raised issues in relation both to the infringement of non-SEPs and SEPs, and have included the question of whether a SEP holder should be able to enforce its exclusive rights through the bringing of an injunction claim in court. A particular concern in such cases has been how to balance the risk of holdup against the risk that an implementer who operates on the market without a license, thus infringing the patent, will seek to hold out by refusing to bargain in good faith (identified by some commentators as the “reverse holdup” problem).<sup>50</sup> (Although there is no agreed definition of holdup, the term is used, for present purposes, to describe any anticompetitive consequence of a refusal to license or the extraction of excessive royalties.)<sup>51</sup> For example, there is a concern that SEP holders may be able to secure rewards for innovation beyond their true value to consumers; to preclude open and effective access to the standard, thus allowing competition to be distorted through the exclusion, elimination, or hampering of competition,<sup>52</sup> new entry, and innovation downstream; and/or to undermine confidence in, and the working of, the standard-setting process.

In a number of jurisdictions, including the United States, the United Kingdom, and the Netherlands,<sup>53</sup> courts have, without needing recourse to antitrust law,

<sup>49</sup> Although Google has subsequently acquired Motorola and its patent portfolio and Apple, Microsoft, RIM, and Oracle acquired, through their Rockstar consortium, Nortel.

<sup>50</sup> Such behavior arguably threatens open standardization; if holdout is perceived to be widespread patentees might choose consortia or de facto standardization instead. See, e.g., Camesasca et al. 2013; Harkrider 2013; Kobayashi & Wright 2009; Cary et al. 2011; Kobayashi & Wright 2012.

<sup>51</sup> See, e.g., Lemley and Shapiro’s characterization of patent holdup as a form of market failure, Lemley & Shapiro 2007b, 2164. Farrell et al. argue that patent holdups might prevent implementers from using patented technology altogether or encourage them to adopt costly countermeasures to avoid holdup, Farrell et al. 2007, 622–23. See also Kattan 2013; Kattan & Wood 2013; Ratliff & Rubinfeld 2013; Petrović 2013.

<sup>52</sup> As in the case of a refusal to deal or margin squeeze, therefore, a core antitrust concern is that the seeking of an injunction may distort competition in downstream markets. This will create upward pricing pressure and prevent the development of the secondary market to the detriment of consumers.

<sup>53</sup> See Chapter 5. See also, e.g., in the United States, *eBay Inc. v. MercExchange, L.L.C.* (U.S. 2006) (U.S.) (injunctions for patent infringements are not automatic but based on specified criteria); *Apple, Inc. v. Motorola, Inc.* (Fed. Cir. 2014) (U.S.); but see the FTC’s intervention under FTCA section 5 to prevent a patentee’s attempt to obtain injunctive relief in the face of a prior FRAND commitment in *In the Matter of Motorola Mobility LLC and Google Inc.* (FTC July 23, 2013) (Decision and Order) and *In the Matter of Robert Bosch GmbH* (FTC Apr. 23, 2013) (Decision and Order); Section 6.4 below; in the UK, *Nokia OYJ v. ICom GmbH & Co KG* (Ch 2012) (UK) (Roth J declined to grant an injunction sought by ICom (a PAE) against Nokia in relation to a patent essential to the 3G standard and that would exclude Nokia from selling its products in the United Kingdom (given that Nokia had

refused to grant injunctions to patentees, and, in particular, have been unwilling to exercise their discretion to grant them to FRAND-committed SEP holders where the implementer, against whom the injunction is sought, is “willing” to take a license on FRAND terms.

In other jurisdictions, such as Germany, Japan,<sup>54</sup> and Korea, however, where a stronger legal tradition of providing security to patentees prevails,<sup>55</sup> courts generally require injunctions to be granted to protect patents when infringed.<sup>56</sup> It is in these latter jurisdictions<sup>57</sup> that antitrust law has most often been raised as a possible mechanism for precluding the grant of the injunction on the basis that an injunction might harm competition and that the patentee’s investment incentives can be protected, as envisaged, not through exclusion but through FRAND licensing. In 2012, the European Commission launched investigations against both Samsung and Motorola Mobility for possible breaches of Article 102,<sup>58</sup> in particular by seeking

declared itself willing to take, and to be entitled to, a license in relation to valid patents on FRAND terms and ICom acknowledged that it had made a FRAND declaration, the judge failed to see why an injunction should be granted); *Vringo Infrastructure, Inc. v. ZTE (UK) Ltd.* (Pat 2013, ¶¶ 44–46) (UK) (the alleged patent infringer has the right to have the patents’ validity and infringement determined before it determines whether it will take a license and on what terms. Such a stance cannot be said to be unwillingness); in the Netherlands, *Samsung Elecs. Co. Ltd. v. Apple Inc.* (Rb.-Gravenhage 2012) (Neth.) (the District Court of the Hague rejected an application by Samsung for an injunction to prevent Apple’s sales of iPhones and iPads in the Netherlands and damages). Other national courts in the European Union have also resolved these issues by applying principles of national law without reference to antitrust law, see Directive 2004/48/EC (stating that infringement of a European patent is to be dealt with by national law, but must ensure certain measures be made available). See also the Supreme People’s Court of the People’s Republic of China 2016 (revision to judicial interpretation on intellectual property disputes); Wang 2017.

<sup>54</sup> But see *Samsung Elecs. Co. v. Apple Japan LLC* (IP High Ct. 2014) (Japan).

<sup>55</sup> A significant amount of the EU litigation has occurred in Germany. Not only is Germany the biggest market in the European Union for mobile telephony products, but the patent litigation environment there has made it an especially attractive forum for patentees in general, and SEP holders in particular. Indeed, the procedure in Germany enables patent infringement cases to be resolved quickly, cheaply, and in a relatively patent-holder friendly way. See Jones 2014; Chapter 5.

<sup>56</sup> The specialist patent chambers of the Higher District Courts have taken the view that German law, rather than permitting discretion to be exercised, requires the grant of an injunction to a patentee whose patent is found to have been infringed unless: (a) an extremely high degree of likelihood of invalidity before the Federal Patent Court can be established; or (b) an infringer can establish that by refusing to conclude a license the claimant has abused its dominant position (since conduct prohibited by antitrust law must not be ordered by state courts). In BGH v. 6.5.2009 – KZR 39/06 – *Orange-Book-Standard* (Ger.), the German Federal Court of Justice (Bundesgerichtshof) had accepted that such an abuse would occur only in very limited circumstances, where the party seeking a license makes, and remains bound by, an unconditional offer to conclude a license contract with the patent holder on terms which, if rejected by the patent holder, would amount to a violation of antitrust law (the implementer has to be willing to pay (into court deposit) as if it were a licensee and to render accounts).

<sup>57</sup> But see cases applying competition law in the United States and the European Union, *supra* note 53. See also, e.g., *Samsung Electronics Co. Ltd. v. Apple Korea Ltd.* (Dist. Ct. 2012) (Kor.).

<sup>58</sup> Commission Decision of 29 April 2014, Case AT.39939 – Samsung – Enforcement of UMTS Standard Essential Patents (Samsung agreed not to seek any injunctions in Europe on the basis of SEPs for mobile devices for a period of five years against any potential licensee of these SEPs who agrees to accept a specific licensing framework); Commission Decision of 29 April 2014, Case AT.39958 – Motorola – Enforcement of GPRS Standard Essential Patents (without fines).

injunctions to enforce the SEPs in Germany. It articulated concerns that in the exceptional circumstances of the case (involving a standard-setting process and Samsung's and Motorola's commitments to license their SEPs on FRAND terms and conditions), the seeking of preliminary and permanent injunctions against Apple might be incompatible with Article 102. These actions, which eventually culminated in, respectively a commitments and infringement decision,<sup>59</sup> fuelled concern that, in the context of SEPs at least, German law might be making injunctions available in circumstances in which the seeking, and subsequent enforcing, of the injunction violated Article 102.<sup>60</sup> It was for this reason that the Landgericht Düsseldorf stayed patent litigation between Huawei and ZTE and referred a number of questions to the CJEU relating to the application of Article 102 to the conduct of SEP holders. Essentially, the questions referred asked whether German law was sufficient to prevent abusive conduct by SEP holders or whether Article 102 applies more stringently to constrain the ordinary rights of patentees, at least where the IP at issue is a FRAND-committed SEP.

In its *Huawei* judgment, the CJEU confirmed that although antitrust does not generally interfere with the exercise of IP rights, it might constrain the behavior of an IP rightsholder that has a dominant position in exceptional circumstances. In addition, the Court clarified that such circumstances might exist in a case such as the one before it, involving *de jure* standardization and a dominant SEP holder<sup>61</sup> that had made a FRAND commitment. The Court held that such a patentee may infringe Article 102 if it seeks an injunction, or an order for recall of products, in patent litigation against the user of standardized technology in circumstances where it had not taken certain steps to comply with its FRAND commitment and to ensure a fair balance between the interests involved.<sup>62</sup> Such compliance requires as

<sup>59</sup> *Id.*

<sup>60</sup> And concern that the German courts might consequently be in breach of their duty of sincere cooperation to the European Union, their duty to guarantee real and effective judicial protection for EU rights, and their obligation not to apply provisions of national law that contravene EU law.

<sup>61</sup> In most jurisdictions the concept of dominance or monopoly power is equated with (a significant degree of) market power. There seems little doubt that the standard-setting process *can* confer market power and a dominant position on SEP holders. Owners of SEPs are likely to acquire market power after the standard is adopted if it subsequently becomes impossible for implementers to invent or design around the patent (the standard constitutes a barrier to entry to the market as it is commercially indispensable to comply with it). In the mobile telephony sector, manufacturers of 3G or 4G mobile devices are generally locked in and unable to design around standards as they must be able to certify that their product is standard compliant in order to operate on UMTS and LTE networks. It is also important to consider whether the exercise of market power is constrained by buyer power, for example where the implementer owns blocking patents, see O'Donoghue & Padilla 2013, 703. In *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.* (Pat 2017) (UK), Birss J considered that the ability of a potential licensee to hold out was relevant to the question of whether the SEP holder possesses a dominant position.

<sup>62</sup> Where the patent at issue is essential to a standard (and indispensable to competitors manufacturing products complying with the standard) and where SEP status had been granted only because of owner's irrevocable FRAND commitment a SEP holder could, by bringing action for injunction/recall, prevent competitors' products from appearing/remaining on the market and reserve to itself manufacture of products. Further the FRAND commitment created legitimate expectations that

a starting point that the SEP holder: (i) give the alleged infringer notice of its infringement (even if the latter was already using the teaching of the SEP); and, if the implementer expresses a willingness to conclude a FRAND license, (ii) present a specific, written FRAND offer specifying the royalty and the way it is to be calculated. If these steps are taken, the Court held that the implementer must diligently respond to that offer, in accordance with recognized commercial practices in the field and in good faith,<sup>63</sup> and, if it does not accept the offer, respond promptly and in writing with a specific counteroffer that corresponds to FRAND terms.<sup>64</sup> Where no FRAND agreement is reached following a counteroffer,<sup>65</sup> the parties may, by common agreement, request that the amount of the royalty be determined by an independent third party, by decision without delay.<sup>66</sup>

The Commission Communication on SEPs sheds light, taking account of subsequent case law in national courts, on the Commission's understanding of the *Huawei* criteria. In particular, it states:<sup>67</sup>

- a. A prospective licensee is entitled to receive sufficiently detailed information to determine the relevance of the SEP portfolio and the compliance of the offer with FRAND requirements. Determination of whether this requirement has been met is fact sensitive and will vary from case to case. However, the Commission believes that clear explanations are necessary on such matters as “the essentiality for a standard, the allegedly infringing products of the SEP user, the proposed royalty calculation and the non-discrimination element of FRAND.”
- b. The prospective licensee's counteroffer “should be concrete and specific” and “cannot be limited to contesting the SEP holder's offer” and making “a general reference to third-party determination of the royalty.” The counteroffer should also provide information “on the exact use of the standard in the specific product.” The willingness of the parties to submit to a binding third-party FRAND determination is considered to be evidence of FRAND-compliant behavior.
- c. No general benchmark can be established to determine the timeliness of the counteroffer by the prospective licensee. Relevant factors include “the number of

a FRAND license will be granted so refusal to do so may in principle constitute an abuse, *Huawei Techs. Co. Ltd. v. ZTE Corp.* (CJEU 2015, ¶¶ 15–53) (EU).

<sup>63</sup> The required conduct must be established on the basis of objective factors and implies, in particular, that there are no delaying tactics.

<sup>64</sup> *Huawei Techs. Co. Ltd. v. ZTE Corp.* (CJEU 2015, ¶ 6) (EU).

<sup>65</sup> Where the implementer is using the teachings of the SEP before a licensing agreement has been concluded, it must, from the point at which its counteroffer is rejected, provide appropriate security, for instance by providing a bank guarantee or by placing the amount necessary on deposit. The calculation of the security must include, inter alia, the number of the past acts of use of the SEP, and the alleged infringer must be able to render an account in respect of those acts of use, *Id.* at ¶ 67.

<sup>66</sup> *Id.* at ¶ 68.

<sup>67</sup> European Commission, at 9–10, COM (2017) 712 final (Nov. 29, 2017).

asserted SEPs and the details contained in the infringement claim.” The Commission considers that there may well be a “trade-off between the time considered as reasonable for responding to the offer and the detail and quality of the information provided in the SEP holder’s initial offer.” Furthermore, the more (reliable and up-to-date) information available to the prospective licensee through the SDO’s database, the shorter the time required to make a counteroffer.

- d. The security to be provided by the implementer as protection for the SEP holder when a claim for an injunction is denied “should be fixed at a level that discourages patent hold-out strategies.” The Commission considers that “similar considerations could apply when assessing the magnitude of damages.”

The judgment in *Huawei*, complemented by national case law and the Commission Communication on SEPs, thus seeks to craft, for the European Union, some degree of operational guidance for both SEP owners and implementers to follow.<sup>68</sup> Not only do these allow SEP owners to ensure that their conduct is compatible with Article 102 (compliance with the stipulated procedure provides an antitrust safe harbor for them), but it clearly delineates steps that implementers must take in the FRAND negotiation process (to prevent holdout).

Although the judgment is very fact specific, the Court stressed the salient features of the case that contributed to its finding that, in exceptional circumstances, seeking an injunction or an order for recall by a patentee may constitute an abuse of a dominant position contrary to Article 102:

- The patents at issue only had SEP status because of the owner’s irrevocable FRAND commitment.
- The SEPs were essential to the standard and, consequently, indispensable to competitors manufacturing products complying with the standard. This meant that a SEP holder could, by bringing an action for injunction or recall, prevent competitors’ products from appearing or remaining on the market and reserve to itself the manufacture of products.
- The FRAND commitment created legitimate expectations that a FRAND license would be granted (so a refusal to do so may in principle constitute an abuse).<sup>69</sup>

The Court thus referred to some likely anticompetitive effects on products reading on the standard: Products manufactured by competitors could be prevented from being launched or remaining on the market so that a vertically integrated SEP holder could “reserve to itself the manufacture of the product in question.”<sup>70</sup> This

<sup>68</sup> The Court also accepts that FRAND imposes obligations on implementers. For the view that the ruling’s theoretical foundation in competition law is not solid, and that legislative intervention might be preferable to harmonization through competition law in this way, see Larouche & Zingales 2017.

<sup>69</sup> *Huawei Techs. Co. Ltd. v. ZTE Corp.* (CJEU 2015, ¶¶ 49–53) (EU).

<sup>70</sup> *Id.* at ¶ 52.

identified concern thus relates to the parameters of product competition in the market for the products reading on the standard: price, innovation, and choice. The Court was not, however, explicit about the impact of the conduct under review on the standard-setting process itself.<sup>71</sup> Yet, the emphasis placed on the legitimate expectation that a FRAND commitment creates as one of the grounds or conditions for a potential finding of infringement<sup>72</sup> might suggest that the Court was also concerned, implicitly, about likely anticompetitive effects on the integrity of the standard-setting process and, ultimately, on the success of the standard. From a policy perspective, it would indeed appear that the undermining of the standard-setting process (and, ultimately, of the success of the standard) as a result of non-FRAND-compliant behavior by any SEP holder is capable of having the same type of a negative impact on price, innovation, and choice on the market for the products reading on the standard as non-FRAND-compliant behavior by a vertically integrated SEP holder who reserves to itself the manufacture of the product in question.

As regards the need to ensure an adequate protection of the SEP, the Court seemed to consider that the patentee's investment incentives would be protected by its ability to recover FRAND licensing terms and that by giving the FRAND commitment it had demonstrated its intention to monetize its patents in this way.<sup>73</sup> The benefits to competition safeguarded in the manufactured product market would not therefore be offset by damage to investment in the upstream market.

In some respects, however, the Court left certain matters, or the exact scope of its judgment, unclear. For example, national courts in the EU Member States have subsequently had to wrestle with the question of exactly how the procedure described within it is actually to be implemented and, consequently, when a SEP holder can seek an injunction without infringing Article 102 and when an implementer can resist an injunction application on competition law grounds.<sup>74</sup> Chapter 5 discusses cases that deal with the question of what each party needs to do to establish it has been engaged in good-faith licensing negotiations.<sup>75</sup>

<sup>71</sup> Contrast Commission Decision of 29 April 2014, Case AT.39958 – Motorola – Enforcement of GPRS Standard Essential Patents, where the European Commission placed greater emphasis on the anticompetitive effects through: exclusion of innovative products from the markets (including a temporary ban on the online sale of Apple's GPRS compatible products in Germany); anticompetitive, disadvantageous licensing terms imposed in settlement agreements; and that confidence in the standard setting process would be undermined – which was designed to promote the functioning of standard setting by ensuring accessibility of technology and by preventing holdup.

<sup>72</sup> *Huawei Techs. Co. Ltd. v. ZTE Corp.* (CJEU 2015, ¶¶ 51–53) (EU).

<sup>73</sup> The FRAND commitment “implicitly acknowledges that a [FRAND] royalty is adequate compensation for a license to use that patent.” *Apple, Inc. v. Motorola, Inc.* (N.D. Ill. 2012, p.914) (U.S.).

<sup>74</sup> See Chapter 5; Colangelo & Torti 2017. It also left open the questions of whether or how the ruling would apply in the context of de facto (rather than *de jure*) standardization, where a FRAND commitment had not been given because the patentee did not participate in the standard-setting process or if the patentee sought damages rather than an injunction (*but see* Section 6.3.2 below).

<sup>75</sup> In relation to the content of infringement notice: when the SEP holder is obliged to submit a FRAND licensing offer and how it is determined whether this offer is FRAND (e.g., in terms of royalty terms and whether a worldwide portfolio license is FRAND); the time limits within which alleged infringer



In addition, by confining the scope of its judgment to the facts of the case, namely a situation where the SEP holder that had given the FRAND commitment manufactured and sold products on the basis of the licensed technology, and placing emphasis both on competition between the patentee and implementer in the manufactured product market and the giving of the FRAND commitment, the Court did not clarify whether the same obligations would bind a subsequent nonpracticing purchaser of the SEPs that does not compete in the market for products based on the licensed technology and that did not give the original FRAND commitment. Although in such cases the nature of the conduct is exploitative rather than exclusionary,<sup>76</sup> it is possible that the Court would reach the same conclusion on the question of whether the conduct is abusive. If a FRAND commitment is given by, or binds, the subsequent purchaser, that purchaser also agrees not to exploit the SEP's market power and to license only on FRAND terms. Further, the impact of the conduct on competition in the products market and on standardization is potentially the same – irrespective of whether the SEP holder competes in the product market or whether it was the PAE itself or its predecessor that created legitimate expectations that the technology would be licensed on FRAND terms.

Chapter 5 explains that competition authorities in other jurisdictions (including Korea) have also considered whether injunction actions by SEP holders might result in violations of both FRAND commitments and antitrust laws. For example, the Federal Trade Commission (FTC) in the United States has been concerned that seeking injunctive relief can be coercive and oppressive and an “unfair method of competition” contrary to Section 5 of the Federal Trade Commission Act of 1914.<sup>77</sup>

## 2 Monetary Damages and Future Licensing Terms

Even if a SEP holder is not permitted to seek an injunction against a willing licensee, it is still entitled to damages for past infringement of the patent and to royalties for future licensing.

Indeed, in the European Union the General Court in *ITT Promedia NV v. Commission* stressed the importance of the principle of access to court both as

must express its willingness to conclude license; and how the implementer should respond to the offer.

<sup>76</sup> Even if they have the power to do so (*see supra* note 23 and accompanying text), competition agencies are reluctant to bring exploitative cases (given the regulatory nature of such proceedings, the difficulties involved in identifying such conduct, and because they come close to prohibiting a dominant position) unless the case has another dimension, such as an exclusionary effect, an internal market aspect (in the European Union) or where the interests of the consumers cannot otherwise be ensured, *see* Section 6.3.3.

<sup>77</sup> *See, e.g., In the Matter of Robert Bosch GmbH* (FTC Apr. 23, 2013) (Decision and Order); *In the Matter of Motorola Mobility LLC and Google Inc.* (FTC July 23, 2013) (Decision and Order); and Section 6.4 below. *See also* the discussion of the cases that have arisen in Japan and Korea in Chapter 5.

a fundamental right and a general principle ensuring the rule of law.<sup>78</sup> In *Huawei*, the CJEU also recognized the high level of protection conferred by EU law on patentees who could not in principle be deprived of their right to have recourse to legal proceedings to ensure effective enforcement of their exclusive rights. Its acceptance in that case that the seeking of an injunction by a FRAND-committed SEP holder might, exceptionally, constitute an abuse of a dominant position, did not deny the patentee access to court or the right to bring legal proceedings. On the contrary, it made clear that a SEP holder was not prohibited “from bringing an action for infringement against the alleged infringer of its SEP and seeking the rendering of accounts in relation to past acts of use of that SEP or an award of damages in respect of those acts of use”;<sup>79</sup> if an injunction is not available the SEP holder may thus seek *other* remedies to safeguard its patent rights in the legal proceedings, including damages for past infringement and the determination of future licensing terms.

Chapter 5 discusses the extent to which principles governing damages awarded in cases where a SEP holder has given a FRAND commitment should differ from those generally governing damages awards in patent infringement cases and how damages should relate to any determination of future FRAND licensing terms.<sup>80</sup> The sections below consider whether competition law might, however, impose additional obligations that may affect SEP licensing arrangements above and beyond those imposed by the FRAND commitment, and hence the level of monetary damages to which a FRAND-committed SEP holder is entitled when an unlicensed implementer infringes the SEP. In particular, it considers whether, and if so when, competition law may control unfair royalty levels, the tying or bundling of SEPs, price discrimination, and the transfer of SEPs.

### 6.3.3 *Antitrust Limits on the Commercial Exploitation of Patents*

#### 1 Pricing of Patent Licenses: Excessive or Unfair Pricing

Competition law may in certain circumstances constrain the ability of a SEP holder to set the royalty rate for its SEPs or to negotiate the licensing conditions that it thinks fit. This is particularly true in jurisdictions, such as the European Union, the People’s Republic of China, and India, that prohibit not only exclusionary abuses

<sup>78</sup> Consequently, it is clear that Article 102 can deny the right to bring legal proceedings exceptionally only where (i) the legal action cannot reasonably be considered as an attempt to establish the rights of the undertaking concerned and can therefore only serve to harass the opposite party; and (ii) the action is conceived in the framework of a plan whose goal is to eliminate competition.

<sup>79</sup> *Huawei Techs. Co. Ltd. v. ZTE Corp.* (CJEU 2015, ¶ 76) (EU). See also Chapter 5.

<sup>80</sup> See Chapter 5 and the judgment of Birss J in *Unwired Planet Int’l Ltd. v. Huawei Techs. Co.* (Pat 2017, ¶ 92) (UK) (holding that as damages for patent infringement are compensatory, damages to be paid in a FRAND case are the sums that the SEP holder would have earned in licensing – that is a FRAND license that would have been agreed between it and a willing licensee).

by dominant firms but also exploitative conduct, consisting in the application of excessive or unfair prices or other unfair contractual conditions regardless of any exclusionary effect. The question of whether, and if so when, it should impact on exploitative conduct is likely to become more topical as 5G technology develops and standards relating to the Internet of Things are adopted.<sup>81</sup>

In the European Union, for example, Article 102 prohibits exploitative practices, including unfair prices, unfair trading conditions, and the provision of substandard products or services (Article 102(a));<sup>82</sup> and Article 102(b) prohibits the limitation of production, markets, or technical development to the prejudice of consumers.<sup>83</sup> It may therefore constitute an abuse for a dominant SEP holder to charge a price that has “no reasonable relation to the economic value of the product supplied”<sup>84</sup> or to impose “directly or indirectly . . . unfair trading conditions,”<sup>85</sup> whether or not it has made a FRAND commitment. In *Rambus*,<sup>86</sup> the Commission accepted commitments from Rambus, a patentee that had *not* made a FRAND commitment, but which it nonetheless accused of charging excessive royalties for the use of patented technology relating to dynamic random access memory (DRAM).<sup>87</sup> The Commission took the view that these royalties could not have been claimed if Rambus had not intentionally deceived the SSO, Joint Electron Device Engineering Council (JEDEC), and its members, by not disclosing the existence of patents and patent applications relating to technology relevant to the adopted standard<sup>88</sup> (because had it disclosed the existence of the patents and patent applications, another standard would probably have been adopted and Rambus’s technologies would not have been essential to the standard).<sup>89</sup> Although the Commission

<sup>81</sup> See, e.g., Margrethe Vestager, Speech: Protecting Consumers from Exploitation (Nov. 21, 2016); European Commission, at 1, 6, COM (2017) 712 final (Nov. 29, 2017), where the Commission emphasizes that divergent views and litigation over FRAND licensing risk delaying the roll-out of the Internet of Things in the European Union.

<sup>82</sup> See, e.g., *United Brands Co. and United Brands Continental B.V. v. Commission of the European Communities* (CJEU 1978, ¶ 248) (EU); *François Lucazeau v. SACEM* (CJEU 1989) (EU); *AKKA/LAA v. Konkurences padome* (CJEU 2017) (EU); and the European Commission’s current investigation into *Aspen Pharma*, European Commission Press Release IP/17/1323.

<sup>83</sup> On excessive pricing, see, e.g., Evans & Padilla 2005; Ezrachi & Gilo 2009; De Coninck & Koustoumpardi 2017. Most competition law systems also regulate “restrictive” licensing agreements, e.g., in the European Union under TFEU art. 101.

<sup>84</sup> *United Brands Co. and United Brands Continental B.V. v. Commission of the European Communities* (CJEU 1978, ¶ 250) (EU).

<sup>85</sup> *Belgische Radio en Televisie v. SV SABAM* (CJEU 1974, ¶ 6) (EU).

<sup>86</sup> Commitments decisions do not contain a finding of infringement and are generally considerably shorter than infringement decisions.

<sup>87</sup> Commission Decision of 9 December 2009, COMP/38.636—RAMBUS. The Commission considered Rambus to be dominant on the worldwide market for DRAM interface technology, comprising the technology needed for the interoperability between a DRAM chip and the other components of a personal computer, see *id.* at ¶¶ 16, 17, 26. Contrast the opinion in *Rambus Inc. v. Fed. Trade Comm’n* (D.C. Cir. 2008) (U.S.).

<sup>88</sup> Commission Decision of 9 December 2009, COMP/38.636—RAMBUS, at ¶ 27.

<sup>89</sup> *Id.* at ¶¶ 43–46.

did not state, in the commitments decision, its legal basis for believing that the conduct in question was abusive, it seems clear that a core concern was that the conduct was exploitative. Rambus's unilateral conduct in allegedly deceiving the SSO and its members, which could have excluded competing technologies from the standard, could not have infringed Article 102 because Rambus was not, at that point, alleged to be dominant (and EU law does not, unlike U.S. law, prevent attempts to monopolize or dominate a market). Rambus only became dominant following the alleged exclusion and the adoption of the standard. To bring the proceedings to an end, Rambus committed to offer licenses to DRAM manufacturers and manufacturers of memory controller products at royalties not exceeding a stipulated cap for a period of five years. Rambus also committed not to seek further royalties for the licensed patents from the licensee's customers.<sup>90</sup>

In *Unwired Planet*,<sup>91</sup> the English High Court also had to consider whether a breach of a FRAND commitment by an NPE could constitute an exploitative abuse contrary to Article 102. In considering this issue, Birss J distinguished three scenarios: a price advanced in negotiation, a price demanded by a vendor backed by a refusal to supply at any other price, and a price agreed upon and paid.<sup>92</sup> In relation to a price advanced in negotiations, the judge considered that it was normal that the prospective licensor would start from a position that is higher than FRAND. Simply offering a non-FRAND royalty could not therefore constitute an abuse; it only would be if the offered rate was so high that it would disrupt or prejudice the negotiations.<sup>93</sup> This did not mean, of course, that the actual imposition of such rates in the agreed license or a refusal to license other than at those rates could not be an abuse of dominance, especially if obtained under the threat of an injunction. Birss J considered, however, that a royalty rate would not be excessive unless it substantially exceeded the FRAND rate; in other words, a FRAND royalty could not be an abusive one and a royalty in excess of FRAND would not necessarily be abusive.<sup>94</sup>

The Commission Communication on SEPs sets out some high-level principles for the valuation of SEPs and the assessment of FRAND licensing terms:<sup>95</sup>

- a. Licensing terms need to bear a clear relationship to the economic value of the patented technology.<sup>96</sup> Such a value should not include a premium resulting from the decision to include the technology in the standard.
- b. Determining a FRAND value should require "taking into account the present value added of the patented technology." The present value added of the

<sup>90</sup> *Id.* at final commitments.

<sup>91</sup> *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.* (Pat 2017) (UK).

<sup>92</sup> *Id.* at ¶ 762.

<sup>93</sup> Birss J found that offers three, five, or even ten times the FRAND rates were not such as to prejudice the negotiations and were, therefore, not an abuse of dominance, *id.* at ¶¶ 762–84.

<sup>94</sup> *Id.* at ¶¶ 153, 757.

<sup>95</sup> European Commission, at 6–7, COM (2017) 712 final (Nov. 29, 2017).

<sup>96</sup> See also *supra* note 83 and accompanying text.

technology should be irrespective of the market success of the product that is unrelated to the patented technology.

- c. FRAND valuation should ensure that SEP holders continue to have incentives to contribute their best available technologies to standards.
- d. FRAND valuation should also depend on a reasonable aggregate royalty rate for the standard, to avoid royalty stacking.

What might be considered to be an unfairly high price has also been considered under the Chinese Antimonopoly Law, including by the National Development and Reform Commission (NDRC) of the People's Republic of China in *Qualcomm*.<sup>97</sup> In this case it held that Qualcomm had abused its dominant position in the markets for licensing SEPs covering CDMA, WCDMA, and LTE wireless communication, as well as in the market of baseband chips. In particular, the NDRC had concerns about the following conduct in relation to Chinese licensees: (1) refusing to disclose patent lists; (2) charging licensing fees for expired patents included in patent portfolio; (3) requiring a free cross-license of the Chinese licensees' own relevant patents (so refusing to deduct the value of such cross-licensed patents from its licensing fees); and (4) charging royalties on the basis of the net wholesale price of the device and imposing a relatively high royalty rate on licensees who had been forced to accept Qualcomm's packaged licensing of non-SEPs. The NDRC found that the combination of these different strands of conduct resulted in excessively high, and abusive, royalties and abusive terms. If a potential licensee did not agree to them, Qualcomm would simply refuse to supply baseband chips to it. The NDRC levied a fine of RMB 6 billion<sup>98</sup> and imposed a number of behavioral remedies on Qualcomm. In particular, following the proceedings, Qualcomm agreed to charge royalties for 3G and 4G Chinese SEPs for branded smartphones sold for use in China of 5 percent for 3G devices and 3.5 percent for 4G phones on a royalty base of 65 percent of the net selling price of the smartphone; to provide patent lists when entering into a license with Chinese licensees and not to charge licensing fees for expired patents; not to request a free cross-license from Chinese licensees; not to request that Chinese licensees enter into a patent-license agreement including unreasonable conditions when selling baseband chips; and not to condition the supply of baseband chips to Chinese licensees on the obligation not to challenge such patent-license agreement.<sup>99</sup>

<sup>97</sup> NDRC Press Release (Feb. 10, 2015); Wang 2017. See also *Qualcomm Inc. v. Korea Fair Trade Commission* (KFTC 2009), in which the KFTC found that Qualcomm had infringed the Monopoly Regulation and Fair Trade Act by charging discriminatorily higher royalty rates for its standard-essential patents to non-Qualcomm chip users. In 2016, the KFTC further fined Qualcomm 1.03 trillion won for coercing licensing terms on handset makers and refusing to license competing chipset manufacturers to strengthen its monopoly power in the patent license market, see Yi & Kim 2017.

<sup>98</sup> By far the highest administrative penalty levied by Chinese authorities, see Wang 2017, 73.

<sup>99</sup> NDRC Press Release (Feb. 10, 2015). See also Emch & Zhang 2016.

Similarly, in *Huawei Technologies Co Ltd v. InterDigital Group*, the Shenzhen Intermediate People's Court found that InterDigital had abused its dominant position in certain markets concerning 3G wireless communications technology both in the People's Republic of China and in the United States by engaging in excessive and discriminatory abuses – by requiring Huawei to pay much higher royalties than those charged by InterDigital to Apple and Samsung and by forcing Huawei to give InterDigital a license to all Huawei's patents. It also held that it had abused its dominant position by tying SEPS to non-SEPS and imposing unreasonable licensing conditions on Huawei. The fact that InterDigital had made a FRAND commitment appeared central to the ruling of the Court that InterDigital had to adhere to principles of fairness, reasonableness, and nondiscrimination when negotiating, entering into, and performing a license agreement relating to its SEPs.<sup>100</sup>

In proceedings against Ericsson, the Competition Commission of India set out its preliminary view that Ericsson's practice of charging a royalty based on the value of the end product produced by the implementer is excessive, discriminatory, and contrary to FRAND terms. Following protracted litigation over the jurisdiction of the CCI in this case, the proceedings have still not been finalized.<sup>101</sup>

## 2 Tying, Bundling, and Price Discrimination

A number of other questions have also arisen in relation to contract, patent, and antitrust law in the sphere of SEPs and complex products. These include whether the following practices of a patentee might infringe a FRAND commitment or competition law (and whether the FRAND commitment is coextensive with, or distinct from, the competition law obligation): a decision by a SEP holder to require a licensee to take a global license, where the licensee is interested only in a license of more limited scope, and/or to take a license of both SEPs and non-SEPs, where the licensee is interested only in a license of SEPs; a decision to calculate licensing rates not by reference to the smallest saleable unit but to a percentage of net sales of the final product; a decision by a SEP holder to enforce its patents against entities at different levels of the vertical/production chain (e.g., against chipmakers, mobile phone manufacturers<sup>102</sup> and/or mobile phone network operators) and/or to charge

<sup>100</sup> The holding, which was affirmed by the Guangdong High People's Court, is summarized and analyzed in Yuan & Kossow 2015.

<sup>101</sup> See Sidak 2017.

<sup>102</sup> Patented Wi-Fi technology is typically implemented at chip level. The chip is then incorporated into the smartphone. A SEP holder may prefer to seek royalties from a mobile phone manufacturer than a chip maker. There may be many reasons for this. Firstly, if the license is granted to end-product manufacturers, the royalty can be based on the revenues from the sale of the end product. Although the royalty base should, in theory, make no difference to the calculation of the amount of a FRAND royalty, in practice the larger the royalty base the larger the royalty may eventually be. Secondly, the profits that end-product manufacturers may lose if the SEP holder obtains an injunction against them are higher than the profits that

different royalty rates to licensees at different levels of the chain;<sup>103</sup> or a decision by a SEP holder to license only mobile phone manufacturers but not chipmakers. Such practices could, in principle, be appraised as forms of excessive pricing tying,<sup>104</sup> bundling,<sup>105</sup> or price discrimination, which can infringe competition rules in some circumstances. Indeed, many jurisdictions have specific rules that target both tying/bundling<sup>106</sup> and price discrimination. In some, price discrimination laws may go beyond the aim of preventing exploitation of market power or the foreclosure of competitors and may be aimed at preventing market distortion, whether at the upstream or downstream level, for example by putting one buyer at a disadvantage vis-à-vis another.<sup>107</sup>

a component manufacturer may lose. This suggests that SEP holders may obtain higher royalties from end-product manufacturers than they would from component manufacturers.

<sup>103</sup> See Nazzini 2017.

<sup>104</sup> Tying occurs when two products, A and B, are marketed so that customers buying A, the tying product, must also buy B, the tied product. B, however, can also be purchased as a stand-alone product. Tying can be technical or contractual. As the Commission Guidance on Article 102 explains, “technical tying occurs when the tying product is designed in such a way that it only works properly with the tied product (and not with the alternatives offered by competitors)” whereas “contractual tying occurs when the customer who purchases the tying product undertakes also to purchase the tied product (and not the alternatives offered by competitors),” see European Commission, at ¶ 48, 2009 O.J. (C45/02) 7 (Commission Guidance on Art. 102).

<sup>105</sup> Pure bundling occurs when two products are only sold jointly in fixed proportions. *Id.* See, e.g., *Napier Brown – British Sugar* where the European Commission objected to British Sugar’s practice to offer only delivered prices and not ex-factory prices, thereby forcing customers to use British Sugar’s delivery services. Commission Decision of 18 July 1988, IV/30.178 *Napier Brown – British Sugar*. Because pure bundling is a form of reciprocal tying in that neither product is available alone, so that each is tied to the other, the assessment of pure bundling is not materially different to the assessment of tying. Mixed bundling occurs when “the products are also made available separately, but the sum of the prices when sold separately is higher than the bundled price.” European Commission, at ¶ 48, 2009 O.J. (C45/02) 7. In *Coca-Cola*, the Commission took the view that the granting of rebates to customers purchasing a wide range of products in the on-premise and the take-home channels had the effect of making it more difficult for competitors to obtain sales space. The practice consisted in bundling together a number of stock keeping units (SKU), each corresponding to different products such as Coca-Cola and Fanta Orange, and making payments of up to 2 percent of total turnover to customers buying the whole bundle. Because the bestselling products generated significant turnover, the incentive for the customers to buy the whole bundle (10 to 20 SKUs on the on-premise channel and 20 to 60 SKUs on the take-home channel) was strong. Commission Decision of 22 June 2005, COMP/A.39.116/B2 – *Coca-Cola*.

<sup>106</sup> See, e.g., in the European Union, TFEU arts. 101 and 102, and in Clayton Act § 3, 15 U.S.C. § 14 (U.S.) and Sherman Act, 15 U.S.C. § 1, § 2 (U.S.).

<sup>107</sup> See, e.g., in the European Union, TFEU art. 102(c), which provides that it may be an abuse to apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage (three elements are necessary for a prima facie case of abuse to be established: (a) equivalent transactions; (b) dissimilar conditions; and (c) competitive disadvantage. Once these three elements have been established, it is for the dominant undertaking to adduce sufficient evidence tending to show that its conduct is objectively justified. This type of abuse can be defined as market-distorting discrimination given that its immediate anticompetitive effect is the distortion of downstream or upstream competition), see the Opinion of Advocate General Wahland Court of Justice’s judgement in *MEO v. Autoridade da Concorrência* (CJEU 2017 and 2018) (EU);

A number of these issues have arisen in a protracted battle between Apple and Qualcomm being played out in courts and competition agencies across the globe (in particular, before the English High Court,<sup>108</sup> as well as in the United States, Germany,<sup>109</sup> Japan, Korea, Taiwan, and China).

A) QUALCOMM. It has already been seen that the complaints against Qualcomm have alleged that it has engaged in a number of interrelated, anticompetitive exploitative and exclusionary licensing practices. Some complaints have alleged that Qualcomm has withheld baseband processors unless a customer accepts a license of its SEPs on Qualcomm's preferred terms ("no license-no chips" – resulting in non-FRAND licensing terms being extracted), a refusal to license SEPs to competing baseband processor manufacturers, and the bundling of SEPs and non-SEPs. In China, the NDRC in *Qualcomm*<sup>110</sup> supported the principle that a SEP holder is not permitted to bundle SEPs and non-SEPs in the same license.

B) UNWIRED PLANET. In *Unwired Planet*, Birss J also had to deal with claims of unlawful tying and discrimination. In so doing he held that an offer to grant a worldwide portfolio license, a common industry practice with potential efficiency benefits, instead of a license limited to the United Kingdom, was FRAND and did not automatically infringe Article 102; a worldwide license was not inherently likely to distort competition.<sup>111</sup> It might infringe Article 102, however, if three conditions were fulfilled:<sup>112</sup>

1. The components of the bundle were separate products.
2. The customer was coerced to obtain the tied product together with the tying product.

and in the United States the Robinson-Patman Act, 15 U.S.C. § 13 (U.S.) prohibits suppliers from charging different prices to different buyers where the effect may be to prevent or distort competition, for example with the supplier or a buyer. Although the Robinson-Patman Act is not enforced by federal agencies, it can still be relied upon by disfavored buyers in private litigation.

<sup>108</sup> *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.* (Pat 2017) (UK).

<sup>109</sup> For a survey on these cases, see Chapter 5; Picht 2018.

<sup>110</sup> NDRC Press Release (Feb. 10, 2015). These cases appear to be ones of tying or pure bundling whereby the licensor refuses to license its SEPs unless the licensee also takes a license of the licensor's non-SEPs. More complex is the case in which the licensor offers two licenses: a SEP-only license and a global portfolio license bundling SEPs and non-SEPs. Presumably, provided that the SEP-only license is FRAND, there should be no objection to a licensor offering an alternative, bundled license, unless to do so forecloses competition for non-SEP technologies. This would require, at the very least, proof that competitors offering non-SEP technologies cannot overcome the advantage that the SEP holder obtains by virtue of being dominant with respect to its SEPs.

<sup>111</sup> If a licensor has a worldwide portfolio of SEPs, asking for a worldwide license is, therefore, unlikely to be abusive. *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.* (Pat 2017, ¶ 535) (UK). Of course, a worldwide portfolio of SEPs does not mean that a licensor must have patents in every country. Unwired Planet had patents in forty-two countries and had limited coverage in Eastern Europe, South America, and Africa. See *id.* at ¶ 538. This did not invalidate the finding that a worldwide license was not abusive absent evidence of foreclosure.

<sup>112</sup> *Id.* at ¶ 526, following *Microsoft Corp. v. Comm'n of the European Communities* (CJEU 2007, ¶¶ 842, 859, 862) (EU).



3. The tying must have an anticompetitive foreclosure effect; excluding equally efficient competitors and resulting in the acquisition, maintenance, or strengthening of market power on an affected market (the tying market, the tied market, or a related emerging market).

In relation to the bundling of SEPs and non-SEPs, however, Birss J was concerned that such conduct might foreclose competition for non-SEP technologies.<sup>113</sup> In addition, he held that the nondiscrimination limb of the ETSI FRAND undertaking meant that “a benchmark FRAND rate should be derived which is applicable to all licensees seeking the same kind of licence.”<sup>114</sup> In so doing he indicated that the FRAND obligation may differ from the competition law one. In particular, the FRAND requirement may if anything be broader, applying even if the SEP holder is not dominant<sup>115</sup> and even if the discrimination does not cause a distortion of competition between licensees.

C) MULTILEVEL LICENSING AND LEVEL DISCRIMINATION. The teaching of a SEP may be utilized by the manufacturer of a product (e.g., a chip) that is incorporated into another product (e.g. a mobile phone), which is then sold by a provider of a service (e.g., a mobile network provider) to a final consumer.<sup>116</sup> The doctrine of patent exhaustion prohibits a SEP holder from demanding a license from each supplier down the chain. Nonetheless, the following questions have arisen, particularly in cases before the German courts:

- (a) Which level of the chain should the patent license be granted – in particular, can the patentee choose the licensing point and/or can an implementer (e.g., an end-product manufacturer) refuse to take a license on the basis that the patentee should have licensed the SEP at a different level (e.g., a component manufacturer)?
- (b) Can the level of licensing affect the level of the royalty to be paid? For example, might licensing further down the chain allow the SEP holder to extract higher licensing fees, because the royalty is calculated on the basis of a percentage of the (higher) value of the product or service sold by the licensee, or would that

<sup>113</sup> However, it did not follow that the making of an initial offer for a license of SEPs and non-SEPs was necessarily an abuse of dominance. On the facts, Unwired Planet had first made an offer for a license of SEPs and non-SEPs but had declared itself ready to discuss alternative arrangements. Huawei had then requested a SEP-only license and Unwired Planet had responded with an offer that related only to the SEPs. If Unwired Planet had insisted on bundling SEPs and non-SEPs, it might well have been the case that this conduct could have been found to be abusive even if an actual license bundling SEPs and non-SEPs had not been entered into. *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.* (Pat 2017, ¶¶ 57–59) (UK).

<sup>114</sup> *Id.* at 503.

<sup>115</sup> Dominance is a requirement in the European Union (under TFEU art. 102) but not in the United States (under the Robinson-Patman Act, 15 U.S.C. § 13 (U.S.)).

<sup>116</sup> See *supra* notes 101–02 and accompanying text.

infringe the principle of fair and nondiscriminatory licensing required both by a FRAND commitment and some competition law systems?<sup>117</sup>

The general approach by the European Commission in the Guidelines on horizontal cooperation agreements and the enforcement practice so far arguably suggest that level discrimination may be problematic and that generally participants wishing to have their patent rights included in a standard should provide an irrevocable commitment to offer to license their essential patents to *all* (and any) third parties on FRAND terms.<sup>118</sup> The Commission has thus indicated concern that some suits arising in Germany may be designed to allow SEP holders to circumvent the obligations imposed on them by the CJEU's ruling in *Huawei* and has stated that it is monitoring the cases carefully. In the cases arising before the German courts, some SEP owners have commenced injunction proceedings not against phone manufacturers but against mobile network operators (which sell phones), alleging infringement of SEPs. The German courts have, to date, suggested that although in principle every market participant should be entitled to take a FRAND license, a patentee is free to choose which implementer in the chain it wishes to sue for infringement, unless it appears to be part of an undue strategy to extract non-FRAND licensing terms.<sup>119</sup> If there is a concern with level discrimination, however, such a concern would not result from the prohibition of discrimination by dominant undertakings under Article 102(c) TFEU. As the Commission Communication on SEPs points out, a SEP holder may not discriminate between licensees who are "similarly situated."<sup>120</sup> A final service provider or manufacturer is not, however, "similarly situated" to a component manufacturer. Level discrimination may, nevertheless, be problematic if the FRAND commitment is broadly framed as a commitment to license any third party and if component manufacturers were unable to manufacture components without a license. If such conditions occur, it is arguable that the broad *tenet*, if not the letter, of the *Huawei* judgment would require

<sup>117</sup> See further discussion in Chapter 1.

<sup>118</sup> European Commission, at ¶ 285, 2011 O.J. (C11/01) 1 (guidelines on horizontal cooperation agreements). See also *id.* at ¶ 279. See also the Commission's decisions in *Samsung* and *Motorola*, *supra* note 58 and accompanying text, which reinforce this view. Indeed, SSOs have generally adopted wide FRAND commitments in their policies, which appear not to permit level discrimination, see, e.g., JEDEC Solid State Technology Association 2017, §§ 8.2.1, 8.2.4 (JEDEC IP Rights Policy envisages a RAND commitment to license "all Potential Licensees," which are defined as "[a]ll JEDEC Committee Members and non-members"); IEEE-SA Board of Governors 2017, §§ 6.1, 6.2(b) (IEEE IP Rights Policy provides that the licensing commitment of a SEP holder shall be to grant a license "to an unrestricted number of Applicants," which are defined as "any prospective licensee for Essential Patent Claims"); ETSI 2018, Annex 6 § 6.1 (ETSI IP Rights Policy is less clear as it does not identify who the licensee is to be).

<sup>119</sup> See, e.g., LG Düsseldorf v. 31.3.2016 – 4a O 73/14 and 126/14 – *Saint Lawrence v. Vodafone* (Ger.), on appeal OLG Düsseldorf v. 9.5.2016 – I-15 U 35/16 and 36/16 – *Saint Lawrence v. Vodafone* (Ger.); LG Mannheim v. 8.1.2016 – 7 O 96/14 – *Pioneer v. Acer* (Ger.), on appeal OLG Karlsruhe v. 31.5.2016 – 6 U 55/16 – *Pioneer v. Acer* (Ger.).

<sup>120</sup> European Commission, at 7, COM (2017) 712 final (Nov. 29, 2017).

the SEP holder to grant a FRAND license to component manufacturers.<sup>121</sup> The issue is, however, still open.

A further question is whether a SEP holder that engages in multilevel licensing infringes discrimination provisions, if it discriminates between users on the basis of the utility of the patented technology to the licensee.<sup>122</sup> “Licensing only at the end-user product level and multi-level licensing are not rare, but there is a paucity of judicial authority as to how those strategies should be viewed under FRAND.”<sup>123</sup> As explained above, the Commission Communication on SEPs considers that a SEP holder may treat differently licensees who are not “similarly situated.”

### 3 Patent Pools

An important question in the sphere of complex products could be whether a technology or patent pool, an arrangement whereby two or more entities assemble a package of technology that is licensed both to contributors to the pool and third parties, might be a feasible mechanism for eradicating some of the more difficult problems that arise from individual licensing negotiations between SEP owners and implementers. Technology pools have often been used to support a *de jure* or *de facto* industry standard and may provide a convenient way for facilitating dissemination of technology through one-stop licensing of pooled technologies and reducing transaction costs and limiting cumulative royalties. In the mobile communications field, however, they have not been successfully used to date, perhaps because the largest SEP holders think they can extract better licensing terms outside of the pool.

Competition law systems generally recognize that technology pools may be procompetitive but are also concerned about the competitive risks that might arise from the licensing of substitute technologies (creating a risk of price-fixing or market-sharing) or as a result of a reduction of innovation from foreclosing alternative, competing technologies.<sup>124</sup> In assessing the compatibility of such arrangements with competition law rules therefore account is frequently taken of issues such as: the transparency of the pool creation process; the selection and nature of the pooled technologies; whether the technologies are complementary or substitutes, essential or nonessential; the institutional framework of the pool; the market position of the pool and whether it can foreclose third party technologies or limit the creation of alternative pools;<sup>125</sup> as well as the licensing terms. In the European Union, for

<sup>121</sup> Nazzini 2017.

<sup>122</sup> Belgium 2014, 1. The problem of multilevel licensing raises some questions in common with level discrimination, *see* Nazzini 2017, 215–16. *See also, e.g.*, Padilla & Wong-Ervin 2017.

<sup>123</sup> Belgium 2014, 1–2.

<sup>124</sup> *See, e.g.*, European Commission, 2014 O.J. (C89/03) 3 (guidelines on technology transfer agreements); DOJ & FTC 2017, § 5.5.

<sup>125</sup> European Commission, 2014 O.J. (C89/03) 3 also seeks to ensure that new technology is not foreclosed, for example by stating that restrictions on parties developing competing products or standards or on granting and obtaining licenses outside the pool should not be incorporated.

example, the Technology Transfer Guidelines state that “royalties and other licensing terms should be non-excessive and non-discriminatory and licences should be non-exclusive. These requirements are necessary to ensure that the pool is open and does not lead to foreclosure and other anti-competitive effects on down-stream markets.”<sup>126</sup> The Commission has also, with the objective of encouraging the conclusion of procompetitive pools, set out a safe harbor for the creation of certain technology pools and subsequent licensing of the technology.<sup>127</sup> In particular, the Commission takes the view that the creation and operation of the pool, including the licensing out, generally falls outside Article 101(1) of the Treaty, irrespective of the market position of the parties, if all the following conditions are fulfilled:

- a) participation in the pool creation process is open to all interested technology rights owners;
- b) sufficient safeguards are adopted to ensure that only essential technologies (which therefore necessarily are also complements) are pooled;
- c) sufficient safeguards are adopted to ensure that exchange of sensitive information (such as pricing and output data) is restricted to what is necessary for the creation and operation of the pool;
- d) the pooled technologies are licensed into the pool on a nonexclusive basis;
- e) the pooled technologies are licensed out to all potential licensees on FRAND terms;
- f) the parties contributing technology to the pool and the licensees are free to challenge the validity and the essentiality of the pooled technologies; and
- g) the parties contributing technology to the pool and the licensee remain free to develop competing products and technology.<sup>128</sup>

The Commission Communication on SEPs recognizes that patent pools and other licensing platforms may be procompetitive but does not go beyond a mere statement of principle, which could already be derived from general principles of EU competition law.<sup>129</sup>

#### 4 Splitting Patent Portfolios: Sales of SEPs to PAEs in Return for a Share of Future Royalties

Apart from the difficulties involved in identifying competition-compliant FRAND licensing terms, further problems have arisen when owners of SEPs have sought to monetize their patent portfolio and increase revenue from it (so increasing their

<sup>126</sup> *Id.* at ¶ 244.

<sup>127</sup> *Id.* at ¶ 261.

<sup>128</sup> *Id.*

<sup>129</sup> European Commission, at 7–8, COM (2017) 712 final (Nov. 29, 2017).

competitors' costs), by splitting it<sup>130</sup> and selling part of the portfolio to a PAE that does not itself produce standardized equipment.<sup>131</sup>

In some such transfers the transaction has been structured not as a genuine clean sale of patents for a purchase price, but as one under which the PAE is essentially acting as a licensing (and litigation service) provider to the vendor whereby the PAE is obliged to pay a percentage of future royalties it obtains to the vendor (described by some as "privateering").<sup>132</sup> Instead of the vendor licensing its entire portfolio, therefore, it splits the portfolio, licensing the SEPs it retains and gaining a percentage of the royalties obtained by the NPE in respect of the SEPs transferred; the NPE and former patentee thus share the royalty income. This was the scenario that existed in relation to litigation in England involving Unwired Planet, an NPE<sup>133</sup> that acquired 2,400 wireless patents from Ericsson and sued Huawei, Google, and Samsung for infringement of six of the patents (five of which were claimed to be SEPs).<sup>134</sup> The alleged infringers in these cases raised defenses and counterclaims based on breaches of competition law. In particular, they argued that the master sales agreement (MSA) by which Unwired Patent acquired patents from Ericsson and under which Ericsson received a share of the royalties recovered by Unwired Planet, infringed Article 101 TFEU on the grounds that it was simply a device for increasing income over and beyond FRAND terms, thus rendering the transfer of the patents null and void. A further argument concerned the question of whether, if a valid transfer had taken place, Unwired Planet's license offers were FRAND and/or infringed Art 102 and thus whether they had abused their dominant position by bringing injunction proceedings; key battlegrounds centered around the royalty rate offered and the proper scope of any license.

The question of whether the MSA infringed Article 101 was not determined in the English proceedings.<sup>135</sup> Although Birss J refused an attempt by Ericsson to strike out this aspect of the action, holding that it was a properly arguable point that ought to go to trial, this aspect of the case was settled and a term in the MSA, which arguably put a floor on the royalty rate (the Applicable Royalty Rate) that Unwired Planet could

<sup>130</sup> This may increase the revenue that can be obtained as when considering patent infringement cases courts are generally only prepared to consider a small number of patents.

<sup>131</sup> Where the sale is of SEPs, this also of course raises FRAND issues. See, e.g., Geradin 2016.

<sup>132</sup> See, e.g., Sokol 2017; Hovenkamp & Cotter 2016; Lundqvist 2014, 412.

<sup>133</sup> Unwired Planet has a worldwide patent portfolio that includes numerous patents that are declared essential to various telecommunications standards (2G GSM, 3G UMTS, and 4G LTE). Most of the relevant portfolio was acquired from Ericsson. Unwired Planet's business is licensing those patents to companies that make and sell telecommunications equipment such as mobile phones and infrastructure. The action began in March 2014 when Unwired Planet sued Huawei, Samsung, and Google for infringement of six UK patents from their portfolio. Five were claimed to be SEPs. *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.* (Pat 2017) (UK).

<sup>134</sup> The patents were infringed by use in Google's Android operating system.

<sup>135</sup> See *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.* (Pat 2017, ¶ 5) (UK).

offer, was removed. In the German proceedings,<sup>136</sup> in contrast, the Düsseldorf Regional Court rejected the argument that the assignment of the patents was invalid under Art 101 or 102 and that the purpose of the assignment was to establish excessive pricing beyond FRAND. The Court in particular rejected the argument that this was by its very nature anticompetitive and that the object of the assignment was to establish excessive pricing in the market, in particular pricing that exceeds the FRAND benchmark. It did not agree that it was illegitimate for a SEP proprietor to seek to acquire a better position in the negotiation process by splitting up its SEP portfolio, or that the NPE<sup>137</sup> was obliged to continue the licensing practice of the former SEP owner; the only requirement was that its licensing should be FRAND. The Court thus held that targeting a fair remuneration for a patent portfolio was a legitimate and legal objective.

## 5 Patent Acquisitions

When conducting merger review, competition agencies have in some cases taken into account the impact the merger will have on the incentives of the merging firms to engage in anticompetitive behavior post-merger, including through the exploitation of SEPs.

For example, when reviewing Google's acquisition of Motorola and the acquisition by Apple, Microsoft, and Research in Motion (part of the Rockstar consortium) of Nortel and Apple's acquisition of certain Novell patents, the antitrust division of the U.S. Department of Justice (DOJ) considered the potential ability and incentives of the acquiring firms to use their patents, especially the SEPs that Nortel and Motorola had committed to license, to raise rivals' costs, to hold up rivals,<sup>138</sup> and to foreclose and substantially lessen competition. During the course of the investigation, several of the competitors, including Apple and Microsoft, made FRAND licensing commitments and committed not to seek injunctions in disputes involving SEPS, lessening the DOJ's concerns about the potential anticompetitive use of SEPs. In the end, the DOJ concluded that the transactions were not likely

<sup>136</sup> See L.G. Düsseldorf v. 19.1.2016 – 4b O 120/14, 4b O 122/14, and 4b O 123/14 – *Unwired Planet v. Samsung* (Ger.). The nontechnical trial thus focused on the question of whether the licensing offers made had been FRAND, whether Unwired Planet had abused their dominant position, and how remedies – injunction, damages, and declarations – should be dealt with.

<sup>137</sup> Further examples of German case law on NPEs in the SEP/FRAND area are the decisions OLG Düsseldorf v. 13.1.2016 – I-15 U 66/15 – *Sisvel v. Haier* (Ger.); LG Düsseldorf v. 31.3.2016 – 4a O 73/14 and 126/14 – *Saint Lawrence v. Vodafone* (Ger.). These decisions hold, inter alia, that there is no reason to treat NPEs per se differently than other patent owners when it comes to the FRAND licensing of SEPs.

<sup>138</sup> So preventing or inhibiting innovation and competition through, e.g., demanding supracompetitive licensing rates, compelling prospective licensees to grant the SEP holder the right to use the licensee's IP, charging licensees the entire portfolio royalty rate when licensing only a small subset of the SEPS, or seeking to prevent or exclude products practicing those SEPS from the market altogether, see (DOJ) Press Release 12–210 (Feb. 13, 2012).

substantially to lessen competition for wireless devices or change significantly existing market dynamics so did not challenge the merger. The DOJ made it clear, however, that it was concerned about the inappropriate use of SEPs, particularly by Google, post-merger and that it would continue to monitor their use to ensure that competition and innovation were unfettered.

During the course of this investigation the U.S. agency worked closely with other competition agencies, including in Australia, Canada, Israel, and Korea, and especially the European Commission. The Commission was also concerned by the fact that Google's open-source Android OS, one of the most popular mobile operating systems (OS), and a number of Motorola's SEPs were key inputs in smart mobile devices. However, it cleared the merger unconditionally in Phase I proceedings.<sup>139</sup> With regard to the SEPs, the Commission did not consider that the merger would significantly change the current position and was also influenced by Google's "legally binding" and "irrevocable" letter to standard-setting organizations to honor Motorola's pre-existing commitment to license them on FRAND terms. Further, it did not consider that Google would have the incentive to prevent Motorola's competitors from using its OS as that would stifle the spread of its other services. In China, the merger was approved only subject to conditions.<sup>140</sup>

#### 6.4 ANTITRUST REMEDIES

Most competition law systems rely on a mixture of public and private enforcement in civil (or exceptionally criminal) proceedings to protect society's interest in the efficient working of markets and to ensure that victims can protect themselves from violations and receive compensation where necessary. A number rely (or have initially at least relied) heavily on public enforcement agencies to bring antitrust cases that define policy and prevent, deter, and punish serious violations of the law. Private litigation is now developing in many jurisdictions, and in the United States, the preponderance of antitrust enforcement occurs through private actions.

Remedies available for violations of antitrust and competition law broadly include monetary, behavioral, and injunctive remedies.<sup>141</sup> When actions are brought by enforcement agencies, monetary remedies typically take the form of penalties and fines intended to deter the particular harm in question and to punish the liable party. In private actions, monetary damages are typically compensatory, though in some jurisdictions, particularly in the United States, enhanced monetary awards (treble

<sup>139</sup> Commission Decision of 13 February 2012, COMP/M.6381 – Google/Motorola Mobility.

<sup>140</sup> Ministry of Commerce of the People's Republic of China Announcement No. 25 (May 31, 2012).

<sup>141</sup> The importance of giving careful considerations to remedies at an early stage was something stressed by panelists in the DOJ/FTC single conduct hearings, *see* DOJ 2008, 143 ("Without a proper remedy, winning a judgment [in an antitrust case] is similar to winning a battle but losing the war.")

damages and attorneys' fees, this latter element as an exception to the general rule of non-recoverability of legal costs in that jurisdiction) may be available.<sup>142</sup>

In addition to compensatory damages, both private parties and enforcement agencies may seek behavioral remedies that are intended to deter, halt, and correct violations.<sup>143</sup> Injunctive relief in antitrust cases generally seeks to remedy a harm caused by anticompetitive conduct and to prevent its recurrence. Thus, in the case of price fixing between competitors, remedial measures may simply prohibit further price fixing. In monopolization or dominance cases, a remedial order may prohibit a dominant firm from carrying on a particular business within certain markets or, exceptionally, require a firm to divest certain business units or subsidiaries. The range of remedies in antitrust cases is thus quite broad, including cease and desist orders (for example, prohibiting the seeking of an injunction or the charging of exploitative royalties), affirmative obligations (e.g., an obligation to license or to license on competition compliant terms), structural remedies (such as structural separation of business units), and other sanctions. Such remedies may impact, or override, rights and remedies conferred by patent law by, for example, preventing a patent owner from seeking an injunction (through a cease and desist order), ordering a compulsory license, nullifying the sale of patent rights, or interfering with licensing arrangements or terms. They may also subsequently require close scrutiny or monitoring for compliance. In general, the scope of antitrust injunctive relief sought by enforcement agencies can be as broad as necessary "to bring about the dissolution or suppression of" the illegal conduct.<sup>144</sup> As such, these remedies, which must account for effects on the public and the marketplace, are considered to be more sweeping forms of relief than injunctive relief between private litigants.<sup>145</sup>

A decision-maker might be reluctant to intervene to prohibit certain conduct under competition law – for example, a refusal to license or the seeking of an injunction by a patentee – if it believes that a simple cease and desist order, prohibiting the unlawful conduct identified, and its recurrence, would be insufficient to ensure that the infringement is brought to an end. If an effective remedy requires more, the court or agency must undertake both a careful consideration of the appropriate terms of dealing (especially pricing) as well as the realistic prospects for monitoring of that behavior in the future. In the United States, for example, the Supreme Court has on some occasions expressed reluctance to find that a refusal to deal or a margin squeeze constitutes a substantive antitrust violation in

<sup>142</sup> See, e.g., Clayton Act § 4, 15 U.S.C. § 15 (U.S.) (stating that "any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue" for treble damages, prejudgment interest, and costs of suit, including attorneys' fees).

<sup>143</sup> In addition to its power to impose fines for violations of competition law rules, the European Commission may "impose on them any behavioural or structural remedies which are proportionate to the infringement committed and necessary to bring the infringement effectively to an end." Council Regulation (EC) 1/2003, art. 7, 2003 O.J. (L1) 1.

<sup>144</sup> *Northern Sec. Co. v. United States* (U.S. 1904, 346) (U.S.).

<sup>145</sup> Marcus 1945, 37.



circumstances where such a violation would require the courts to act as central planners, involved in the construction of “fair” access terms or the setting of “fair” prices or spreads between prices, a task to which the Supreme Court felt the courts were ill-suited.<sup>146</sup> In the European Union, the difficulty of ensuring the effectiveness of the antitrust intervention has also proved to be real. In the *Microsoft* case,<sup>147</sup> for example, the Commission and Microsoft, following the Commission’s initial fining of Microsoft for its failure to supply interoperability information, wrangled for several years over the appropriate terms for supplying the interoperability information; eventually the Commission fined Microsoft a second time for its failure to comply.<sup>148</sup>

An important point in relation to remedies is that in many jurisdictions, mechanisms also exist to bring antitrust proceedings to an end by consent. These may allow for remedies to be agreed to more flexibly between an antitrust agency and investigated firms. For example, in the European Union the Commission has power to adopt decisions whereby, without a finding of infringement, commitments given by undertaking as to their future behavior are made binding upon them.<sup>149</sup> This procedure has been used quite frequently in dominance cases, and, arguably, has sometimes resulted in firms committing to behavioral or structural obligations that go beyond that which could have been imposed by the Commission in a final decision. Such commitments may involve a monitoring trustee mechanism to ensure their implementation. The commitments procedure was used by the Commission, in both *Rambus* and *Samsung*, to develop its use of Article 102 to SEPs, prior to its adoption of an infringement decision in *Motorola*.<sup>150</sup>

In the United States, both the DOJ and the FTC can also enter into consent decrees. The procedures differ, but if the DOJ and the defendant agree on the terms of a desired order prior to or during the course of litigation, they may stipulate the

<sup>146</sup> See, e.g., *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko* (U.S. 2004) (U.S.). In *Otter Tail Power Co. v. United States* (U.S. 1973) (U.S.) the Supreme Court required an integrated electric company to wheel bulk power over its lines to competitors at the distribution level. It did not however have the burden of itself dealing with the detail. Rather, the regulator, the Federal Power Commission, could regulate prices and scrutinize the terms of the contracts. See also, the approach to margin squeeze cases in the European Union and the United States, where many cases have arisen in regulated sectors where regulatory authorities may, for example, already be empowered to demand access and control pricing. The existence of this regulatory structure could therefore be considered to alter the calculus of antitrust harms and benefits likely to spring from the investigated conduct, in particular by diminishing the likelihood of antitrust harm and consequently the need for the behavior to be characterized as unlawful “exclusionary conduct.” See also *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko* (U.S. 2004) (U.S.).

<sup>147</sup> European Commission Press Release IP/04/382 (Mar. 24, 2004).

<sup>148</sup> See European Commission Press Release IP/06/079 (July 12, 2006) (Commission imposes penalty payment of €280.5m on Microsoft for continued noncompliance with March 2004 decision).

<sup>149</sup> Council Regulation (EC) 1/2003, art. 9, 2003 O.J. (L1) 1.

<sup>150</sup> Commission Decision of 9 December 2009, COMP/38.636—RAMBUS; Commission Decision of 29 April 2014, Case AT.39939 – Samsung – Enforcement of UMTS Standard Essential Patents, Commission Decision of 29 April 2014, Case AT.39958 – Motorola – Enforcement of GPRS Standard Essential Patents.

terms of a “consent decree,” which will then be submitted to the court for approval and entry into the record. Though not fully adjudicated, a consent decree has the legal force of an adjudicated decision, enforceable upon pain of contempt.<sup>151</sup>

This procedure has also been relied upon quite frequently by the U.S. authorities in enforcement actions involving the anticompetitive licensing or exploitation of patents, particularly (in recent years) within the context of technical standard-setting. Thus, between World War II and the 1970s, the most aggressive period of U.S. antitrust enforcement,<sup>152</sup> U.S. courts issued more than one hundred antitrust decrees ordering patentees found to have engaged in anticompetitive conduct to license their patents on terms that were fair, reasonable, and nondiscriminatory.<sup>153</sup> Even in the more tempered modern era of antitrust enforcement, both the FTC and DOJ have utilized detailed behavioral remedies to address instances of antitrust violations involving patents, particularly in the area of standard-setting.<sup>154</sup> The first of these to gain significant attention was the FTC’s 1996 consent decree with Dell Computer, in which Dell agreed to forfeit the enforcement of a patent that it improperly failed to disclose to a standard-setting organization, thereby exploiting an unfair method of competition in violation of Section 5 of the FTC Act.<sup>155</sup> In a case involving similar allegations, Unocal entered into an agreement with the FTC not to enforce a patent covering a standard for reduced gasoline emissions after it failed to disclose the patent to the relevant standards body.<sup>156</sup>

A different factual pattern was alleged in the FTC’s action against Negotiated Data Solutions (N-Data) LLC. In that case, N-Data acquired a patent with knowledge of a prior patentee’s commitment to license the patent to implementers of a technical standard at a flat rate of \$1,000. When N-Data announced that it did not intend to honor that prior commitment, the FTC brought an action alleging violation of Section 5 of the FTC Act. N-Data settled the matter by agreeing to honor the prior patentee’s royalty commitment.<sup>157</sup>

Finally, in 2013 the FTC settled two matters in which patentees were alleged to have violated Section 5 of the FTC Act by seeking injunctive relief against unlicensed implementers of a technical standard as to which they had made FRAND

<sup>151</sup> *United States v. Swift & Co.* (U.S. 1932, p.106) (U.S.). Though the use of consent decrees in antitrust cases can be traced to 1906 they did not come into widespread use until a new policy initiative by the Attorney General in 1938. Isenbergh & Rubin 1940, 387–88. By the end of the 1950s, consent decrees had become “the most widely used antitrust remedy in federal civil enforcement.” Flynn 1968, 983–85 n.3.

<sup>152</sup> See Bohannon & Hovenkamp 2010, 908–09 (describing and critiquing expansionist U.S. antitrust enforcement policy during this period); Gavil 2012, 738.

<sup>153</sup> See Contreras 2015b (discussing and collecting these decrees).

<sup>154</sup> See, generally, Hesse & Marshall 2017.

<sup>155</sup> *In the Matter of Dell Computer Corp.* (FTC May 20, 1996, p.619–23) (Decision and Order).

<sup>156</sup> *In the Matter of Union Oil Co. of Cal.* (FTC July 27, 2005, p.161) (Decision and Order).

<sup>157</sup> *In the Matter of Negotiated Data Solutions LLC* (FTC Sept. 23, 2008) (Decision and Order).

commitments.<sup>158</sup> In settling these cases, each of the patentees agreed not to seek an injunction to prevent the infringement of a FRAND-committed standards-essential patent by a willing licensee unless and until the patentee engaged in a series of good-faith attempts to reach agreement with the infringer.<sup>159</sup>

These cases, taken together, demonstrate that the remedial orders fashioned by the U.S. antitrust agencies can be flexible mechanisms that are tailored to address specific forms of anticompetitive conduct. Remedies such as these arguably offer significantly more flexibility to improve competitive conditions than monetary damages or simple cease and desist orders such as those issued in private antitrust litigation.

## 6.5 CONCLUSIONS

Although competition and patent law pursue complementary goals, this chapter demonstrates that, in the sphere of complex products, tensions have arisen between the two systems, especially in situations where market power acquired by SEP owners as a result of a standardization process appears to have been used to exclude competition, hold up innovation, or exploit that market power to the detriment of consumers. In certain circumstances antitrust laws in some jurisdictions have been used to scrutinize mechanisms used by SEP holders to monetize their SEP portfolios – whether through the seeking of an injunction against an implementer, licensing arrangements, or through the sale of a portion of the patent portfolio. Its powerful mechanisms – formal and informal (e.g., through settlement processes) – to remedy infringements of its rules have also been used.

Section 6.2.1 discussed cases in which competition law has come directly into conflict with the patent system in some jurisdictions, by intervening to prevent a patentee from obtaining an injunction – its patent remedy of choice. This has been the case where the seeking of such an injunction has been found to be liable to hold up a willing licensee and impact on competition and innovation downstream and/or to compromise the standardization process, in circumstances where the SEP holder had committed to monetize its patent through FRAND licensing. These cases have, however, unleashed a number of other complex matters for resolution, including the scope of the obligations on the patentee and implementer and what each must do, respectively, to assert or avert injunctive relief. In the European Union, many of these questions have been working their way through the courts

<sup>158</sup> *In the Matter of Robert Bosch GmbH* (FTC Apr. 23, 2013) (Decision and Order); *In the Matter of Motorola Mobility LLC and Google Inc.* (FTC July 23, 2013) (Decision and Order).

<sup>159</sup> The DOJ expressed similar concerns with the ability of SEP holders to seek injunctions against implementers of technical standards in approving three proposed merger transactions in 2012. In considering three separate transactions, the agency assessed the potential for the merger parties to fail to honor the FRAND commitments made to various standards bodies, and particularly their ability to seek injunctions against implementers of their standards. The DOJ approved the mergers only after the parties each committed not to take such actions, *see supra* note 136 and accompanying text.

of Europe's biggest market, Germany. Solutions to these issues are crucial if further disputes are not to break out between SEP holders and potential licensees, especially as 5G technology is developed, together with the Internet of Things.

These cases, and FRAND commitments given during a standard-setting procedure, have also brought to the forefront the question of when licensing complies both with a FRAND commitment and competition law. These issues are crucial to the questions of what patent damages for past infringement should look like and what a competition-compliant FRAND license should look like. Although until recently few courts outside of the United States have tackled these matters, some cases are emerging across the globe that deal with the validity of global or portfolio licenses and the question of whether licensing rates are "fair" or "discriminatory" in both FRAND and competition law terms (to the extent that they differ) or otherwise infringe antitrust law. Although it still remains unclear whether competition law makes more onerous demands on patent holders than FRAND, some competition enforcers have indicated that they have some concerns about "exploitative" behavior of SEP holders and that they might be willing to intervene to control behavior, balancing the rewards of innovation with the interests of consumers.

The questions of whether, and if so when, dividing or selling a SEP portfolio violates antitrust law and whether the principle of nondiscrimination requires a purchaser of a patent portfolio – especially where the purchaser is an NPE – to adopt the same approach to licensing as the vendor, are also important ones requiring resolution.

Balancing the interests of SEP holders and implementers is proving to be an extremely difficult task that is eluding SDOs and policymakers<sup>160</sup> and creating complexity for courts charged with resolving the patent disputes arising. In some cases competition agencies are also being asked to help solve the problems occurring and to protect the competitive process from distortion by a multitude of SEP holders with significant market power. Although traditionally competition decision-makers have been reluctant to act as regulators, controlling the pricing and terms of dealing, they are increasingly drawn into these matters in the sphere of patents and the debate as to how the competing interests are to be balanced. This chapter illustrates that a number of difficult issues at the interface of patent and antitrust law remain to be resolved in the sphere of complex products. Given the central role of standardization to 5G and the Internet of Things it is crucial that solutions are found to these problems.

Accordingly, we propose further research on the following topics:

- the objectives of competition and patent law respectively and whether, and if so how, trade-offs between such objectives may be achieved or conflicts managed and resolved;

<sup>160</sup> See, e.g., European Commission, COM (2017) 712 final (Nov. 29, 2017) (Commission Communication on SEPs).

- the steps that SEP holders must comply with to ensure that their seeking of an injunction does not infringe competition law, as well as the steps that implementers must take to allow them to lawfully resist an injunction;
- the extent to which competition law can impose additional constraints on SEP licensing terms beyond those demanded by a FRAND commitment, in particular whether it impacts on the scope and contours of the obligations of a patentee and an implementer when negotiating a FRAND license of the patentee's FRAND-committed patents and the consequences of breach of such obligations;
- whether competition agencies can do more to encourage the use of procompetitive patent pools or other licensing platforms to address licensing challenges and as a model for licensing complex product patents;
- the extent to which level discrimination, multilevel licensing, and the transfer of SEPs to PAEs may violate antitrust laws; and
- whether, and if so when, the antitrust system and the portfolio or antitrust remedies offer greater flexibility to deal with some of the patent issues arising in the sphere of complex products.