

# The Challenge of Sanctioning Unfair Royalty Rate by the SEP Holder: ‘When’, ‘How’ and ‘What’

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*The holder of a Standard Essential Patent (SEP) is usually required to license its patent to any licensee on the basis of Fair and Reasonable and Non-Discriminatory (FRAND) terms. In their recent judgments in Unwired Planet and Sisvel v. Haier, the UK Supreme Court and the German Bundesgerichtshof ruled that a ‘range’, rather than a ‘single’ royalty rate, may be considered compatible with the FRAND commitment. On the other hand, a royalty rate ‘beyond the outer boundary of the range’ would not be FRAND. In addition, an ‘unfair’ royalty rate might also be regarded as an abuse of dominant position by the SEP holder, in breach of Article 102(a) Treaty of the Functioning of the European Union (TFEU).*

*The paper analyses whether and under what circumstances Article 102(a) TFEU could be relied on by a competition authority in Europe to sanction a case of ‘unfair’ royalty rate requested by the SEP holder to its licensees. In particular, the paper assesses ‘when’ competition policy should sanction an unfair royalty rate requested by the SEP holder, ‘how’ a competition agency should analyse the case in accordance with the case law of the EU Court of Justice concerning Article 102(a) TFEU and, eventually, ‘what’ remedies the competition authority could adopt.*

**Keywords:** Standard Essential Patent; royalty rate; Fair, Reasonable and Non-Discriminatory terms; unfair pricing; Article 102(a) TFEU; EU Court of Justice; United Brands test; benchmarking methods; efficiency defence; competition law remedies

## 1 INTRODUCTION

In the modern communications society, technical standards are essential to allow different devices ‘to talk to each other’ – i.e., so-called interoperability.<sup>1</sup> Technical standards agreed within a Standard Development Organization (SDO) often cover several patents, which are ‘essential’ for the implementation of the standard (i.e., Standard Essential Patents, SEPs). In order to allow for the standard implementation, the SDO usually requires the SEP holder to license its patents to any potential

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<sup>1</sup> Pierre Larouche & Van Overwalle Geertrui, *Interoperability Standards, Patents and Competition Policy*, in *The Law, Economics and Politics of International Standardisation* 367–393 (Panagiotis Delimatsis ed., Cambridge University Press, Cambridge 2015).

licensee on the basis of Fair, Reasonable and Non-Discriminatory (FRAND) conditions.<sup>2</sup>

Traditionally, license agreements have been ‘peacefully’ negotiated among industrial players; the latter usually relied on cross-licenses to settle their disputes. In such a context, parties rarely started a court dispute concerning an SEP license.<sup>3</sup> During the past decade, however, litigation has substantially increased between SEP holders and implementers in the context of the so-called ‘smartphones war’.<sup>4</sup> Standards are essential in smartphones in order to ensure interoperability between different devices. In addition, this industry is characterized by a fast degree of innovation and by evolving standards, which are often covered by hundreds of patents. During recent years, several legal battles between SEP holders and implementers have taken place in different jurisdictions.<sup>5</sup> In addition, the growing number of SEPs held by Patent Assertion Entities (PAEs)<sup>6</sup> and the advent of 5G and the Internet of Things’ (IoT) technologies are expected to further increase the number of court litigations related to SEPs.<sup>7</sup>

Economists have proposed a number of methods to assess what a ‘fair’ royalty rate at which to license an SEP is.<sup>8</sup> Only courts in the USA, however, have engaged in such a complex exercise in the context of damage claims that are linked to a breach of the FRAND obligation by the SEP holder.<sup>9</sup> In contrast, courts in Europe have generally considered FRAND to be a ‘process’: rather than as quantifying what a ‘fair’ royalty rate is, European courts have usually assessed

<sup>2</sup> Lundqvist, Bjorn, *Standardization for the Digital Economy: The Issue of Interoperability and Access Under Competition Law*, 62(4) *Antitrust Bull.* 710–725, at 712 (2017).

<sup>3</sup> Michael Fröhlich, *The Smartphone Patent Wars Saga: Availability of Injunctive Relief for Standard Essential Patents*, 9(2) *J. Intell. Prop. L. & Prac.* 156–159 (2014).

<sup>4</sup> *Ibid.*

<sup>5</sup> Matthew Norris, *Blocking Blocks at the Border: Examining Standard-Essential Patent Litigation Between Domestic Companies at the ITC*, 98(2) *Minn. L. Rev.* 713–744 (2013).

<sup>6</sup> PAEs are legal entities that purchase patents from different inventors in order to bundle them together in a single portfolio and then license this portfolio to implementers. NPE enforce their patent rights ‘more aggressively’ via court litigation than do the inventors, in order to force the implementers to license the patent portfolio. For an analysis of the PAEs’ business models and possible competition law concerns, see Ralf Boscheck, *Patent Trolls: In Search of Efficient Regulatory Standards*, 39(1) *World Competition* 67–84 (2016).

<sup>7</sup> 5G will allow the development of automated cars and new home appliances that communicate with each other thanks to 5G – i.e., Internet of Things. Similarly to smartphone producers, car manufacturers and producers of home appliances (e.g., TVs, washing machines, fridges ...) need to obtain a license for the use of patents that are relevant to the 5G technology, thus potentially enlarging the scope of the ‘smartphone war’ to new industries.

<sup>8</sup> For an overview of the main economic methods, see Cryssoula Pentheroudakis & Justus Baron, *Licensing Terms of Standard Essential Patents. A Comprehensive Overview*, JRC Science for Policy Report (2017). s. 3.3.; *Quantifying FRAND Royalties* (11 Dec. 2020), <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/licensing-terms-standard-essential-patents-comprehensive-analysis-cases>.

<sup>9</sup> See for instance, *Microsoft Corp. v. Motorola, Inc., et al*, No. C10 – 1823 JLR, 2013 WL 211217 (W.D. Wash. 25 Apr. 2013).

whether, and to what extent, the SEP holder and the implementer have behaved ‘fairly’ during the licensing negotiations. In *Huawei v. ZTE*, for instance, the EU Court of Justice (CJEU) considered the request for a court injunction by the SEP holder to enforce its IP rights abusive, unless the request was anticipated by a number of negotiation steps.<sup>10</sup> In its landmark ruling, however, the CJEU did not clarify the circumstances under which a royalty rate could be considered ‘fair’. Similarly, in its 2017 Communication on SEPs, the European Commission provided limited guidance concerning the meaning of FRAND and how this principle should be applied in practice.<sup>11</sup>

In *Unwired Planet*, the High Court of England and Wales ruled that only a single royalty rate in a specific set of circumstances may be considered compatible with the FRAND requirement.<sup>12</sup> By contrast, the Court of Appeal of England and Wales a ‘range’ of different royalty rates may be considered compatible with the FRAND commitment by the SEP holder.<sup>13</sup> This is the only issue where the Court of Appeal diverged from the previous ruling of the High Court in *Unwired Planet*. Finally, in its recent ruling concluding the *Unwired Planet* legal saga, the UK Supreme Court has not specifically dealt with the issue of FRAND as ‘single’ v. ‘range’ of royalty rates.<sup>14</sup> However, by rejecting the ‘hard-edge’ interpretation of the non-discrimination obligation,<sup>15</sup> the Supreme Court indirectly upheld the interpretation of FRAND as a ‘range’.<sup>16</sup> German courts have also followed the same approach. In particular, in its recent ruling in *Sisvel v. Haier*, the *Bundesgerichtshof* (i.e., BGH, German Federal Court of Justice) ruled that the SEP holder was not required to grant a ‘uniform rate’ to all potential licensees in order to comply with the FRAND obligation, by thus indirectly accepting that FRAND represents a ‘range’, rather than a ‘single’ royalty rate.<sup>17</sup>

In view of the recent ruling of the UK Supreme Court in *Unwired Planet* and the judgment of the German *Bundesgerichtshof* in *Sisvel v. Haier*, in this article we argue that the FRAND commitment implies a ‘range’ rather than a ‘single’ royalty

<sup>10</sup> Case C-170/13, *Huawei Technologies Co. Ltd v. ZTE Corp.* (2015) ECLI:EU:C:2015:477.

<sup>11</sup> European Commission, *Communication from the Commission to the Institutions on Setting out the EU approach to Standard Essential Patents*, Published on 29 Nov. 2017. COM (2017) 712 final. at 6–7.

<sup>12</sup> High Court of England and Wales, *Unwired Planet v. Huawei*, 5 Apr. 2017. [2017] EWHC 711 (Pat), para. 156.

<sup>13</sup> Court of Appeal of England and Wales, *Unwired Planet v. Huawei*, 23 Oct. 2018. [2018] EWCA Civ 2344, para. 121.

<sup>14</sup> UK Supreme Court, *Unwired Planet International Ltd and another (Respondents) v. Huawei Technologies (UK) Co Ltd and another (Appellants)*, 26 Aug. 2020. [2020] UKSC 37.

<sup>15</sup> According to the ‘hard-edge’ interpretation of the non-discrimination principle, the SEP holder would be required to grant to every licensee to same royalty rate - i.e., most-favoured license approach.

<sup>16</sup> UK Supreme Court in *Unwired Planet*, *supra* n. 14, para. 105–127.

<sup>17</sup> *Bundesgerichtshof, Sisvel v. Haier*, ruled on 5 May 2020, ECLI:DE:BGH:2020:050520UKZR36.17.0. para. 81 (11 Dec. 2020), <https://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&az=KZR%2036/17&nr=107755> (21 July 2020).

rate. On the other hand, a royalty rate ‘beyond the outer boundary of the range’ should be considered ‘unfair’, and thus incompatible with the FRAND commitment. In addition, an unfair royalty rate might also represent a breach of EU competition rules: under Article 102(a) Treaty of the Functioning of the European Union (TFEU), ‘one or more undertakings’ abuse their dominant position by imposing ‘unfair purchase or selling price’.<sup>18</sup> As Justice Birss recognized in *Unwired Planet*, the ‘boundaries’ of what is an ‘unfair’ royalty rate under the competition and contract law, are different.<sup>19</sup> In particular, Article 102 is applicable only if the firm has market power, while such a condition does not exist under the FRAND obligation. The two fields of law can thus be applied ‘in parallel’, rather than being mutually exclusive.<sup>20</sup>

## 2 OBJECTIVES OF THE PAPER

During the past years, a number of authors have extensively debated whether there is empirical evidence of patent ‘hold-up’,<sup>21</sup> and to what extent this issue may allow the SEP holder to request an ‘excessive’ royalty rate from its licensees.<sup>22</sup> The literature, however, has mostly discussed this issue as a breach of the FRAND commitment by the SEP holder, rather than as a breach of Article 102(a) TFEU. In the aftermath of *Huawei* legal saga, competition law scholars have mostly debated whether and to what extent the request of a court injunction by the SEP holder may represent an abuse of dominant position.<sup>23</sup> Finally, during the recent years, a number of scholars have debated whether the choice of the SEP holder to conclude a license agreement only with the manufacturers of the end-products, rather than with components manufacturers, may represent a breach of the non-

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<sup>18</sup> Consolidated version of the Treaty on the Functioning of the European Union. OJ C-326/47, 26 Oct. 2012. Art. 102(a) TFEU.

<sup>19</sup> Ruling of the High Court in *Unwired Planet*, *supra* n. 12, para. 757.

<sup>20</sup> Jeffery Atik, *The FRAND Ceremony and the Engagement of Article 102 TFEU in the Licensing of Standard Essential Patents*, 42 *Fordham Int'l L. J.* 949–966 (2019).

<sup>21</sup> According to the theory of patent hold-up, the implementers are often unaware of all the patents that fall within a standard agreed in an SDO. Patent holders often claim their rights after the implementers have already made substantial investments to implement the standard. In order to avoid the risk of a court injunction, stopping the distribution of their products, the implementers are forced to conclude a license agreement with the SEP holder, even if the latter requires excessive royalty rates. Pentheroudakis & Baron, *supra* n. 8, at 24.

<sup>22</sup> See for instance, Carl Shapiro & Lemley Mark, *The Role of Antitrust in Preventing Patent Hold-up*, 168 *U. Pa. L. Rev.* 1–43 (2020).

<sup>23</sup> See for instance: Zografos Alexandros, *The SEP Holder's Guide to the Antitrust Galaxy: FRAND and Injunctions*, 37(1) *World Competition* 53–68 (2014); J. Gregory Sidak, *Evading Portfolio Royalties for Standard-Essential Patents Through Validity Challenges*, 39(2) *World Competition* 191–212 (2016); Roberto Grasso, *The ECJ Ruling in Huawei and the Right to Seek Injunctions Based on FRAND-Encumbered SEPs Under EU Competition Law: One Step Forward*, 39(2) *World Competition* 213–238 (2016).

discrimination principle, thus in breach of the FRAND commitment and competition law.<sup>24</sup>

As Geradin argued, Article 102(a) TFEU ‘... could in theory be used to control the level of royalties charged by essential patent holders’.<sup>25</sup> On the other hand, the author has also argued that a competition agency should not engage in this type of antitrust investigations: firstly, by sanctioning ‘high’ royalty rates, the competition agency would de facto impose a limit on the SEP holder’s profits, by thus discouraging the patent holder to invest in further innovation.<sup>26</sup> Secondly, ‘it is extremely difficult to determine whether prices are excessive’<sup>27</sup> under the *United Brands* legal test – i.e., the legal test developed by the CJEU in 1976 to assess a case of unfair pricing as an abuse of a dominant position under Article 102(a) TFEU.<sup>28</sup>

The present article analyses whether an ‘excessive’ royalty rate requested by the SEP holder could be sanctioned as a case of ‘unfair’ pricing under Article 102(a) TFEU, rather than as a breach of the FRAND obligation. The present article challenges the two main assumptions in the literature: on the one hand, rather than preventing antitrust investigations, innovation considerations could be assessed as an efficiency defence in the context of an antitrust investigation under Article 102(a) TFEU. Secondly, recent jurisprudence by national and EU courts have partially clarified the legal test of unfair pricing cases. In particular, *United Brands* is not the ‘only’ legal test to analyse an unfair pricing case under Article 102(a) TFEU. During the recent years, in fact, the EU Court of Justice has endorsed a number of alternative ‘benchmark’ methods that could be relied by a competition authority to assess a case of excessive royalty rate by the SEP holder.

Until now there have been limited attempts in Europe to assess what an ‘unfair’ royalty rate is under Article 102(a). Following a complaint submitted by a group of smartphone producers, in 2007, the European Commission opened investigations *vis-à-vis* Qualcomm, for alleged excessive royalty rates relating to the licensing of its relevant patents for the 3G standard.<sup>29</sup> Two years later, the implementers concluded a license agreement with Qualcomm, and they withdrew

<sup>24</sup> Renato Nazzini, *Level Discrimination and FRAND Commitments Under EU Competition Law*, 40(2) *World Competition* 213–240 (2017).

<sup>25</sup> Damien Geradin, *Pricing Abuses by Essential Patent Holders in a Standard-Setting Context: A View from Europe*, Paper presented at the conference on ‘The Remedies for Dominant Firm Misconduct’ organized by the University of Virginia on 4–5 June 2008, at 14. (11 Dec. 2020), <https://www.ssrn.com/abstract=1174922>.

<sup>26</sup> Geradin Damien & Miguel Rato, *Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-Up, Royalty Stacking and the Meaning of FRAND*, 3(1) *Eur. Competition J.* 150 (2007).

<sup>27</sup> *Ibid.*

<sup>28</sup> Case 27/76, *United Brands Company and United Brands Continentaal BV v. Commission of the European Communities* (1976) ECLI:EU:C:1978:22.

<sup>29</sup> European Commission press release, *Antitrust: Commission Initiates Formal Proceedings Against Qualcomm*, MEMO/07/389, Brussels 1 Oct. 2007. (11 Dec. 2020), [https://ec.europa.eu/commission/presscorner/detail/en/MEMO\\_07\\_389](https://ec.europa.eu/commission/presscorner/detail/en/MEMO_07_389).

their complaint; the Commission thus closed the investigations without taking any formal decision on the case.<sup>30</sup> In *Rambus*, the European Commission sanctioned ‘patent ambush’: the lack of patent disclosure by the SEP holder during the standardization process within the SDO.<sup>31</sup> According to the Commission, patent ambush is an abusive conduct since it would facilitate patent hold-up, by thus allowing the SEP holder to charge excessive royalty rates to the potential licensees. On the other hand, neither the European Commission nor the National Competition Authorities (NCAs) in Europe have ever directly sanctioned a case of unfair royalty rates under Article 102(a) TFEU.

The present study is timely, taking in consideration the growing number of excessive pricing cases investigated in Europe during the recent years.<sup>32</sup> In order to guarantee legal certainty both to the SEPs holders and the implementers, it is important to clarify whether and under what circumstances the SEP holder would breach Article 102(a) by requesting an ‘excessive’ royalty rate to its licensees.

The paper discusses ‘when’ competition law should intervene to sanction the excessive royalty rate requested by the SEP holder (section 3); ‘how’ a competition agency should assess the case in the light of the existing CJEU case law (section 4) and, eventually, ‘what’ remedies the competition agency could impose in order to solve the issue of unfair royalty rate (section 5).

### 3 ‘WHEN’ COMPETITION POLICY SHOULD INTERVENE TO SANCTION A CASE OF UNFAIR ROYALTY RATE

#### 3.1 THE ECONOMISTS’ VIEW

Traditionally, economists are sceptical in relation to competition law intervention *vis-à-vis* excessive pricing. Besides the overlap with sector regulation, economists are generally confident that, in the long run, the market might self-adjust, and thus the exploitative conduct will disappear. In particular, if the price of the product is indeed ‘too high’, either consumers will stop buying the product, or new firms will

<sup>30</sup> European Commission press release, *Antitrust: Commission Closes Formal Proceedings Against Qualcomm*, MEMO/09/516, Brussels 24 Nov. 2009. (11 Dec. 2020), [https://ec.europa.eu/commission/presscorner/detail/en/MEMO\\_09\\_516](https://ec.europa.eu/commission/presscorner/detail/en/MEMO_09_516).

<sup>31</sup> Commission Decision of 9 Dec. 2009, relating to proceedings under Art. 102 of the Treaty on the functioning of the European Union and Art. 54 of the EEA Agreement (Case COMP/38.636 – *RAMBUS*). OJ C-30/17, (6 Feb. 2010).

<sup>32</sup> During the recent years, the European Commission and a number of NCAs have increasingly investigated excessive prices cases, in particular in the energy and pharmaceutical sectors. The recent *Gazprom* and *Aspen* commitment decisions show that even the European Commission is currently reconsidering its traditional ‘non-enforcement paradigm’ *vis-à-vis* unfair pricing cases. Commission Decision on Upstream Gas Supplies in Central and Eastern Europe on 24 May 2018. Case AT.39816. Communication from the Commission published pursuant to Art. 27(4) of Council Regulation (EC) No 1/2003 in Case AT.40394 – *Aspen* 2020/C 233/06. OJ C-233/7, 15 July 2020.

enter the market, by thus forcing the dominant firm to lower its prices.<sup>33</sup> Finally, ‘... according to the conventional wisdom, excessive pricing should not be enforced in technological markets because high prices, and hence high profits, are necessary to reward innovation’.<sup>34</sup>

A number of economists, however, recognize that in exceptional circumstances EU competition law may sanction excessive pricing cases.<sup>35</sup> In particular, economists have elaborated a number of ‘filters’ to limit the scope of EU competition policy intervention in this field.<sup>36</sup> It would go beyond the scope of this article to compare the proposed tests in a systematic manner.<sup>37</sup> However, it is worth mentioning the criteria that economists generally accept ‘to filter’ competition policy intervention in excessive pricing cases:

1. High and non-transitory entry barriers: economists recognize that competition policy should sanction excessive pricing cases only in markets that are characterized by high and stable entry barriers. The latter can be either structural (e.g., presence of a network) or legal (e.g., a dominant company has the right to an exclusive monopoly to operate in the market).<sup>38</sup> In particular, the entry barriers should be non-transitory.
2. Super-dominance: in view of the high entry barriers, the dominant company enjoys a super-dominance/quasi monopoly position within the relevant market. Economists generally agree that the traditional 40% market share to justify competition law intervention *vis-à-vis* exclusionary practices would be ‘too low’ as a threshold in an excessive pricing case.<sup>39</sup>
3. Absence of sector regulation: since high entry barriers and super-dominance are common scenarios in network industries (e.g., electricity, gas, railways), a number of authors have argued that EU competition law should only sanction excessive pricing cases in these industries, and

<sup>33</sup> John Davies & Jorge Padilla, *Another Look at the Role of Barriers to Entry in Excessive Pricing Cases* (11 Dec. 2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3364881](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3364881).

<sup>34</sup> Patrick Hubert & Marie-Laure Combet, *Exploitative Abuse: The End of the Paradox?*, 1 *Concurrences* 51 (2011).

<sup>35</sup> In support of this view are, for instance, Ariel Ezrachi & David Gilo, *Are Excessive Prices Really Self-Correcting?*, 5(2) *J. Comp. L. & Econ.* 249–268 (2008).

<sup>36</sup> Massimo Motta & Alexandre De Streel, *Excessive Pricing in Competition Law: Never Say Never?*, in *The Pros and Cons of High Prices* (Konkurrensverket Swedish Competition Authority ed., Stockholm, Lenanders Grafika 2007), Ch. 2.

<sup>37</sup> For an exhaustive analysis of the economics literature on competition policy intervention *vis-à-vis* excessive pricing, see OECD Secretariat Background Note, *Excessive Prices*. (Paris 7. Feb. 2012). (11 Dec. 2020), <https://www.oecd.org/competition/abuse/49604207.pdf>.

<sup>38</sup> Motta & De Streel, *supra* n. 36.

<sup>39</sup> Amelia Fletcher & Alina Jardine, *Towards an Appropriate Policy for Excessive Pricing*, in *European Competition Law Annual: 2007 – a Reformed Approach to Article 82 EC 533–546* (Claus Ehlermann & Mel Marquis eds, Hart Publishing, Oxford 2008).

only where there is a lack of sector regulation.<sup>40</sup> In other words, if the National Regulatory Authority (NRA) has already regulated the access/retail price in a network industry, the NCA should not intervene.

4. Hampering innovation incentives: Evans and Padilla argue that EU competition law intervention is justified only if the excessive pricing is an obstacle to the introduction of a new product into the market.<sup>41</sup> Similarly, O'Donoghue and Padilla argue that competition policy should not sanction the excessive price of a product that is covered by a patent, in order to safeguard the patent holder's incentives to innovate.<sup>42</sup>

### 3.2 THE CJEU VIEW

If we analyse the criteria mentioned above in the light of the CJEU case law, we notice that the first two conditions are also followed in the jurisprudence of the Court of Luxembourg. In the cases decided by the Court of Luxembourg, in fact, the dominant company either enjoyed a legal monopoly right (e.g., *AKKA-LAA*,<sup>43</sup> *British Leyland*),<sup>44</sup> or it had a super-dominant position due to the high structural barriers to entry (e.g., United Brands was the main importer of bananas into Europe and entry into the market was very unlikely). We can thus conclude that, even if neither the EU Commission nor the Court of Luxembourg have ever recognized *de iure* that they would sanction excessive pricing cases under Article 102(a) TFEU only in the presence of very high entry barriers and super-dominance, *de facto*, this is the enforcement approach that has been followed by the EU institutions since the Treaty of Rome. The acceptance of these two 'filters' by the competition agencies explains why Article 102(a) TFEU has been relied on only in exceptional circumstances in order to sanction cases of excessive pricing.

In his opinion in *AKKA-LAA*, Advocate General (AG) Wahl argued that '... unfair prices under Art. 102 TFEU can only exist in regulated markets'.<sup>45</sup> According to the AG, in regulated markets, the NRA could solve the issue of excessive pricing via *ex-ante* price regulation. In other words, only in the case of a 'regulatory failure' by the NRA, should the NCA intervene in order to solve the

<sup>40</sup> See for instance, Motta & De Streel, *supra* n. 36.

<sup>41</sup> David Evans & Jorge Padilla, *Excessive Prices: Using Economics to Define Administrable Legal Rules*, 1(1) J. Competition L. & Econ. 97–122 (2007).

<sup>42</sup> Robert O'Donoghue & Jorge Padilla, *The Law and Economics of Article 102 TFEU* 742 (3d edn, Hart Publishing, Oxford 2020). Ch. 14, 'Excessive Pricing'.

<sup>43</sup> Case C-177/16, *Autortiesību un komunikēšanās konsultāciju aģentūra v. Latvijas Autoru apvienība v. Konkurences padome* (2017) ECLI:EU:C:2017:689.

<sup>44</sup> Case C-226/84, *British Leyland Public Limited Company v. Commission* (1986) ECLI:EU:C:1986:421.

<sup>45</sup> AG Wahl opinion in case C-177/16, *supra* n. 43, para. 48.



excessive pricing issue.<sup>46</sup> AG Wahl thus supported the third criterion mentioned above (i.e., antitrust intervention can sanction excessive pricing only in the absence of sector regulation in network industries). Nevertheless, in its judgment in *AKKA-LAA*, the CJEU did not follow the AG's opinion on this point – i.e., the Court did not recognize such a 'filter' in competition policy enforcement, *vis-à-vis* unfair pricing cases.<sup>47</sup>

Finally, the CJEU has never recognized the risk of the hampering of innovation by the dominant firm as an argument to avoid the enforcement of Article 102(a) *vis-a-vis* unfair pricing cases. Cases decided by the competition agencies under Article 102(a) have concerned the price of physical goods (e.g., *United Brands*),<sup>48</sup> certificates released by the dominant firm (e.g., *General Motors*,<sup>49</sup> *British Leyland*),<sup>50</sup> access price to network industries (e.g., *Scandlines*).<sup>51</sup> – i.e., markets that are not characterized by dynamic efficiencies and thus by innovation considerations. In industries based on IP protection business models, cases of unfair pricing have concerned the royalty rate requested by copyright societies (e.g., *Tournier*,<sup>52</sup> *Lucazeu*,<sup>53</sup> *AKKA-LAA*,<sup>54</sup> *Kanal 5*,<sup>55</sup> *SABAM*)<sup>56</sup> and off-patent drugs (e.g., *Napp*,<sup>57</sup> *Aspen*,<sup>58</sup> *Pfizer/Flynn*).<sup>59</sup> In the pharmaceutical cases, innovation considerations did not play any role in deciding whether competition policy enforcement was justified. As further argued in the next section, in industries that are characterized by dynamic efficiencies, innovation considerations might be put forward by the dominant firm as an efficiency defence in order to explain the

<sup>46</sup> *Ibid.*, para. 49.

<sup>47</sup> In the final judgment, the CJEU simply ruled that 'the abuse of a dominant position within the meaning of that article might lie in the imposition of a price which is excessive in relation to the economic value of the service provided', by thus avoiding introducing any 'filter' to the application of EU competition policy *vis-à-vis* excessive pricing. Case C-177/16, *supra* n. 43, para. 35.

<sup>48</sup> Case 27/76, *supra* n. 28.

<sup>49</sup> Case C-26/75, *General Motors Continental NV v. Commission* (1975) ECLI:EU:C:1975:150.

<sup>50</sup> Case C-226/84, *supra* n. 44.

<sup>51</sup> Commission decision of 23 July 2004 rejecting the claim in the case *Scandlines Sverige AB v. Port of Helsingborg* (COMP/A.36.568/D3). The decision was not published on the EU Official Journal. (11 Dec. 2020), [http://ec.europa.eu/competition/elojade/isef/case\\_details.cfm?proc\\_code=1\\_36568](http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_36568).

<sup>52</sup> Case C-395/87, *Ministère public v. Jean-Louis Tournier* (1989) ECLI:EU:C:1989:319.

<sup>53</sup> Case C-110/88, *François Lucazeau and others v. Société des Auteurs, Compositeurs et Editeurs de Musique (SACEM) and others* (1989) ECLI:EU:C:1989:326.

<sup>54</sup> Case C-177/16, *supra* n. 43.

<sup>55</sup> Case C-52/07, *Kanal 5 Ltd & TV 4 AB v. Föreningen Svenska Tonsättares Internationella Musikbyrå (STIM) upa* (2008) ECLI:EU:C:2008:703.

<sup>56</sup> Case C-372/19, *Belgische Vereniging van Auteurs, Componisten en Uitgevers CVBA (SABAM) v. Wearone, World BVBA and Wecandance NV* (2020) ECLI:EU:C:2020:959.

<sup>57</sup> Decision of the Director General of Fair Trading, *Napp Pharmaceutical Holdings Limited and Subsidiaries*. Decision adopted on 30 Mar. 2001, case n. CA98/2/2001.

<sup>58</sup> *Autorità Garante per la Concorrenza e il Mercato, Incremento Prezzo Farmaci Aspen*. Decision 26185 adopted on 17 Oct. 2016.

<sup>59</sup> UK Competition and Markets Authority, *Unfair Pricing in Respect of the Supply of Phenytoin Sodium Capsules in the UK*. Decision adopted on 7 Dec. 2016, case CE/9742-13.

lawfulness of its pricing strategy, rather than acting as a ‘filter’ to avoid antitrust investigations.

### 3.3 ‘WHEN’ ENFORCING COMPETITION POLICY VIS-À-VIS AN UNFAIR ROYALTY RATE

As discussed in the introduction, SEPs are increasingly common in the modern communications society. SEPs are patents ‘essential’ for the implementation of the standard that has been agreed within the Standard Development Organization. According to a number of authors, SEPs ‘lock-in’ the implementers, which are then forced to conclude a license agreement in order to ensure the interoperability of their products with other end-user’s products, even if the SEP holder asks for ‘excessive’ royalties (i.e., patent hold-up).<sup>60</sup> As Fonteijn, Akker and Sauter argue, although, in principle, high prices should attract new entrants into the market, patents are temporary legal monopoly rights,<sup>61</sup> which generate high and stable entry barriers in the market and thus a super-dominant position for the SEP holder. From this perspective, standard essential patents thus satisfy the first two ‘filters’ mentioned above, in order to justify a competition policy intervention in case where an ‘unfair’ royalty rate is requested by the SEP holder.

A number of scholars, however, have pointed out that SEPs do not automatically generate market dominance. By counting how often SEPs are cited in follow-up patent applications, Layne-Farrar and Padilla have concluded that SEPs do not automatically generate market power.<sup>62</sup> According to these authors, only a limited number of SEPs receive a higher number of citations in follow-up patent applications in comparison to other ‘non-essential’ patents. As a consequence, only a limited number of SEPs do indeed grant market power to the SEP holder; the latter are ‘truly’ essential patents that grant market power to the SEP holder.<sup>63</sup> This is mainly due to the phenomenon of ‘over-declaration’, whereby SDOs members tend to claim ‘too often’ that one of their patents is ‘essential’ for the standard. On the basis of the *Rambus* case law,<sup>64</sup> in fact, SDO members may be

<sup>60</sup> See for instance, Daniel Swanson & William Baumol, *Reasonable and Non-discriminatory (RAND) Royalties, Standards Selection and Control of Market Power*, 73 *Antitrust L. J.* 1–58 (2005).

<sup>61</sup> Chris Fonteijn, Ilan Akker & Wolf Sauter, *Reconciling Competition and IP Law: The Case of Patented Pharmaceuticals and Dominance Abuse*, in *The Interplay Between Competition Law and Intellectual Property: An International Perspective* (Gabriella Muscolo & Marina Tavassi eds, Wouters Kluwer, The Hague 2019), Ch. 25.

<sup>62</sup> The authors analysed a database of 2,674 patents that are registered in the USA. They checked every patent application in order to identify citations to Standard Essential Patents; Anne Layne-Farrar & Jorge Padilla, *Assessing the Link Between Standard Setting and Market Power*, 9(2) *Int’l J. IT Standards & Standardization Res.* 1–40 (2011).

<sup>63</sup> *Ibid.*, at 29.

<sup>64</sup> Commission decision in *Rambus*, *supra* n. 31.

sanctioned under antitrust law if they do not disclose their patents during the process definition of the standard within the SDO.

Secondly, Layne-Farrar and Padilla point out that standardization is a rather long and complex process, where different technical specifications are assessed by different SDO working groups. As a consequence of such a lengthy process, and in view of the disclosure obligation, patent holders often declare a patent to be ‘essential’, although the patent refers to a technical specification that will not be included at a later stage within the SDO standard.<sup>65</sup> Similarly, Layne Farrar has also pointed out that a number of patents are declared essential only after the standard is defined. According to this author, after a new standard is defined by the SDO, ‘a great deal of work may still remain to define the precise implementation details of a standard’.<sup>66</sup> In view of the incremental nature of the standardization process, a number of patents are thus declared ‘essential’ only *ex-post* (i.e., after the standard is defined within the SDO). The evolving nature of the standards further explains why a large number of patents are declared ‘essential’, while only a limited number of patents are ‘truly essential’ for the implementation of the standard.

In line with these considerations, the first two ‘filters’ discussed in the previous sub-section are not *per se* verified in the presence of a Standard Essential Patent: a case-by-case analysis would be required to assess the ‘essentiality’ of every patent.<sup>67</sup> However, when the ‘essentiality’ is proven, the market is likely to be characterized by high entry barriers and the super-dominant position of the SEP holder.

As discussed in the previous sub-section, the third (i.e., competition policy enforcement *vis-à-vis* unfair pricing is justified only in network industries) and fourth ‘filters’ (i.e., sanctioning excessive prices by the dominant firm might hamper the dominant firm’s incentive to innovate) have never been officially endorsed by the CJEU case law. From a legal point of view, there is therefore no reason to exclude competition policy intervention in order to sanction the unfair royalty rate charged by the SEP holder.

From an economic perspective, ‘high’ royalty rates may indeed reward innovation and, in principle, they should not be sanctioned by competition policy. As argued in the introduction, FRAND implies a ‘range’, rather than a ‘single’ royalty rate. Within this range, the SEP holder might legitimately ask for a ‘high’ royalty rate to compensate for its past innovation efforts. On the other hand, Article 102(a) sanctions ‘unfair’ royalty rates – i.e., rates that are ‘beyond the outer boundary of

<sup>65</sup> Layne-Farrar & Padilla, *supra* n. 62, at 35.

<sup>66</sup> Anne Layne Farrar, *Innovative or Indefensible? An Empirical Assessment of Patenting Within Standard Setting* P.3. (11 Dec. 2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1275968](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1275968).

<sup>67</sup> A similar case-by-case approach is also suggested by the 2010 European Commission Horizontal Cooperation Guidelines. Communication from the Commission, Guidelines on the applicability of Art. 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements. OJ C-11/1, (14 Jan. 2011), para. 269.

the range'. While it is hard to determine the exact economic value of a patent, innovation considerations should not be a reason to exclude *a priori* competition enforcement in this field. On the contrary, innovation considerations might be legitimately put forward by the SEP holder as an efficiency defence, so as to explain its pricing strategy. In this way, innovation considerations would be incorporated into the competition analysis, rather than avoiding *a priori* antitrust investigations in this field.

To sum up, if we apply the four 'filters' to a case of an unfair royalty rate being charged by the SEP holder, we could argue that the first two conditions (i.e., high entry barriers and a super-dominant position) require a case-by-case analysis in the case of SEPs. The dominant position of the SEP holder cannot be assumed *a priori*; a control of the 'essentiality' of the individual SEPs is required. However, when the 'essentiality' is indeed proven, the market is likely to be characterized by high entry barriers and the super-dominant position of the SEP holder. On the other hand, the third and fourth 'filters' do not represent an obstacle to competition policy intervention in this area. Firstly, these two filters have never been officially endorsed by the CJEU case law. Secondly, innovation considerations could be considered to be efficiency defences in the context of antitrust investigations, rather than excluding *a priori* competition policy enforcement in relation to unfair royalty rates charged by the SEP holder.

#### 4 'HOW' TO ASSESS THE UNFAIR ROYALTY RATE REQUESTED BY THE SEP HOLDER

In this section we discuss the steps that a competition agency should follow in assessing a case of unfair royalty rate by the SEP holder under Article 102(a) TFEU. As discussed above, the preliminary step in such an analysis would be the assessment of the dominant position of the SEP holder, which cannot be taken for granted. After having showed that the SEP holder indeed enjoys a dominant position in the market due to the 'essentiality' of its patents, the NCA should assess the abusive pricing strategy in light of the CJEU case law concerning Article 102(a) TFEU.

##### 4.1 UNITED BRANDS *V.* BENCHMARKING

In its landmark ruling in *United Brands*, the CJEU introduced a two-tier test to explain when the price charged by the dominant firm is 'unfair'. According to the Court, the price charged by the dominant firm breaches Article 102(a) when<sup>68</sup>:

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<sup>68</sup> Case 27/76, *supra* n. 28, para. 252.

1. it is 'excessive' in comparison to the 'economic value' of the product, and
2. 'unfair' either 'in itself' or 'when compared to competing products'.

It is worth noticing that the two limbs of the test are cumulative. In *United Brands*, the CJEU thus introduced a high burden of proof that the European Commission and the NCAs should satisfy in order to sanction a case of unfair pricing under Article 102(a) TFEU.

As pointed out by the CJEU in *United Brands*, the cost/price test is just 'one out of the possible tests' to assess unfair pricing cases.<sup>69</sup> As argued by Advocate General (AG) Jacobs in *Tournier/Lucazeu*, the cost/price test would be inapplicable in industries characterized by '... the creation of a work of the imagination ...'.<sup>70</sup> While AG Jacobs referred to the impossibility to assess the production costs of copyright materials, such reasoning could be applicable *a fortiori* to Standard Essential Patents. Patents are the result of high-risk R&D investments; the latter are sunk costs, since there is no direct causal link between the innovation efforts and its outcomes in terms of registered patents. In addition, R&D investments may lead to several inventions, covered by different patents. Finally, the SEP holder often license its patents as a 'portfolio' rather than via individual license agreements; in such a context, it is hard to apportion the production costs among the patents included in the portfolio. In view of these peculiarities, it is impossible to assess the cost of a 'patent production'. This is the reason why the reasoning of AG Jacobs concerning the inapplicability of *United Brands* test to assess the unfairness of the fee charged by copyright societies is applicable *mutatis mutandis* to Standard Essential Patents.

In *Tournier*,<sup>71</sup> *Lucazeu*<sup>72</sup> and *AKKA-LAA*,<sup>73</sup> the CJEU has emphasized the importance of the benchmarking approach as an alternative method to the *United Brands* test, when the latter test is indeed inapplicable. The logic of the benchmark approach is rather simple: rather than comparing the costs and the price charged by the dominant firm, the competition agency should compare the allegedly unfair price with a benchmark price. In its jurisprudence, the Court of Justice has endorsed a number of benchmark methods, such as: price comparison either with competitors of the dominant firm in the same relevant market,<sup>74</sup> or with

<sup>69</sup> *Ibid.*, para. 253.

<sup>70</sup> Opinion of AG Jacobs in Case C-395/87, *Ministère public v. Jean-Louis Tournier* (1989) ECLI:EU:C:1989:215. para. 53.

<sup>71</sup> *Ibid.*

<sup>72</sup> Case C-110/88, *supra* n. 53.

<sup>73</sup> Case C-177/16, *supra* n. 43.

<sup>74</sup> In *United Brands*, for instance, the Commission noticed that the average price of bananas sold by United Brands was 7% higher than the price charged in Europe by its competitors. As noted by O'Donoghue and Padilla, while the CJEU considered such percentage 'too low' to be considered

firms selling the same product in a different geographic market<sup>75</sup>; comparison of the price charged by the dominant firm for the same product either in different geographic markets,<sup>76</sup> or to different customers<sup>77</sup>; comparison of the price charged by the dominant firm over-time.<sup>78</sup> After having identified a suitable benchmark method(s), the competition agency should assess whether and to what extent the price of the dominant firm is indeed unfair in comparison to the benchmark price. In *AKKA-LAA*, the CJEU has not introduced a minimum threshold to this regard; the Court has argued that the price of the dominant firm has to be ‘appreciably high’, ‘significant’ and ‘persistent’ in comparison to the benchmark price in order to breach Article 102(a) TFEU.<sup>79</sup>

#### 4.2 BENCHMARK METHODS TO ASSESS THE UNFAIR ROYALTY RATE BY THE SEP HOLDER

In an investigation concerning an unfair royalty rate, the NCA could compare the rate requested by the dominant SEP holder with the rate requested by the holders of other patents that are considered ‘essential’ for the implementation of the same standard (i.e., price comparison with competitors). As argued in the previous section, the phenomenon of over-declaration is common in standard essential patents; consequently, not every patent has the same degree of ‘essentiality’ in relation to the standard implementation. In addition, the SEP holder often licenses its entire patent portfolio, including essential and non-essential patents that are relevant to a standard. Finally, patents might cover different aspects of the same standard – i.e., they might not be substitutable. As recognized by the CJEU in *Schippacercola*,<sup>80</sup> the patents might be ‘similar products’, rather than products ‘in competition’ – i.e., they would not be comparable. In view of these considerations, it might be hard for the competition agency to compare the royalties charged by different patents holders that are relevant to the same standard. The competition agency should also take into consideration the terms and conditions of the different licensing agreements, the duration and scope of every agreement, as well as the

extent of cross-licensing.<sup>81</sup> In particular, the competition agency might identify as

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‘unfair’, the CJEU did not reject in principle the comparison with the price of competitors as a valid benchmark method. Case 27/76, *supra* n. 28, para. 266; O’Donoghue & Padilla, *supra* n. 62, at 767.

<sup>75</sup> Case C-177/16, *supra* n. 43, para. 38.

<sup>76</sup> Case C-78/70, *Deutsche Grammophon Gesellschaft mbH v. Metro-SB-Großmärkte GmbH & Co. KG* (1971) ECLI:EU:C:1971:59. para. 19.

<sup>77</sup> Case C-226/84, *supra* n. 44, para. 29.

<sup>78</sup> *Ibid.*

<sup>79</sup> Case C-177/16, *supra* n. 43, para. 55.

<sup>80</sup> Case C-159/08, *Isabella Scippacercola and Ioannis Terezakis v. Commission* (2009) ECLI:EU:C:2009:188.

suitable benchmarks only the ‘cash only’ royalty rates requested by the competitors of the SEP holder to license patents that are relevant to the same standard.<sup>82</sup>

Alternatively, in line with *AKKA-LAA* case law,<sup>83</sup> the agency might compare the royalty rates requested by different SEP holders in different geographical markets. Similarly to the previous benchmark method, this approach would also have some weaknesses. In particular, since SEP holders often opt for a ‘global’, rather than a ‘national’ license, this type of comparison would not always be feasible.

As discussed above, the CJEU has recognized as a valid benchmarking method the comparison of the price charged by the dominant firm for the same product, either in different geographical markets or to different customers. The competition agency could thus compare the royalty rate requested by the SEP holder from different licensees, either operating within the same geographic market or in different countries. In comparing different licensing agreements, the agency should take into consideration the duration and scope of different agreements. In the case of licensing agreements involving a patent portfolio, the agency should check whether the licensing agreements include the same patents, in order to ensure that the agreements are indeed comparable.

Finally, the competition agency could compare the requested royalty rate ‘before’ and ‘after’ the standard was selected within the SDO – i.e., when the patent became ‘essential’ (i.e., price comparison over-time). As recognized by Geradin, this method would not be applicable if the SEP holder had not concluded any licensing agreement before the definition of the standard, and thus it was not possible to determine an *ex-ante* royalty rate.<sup>84</sup> Even in the case the patent holder had already concluded licensing agreements before the adoption of the standard, the agency should also take into consideration that the standard-essentiality totally changed the economic settings underlining the licensing agreements that had previously been concluded. In other words, in view of the ‘essentiality’ of the patent, the SEP holder could increase the royalty rate requested, as long as the increase remained within a reasonable range (e.g., in line with the practice followed by other SEP holders in the same industry).

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<sup>81</sup> Damien Geradin, *SEP Licensing After Two Decades of Legal Writing: Some Issues Solved, Many Still to Address*, P.9. (11 Dec. 2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3547891](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3547891).

<sup>82</sup> The cash-only option is an alternative to cross-licensing. It was accepted by Google when it acquired Motorola in 2012. As recognized by the European Commission merger decision in the case, the cash only offer reduced the ‘risk of Google insisting on onerous cross-licensing deals (including requiring potential licensees to licence their non-SEPs to Google)’. Commission Decision of 13 Feb. 2012 declaring a concentration to be compatible with the common market (Case No COMP/M.6381 – *GOOGLE/MOTOROLA MOBILITY*) according to Council Regulation (EC) No 139/2004, para. 137.

<sup>83</sup> Case C-177/16, *supra* n. 43.

<sup>84</sup> Geradin (2020), *supra* n. 81, at 9.

Finally, as argued in the previous section, the process of standardization often has an ‘incremental nature’<sup>85</sup>: a number of patents are declared to be ‘essential’ after the standard is defined, since they refer to the technical specificities of the standard implementation. From this point of view, it may sometimes be difficult for a competition agency to identify a precise moment at which to carry out a price comparison over-time.

After having identified the suitable benchmarking method(s), the agency should compare the benchmark rate with the royalty rate requested by the SEP holder. As the CJEU ruled in *AKKA-LAA*, there is ‘no magic number’ in considering the difference between the requested royalty rate and the benchmark price as being ‘excessive’, and thus ‘unfair’ under Article 102(a). According to the CJEU case law, the difference has to be ‘appreciably high’, ‘significant’ and ‘persistent’.<sup>86</sup> The expressions ‘appreciably high’ and ‘significant’ imply that the royalty rate should be hundreds of times higher than the benchmark price in order to trigger the enforcement of Article 102 (a) (e.g., the 600% price increase sanctioned by the European Commission in *British Leyland*).<sup>87</sup> On the other hand, it would be hard to prove that the price charged by the dominant firm is abusive if it is only marginally above the benchmark price (e.g., the bananas sold by United Brands were on average 7% more expensive than the bananas sold by its competitors).<sup>88</sup> A similar interpretation has also been provided by AG Pitruzzella in his recent opinion in *SABAM*: according to the Advocate General, only a price that is ‘disproportionate or exorbitant’ breaches Article 102(a) TFEU.<sup>89</sup>

On the other hand, the expression ‘persistent’ implies that the royalty rate should remain ‘excessive’ over a long period of time. In *General Motors*, the CJEU did not consider the requested fee to be ‘unfair’, since General Motors had promptly lowered its tariffs after receiving some complaints from its customers.<sup>90</sup> The long-term pricing strategy of the SEP holder should thus be taken into consideration when assessing the unfairness of the requested royalty rate. As discussed by the European Commission in the merger decision *Qualcomm/NXP*, the ‘persistence’ of the royalty rates over a long period of time is influenced by a number of factors, such as the number and the relevance of the patents included in the SEP holder’s patent portfolio.<sup>91</sup> Patents, in fact, have a limited legal duration<sup>92</sup>;

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<sup>85</sup> Layne Farrar, *supra* n. 66.

<sup>86</sup> Case C-177/16, *supra* n. 43, para. 55.

<sup>87</sup> Case C-226/84, *supra* n. 44.

<sup>88</sup> Case 27/76, *supra* n. 28, para. 266.

<sup>89</sup> Opinion of AG Pitruzzella in case C-372/19, *Belgische Vereniging van Auteurs, Componisten en Uitgevers CVBA (SABAM) v. Weareone.World BVBA, Wecandance NV* (2020) ECLI:EU:C:2020:598. para. 29.

<sup>90</sup> Case C-26/75, *supra* n. 49.



even before their expiration, the value of a patent may decrease due to technological innovation that makes that patent outdated (e.g., adoption of a new standard).<sup>93</sup> In addition, the patent portfolio of the SEP holder is constantly in evolution: the SEP holder periodically either registers new patents, or acquires/sells them on the market.<sup>94</sup> In assessing whether the royalty rate requested by the SEP holder is ‘persistently’ above the benchmark price, the competition agency should take into consideration the peculiarities of the standard essential patent.

As the UK Court of Appeal of England and Wales recently recognized in *Pfizer/Flynn*,<sup>95</sup> the competition agency should verify its findings of price unfairness under ‘multiple’ tests. When multiple methods are available, the convergence of the results would strengthen the relevance of the findings of the competition agency.<sup>96</sup> Similarly to the decision of the UK Office of Fair Trading (OFT) in *Napp*,<sup>97</sup> the NCA would not be required to carry out the *United Brands* test in order to assess the unfairness of the SEP royalty rate; the agency could verify its findings of price unfairness under multiple benchmarking methods that have been endorsed by CJEU case law.

To sum up, in a hypothetical investigation concerning an alleged unfair royalty rate, the competition agency could rely on the benchmark methods recognized by the CJEU case law in order to assess the unfairness of the requested rate. Every benchmark method has its strengths and weaknesses, and thus should be adapted to the peculiarities of each standard essential patent. After having identified suitable method(s), the agency should compare the requested royalty rate with the identified benchmark price. Taking into consideration the vague wording of the CJEU in *AKKA-LAA* and the lack of a minimum threshold, the latter would be the most burdensome aspect of the analysis. Finally, in order to minimize the risk of false negative errors, the competition agency should verify its findings of price unfairness through the use of multiple benchmarking methods: the convergence of the findings would show that the royalty rate requested by the SEP holder is indeed ‘unfair’, and that it is thus in breach of Article 102(a) TFEU.

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<sup>91</sup> Commission decision of 18 Jan. 2018 declaring a concentration to be compatible with the internal market and the EEA agreement (Case M.8306 — *Qualcomm/NXP Semiconductors*). OJ C-113/79, 27 Mar. 2018.

<sup>92</sup> *Ibid.*, para. 903.

<sup>93</sup> *Ibid.*, para. 906.

<sup>94</sup> *Ibid.*, para. 914.

<sup>95</sup> Court of Appeal of England and Wales, *Competition and Market Authority v. Flynn Pharma Limited & Pfizer Limited*. Judgment ruled on 10 Mar. 2020, EWCA Civ 339.

<sup>96</sup> UK Competition Appeal Tribunal, *Napp Pharmaceutical Holdings Limited and Subsidiaries v. Director of Fair Trading*. Judgment ruled on 15 Jan. 2002, case n. 1001/1/1/01. para. 397.

<sup>97</sup> OFT decision in *Napp*, *supra* n. 57.

## 4.3 EFFICIENCY DEFENCE

In *Post Danmark I*, the CJEU recognized that the dominant firm may rebut the finding of abuse by putting forward some efficiency justifications.<sup>98</sup> In particular, efficiencies have to ‘counteract’ any likely anti-competitive effect, and they ‘likely’ have to take place in the near future. In addition, the contested conduct has to be ‘necessary’ in order to achieve the alleged efficiencies and it ‘does not fully eliminate competition from the market’.<sup>99</sup> While the competition agency has the burden of proving the abuse, it is up to the dominant firm to put forward the objective justifications during the antitrust investigations.<sup>100</sup> Both in *Sirena*<sup>101</sup> and in *Deutsche Grammophon*<sup>102</sup> the CJEU recognized that excessive pricing may be justified by ‘objective criteria’. While the CJEU has accepted in principle that a dominant firm may justify its unfair pricing strategy, it has never assessed such arguments in concrete cases.<sup>103</sup>

As discussed in the introduction, economists often argue that the prohibition of unfair pricing may discourage a dominant firm to innovate.<sup>104</sup> While there is no sign in CJEU case law that innovation justifications may ‘shield’ competition policy intervention *vis-à-vis* unfair pricing cases, such considerations may be considered as an efficiency defence in the contest of an unfair pricing investigation, by thus incorporating innovation considerations in the antitrust analysis.<sup>105</sup> In the contest of an antitrust investigation, the SEP holder could justify its ‘high’ royalty rate in light of its past R&D investments, and thus the need to reward its innovation efforts.<sup>106</sup> The latter could be accepted as an efficiency defence if the conditions mentioned by the CJEU in *Post Danmark I* were fulfilled. In particular, the SEP holder should prove that the added value of its SEP ‘counteracts’ the negative impact of its ‘high’ rate on the consumers’ welfare. From this point of view, the SEP holder should prove that its patent is indeed ‘essential’ for the implementation of the standard and thus for the release of new end-users’ products in the market. Secondly, the alleged efficiencies have to be ‘likely’ (e.g. the dominant firm can identify the date when a new end-user product implementing

<sup>98</sup> Case C-209/10, *Post Danmark A/S. v. Konkurrencerådet* (2012) ECLI:EU:C:2012:172. para. 42.

<sup>99</sup> Tjarda Van der Vijver, *Justifications and Anti-competitive Unilateral Conduct: An International Analysis*, 37(1) *World Competition* 37 (2014).

<sup>100</sup> Case C-209/10, *supra* n. 98, para. 42.

<sup>101</sup> Case C-40/70, *Sirena S.r.l. v. Eda S.r.l. and others* (1971), ECLI:EU:C:1971:18., para. 71.

<sup>102</sup> *Supra*, case C-79/70, para. 19.

<sup>103</sup> For a review of CJEU case law on objective justifications, see Tjarda Van der Vijver, *Objective Justification and Article 102 TFEU*, 35(1) *World Competition* 55–76 (2012).

<sup>104</sup> Hubert & Combet, *supra* n. 34.

<sup>105</sup> In line with this approach, see Jonathan Galloway, *Driving Innovation: A Case for Targeted Competition Policy in Dynamic Markets*, 34(1) *World Competition* 73–96 (2011).

<sup>106</sup> Mihkel Tombak, *The Innovation Defence*, 29(1) *Can. Competition L. Rev.* 41–56 (2016).

the SEP will be released on the market). Thirdly, the ‘high’ royalty rate should be ‘necessary’ to compensate for the R&D investments by the SEP holder. From this point of view, the SEP holder could thus provide evidence of its past R&D investments resulting in the ‘essential’ patent. Finally, the high royalty rates should not ‘fully eliminate competition’. The latter condition would require the SEP holder to show that the ‘high’ royalty rate would not cause patent hold-up: the potential licensee would still be able to implement the standard by relying on ‘alternative’ patents.

*Post-Danmark I* conditions would imply a ‘high’ burden of proof for the SEP holder. However, such burden would not be ‘excessive’: rather than representing a generic incentive to innovate, ‘high’ royalty rates would be compatible with Article 102(a) if the SEP holder showed that the requested rate was ‘linked’ to its past innovation investments, which benefited final consumers in terms of new products released on the market.<sup>107</sup> The aim of competition policy is to foster the consumers’ welfare, both in terms of lower prices as well as in terms of new and innovative products. While innovation considerations should not refrain a competition agency from investigating a case of unfair royalty rate, the agency should seriously take in consideration such arguments in the context of the analysis of the unfair royalty rate requested by the SEP holder. In order to minimize the risk of false negative errors, competition agencies and courts should be ‘more open’ to consider the efficiency defence put forward by the SEP holder.<sup>108</sup>

## 5 ‘WHAT’ REMEDIES TO IMPOSE

After having concluded that the requested royalty rate is indeed abusive, the NCA should design appropriate remedies through which to restore competition in the market.<sup>109</sup> However, the latter might be a challenging task in the context of unfair pricing cases: by simply ordering the SEP holder ‘to stop’ its abusive conduct, the competition agency will not solve the issue. Similarly, given the lack of legal precedents in this area, the imposition of a fine would not act as a further deterrent.<sup>110</sup>

<sup>107</sup> A similar view has also been expressed by Fonteijn, Akker & Sauter (2019), *supra* n. 61.

<sup>108</sup> Friederiszick and Gratz have analysed the assessment of efficiency defences in the decisions adopted by the European Commission under Art. 102 TFEU in the period 2009–2013. According to the authors, even after the recognition of efficiency defence in the 2009 Guidance Paper on Art. 102, the Commission rarely seriously assessed the efficiency arguments put forward by the dominant firm. Therefore, objective justifications are accepted in theory, but rarely in practice; Hans Friederiszick and Linda Gratz, *Hidden Efficiencies: The Relevance of Business Justifications in Abuse of Dominance Cases*, 11(3) J. Competition L. & Econ. 671–700 (2015).

<sup>109</sup> For an overview of the EU competition law remedies, see Erling Hjelmeng, *Competition Law Remedies: Striving for Coherence or Finding New Ways?*, 50 Common Mkt. L. Rev. 1007–1038 (2013).

<sup>110</sup> Maria Montagnani, *Remedies to Exclusionary Innovation in the High-Tech Sector: Is There a Lesson from the Microsoft Saga?*, 30(4) World Competition 635 (2007).

Economists generally argue in favour of structural remedies in unfair pricing cases<sup>111</sup>: the agency should remove the barriers that are an obstacle to new entries into the market. After having removed such barriers, the ‘excessive’ prices will attract new entrants, by thus forcing the dominant firm to lower its prices – i.e., the market will self-adjust in the long-term. In Standard Essential Patents, entry barriers are represented by the patent rights of the SEP holder. In terms of structural remedies, the agency could thus force the SEP holder to sell its patents to a competitor, in order to decrease the SEP holder’s market power. However, such a far-reaching remedy is unlikely to be a suitable solution in high-tech markets<sup>112</sup>: firstly, the synergies between different patented technologies contribute to the SEP holder’s incentives to innovate. Secondly, the SEP holder’s patent portfolio is constantly ‘in evolution’: the legal duration of patents is limited in time, while the relevance of a SEP for the implementation of a standard may be even shorter than twenty years, due to rapid technological innovation in the industry.

Alternatively, the agency could opt for a behavioural remedy: the agency could ask the SEP holder to license its ‘essential’ patents to any willing licensee at a ‘fair’ rate. In other words, via its decision, the NCA would impose a mandatory license obligation, by thus forcing the SEP holder to comply with its FRAND commitment. The imposition of a licensing obligation is not ‘new’ in antitrust enforcement; the European Commission has relied on such a remedy in its past decisions. In 2004, the European Commission sanctioned Microsoft for an abuse of dominance for having refused to license to its competitors key-interoperability information that was essential for the functioning of servers’ operating systems.<sup>113</sup> After having won the General Court appeal,<sup>114</sup> the Commission adopted a second decision in 2008, imposing a further sanction on Microsoft for not having complied with the previous 2004 decision.<sup>115</sup> Under the pressure of the new periodic penalty fine imposed by the Commission, Microsoft finally agreed to provide a license giving access to its interoperability information for a flat fee of EUR 10.000 and an optional worldwide patent license for a reduced royalty rate of 0,4% of the licensees’ product revenues.<sup>116</sup> In *Thomson Reuters*, the Commission required Thomson Reuters to introduce a new type

<sup>111</sup> O’Donoghue & Padilla, *supra* n. 62, at 786.

<sup>112</sup> Montagnani, *supra* n. 110, at 635.

<sup>113</sup> Commission Decision of 24 May 2004 relating to a proceeding pursuant to Art. 82 of the EC Treaty and Art. 54 of the EEA Agreement against Microsoft Corporation (Case COMP/C-3/37.792 – *Microsoft*). OJ L-32/23, 6 Feb. 2007.

<sup>114</sup> Case T-201/04, *Microsoft Corp. v. Commission* (2007) ECLI:EU:T:2007:289.

<sup>115</sup> Commission Decision of 27 Feb. 2008, fixing the definitive amount of the periodic penalty payment imposed on Microsoft Corporation by Decision C(2005) 4420 final (Case COMP/C-3/37.792 – *Microsoft*). OJ C-166/20, 18 July 2009.

<sup>116</sup> European Commission press release, *Antitrust: Commission Ensures Compliance with 2004 Decision Against Microsoft*, Published on 22 Oct. 2007, IP/07/1567. (11 Dec. 2020), [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_07\\_1567](https://ec.europa.eu/commission/presscorner/detail/en/IP_07_1567).

of licensing agreement, allowing its customers to use Reuters Instrument Codes (RICs) for data sourced from Thomson Reuters' competitors.<sup>117</sup> Similarly, among the commitments submitted to the European Commission, Rambus agreed to license its patents, which were 'essential' for the implementation of the Random Access Memory (RAM) standard, to any willing licensee, applying a 'most-favoured license rate'.<sup>118</sup> In its Annex, the commitment decision included two templates for licensing agreements: potential licensees could download such agreements from Rambus' website and require Rambus to conclude a licensing agreement on the basis of the terms and conditions mentioned in the agreements.<sup>119</sup> Finally, in *Samsung*, the European Commission required Samsung to license its SEPs that were relevant to the 4G mobile phones' standard in accordance with a Licensing Framework which was attached to the commitment decision.<sup>120</sup>

Although mandatory licensing is not new in the practice of the European Commission, a competition agency should also take into consideration the limits of such a remedy. Firstly, the competition authority would be required to calculate what 'maximum' rate would be 'fair', and thus compatible with Article 102(a). In a case where the agency determined a 'maximum' rate that is 'too low', it would run the risk of damaging the future incentives of the SEP holder to further invest in innovative products. From this perspective, it would be wise for the NCA to settle the case with the SEP holder via a 'commitment' decision, after having heard the views of the implementers. Under Article 9 Reg. 1/2003, the European Commission has the power to conclude both structural and behavioural commitments with undertakings, subject to an investigation for a breach of Article 101–102 TFEU.<sup>121</sup> The ECN+ Directive has recently extended this power to every NCA of the EU Member States.<sup>122</sup>

Nevertheless, the determination of a maximum royalty rate *a priori* will not always be a feasible option. In particular, when patents are licensed as a portfolio, it would be hard for a competition agency to determine a maximum royalty rate *ex-ante*. The European Commission often appoints a 'trustee' to supervise the

<sup>117</sup> Commission decision of 20 Dec. 2012, relating to a proceeding under Art. 102 of the Treaty on the Functioning of the European Union (Case COMP/D2/39.654 – *Reuters Instrument Codes*, RICs). OJ C-326/4, 12 Nov. 2013.

<sup>118</sup> Commission decision in *Rambus*, *supra* n. 31, para. 49(e).

<sup>119</sup> *Ibid.*, para. 50.

<sup>120</sup> Commission Decision of 29 Apr. 2014 relating to a proceeding under Art. 102 of the Treaty on the functioning of the European Union and Art. 54 of the EEA Agreement – (Case AT.39939 – *Samsung – Enforcement of UMTS standard essential patents*). OJ C-350/8, 4 Oct. 2014.

<sup>121</sup> Council Regulation (EC) No 1/2003 of 16 Dec. 2002 on the implementation of the rules on competition laid down in Arts 81 and 82 of the Treaty. OJ L-1/1, 4 Jan. 2003. Art. 9.

<sup>122</sup> Directive (EU) 2019/1 of the European Parliament and of the Council of 11 Dec. 2018 to empower the competition authorities of the Member States to be more effective enforcers and to ensure the proper functioning of the internal market. OJ L-11/3, 14 Jan. 2019. Art. 12.

implementation of behavioural commitments<sup>123</sup>; the independent trustee could be required to decide on the appropriate level for a royalty in case of a dispute between the SEP holder and the licensee. Alternatively, parties might rely on an independent arbitrator who is jointly appointed by the SEP holder and the licensee, rather than on the decision of the trustee appointed by the competition agency.<sup>124</sup> Finally, as Montagnani proposes, the royalty rate might be determined by organizing an auction among the potential licensees.<sup>125</sup>

In view of the evolving market dynamics, the decision should include a sunset clause and it should periodically be jointly revised by the NCA and the SEP holder. In markets that are characterized by rapid technological innovation, a patent might be ‘essential’ only for a short period of time, until a new standard is agreed within the SDO. As Bary and De Bure argue,<sup>126</sup> the NCA decision should be ‘conditional’ – i.e., it may be applicable only if certain conditions occur in the market within a certain period of time.<sup>127</sup> Alternatively, the NCA could include in its decision either an ‘automatic’ review clause (e.g., commitments are abolished if there is a new entrant into the market), or a ‘periodical’ review clause.<sup>128</sup> The agency would periodically assess the structure of the market, and thus it would re-examine whether, and to what extent, the remedies are still needed.

A last issue to be considered is the ability of competition policy to promptly remedy the issue of unfair pricing. As the on-going debate on the New Competition Tool shows,<sup>129</sup> antitrust intervention is often ‘too slow’; it cannot react to the changes in markets that are characterized by rapid technological innovation. The antitrust investigations usually last for years and are then followed by lengthy judicial proceedings. In line with these considerations, the NCAs should be ready to adopt interim measures during their investigations. The adoption of interim measures generally implies a high burden of proof for the competition authority.<sup>130</sup>

<sup>123</sup> For instance, in the 2004 *Microsoft* decision, the European Commission appointed an individual trustee and forced Microsoft to pay his costs. The General Court confirmed the legality of the decision but ordered that the Commission should pay for the costs of the trustee. Spencer Weber Waller, *Access and Information Remedies in High-Tech Antitrust*, 8 J. Competition L. & Econ. 589 (2012).

<sup>124</sup> *Ibid.*, at 591.

<sup>125</sup> Montagnani, *supra* n. 110, at 640.

<sup>126</sup> Laurence Bary & Frédérique De Bure, *Disruptive Innovation and Merger Remedies: How to Predict the Unpredictable?*, 3 *Concurrences* 1–9 (2017).

<sup>127</sup> *Ibid.*, at 7.

<sup>128</sup> *Ibid.*, at 8.

<sup>129</sup> (11 Dec. 2020), <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12416-New-competition-tool>.

<sup>130</sup> Under Art. 8 Reg. 1/2003, the Commission can impose interim measures during antitrust investigations if the following cumulative conditions are satisfied:

- Urgency.
- Risk of serious and irreparable damage.
- Prima facie finding of infringement.

However, as recently shown by the European Commission's interim decision in *Broadcom*, the competition agency should not be afraid to rely on such a tool.

In October 2019, the Commission ordered Broadcom (i.e., the world's leading supplier of the chipsets used for TV set-top boxes and modems) to stop applying certain clauses in the supply contracts that had previously been concluded with six Original Equipment Manufacturers (OEMs).<sup>131</sup> According to the Commission, the contested clauses were exclusivity-inducing and were thus prima facie abusive.<sup>132</sup> The implementation of the contested supply contracts was pending (i.e., there was 'urgency'). In addition, if the contracts had been implemented, there would have been a 'risk of serious and irreparable damage'.<sup>133</sup> In April 2020, Broadcom submitted a number of commitments: in line with the previous interim measures, Broadcom agreed to suspend the existing contracts and not to enter into any new supply contract that included the contested exclusivity clauses for a period of five years.<sup>134</sup> At the time of writing, the Commission is carrying out a market test, seeking feedback from both the OEMs and Broadcom's competitors on the proposed commitments.<sup>135</sup>

In light of the recent *Broadcom* interim decision, if the Commission/NCA was confident about its preliminary findings of unfair pricing, the competition agency might require the SEP holder to license its 'essential' patents via an interim decision; the scope, duration and exact obligations of such a duty would later be refined in the final commitment decision.

The design of appropriate remedies in unfair pricing cases certainly represents one of the major challenges faced by a competition agency in enforcing Article 102(a). This is especially the case in relation to the design of remedies that are suitable for tackling the unfair royalty rate requested by the SEP holder: firstly, by determining a maximum 'rate' that is 'too low', the NCA would run the risk of disincentivising the SEP holder to further innovate. Secondly, the

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Under Art. 5 Reg. 1/2003, NCAs also have the power to order interim measures. Art. 11 of the ECN+ Directive further points out that NCAs have to comply with the same 3 cumulative conditions as the Commission in order to impose interim measures. Such measures shall be applicable either for a fixed period of time, or until there is a final infringement decision by the NCA. The national competition agencies have to inform the European Competition Network (ECN) when they adopt interim measures. Finally, national courts may review the proportionality of the measures.

*Supra*, Reg. 1/2003, Arts 5 and 8; *Supra*, Dir. 2019/1, Art. 11.

<sup>131</sup> European Commission press release, *Antitrust: Commission Imposes Interim Measures on Broadcom in TV and Modem Chipset Markets*, Published on 16 Oct. 2019. (11 Dec. 2020), [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_19\\_6109](https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6109).

<sup>132</sup> *Ibid.*

<sup>133</sup> *Ibid.*

<sup>134</sup> On 27 Apr. 2020, the Commission published the document, including the commitments put forward by Broadcom (Case AT.40608 – *BROADCOM*). (11 Dec. 2020), [https://ec.europa.eu/competition/elojade/isef/case\\_details.cfm?proc\\_code=1\\_40608](https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40608).

<sup>135</sup> Communication from the Commission published pursuant to Art. 27(4) of Council Regulation (EC) No 1/2003 in Case AT.40608 – *Broadcom 2020/C 142/03*. OJ C-142/4, 30 Apr. 2020.

NCA intervention might come ‘too late’, unless the authority adopts interim measures during its investigations. In deciding whether to prosecute a case of unfair royalty rate under Article 102(a), the competition agency should certainly take into consideration the limits of antitrust remedies.

## 6 CONCLUSIONS

In this article, we have discussed whether and under what circumstances Article 102(a) TFEU could be relied either by the European Commission or by an NCA to sanction a case of unfair royalty rate by a SEP holder. In view of the recent ruling of the UK Supreme Court in *Unwired Planet* and the judgment of the German *Bundesgerichtshof* in *Sisvel v. Haier*, in this article we have argued that the FRAND commitment implies a ‘range’ rather than a ‘single’ royalty rate. On the other hand, a royalty rate ‘beyond the outer boundary of the range’ should be considered ‘unfair’, and thus incompatible with the FRAND obligation. Besides representing a breach of the FRAND obligation, a ‘unfair’ royalty rate might be considered a breach of Article 102(a) TFEU.

Economists have elaborated a number of ‘filters’ to define ‘when’ EU competition policy should sanction unfair pricing cases. In particular, antitrust intervention would be justified only in markets characterized by high and stable entry barriers, where the firm enjoys a super-dominant position. Due to the phenomenon of over-declaration, not every SEP is indeed ‘essential’; the market power of the SEP holder thus requires a case-by-case analysis of the ‘essentiality’ of every SEP. However, when the ‘essentiality’ is proved, the SEP holder is likely to hold market power and thus antitrust intervention would be justified. A number of authors have argued that excessive pricing cases should be sanctioned only in network industries (i.e. antitrust intervention is justified only in the lack of price regulation by the NRA), as well as in industries characterized by a lack of dynamic efficiencies. In this article, we have argued that these conditions do not represent an obstacle to competition policy intervention *vis-à-vis* unfair royalty rates. First of all, these 2 ‘filters’ have never been officially endorsed by the CJEU case law. Secondly, innovation considerations could be considered as efficiency defences in the contest of the antitrust investigations, rather than excluding *a priori* competition policy enforcement in relation to unfair royalty rate requested by the SEP holder.

In terms of ‘how’ to assess a case of unfair royalty rate, a competition agency should rely on the CJEU case law on Article 102(a) TFEU to structure its analysis. In particular, the Court of Luxembourg has pointed out that *United Brands* is ‘one of the possible tests’ to assess unfair pricing cases. In particular, *United Brands* cost/price test is not suitable to assess an unfair royalty rate by the SEP holder, since it is de facto impossible to determine the ‘cost of production’ of individual SEPs. In



accordance with CJEU case law, the competition agency could rely on a number of benchmark methods to assess the alleged unfairness of the rate. In its jurisprudence, the Court of Justice has endorsed a number of benchmark methods: price comparison with either competitors of the dominant firm in the same relevant market or with firms selling the same product in a different geographic market, comparison of the price charged by the dominant firm for the same product either in different geographic markets or to different customers, as well as comparison over-time are valid benchmark methods endorsed by the CJEU jurisprudence. After having identified suitable benchmark method(s), the competition agency should assess whether, and to what extent, the price of the dominant firm is indeed unfair in comparison to the benchmark price. In *AKKA-LAA*, the CJEU has not introduced a minimum threshold to this regard; the Court has argued that the price of the dominant firm has to be ‘appreciably high’, ‘significant’ and ‘persistent’ in comparison to the benchmark price in order to breach Article 102(a) TFEU.<sup>136</sup>

By verifying its findings under multiple benchmark methods, the agency would strengthen its conclusions, by thus minimizing the risk of false negative errors. Finally, the SEP holder could put forward some efficiency defence to rebut the evidence of abuse. In accordance with *Post Danmark I* case law,<sup>137</sup> the SEP holder could argue that the ‘high’ royalty rate is justified in view of its past R&D investments. Innovation considerations, therefore, could be incorporated into antitrust analysis, rather than excluding *a priori* competition policy in this sector.

The final important issue is ‘what’ remedies a competition agency should adopt in case its investigations showed that the SEP holder breached its dominant position by asking for an ‘unfair’ royalty rate. In the paper we have argued that the competition agency could require the SEP holder to license its ‘essential’ patent; such behavioural remedy is well established in the practice of the European Commission. In designing such far-reaching remedy, however, the competition agency would face a number of challenges: first of all, by determining a ‘maximum’ royalty rate that is ‘too low’, the NCA would run the risk of disincentivizing the SEP holder to further innovate. In order to minimize such risk, the agency should conclude a commitment, negotiated with the SEP holder, rather than an infringement decision. When a ‘maximum’ royalty rate cannot be identified *a priori* in the commitment decision, the competition agency could ask the monitoring trustee to solve disputes between the SEP holder and licensees concerning the enforcement of the commitment decision system. Alternatively, a ‘fair’ royalty rate could be determined either via arbitration or via an auction. Furthermore, in order to take in considerations market dynamics, the commitments should include a sunset clause and a subject to a period joint review by the competition agency and the SEP holder.

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<sup>136</sup> Case C-177/16, *supra* n. 43, para. 55.

<sup>137</sup> Case C-209/10, *supra* n. 98, para. 42.

A second challenge faced by the NCA in designing antitrust commitments is that its intervention might arrive ‘too late’, especially taking in consideration the rapid evolution of technological industries where SEPs are common. In light of the recent European Commission decision in *Broadcom*,<sup>138</sup> in the paper we have argued that the competition authority should be ready to impose on the SEP holder a temporary mandatory license obligation via an interim decision; the precise content of the license agreement would be refined at a later stage, in the final commitment decision. In deciding whether to prosecute a case of unfair royalty rate under Article 102(a) the competition agency should certainly take in consideration the limits of antitrust remedies, especially in the contest of unfair pricing cases.

As mentioned in section 2, few antitrust investigations have so far been attempted in Europe in this area. Therefore, the paper is purely speculative. However, in view of the ‘resurgence’ of unfair pricing cases in Europe and the increasing number of antitrust investigations related to standard essential patents, the paper is topical. In spite of the challenges discussed in the previous pages, the paper has shown that the European Commission/NCAs of the EU Member States could indeed sanction a request of unfair royalty rate by the SEP holder. Like for the other categories exploitative abuses, the enforcement of Article 102(a) TFEU would be ‘exceptional’, but ‘not impossible’. In other words, the royalty rate requested by the SEP holder could fall under the scrutiny of Article 102 only if it was truly ‘unfair’ (i.e., beyond the outer boundary of the range). In all the other circumstances, the dispute between the SEP holder and the licensee would be solved as a breach of contract – i.e., breach of the FRAND commitment by the SEP holder. Time will tell us if and to what extent such framework of analysis will be followed by the European Commission and by the NCAs in assessing ‘real’ cases of unfair royalty rate under Article 102(a) TFEU.

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<sup>138</sup> Commission decision in *Broadcom*, *supra* n. 131.