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Robert Schuman Centre for Advanced Studies
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Abstract

Technical standards that are agreed within a Standard Development Organization (SDO) often cover several 'essential' patents for the implementation of a standard (i.e., Standard Essential Patents, SEPs). In order to allow for the standard implementation, the SEP holder commits to license its patents to any potential licensee on the basis of Fair and Reasonable and Non-Discriminatory (FRAND) conditions. In view of the recent ruling of the UK Supreme Court in *Unwired Planet* and the judgement of the German *Bundesgerichtshof* in *Sisvel v. Haier*, the paper assumes 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 commitment. Besides representing a breach of the FRAND commitment, an 'unfair' royalty rate might also be considered an abuse of a dominant position by the SEP holder, in breach of Art. 102(a) TFEU. This paper analyses whether, and under what circumstances, Art. 102(a) TFEU can be relied upon by a competition authority in Europe to sanction a case where an 'unfair' royalty rate has been set by the SEP holder. To this regard, the paper provides a detailed analysis of the EU Court of Justice's jurisprudence on Art. 102(a) TFEU. In particular, the latter jurisprudence is relied as a 'yardstick' to assess 'when' competition policy should sanction a request of unfair royalty rate by the SEP holder, 'how' a competition agency should assess the case and, eventually, 'what' remedies the competition authority might adopt.

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 that are characterized by high and stable entry barriers, in which a 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. A number of authors have also argued that excessive pricing cases should not be sanctioned in industries characterized by dynamic efficiencies. The paper argues that innovation considerations could be considered as efficiency defences in the context of antitrust investigations, rather than in excluding *a priori* competition policy enforcement in this field.

The paper argues that a competition agency should rely on the case law of the Court of Justice of the European Union (CJEU) on Art. 102(a) TFEU to analyse a case of unfair royalty rate. In particular, *United Brands* cost/price test is not suitable for assessing an unfair royalty rate requested by the SEP holder, since it is *de facto* impossible to determine the 'costs of production' of individual SEPs. On the other hand, in accordance with the CJEU case law, the competition agency might rely on a number of benchmark methods with which to assess the alleged unfairness of the rate. In particular, the agency should verify its findings under multiple benchmark tests, in order to minimize the risk of false negative errors. Finally, the SEP holder could argue that the requested royalty rate is justified by its past R&D investments.

In terms of remedies, the paper argues that a competition agency could require the SEP holder to license its 'essential' patent; such behavioral remedy is well established in the practice of the European Commission. In light of the recent *Broadcom* interim decision, if the competition authority was confident about its preliminary findings of unfair pricing, the 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.

Keywords

Standard Essential Patents; royalty rate; Fair, Reasonable and Non-Discriminatory terms; unfair pricing; Art. 102(a) TFEU.

I. Introduction

In the modern communications society, technical standards are essential to allow different devices 'to talk to each other' - i.e., so-called interoperability.[1] Interoperability fosters innovation, allow manufacturers to develop new products and, therefore, increase the consumers' welfare.[2] Technical standards developed 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 SEP holder commits to license its patents to any potential licensee on the basis of Fair and Reasonable and Non-Discriminatory (FRAND) conditions.[3]

Traditionally, license agreements have been 'peacefully' negotiated among industrial players; the latter usually relied on cross-licenses to settle their disputes and avoid royalty stacking.[4] In such a context, parties rarely started a court dispute concerning an SEP license.[5] During the past decade, however, litigation has substantially increased between SEP holders and implementers in the context of the so-called 'smartphones war'.[6] Standards are essential in smartphones in order to ensure interoperability between different devices and foster innovation. 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.[7] In addition, Patent Assertion Entities (PAEs)[8] 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.[9]

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1 Pierre Larouche, Geertrui Van Overwalle (2015), "Interoperability Standards, Patents and Competition Policy" In Panagiotis Delimatsis (ed.), *The Law, Economics and Politics of International Standardisation* (Cambridge University Press, Cambridge). 367-393.

2 Haris Tsilikas (2017), "Collaborative Standardization and Disruptive Innovation: The Case of Wireless Telecommunication Standards." 48(2) *International Review of Intellectual Property and Competition Law:* 151-178.

3 Bjorn Lundqvist (2017), "Standardization for the Digital Economy: The Issue of Interoperability and Access Under Competition Law." 62(4) *Antitrust Bulletin:* 710-725. At 712.

4 The expression 'royalty stacking' refers to a situation in which a standard is covered by multiple patents held by different holders. The implementers are thus required to conclude multiple license agreements that increase the overall royalty burden for the implementer. For an overview of the main issues linked to royalty stacking, see Anne Layne-Farrar (2014), "Patent Holdup And Royalty Stacking Theory And Evidence: Where Do We Stand After 15 Years of History?" OECD Background Note DAF/COMP/WD(2014)84. The document is available at: https://www.oecd.org/competition/competition-intellectual-property-standard-setting.htm#documents (29.6.2020).

5 Michael Fröhlich (2014), "The smartphone patent wars saga: availability of injunctive relief for standard essential patents" 9(2) *Journal of Intellectual Property Law & Practice*: 156-159.

6 *Ibid*.

7 Matthew Norris (2013), "Blocking Blocks at the Border: Examining Standard-Essential Patent Litigation between Domestic Companies at the ITC," 98(2) *Minnesota Law Review* 98: 713-744.

8 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 aggresively' 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 Damien Geradin (2019), "Patent Assertion Entities and EU Competition Law" 15(2) *Journal of Competition Law and Economics:* 204-236.

9 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.

Economists have proposed a number of methods with which to assess what a 'fair' royalty rate at which to license an SEP is.[10] While courts in the USA[11] and in the UK[12] have engaged in such a complex exercise in a number of damage claims linked to a breach of the FRAND commitment by the SEP holder, courts in continental Europe have generally considered FRAND to be a 'process': rather than as quantifying what a 'fair' royalty rate is, a number courts in Europe have assessed 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.[13] 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.[14]

In *Unwired Planet*, the High Court of England and Wales ruled that only a 'single' royalty rate may be considered compatible with the FRAND requirement. According to the High Court, "…the concept that there exists only a single set of FRAND terms for a given situation is workable. It will promote certainty and will enhance the normative aspect of FRAND."[15] In particular, when both parties argue that their proposal is indeed FRAND, the court/arbitrator will be able to adjudicate on the appropriate

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10 In 2005, Swanson and Baumol proposed an *ex-ante* model, whereby the FRAND royalty rate should be calculated on the basis of the expected economic value of the patent before it is included in the standard. The authors proposed an auction model, where every patent holder would auction its SEPs within the SDO. at the time when the standard is adopted. The *ex-ante* model has been subject to extensive debate in the literature, but it has never been applied by any SDO. See D. G. Swanson and W. J. Baumol (2005), "Reasonable and Nondiscriminatory Royalties, Standard Selection and Control of Market Power" 73 *Antitrust Law Journal,* 1.

'Bottom-up', 'top-down', 'benchmarking' are methods relied upon by the US courts to 'estimate' an SEP royalty rate in a case where there is a lack of agreement between the parties. For an overview of the main economic methods, see: Cryssoula Pentheroudakis, Justus Baron (2017), "Licensing Terms of Standard Essential Patents. A Comprehensive Overview". *JRC Science for Policy Report*. Section 3.3., "Quantifying FRAND Royalties". The document is available at: https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/licensing-terms-standard-essential-patents-comprehensive-analysis-cases (14.09.2020).

11 *Microsoft v. Motorola*, decided in 2015 by the US Court of Appeals for the Ninth Circuit, represents the first case in which a US Federal Court was called to assess what a 'reasonable' royalty rate in an SEP-related dispute is. In the ruling, the court emphasized that the license agreements previously concluded by the patent holder with third parties in relation to the same SEP could be considered to be a benchmark with which to define a 'reasonable' royalty base.

In the case of a lack of comparable patents, the US Northern District of Illinois compared the bottom up and the top down approaches in *Innovation IP Ventures.* The court rejected the bottom-up approach in view of the difficulties in the assessment of alternative technologies that would comply with the standard, while it endorsed the 'top-down' approach. The top-down approach was also applied in 2017 by the District Court of California in *TLC v. Ericsson.* Microsoft Corp. v. Motorola, Inc., et al, No. C10 - 1823 JLR, 2013 WL 211217 (W.D. Wash. Apr. 25, 2013).

In *re Innovatio IP Ventures LLC*, Order of 27 September 2013, District Court for the Northern District of Illinois, MDL Docket No 2303, Case No 11 C 9308.

TLC Communication Technology Holdings Ltd. v. Telefonaktiebolaget LM Ericsson (8:14-CV-00341). Decided by the District Court of California on 21st September 2017.

12 An example to this regard is represented by the ruling of the High Court of England and Wales in *Unwired Planet.* High Court of England and Wales, *Unwired Planet v. Huawei,* 5 April 2017. [2017] EWHC 711 (Pat).

13 Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH* (2015) ECLI:EU:C:2015:477.

14 In the Communication, the EU Commission pointed out that SEPs' values should be evaluated on the basis of the added value of the patented technology; the evaluation should incentivise the SEP holder to invest in research and innovation; parties should agree on a reasonable aggregated royalty rate covering complementary SEPs, in order to avoid royalty stacking.

European Commission, *Communication from the Commission to the Institutions on Setting out the EU approach to Standard Essential Patents.* Published on 29.11.2017. COM (2017) 712 final. At 6-7.

15 *Supra,* ruling of the High Court in *Unwired Planet,* para. 156.

royalty rate. By contrast, the Court of Appeal of England and Wales ruled in *Unwired Planet* that there is no 'single' royalty rate that can be considered FRAND; on the contrary, a 'range' of different royalty rates may be considered compatible with the FRAND commitment by the SEP holder.[16] 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.[17] However, by rejecting the 'hard-edge' interpretation of the non-discrimination obligation,[18] the Supreme Court indirectly upheld the interpretation of FRAND as a 'range'.[19] German courts have also followed the same approach.[20] 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 commitment, by thus indirectly accepting that FRAND represents a 'range', rather than a 'single' royalty rate.[21]

As noticed by Colangelo and Scaramuzzino, the interpretation of FRAND as a 'range' is compatible with the *Huawei* ruling:[22] in its land-mark judgement, in fact, the EU Court of Justice indicated a clear negotiation framework; within such a framework, the SEP holder and different licensees may agree on different royalty rates and conditions considered FRAND. The royalty rate agreed by the parties in the license agreement, in fact, is influenced by a number of factors, such as the geographical scope of the license, the payment terms and the patents covered by the license agreement.[23]

In view of the recent ruling of the UK Supreme Court in *Unwired Planet* and the judgement of the German *Bundesgerichtshof* in *Sisvel v. Haier*, this paper assumes 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 commitment. In addition, an unfair royalty rate might also represent a breach of EU competition rules: under Art. 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'.[24]

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[16] Court of Appeal of England and Wales, *Unwired Planet v. Huawei,* 23 October 2018. [2018] EWCA Civ 2344. Para. 121.

[17] UK Supreme Court, *Unwired Planet International Ltd and another (Respondents) v. Huawei Technologies (UK) Co Ltd and another (Appellants)*, 26 August 2020. [2020] UKSC 37.

[18] 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. As a consequence, a licensee could ask the the SEP holder to benefit from the same discounted rate that the patent holder had previously granted to another licensee (i.e. most-favoured license approach).

[19] *Supra,* UK Supreme Court in *Unwired Planet,* para. 105-127.

[20] The District Court (LG) and the Higher Regional Court (OLG) of Düsseldorf have ruled that the concept of FRAND refers to a range of acceptable royalty rates; as a rule, there is no single FRAND-compliant royalty rate.

OLG Düsseldorf, 17th November 2016, I-15 U 66/15, Para. 13. The text of the ruling is available at: https://openjur.de/u/2157500.html (21.07.2020).

LG Düsseldorf, 11 July 2018, No. 4c O 81/17, Para. 241. An English translation of the ruling is available at: https://www.katheraugenstein.com/wp-content/uploads/2019/05/2018-07-11-4c-O-81_17-EN-pdf-2.pdf (21.07.2020).

[21] *Bundesgerichtshof, Sisvel v. Haier,* ruled on 5.5.2020, ECLI: DE: BGH: 2020: 050520UKZR36.17.0 Para. 81.

The text of the ruling in the German language is available at: https://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&az=KZR%2036/17&nr=107755 (21.07.2020).

A summary of the ruling in English language is available at: https://www.jdsupra.com/legalnews/landmark-judgment-for-german-frand-law-71791/ (21.07.2020)

[22] Giuseppe Colangelo, Gianluca Scaramuzzino (2019), "Unwired Planet Act 2: the Return of the FRAND Range." 40(7) *European Competition Law Review:* 306.

[23] Gregory Sidak (2017), "Is a FRAND Royalty a Point or a Range?" 2 *The Criterion Journal on Innovation:* 401-428.

[24] Consolidated version of the Treaty on the Functioning of the European Union. OJ C-326/47, 26.10.2012. Art. 102(a) TFEU.

In the *FTC V. Qualcomm,* the US Court of Appeals for the Ninth Circuit recently noted "…the persuasive policy arguments of several academics and practitioners with significant experience in SSOs, FRAND, and antitrust enforcement, who have expressed caution about using the antitrust laws to remedy what are essentially contractual disputes between private parties engaged in the pursuit of technological innovation."[25] In Europe, by contrast, national courts have pointed out that the FRAND commitment and competition rules should be applied 'in parallel', rather than than being mutually exclusive.[26] As Justice Birss recognised in *Unwired Planet*, the 'boundaries' of what is an 'unfair' royalty rate under the competition and contract law are different.[27] In particular, Art. 102 is applicable only if the SEP holder has market power, while such a condition does not exist under the FRAND commitment.

II. Objectives of the paper

During the recent years, there has been extensive debate among a number of authors on whether there is empirical evidence of patent 'hold-up',[28] and to what extent this issue may allow the SEP holder to request an 'excessive' royalty rate from its licensees.[29] The literature, however, has mostly discussed this issue as a breach of the FRAND commitment by the SEP holder, rather than as a breach competition rules. As Geradin has argued, Art. 102(a) TFEU "…could in theory be used to control the level of

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25 US Court of Appeals for the Ninth Circuit, *FTC v. Qualcomm,* No. 19-16122, D.C. No. 5:17-cv-00220-LHK. P. 39.

26 Jeffery Atik (2019), "The FRAND Ceremony and the Engagement of Article 102 TFEU in the Licensing of Standard Essential Patents" 42 *Fordham International Law Journal:* 949-966.

Such an interpretation has been followed by the High Court of England and Wales in *Unwired Planet*. In the judgment, Justice Birss ruled that a FRAND undertaking "…gives implementers legal rights and obligations…" that are "…enforceable in court irrespective of competition law".

*Supra,*ruling of the High Court in *Unwired Planet*. Para. 723.

27 *Supra,* ruling of the High Court in *Unwired Planet*. Para. 757.

28 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 concluded a license agreement with the SEP holder, even if the latter requires excessive royalty rates.

Supra, Pentheroudakis, Baron, p. 24.

According to Shapiro and Lemley, patent hold-up is an important problem in high-tech industries, where products have to be compatible with an agreed industry standard in order to be compatible and where each standard is covered by hundreads of patents. According to the authors, the uncertainty caused by patent hold-up discourage the implementers to invest in new innovative products.

Carl Shapiro, Mark Lemley (2020), "The Role of Antitrust in Preventing Patent Hold-up" 168 *University of Pennsylvania Law Review:* 1-43.

Other authors, by contrast, have challenged the theory of patent hold-up, arguing that there is no empirical evidence to support such theory. See, for instance, Scott Kieff, Anne Layne-Farrar (2013), "Incentive Effects from Different Approaches to Holdup Mitigation Surrounding Patent Remedies and Standard-Setting Organizations" 9(4) *Journal of Competition Law and Economics:* 1091-1123.

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royalties charged by essential patent holders."[30] 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.[31] Secondly, "it is extremely difficult to determine whether prices are excessive"[32] 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 Art. 102(a) TFEU.[33]

The present paper analyses whether, and under what conditions, an 'excessive' royalty rate requested by the SEP holder might be sanctioned as a case of 'unfair' pricing under Art. 102(a) TFEU, rather than as a breach of the FRAND commitment. The present paper challenges the two main assumptions in the literature: on the one hand, rather than preventing antitrust investigations, innovation considerations might be assessed as an efficiency defence in the context of an antitrust investigation under Art 102(a) TFEU. Secondly, recent jurisprudence by national and EU courts have partially clarified the legal test in unfair pricing cases. In particular, *United Brands* is no longer the 'only' legal test through which to analyse an unfair pricing case under Art. 102(a) TFEU; the EU Court of Justice has endorsed a number of alternative 'benchmark' methods that may be relied upon by a competition authority to assess a case of excessive royalty rate from the SEP holder.

Section III discusses the *United Brands* test and the benchmarking methods developed by the CJEU case law in order to assess the circumstances under which the 'excessive' price charged by the dominant firm may be considered 'unfair' and is thus in breach of Art. 102(a) TFEU. In particular, the paper discusses such tests in light of recent jurisprudence from both national and EU courts. Finally, in Section IV, we apply the case law discussed in Section III in order to assess an 'unfair' royalty rate requested by the SEP holder.

Since its landmark ruling in *Parke Davies*, the CJEU has pointed out that holding a patent does not create a presumption of dominance.[34] As recently recognised by the BGH in *Sisvel v. Haier*, this is also true for SEPs:[35] due to the phenomenon of SEPs' over-declaration, and since the implementers often have different 'alternative routes' through which to implement a standard – i.e., an individual SEP rarely locks-in the implementer.[36] In this paper, we analyse an unfair royalty rate as a possible abuse of dominance, while we do not further discuss the issue of SEP holder dominance. However, it is important to bear in mind that the excessive royalty rate may represent a breach under Art. 102 only in a case where the SEP holder is dominant in the market.

It is worth mentioning that the concept of 'unfair' royalty rate may cover a rate that is 'excessive' in comparison to the economic value of the patent – i.e., the implementer will conclude the license agreement because it is 'locked-in' due to the need to implement the standard in its products (i.e., patent hold-up). Alternatively, a royalty rate could also be 'unfair' when it is 'too low', due to 'patent hold-

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30 Damien Geradin (2008), "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. P. 14. The conference paper is available at: https://www.ssrn.com/abstract=1174922 (18.08.2020).

31 Damien Geradin, Miguel Rato (2007), "Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-Up, Royalty Stacking and the Meaning of FRAND." 3(1) *European Competition Journal:* 150.

32 *Ibid.*

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

34 Case C-24/67, *Parke Davis and Co. v. Probel, Reese, Beintema-Interpharm e Centrafarm* (1968) ECLI:EU:C:1968:11.

35 *Supra*, BGH, *Sisvel v. Haier.* Para. 56-57.

36 Anne Layne-Farrar, Jorge Padilla (2011), "Assessing the Link between Standard Setting and Market Power" 9(2) *International Journal of IT Standards and Standardization Research:* 1-40.

out' - i.e., a group of implementers deliberately choose not to seek a license and challenges the patent's validity in court, in order to force the SEP holder to reduce the requested royalty rate. By referring to 'unfair purchasing price' as an abuse by 'one or more undertakings', in principle, Art. 102(a) is sufficiently broad to cover patent hold-out as a case of abuse of collective dominance by a group of implementers.[37] This paper focusses only on the issue of 'unfair' royalty rate by the SEP holder; in contrast, the issue of patent hold out remains beyond the scope of the present study and is thus left to future research.

There has been few attempts in Europe to assess what an 'unfair' royalty rate is under Art. 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.[38] Two years later, the implementers concluded a license agreement with Qualcomm, and they withdrew their complaint; the Commission thus closed the investigations without taking any formal decision on the case.[39] In 2009, the European Commission sanctioned in *Rambus* the practice of 'patent ambush': the lack of patent disclosure by the SEP holder during the standardization process within the SDO; practice that might facilitate patent hold-up.[40] As noted by Petrovcic, though the Commission did not explicitly qualify *Rambus* as an excessive pricing case, the commitment decision referred to the risk of abusive royalties caused by patent ambush.[41] After the *Rambus* decision, the Commission has changed its enforcement priorities in relation to SEPs: rather than sanctioning unfair royalty rates, in the *Motorola*[42] and *Samsung*[43] the Commission sanctioned the request of a court injunction by the SEP holder as an abusive behaviour under Art. 102 TFEU. Therefore, although neither the European Commission nor the National Competition Authorities (NCAs) in Europe have ever directly sanctioned a case of unfair royalty rate, this remains a possibility under Art. 102(a) TFEU; possibility explored in the present paper.

37 The concept of collective dominance has been recognised by the CJEU case law in relation to an abuse of dominance by a group of undertakings jointly operating in oligopolistic markets. For a detailed discussion of the CJEU case law on collective dominance, see Giorgio Monti (2001), "The Scope of Collective Dominance under Art. 82 EC" 38 *Common Market Law Review:* 131-157.

38 European Commission press release, "Antitrust: Commission initiates formal proceedings against Qualcomm" MEMO/07/389, Brussels, 1st October 2007. The text of the press release is available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_07_389 (30.6.2020).

39 European Commission press release, "Antitrust: Commission closes formal proceedings against Qualcomm" MEMO/09/516, Brussels, 24th November 2009. The text of the press release is available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_09_516 (30.6.2020).

40 Commission Decision of 9 December, 2009, relating to proceedings under Article 102 of the Treaty on the functioning of the European Union and Article 54 of the EEA Agreement (Case COMP/38.636 — *RAMBUS*). OJ C-30/17, 6.2.2010.

41 Urska Petrovcic (2013), "Patent Hold-Upand The Limits Of Competition Law: A Trans-Atlantic Perspective" 50 *Common Market Law Review:* 1363-1386. P. 1368.

42 Commission Decision of 29 April 2014 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement (Case AT.39985 — *Motorola — Enforcement of GPRS standard essential patents*). OJ C-344/6, 2.10.2014.

43 Commission Decision of 29 April 2014 relating to a proceeding under Article 102 of the Treaty on the functioning of the European Union and Article 54 of the EEA Agreement — (Case AT.39939 — *Samsung — Enforcement of UMTS standard essential patents*). OJ C-350/8, 4.10.2014.

The present study is timely, taking into consideration the growing number of excessive pricing cases that have been sanctioned in Europe during recent years.[44] The recent *Gazprom*[45] and *Aspen*[46] commitment decisions show that even the European Commission is currently re-considering its traditional 'non-enforcement paradigm' *vis-à-vis* unfair pricing cases. In order to guarantee legal certainty both to the SEP holders and the implementers, it is important to clarify whether, and under what circumstances, the SEP holder would breach Art. 102(a) by requesting an 'excessive' royalty rate from its licensees. Finally, the paper is relevant, since Section III systematizes the test that has been developed by the CJEU case law to assess excessive pricing cases. Section III shows that although several questions remain open in the assessment of excessive pricing cases, recent national and EU jurisprudence are 'filling the gaps' in the previous CJEU case law.[47]

III. Unfair prices under Art. 102(a) TFEU

In *General Motors,* the CJEU clarified, for the first time, the meaning of Art. 102(a) TFEU.[48] According to the Court, "…an abuse might lie, *inter alia,* in the imposition (by a dominant firm) of a price which is excessive in relation to the economic value of the service provided".[49] Similarly, in *British Leyland,* the Court ruled that "… an undertaking abuses its dominant position where it has an administrative monopoly and charges for its services fees which are disproportionate to the economic value of the service provided".[50] Neither in *General Motors,* nor in *British Leyland,* has the CJEU clarified the circumstances under which an 'excessive' price is 'unfair', and is thus in breach of Art. 102(a) TFEU.[51]

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[44] During recent years, the European Commission and a number of NCAs have increasingly investigated excessive prices cases in the energy and pharmaceutical sectors. A number of NCAs have sanctioned cases of excessive pricing by incumbent generators, who withheld capacity during the period of peak demand in order to be able to charge excessive prices in the wholesale electricity markets.

The *Aspen* case in Italy and the *Pfizer-Flynn* case in UK show that the excessive prices for medicines charged by generic manufacturers to the final consumers may also be subject to antitrust scrutiny.

In relation to excessive pricing in the electricity sector, see Rozeta Karova, Marco Botta, "Sanctioning Excessive Energy Prices as Abuse of Dominance" in Pier Luigi Parcu, Giorgio Monti, Marco Botta (eds.), *Abuse of Dominance in EU Competition Law: Emerging Trends* (Edward Elgar Publishing, 2017).

In relation to excessive pricing in the market for generic drugs, see OECD Secretariat Background Note, "Excessive Prices in Pharmaceutical Markets". DAF/COMP(2018)12, published on 3.10.2018. https://www.oecd.org/competition/excessive-pricing-in-pharmaceuticals.htm (30.6.2020).

[45] Commission Decision on Upstream Gas Supplies in Central and Eastern Europe on 24th May 2018. Case AT.39816.

[46] On 14 July, 2020, the European Commission opened a market study concerning the proposed commitments offered by Aspen to close the Commission investigations concerning the unfair prices of anti-cancer drugs that are sold by Aspen in Europe. The Commission investigations represent the follow-up on the Italian *Aspen* case, sanctioned in 2016 by the Italian competition authority. At the timet of writing, the European Commission is looking for the feedback from Aspen's customers and competitors in relation to the proposed commitments.

Communication from the Commission published pursuant to Article 27(4) of Council Regulation (EC) No 1/2003 in Case AT.40394 – *Aspen* 2020/C 233/06. OJ C-233/7, 15.7.2020.

[47] See, for instance, the recent ruling of the Court of Appeal of England and Wales in *Pfizer/Flynn,* which ruled, on 10th March, 2020.

Court of Appeal of England and Wales, *Competition and Market Authority v. Flynn Pharma Limited & Pfizer Limited*. Judgement ruled on 10/03/2020, EWCA Civ 339.

[48] Case C-26/75, *General Motors Continental NV v. Commission* (1975) ECLI:EU:C:1975:150.

[49] *Ibid,* Para. 12.

[50] Case C-226/84, *British Leyland Public Limited Company v. Commission* (1986) ECLI:EU:C:1986:421. Para. 27.

[51] Cristoforo Osti (2019), "Reflections on the Legal Assessment of Excessive Prices in EU Competition Law." In Gabriella Muscolo, Marina Tavassi (eds.), *The Interplay between Competition Law and Intellectual Property. An Alternative Perspective* (Woulters Kluwer, The Hague). Chapter 13. P. 182.

In this section, we discuss the tests elaborated by the CJEU after *General Motors* and *British Leyland* to assess when an 'excessive' price is 'unfair' and is thus in breach of Art. 102(a) TFEU. In particular, we analyse the cost/price test, which was accepted by the CJEU in *United Brands* (Section III.1), as well as the 'alternative' methods, such as benchmarking (Section III.2.1) and the excess profits analysis (Section III.2.4.). Finally, we discuss the need for the competition agency to verify its findings of price unfairness under multiple tests (Section III.3.1), as well as the possible objective justifications that the dominant firm can put forward in order to refute the findings of abuse (Section III.3.1). Section III thus provides the framework for the legal analysis of unfair pricing cases; a framework that will be relied on in Section IV in order to discuss the issue of the unfair royalty rate requested by the SEP holder.

III.1 United Brands test

In *United Brands*, the European Commission sanctioned the excessive prices of Chiquita bananas, which were imported by United Brands from Central America to the European Community.[52] In its decision, the Commission mainly relied on the price differences between EU Member States as evidence of abuse: United Brands sold bananas in Ireland at a wholesale price that was substantially lower than the wholesale prices in other continental European countries, though the transport costs to Ireland were supposed to be higher than in the rest of Europe.[53] Unlike *General Motors* and *British Leyland,* the CJEU introduced a two-tier test to explain when the price charged by the dominant firm is 'excessive', in comparison to the economic value of the product, and is thus 'unfair'. According to the Court, the price charged by a dominant firm is in breach of Art. 102(a) when:[54]

i) it is 'excessive' in comparison to the 'economic value' of the product, and
ii) '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 excessive pricing under Art. 102(a) TFEU. In this case, the CJEU partially quashed the previous infringement decision, since the European Commission had failed to take into account the alternative explanations put forward by United Brands to justify the higher wholesale price of bananas in Ireland in comparison to those charged in continental Europe.[55]

III.1.1 The 'excessive' limb

The 'excessive' limb represents the first step of the *United Brands* test. It relies on the so-called 'cost plus' method, whereby the competition agency should compare the revenues and the costs of the dominant firm, taking in consideration a reasonable profit margin.[56] Over the decades, competition

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52 Commission Decision of 17 December, 1975, relating to a procedure under Art. 86 of the EEC Treaty (IV / 26699 – Chiquita). OJ L-95/1, 09/04/1976.

53 *Ibid.*

54 *Supra,* Case 27/76, Para. 252.

55 According to the CJEU, the Commission had not taken into account a number of internal documents showing that the banana price in Ireland was 'too low', and United Brands operated at a loss in that country. Secondly, the Court noticed that the price of bananas had been generally stable over the last 20 years (i.e., there was a sudden price increase, in order to justify a case of excessive pricing). Finally, the difference between the price of bananas sold by United Brands and its competitiors was only 7% - i.e., too limited to justify an excessive price case.

Supra, Case 27/76, Para. 261-268.

56 "This excess could, *inter alia*, be determined objectively, if it were possible for it to be calculated by making a comparison between the selling price of the product in question and its cost of production, which would disclose the amount of the profit margin."

Supra, Case 27/76, Para. 251.

agencies have developed rather sophisticated methods with which to assess the costs faced by the dominant firm in producing the product that is the subject of the alleged abuse. In *Albion II*,[57] the UK Competition Appeal Tribunal (CAT) compared the Average Accounting Cost plus (AAC+), the Local Accounting Costs (LAC) and the Long-Run Incremental Cost (LRIC) faced by the dominant firm.[58] The case concerned the excessive pricing charged by Dwr Cymru to Albion, in order to use its transportation water network in the Ashgrove area. Since the case concerned the access price to a physical network, CAT compared cost methodologies that are traditionally relied upon in network industries. On the other hand, in excessive pricing cases outside network industries, the competition authorities have looked at the different costs faced by the dominant firms, including the marginal costs of production, as well as the indirect costs that are common to different lines of production.[59]

In the context of the *United Brands* test, the authority should assess a 'reasonable' rate of profits (i.e., the 'plus' aspect of the test).[60] In assessing the reasonable rate of return, the competition agencies have often relied on the average profits rate of the competitors to the dominant firm as an indication of the reasonable profits that the dominant firm might expect in a certain industry.[61] Alternatively, in *Pfizer-Flynn*, the UK Competition and Markets Authority (CMA) compared different profit methodologies,

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[57] UK Competition Appeal Tribunal, *Albion Water Limited v. Water Services Regulation Authority and Dwr Cymru Cfyngedig.* Ruled on 7.11.2008. Case number 1046/2/4/04.

[58] In *Albion II*, the AAC+ referred to the regional average accounting costs that were attributable to the service of water transportation and partial treatment by Dwr Cymru. On the other hand, LAC involved an estimation of the costs attributable to using the Ashgrove water network. Finally, LRIC involved estimating the amount by which long-run capital and operating costs changed when increased by a substantial and defined amount. In this case, LRIC was applied, taking into consideration an increment corresponding to 20% of capacity.

For a detailed economic analysis of the cost analysis in different excessive pricing cases, including *Albion II*, see Peter Davis, Vivek Mani (2018), "The Law and Economics of Excessive and Unfair Pricing: a Review and a Proposal." 63(4) *Antitrust Bulletin*, 399-430.

[59] For instance, in the *Pfizer-Flynn* decision, the UK Competition and Market Authority (CMA) estimated the costs faced by Pfizer for producing phenytoin sodium capsules. The CMA considered both the marginal cost of production of a single package of capsules, as well as the indirect costs faced by Pfizer in relation to different types of products (e.g., distribution costs, capital return costs, investment costs in production facilities…). In particular, the CMA considered 3 methods by which to allocate indirect costs:

- Input-based cost drivers: indirect costs are allocated to a particular line of business based on other inputs employed in the production of that line of business, such as labor employed;
- Output-based cost drivers: indirect costs are allocated among different lines of business using output indicators (e.g., production of sale volumes of different products);
- Value-based cost drivers: indirect costs are allocated among different lines of business based on demand factors, such as prices, revenues, or consumers' willingness to pay.

In the *Pfizer-Flynn* decision, the CMA considered that the output-based cost driver was the most appropriate methodology with which to allocate the indirect costs faced by Pfizer.

UK Competition and Markets Authority, *Unfair Pricing in Respect of the Supply of Phenytoin Sodium Capsules in the UK*. Decision adopted on 7.12.2016, case CE/9742-13. Para. 5.38-5.47.

[60] *Supra,* Case 27/76, Para. 251.

[61] For instance, in *Aspen* the *Authorità Garante per la Concorrenza e il Mercato* (AGCM, Italian competition authority) applied the cost+ plus test, by considering Aspen's 13% profitability rate. The authority considered that such a profit rate was in line with the average profitability of Teva Pharmaceuticals and Mylan (i.e., companies that are world-wide leaders in the production of generic drugs and direct competitors to Aspen outside Italy) during the years 2013-2014 – i.e., during the period when Aspen abused its dominant position.

Autorità Garante per la Concorrenza e il Mercato, *Incremento Prezzo Farmaci Aspen.* Decision 26185 adopted on 17.10.2016. Para. 174.

such as Return On Capital Employed (ROCE), Return On Sale (ROS) and Gross Margin measure.[62] In this case, the authority decided that ROS was the most appropriate method with which to estimate a reasonable profit rate, and this resulted in a profit margin for Flynn of 6%.[63]

While the assessment of the revenues, costs and profits is a rather straightforward exercise for economists, the assessment of the economic value of the product, in the context of the *United Brands* case, remains an open issue. In assessing the 'plus part' of the test, in fact, a number of competition agencies have also analysed the expected value of the product for consumers: certain products, in fact, may have specific features that justify a 'higher' price in comparison to the overall costs of production - i.e., higher profits for the dominant firm. In *Scandlines*, for instance, the European Commission concluded that the fees requested by the Port of Helsingborg were not excessive in comparison to the economic value of the services offered to ferry companies, like Scandlines.[64] In particular, the European Commission noticed that the Port of Helsingborg had a strategic position in Sweden and it offered a broader variety of services in comparison to other harbours, which demanded lower tariffs.[65] Similarly, in *Attheraces,* the Court of Appeal of England and Wales rejected the plaintiff's claim that the British Horseracing Board (BHB) charged excessive fees for the supply of horses' pre-race data to British bookmakers, like Attheraces.[66] According to the Court of Appeal, pre-race data were intangible goods that had a high economic value for bookmakers; a value that justified the high fees charged by BHB, although the cost faced by BHB in providing such data was negligible.[67]

The assessment of the economic value of the product, in the context of the *United Brands* test, was an issue in which the CAT and the Court of Appeal expressed different views in their recent rulings in *Pfizer-Flynn.* On the one hand, the CAT criticized the CMA for not having assessed the economic value of the product for consumers.[68] According to the Tribunal, since the CMA had concluded in its decision that the price of phenytoin sodium capsules was 'unfair in itself' (i.e., the second limb of the test), the CMA should have assessed the expected economic value of the tables for the patients who were using such medicine.[69] On the other hand, according to the Court of Appeal, the assessment of the economic value of the product is "…part of the overall descriptor of the abuse", rather than a separate step in the *United Brands* test.[70] In view of the divergent positions of the CAT and the Court of Appeal in

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62 ROCE measures profits against the capital employed to produce them. On the other hand, ROS measures profits on sales after the deduction of both direct and indirect costs. Finally, the "gross margin" method is defined as the difference between the revenue and the costs of the goods sold.

Supra, CMA decision in *Pfizer-Flynn,* Para. 5.53-5.57.

63 On appeal, the CAT rejected the profit estimation put forward by CMA in its previous decision. According to the Court, the profit margin estimation of 6% was too low: it took into consideration a scenario of perfect competition in the market, in which the profits of Pfizer were to be rather limited, while, in reality, Pfizer was the main manufacturer of phenytoin sodium capsules in the UK.

Supra, CMA decision in *Pfizer-Flynn,* Para. 5.79-5.112.

UK Competition Appeal Tribunal, *Flynn Pharma Limited and Pfeizer Inc. v. Competition and Markets Authority.* Judgement ruled on 7.6.2018, case number 1275-1276/1/12/17. Para. 318.

64 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 text of the rejection decision is available at http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_36568 (01.07.2020).

65 *Ibid,* Para. 202-212.

66 Court of Appeal of England and Wales, *Attheraces Limited v. The British Horseracing Board Limited.* Judgement ruled on 2.2.2007, EWCA Civ. 38.

67 Alan Bates, "Case Note on Attheraces Limited v. The British Horseracing Boarding Limited". (2007) *Competition Policy International,* available at https://www.competitionpolicyinternational.com/file/view/4527 (01.07.2020).

68 *Supra,* CAT ruling in *Pfizer-Flynn,* Para. 426.

69 *Supra,* CAT ruling in *Pfizer-Flynn,* Para. 443(6).

70 *Supra,* ruling of the Court of Appeal *Pfizer-Flynn,* Para. 172.

*Pfizer/Flynn*it is unclear whether, and to what extent, a competition agency should take in consideration the economic value of the product in the context of the *United Brands* test.

In its case law, the EU Court of Justice has never recognised the existence of a 'minimum threshold' in determining when the price/cost difference is indeed 'excessive'. Nevertheless, competition authorities have often relied on previous decisions (even those taken by foreign agencies) in order to identify *de facto* minimum thresholds. In particular, in the *Pfizer-Flynn*[71] and the *Aspen*[72] decisions, the UK's CMA and the Italian *Autorità Garante per la Concorrenza e il Mercato* (AGCM) referred to the European Commission decision in *Deutsche Post* to identify a minimum threshold of price excessiveness.[73] In the latter decision, the European Commission considered that the price charged by Deutsche Post for the delivery of post from other EU Member States was 25% higher than its estimated average distribution costs.[74] The Commission considered such a price/cost difference 'excessive' under the *United Brands* test. The Commission imposed a symbolic fine of €1.000, since the abusive behaviour was probably due to the unclear legal framework in Germany at the time of the infringement.[75] Consequently, Deutsche Post did not appeal the Commission's decision to the EU General Court. Similarly, in the *Pfizer-Flynn* decision, the UK CMA referred to *Albion II:*[76] In the latter ruling, the CAT concluded that the access price charged by Dwr Cymru to Albion was 46% higher than its costs/profits.[77] The Court concluded that the difference between the access price and the costs/profits was "excessive", in accordance with the *United Brands* test.

To sum up, while competition agencies have developed robust methods with which to quantify marginal and fixed costs, and to estimate 'reasonable' profit rates for the dominant company, it is unclear whether, and to what extent, a competition agency should also take into consideration the value of the product for its consumers in assessing the 'plus part' of the test. Both in *Scandlines* and in *Attheraces*, the complaints were rejected, since the product concerned had a 'high value' for the consumers, which justified a 'higher' price in comparison to its overall costs of production. Contrary to the CAT, in *Pfizer/Flynn* the Court of Appeal ruled that the competition agency is not required to estimate the economic value of the product in the context of the *United Brands* test. Finally, the CJEU has never identified a minimum threshold at which to define when the cost/price difference is indeed 'excessive' under the first limb of the *United Brands* test. A number of competition authorities have thus referred to previous unfair pricing decisions to identify the *de facto* minimum thresholds of excessiveness. Taking into consideration the 'resurgence' of unfair pricing investigations, and thus the expected growth in the number of court rulings in this field, this tendency is expected to increase in the years to come.

III.1.2 The 'unfairness' limb

According to *United Brands*, the fact that the difference between price and costs is excessive is insufficient to justify a breach of Art. 102(a): the price charged by the dominant firm has also to be either "unfair in itself", or "unfair when compared to competing products", – i.e., the second limb of *United Brands* test.[78]

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71 *Supra,* CMA decision in *Pfizer-Flynn,* Para. 5.227.

72 *Supra,* AGCM decision in *Aspen*, Para. 317.

73 Commission decision of 25 July, 2001, relating to a proceeding under Article 82 of the EC Treaty (COMP/C-1/36.915 – *Deutsche Post AG*). OJ L-331/40, 15.12.2001.

74 *Ibid,* Para. 156.

75 *Ibid,* Para. 192.

76 *Supra,* CMA decision in *Pfizer-Flynn,* Para. 5.227.

77 *Supra,* CAT ruling in *Albion II,* Para. 260-274.

78 *Supra,* Case 27/76, Para. 252.

As recognised by the European Commission in *Scandlines*, the CJEU case law and the Commission decisional practice have provided "…little guidance on how to determine whether a price must be considered unfair in itself".[79] In the lack of clear guidance, the antitrust agencies have relied on different criteria to show that the price charged by the dominant firm was 'unreasonable' and thus 'unfair in itself'. In *Albion II*, the UK CAT ruled that the access price charged by Dwr Cymru was 'unfair in itself', due to the market's characteristics: the market for regional water supply was thus characterized by structural entry barriers (i.e., the impossibility of replicating the network for water transportation); Dwr Cymru enjoyed a full monopoly over the regional network; the industry was characterized by a lack of price regulation.[80] Finally, in upholding the decision of the *Autorità Garante per la Concorrenza e il Mercato* (AGCM, Italian competition authority) in *Aspen*, the appeal tribunal pointed out that the price increase introduced by Aspen was 'unfair in itself', since it concerned drugs to treat cancer: patients, who had an unlimited willingness to pay for such indispensable medicines.[81] In particular, the price increase did not translate into any benefit for patients, since the drug was off-patent, and Aspen was a generic drugs manufacturer that did not invest in research and innovation.[82]

As discussed in the introduction, economists generally agree that, exceptionally, Art. 102(a) should sanction cases of excessive pricing, only in the presence of monopoly/quasi-monopoly cases.[83] In such scenarios, however, the comparison between the prices charged by the dominant firm and the 'competing products' would *de facto* be impossible, since the dominant firm would not have any competitor in the same relevant market. As a consequence, it is often difficult for a competition agency to carry out the second part of the 'unfairness limb' – i.e., the price is 'unfair in comparison to competing products'. The issue was extensively discussed in the *Pfizer-Flynn* case: in its decision, the CMA stated that the substantial price increase for phenytoin sodium capsules after the drug was re-branded, was 'unfair in itself', since it was not related to any change of costs and demand in the market.[84] In addition, the CMA argued that Pfizer did not have any viable competitor in the UK, and thus it did not carry out a full assessment of the price of 'competing products'.[85] In particular, the CMA pointed out that *United Brands* considered the unfairness 'in itself' and 'in comparison to competing products' as two 'alternatives', and thus a further assessment of the price of competing products was unnecessary.[86]

On appeal, however, the UK CAT annulled the CMA decision.[87] The Court noted that "…the words 'competing products' in accordance with limb 2 of the *United Brands* test, did not mean products in the same relevant market for the purpose of competition law."[88] The CMA could thus have assessed the regulatory framework affecting the retail price of phenytoin sodium capsules in different European countries, although each EU Member State was, strictly speaking, a different regional market from a competition law perspective. In its recent ruling in *Pfizer-Flynn,* the Court of Appeal of England and

79 *Supra,* Commission decision in *Scandlines,* Para. 217.

80 *Supra,* CAT ruling in *Albion II,* Para. 267-274.

81 Tribunale Amministrativo Regionale per il Lazio, *Aspen Pharma Trading Limited v. Autorità Garante per la Concorrenza e il Mercato.* Judgement ruled on 26.7.2017, Case Number 8945. Para. 7.4.1.-7.4.2.

82 *Ibid,* Para. 7.4.3 – 7.4.4.

83 Massimo Motta, Alexandre De Streel (2007), "Excessive Pricing in Competition Law: Never Say Never?" In *Konkurrensverket* (Swedish Competition Authority, ed.), *The Pros and Cons of High Prices* (Stockholm, Lenanders Grafika). Chapter 2.

84 *Supra,* CMA decision in *Pfizer-Flynn,* Para. 5.364-5.371.

85 *Supra,* CMA decision in *Pfizer-Flynn,* Para. 5.482-5.490.

86 *Supra,* CMA decision in *Pfizer-Flynn,* Para. 5.477.

87 *Supra,* CAT ruling in *Pfizer/Flynn,* Para. 401-402.

88 *Supra,* CAT ruling in *Pfizer/Flynn,* Para. 373.

Wales has upheld the previous CAT ruling, thus quashing the CMA decision.[89] In view of the difficulties encountered in applying the 'unfairness' limb, the Court of Appeal ruled that the two conditions should be interpreted as 'cumulative' rather than 'alternatives'.[90] Similarly to the CAT, the Court of Appeal ruled that the CMA was required to assess the evidence put forward by the defendant showing that the price of phenytoin sodium was not 'unfair in comparison to other competing products'; the CMA, therefore, did not have any margin of discretion in selecting what factors to take into consideration in verifying the 'unfairness limb'.[91]

To sum up, it is unclear whether the conditions under the second limb of the *United Brands* test are either 'cumulative' (i.e., as argued by the Court of Appeal in *Pfizer-Flynn),* or 'alternative' conditions (i.e., as the wording of the *United Brands* ruling seems to suggest). In *Schippacercola,* the CJEU ruled that the two factors should be considered to be 'alternative', rather than as 'cumulative' conditions.[92] The restrictive interpretation followed by the Court of Appeal in *Pfizer-Flynn* seems, therefore, to be hardly compatible with CJEU case law.[93]

III.2 Other methods with which to assess unfair pricing cases

III.2.1 Benchmarking

As discussed in Section III.1, the *United Brands* test is rather difficult to apply, since it includes a number of rather 'vague' concepts: the EU Court of Justice has neither introduced a minimum threshold from which to assess when a price is 'excessive', under the first limb of the test, nor has it clarified the meaning of 'unfair in itself', under the second limb. Secondly, it is uncertain whether, and to what extent, a competition agency should take into consideration the economic value of the product is to o the consumers in order to assess the 'plus part' of the first limb. Finally, the *Pfizer/Flynn* case shows that it is unclear whether the two conditions of the second limb are 'cumulative', rather than 'alternative'. As argued in the introduction, the unclear aspects of the *United Brands* test have contributed to the non-enforcement paradigm that has characterized Art. 102(a) over the past 40 years.

Nevertheless, it is worth bearing in mind that the *United Brands* test is not the 'only' method by which to assess when the price charged by a dominant firm is 'unfair', and thus in breach of Art. 102(a) TFEU. In *United Brands*, the EU Court of Justice recognised that "other ways may be devised – and economic theorists have not failed to think up several – of selecting the rules for determining whether the price of a product is unfair."[94] 'Benchmarking' is the main alternative test with which to assess an unfair pricing case under Art. 102(a). The logic 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 *United Brands,* the CJEU criticized the Commission for having relied on the

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89 For a detailed analysis of the ruling, see Grant Stirling, "The Elusive Test for Unfair Pricing under EU Law: Revisiting *United Brands* in the Light of the *Competition and Market Authority v. Flynn Pharma Ltd".* (2020) *European Competition Journal.* The online version of the article is available at: https://www.tandfonline.com/doi/full/10.1080/17441056.2020.1771007 (01.07.2020).

90 *Supra*, ruling Court of Appeal in *Pfizer/Flynn,* Para. 75.

91 *Supra*, ruling Court of Appeal in *Pfizer/Flynn,* Para. 75.

92 Case C-159/08, *Isabella Scippacercola and Ioannis Terezakis v. Commission* (2009) ECLI:EU:C:2009:188. Para. 47.

93 Following the ruling of the Court of Appeal, in June, 2020, the CMA announced its intention to re-open the investigations in the *Pfizer-Flynn* case. By the end of 2020, the authority may issue a new infringement decision that is in line with the previous CAT and Court of Appeal rulings; in such a case, the new CMA decision will probably be appealed further to the court.

https://www.gov.uk/cma-cases/investigation-into-the-supply-of-pharmaceutical-products (8.7.2020).

94 *Supra*, Case 27/76, Para. 253.

price comparison among different EU Member States as the main evidence of abusive pricing.[95] Consequently, for a number of years, competition authorities have been reluctant to rely on the benchmarking approach, afraid that their decision would be quashed on appeal (i.e., like the Commission's decision in *United Brands).*

The benchmarking approach was first proposed by AG Jacobs in his opinion in the cases *Lucazeu* and *Tournier*.[96] Both cases were preliminary ruling requests by French courts and had to assess whether the royalty rate charged by SACEM (i.e., the French copyright society) to discos was 'unfair', and thus in breach of Art. 102(a). In his opinion, the AG recognised that the *United Brands* test was "…inapplicable in the present context",[97] and the test was a valid one with which to assess the price/cost difference of physical products (e.g., bananas), while it would be inapplicable in industries that are characterized by "…the creation of a work of imagination…."[98] Similar views have been expressed by AG Trstenjak in *Kanal 5.*[99] Finally, in *AKKA-LAA,* AG Wahl has argued that "a cost-price comparison makes little sense with regard to the supply of certain intangible goods such as – in the case in the main proceedings – copyright musical work".[100]

In *AKKA-LAA,* the Court pointed out that "…the (competition) authority has a certain margin of manoeuvre and that there is no single adequate method…" with which to assess unfair pricing cases.[101] In view of the CJEU ruling in *AKKA-LAA,* we can argue that, today, benchmarking represents an 'alternative' test to that of *United Brands*. As discussed in the following sections, a competition authority may carry out a benchmark test either to check its findings in relation to price unfairness under the *United Brands* test, or as a stand-alone method, in the case that *United Brands* test was not feasible (e.g., intangible goods covered by IP rights).

In its case law, the CJEU has endorsed several benchmarking methods. After having identified suitable benchmark method(s), the competition agency should assess whether the price charged by the dominant firm is 'excessive' in comparison to the benchmark price, in order to be considered 'unfair' under Art. 102(a) TFEU.

III.2.2 Benchmark methods endorsed by the CJEU case law

III.2.2.1 Price comparison with competitors

Competition authorities have often compared the price charged by the dominant firm with the prices of its competitors. In *United Brands,* for instance, the Commission noticed that the average price of the bananas sold by United Brands was 7% higher than the price charged in Europe by its competitors.[102] As O'Donoghue and Padilla note,[103] while the CJEU considered this percentage 'too low' to be

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[95] *Supra,* Case 27/76.

[96] Opinion of AG Jacobs in Case C-395/87, *Ministère public v Jean-Louis Tournier* (1989) ECLI:EU:C:1989:215.

[97] *Ibid,* Para. 53.

[98] *Ibid,* Para. 53.

[99] Opinion of AG Trstenjak delivered in Case C-52/07*, Kanal 5 Ltd and TV 4 AB v. Föreningen Svenska Tonsättares Internationella Musikbyrå (STIM) upa* (2008) ECLI:EU:C:2008:491. Para. 61.

[100] Opinion of AG Wahl in Case C-177/16, *Autortiesību un komunicēšanās konsultāciju aģentūra / Latvijas Autoru apvienība v Konkurences padome* (2017) ECLI:EU:C:2017:286. Para. 37.

[101] Case C-177/16, *Autortiesību un komunicēšanās konsultāciju aģentūra v. Latvijas Autoru apvienība v Konkurences padome* (2017) ECLI:EU:C:2017:689. Para. 49.

[102] *Supra,* Case 27/76, Para. 266.

[103] O'Donoghue, Padilla (2020), *The Law and Economics of Art. 102 TFEU* (Hart Publishing, Oxford, 3rd edition,). Chapter 14, "Excessive Pricing". P. 767.

considered 'unfair',[104] the CJEU did not reject, in principle, the comparison with the prices of competitors as a valid benchmark method.

As mentioned in the previous section, unfair pricing cases are common in markets that are characterized by a monopoly/quasi-monopoly structure, where the dominant firm hardly has any direct competitor in the same relevant market. It may therefore be hard to compare the price charged by the dominant firm with those of its competitors; this is the same problem faced in the application of the second limb of the *United Brands* test (i.e., 'unfair when compared to competing products'). The CJEU seems reluctant to accept price comparison of 'similar' products as a valid benchmarking method. In *Schippacercola,* the complainant argued that the airport fees charged by Athens airport were 'excessive' in comparison to the fees charged by other airports in Europe.[105] The European Commission rejected the complaint via a formal rejection decision,[106] which was appealed to the General Court[107] and later the Court of Justice.[108] Both EU Courts rejected the comparison among the fees of different airports as a valid benchmarking approach, since the fees covered different types of services, which were hardly comparable in terms of quality.[109] What can be taken away from *Schippacercola* is that competition authorities should be careful when applying this benchmarking method: it would be difficult to compare the price of 'similar' products that are not in competition within the same relevant market.

III.2.2.2 Comparison with the price charged by other firms in different geographic markets

In a number of cases, competition agencies have relied on the price of the 'same' product that is being sold by other undertakings in a 'different geographic market' as a benchmark. In *Gazprom,* for instance, the European Commission noticed that, in the period 2009-2014, the wholesale gas price charged by Gazprom in 5 countries in Central and Eastern Europe (CEE) was between 9% and 24% higher than the average gas price for similar long term contracts in the German market.[110] The Commission, however, did not consider the possible reasons that might justify such a price difference (e.g., the German wholesale gas market was more competitive than that in the CEE).[111] Unfortunately, the *Gazprom* case has been settled and thus was not subject to any judicial review.

In *Lucazeu,* the CJEU ruled that a comparison of the fees requested by copyright societies in different EU Member States "…may provide [a] useful indication regarding the possible abuse of [a] dominant position by a national copyright management society" (i.e., SACEM in France).[112] Similarly, in *AKKA-LAA,* the Court of Luxembourg ruled that the Latvian NCA could compare the fees charged by the copyright societies in Latvia, Lithuania and Estonia its order to show that the fees requested by the Latvian copyright society were indeed excessive.[113] In the ruling, the CJEU officially recognised that the comparison of the copyright fee requested in different EU Member States was a "valid" method.[114] The reference countries had to be selected "…in accordance with objective, appropriate and verifiable criteria."[115] In particular, prices in different countries could be compared if the EU Member States had

[104] *Supra,* Case 27/76, Para. 266.

[105] Commission decision pursuant to Art. 7(2) of Commission Regulation 773/2004 (Case COMP/D3/38469, 2 May, 2005).

[106] *Ibid.*

[107] Case T-306/05, *Isabella Scippacercola and Ioannis Terezakis v. Commission* (2008) ECLI:EU:T:2008:9.

[108] *Supra,* Case C-159/08.

[109] *Supra,* Case T-306/05, Para. 105.

[110] *Supra,* Commission's decision in *Gazprom*. Para. 72-74.

[111] *Supra,* O'Donoghue, Padilla, p. 768.

[112] *Supra,* C-110/88, Para. 30.

[113] *Supra,* Case C-177/16, Para. 9.

[114] *Supra,* Case C-177/16, Para. 38.

[115] *Supra,* Case C-177/16, Para. 41.

similar "consumption habits" and similar "economic and sociocultural factors, such as gross domestic product per capita and cultural and historical heritage."[116] Finally, the number of Member States to take into consideration for the comparison should be "representative", but there was no minimum number of countries that should be taken into consideration.[117]

In *Lucazeu*[118] and *AKKA-LAA,*[119] the CJEU endorsed the comparison among the fees requested by copyright societies that were based in different EU Member States as a suitable benchmarking method. Since, in most of the Member States, there is only one copyright society, the comparison among the fees of 'competing' societies within the same geographical market would not be feasible. However, every copyright society offers a different catalogue of copyright materials, which might explain the differences in relation to the copyright fee requested by different societies. This benchmarking method thus represents a valid approach only if the products compared are 'identical', rather than 'similar'. In the latter case, we would fall under the case of *Schippacercola,* and thus the benchmark would not be applicable. Finally, as the CJEU ruled in *AKKA-LAA,*[120] the geographical markets selected for the comparison should be sufficiently similar to that in which the dominant firm operates, in order to allow a meaningful comparison.

As O'Donoghue and Padilla note, even after the endorsement in *AKKA-LAA,*[121] a number of problems remain in applying the geographical comparison. In particular, the benchmark geographical market selected by the competition agency is usually the 'most competitive one', rather than an 'average' price among different Member States.[122] In addition, in spite of the common 'consumption habits' and 'socio-cultural' factors, there may be differences in taxes and supply costs that explain the price difference among geographical markets.[123] In a nutshell, the scepticism shown by the CJEU in *United Brands* in relying on the price comparison between Ireland and continental Europe as the main evidence of an abuse is still, today, one of the main limits of the application of the geographical benchmarking method.

III.2.2.3 Comparison of the price charged by the dominant firm in different geographical markets

A third benchmark method consists in the comparison of the price charged by the dominant firm for the same product in different geographical markets. This benchmark method was first suggested by the CJEU in *Deutsche Grammophon*[124] - i.e., the main German music and records firm in the 1960s. Deutsche Grammophon directly distributed its records in Germany, while it concluded license agreements with third parties to distribute its vynils abroad; the latter could not be re-imported into the German market (i.e., restriction of parallel trade).[125] In order to assess whether the price of vynils sold in Germany was indeed 'unfair', in its preliminary ruling the CJEU advised the national court to compare the price of recordings sold directly by Deutsche Grammophon in Germany with the price of the same recordings that were being distributed by its licensees in other EU Member States.[126] The Court, however, did not provide any further guidance on how the countries for comparison should be selected.

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116 *Supra,* Case C-177/16, Para. 42.

117 *Supra,* Case C-177/16, Para. 40.

118 *Supra,* Case C-110/88.

119 *Supra,* Case C-177/16.

120 *Supra,* Case C-177/16.

121 *Supra,* Case C-177/16.

122 *Supra,* O'Donoghue, Padilla, p. 773.

123 *Supra,* O'Donoghue, Padilla, p. 772.

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

125 *Ibid,* summary of the facts and procedure.

126 *Ibid,* Para. 19.

This benchmark method was also relied upon by the Commission both in *General Motors*[127] and in *United Brands.*[128] In the first case, the CJEU quashed the Commission's decision, since General Motors had lowered its tariffs after having received some complaints from its customers (i.e., excessive pricing was an isolated case, rather than repeated conduct by the dominant firm).[129] In *United Brands,* on the other hand, the Court quashed the Commission's decision concerning the unfair pricing allegations, since it did not take into consideration alternative 'reasons' to explain why the price of bananas was higher in continental Europe than in Ireland.[130] In particular, the Commission had not taken into consideration the transport/distribution costs of bananas in different EU Member States.[131] However, as a matter of principle, neither in *General Motors* nor in *United Brands* did the CJEU reject this benchmark, which should thus be considered to be a valid method. In particular, in line with the *AKKA-LAA* ruling, the competition agency should select the countries for comparison in accordance with "objective, appropriate and verifiable criteria."[132]

III.2.2.4 Comparison with the prices charged by the dominant firm to different customers

A fourth benchmarking method implies a comparison of the price charged by the dominant firm to different customers in relation to the sale of the same product. In his opinion, in *Lucazeu/Tournier,* AG Jacobs endorsed this method: according to the AG, the rate paid by discos would be "unfair" if it was "substantially higher" than the royalty paid by TV stations and discos to access SACEM's repertory of copyright materials.[133] In its rulings in *Lucazeu* and *Tournier,* however, the Court did not openly endorse this method of comparison. The Court pointed out that the issue fell outside the scope of the questions referred for preliminary ruling by the national court.[134] In addition, during the oral hearing, the representatives of the discos "…did not suggest any basis on which a reliable and consistent comparison could be made."[135]

Unlike *Lucazeu/Tournier,* the CJEU openly endorsed this benchmark method in *British Leyland*. In order to obtain the certificate of conformity that must be released by British Leyland, traders importing cars from other EU Member States to the UK had to pay a fee that was almost double if compared to the fee requested by British Leyland from private individuals, although the service provided by British Leyland to both categories of customers was identical.[136] In the judgment, the CJEU ruled that the tariffs' differentiation was not justified by any difference in the administrative costs faced by British Leyland;[137] rather, the tariffs' system aimed to discourage traders from importing cars from other EU Member States.

A price discrimination strategy by the dominant firm may breach Art. 102(c) TFEU.[138] In addition, as recognised by the CJEU in *British Leyland,* the comparison of the prices charged by the dominant

[127] Opinion of AG Mayras in the Case C-26/75, *General Motors v. Commission* (1975) ECLI:EU:C:1975:150. P. 1387.

[128] *Supra,* Commission decision in *United Brands.* Section 3.

[129] *Supra,* C-26/75, Para. 23.

[130] *Supra,* C-27/76, Para. 261-267.

[131] *Supra,* C-27/76, Para. 261.

[132] *Supra,* Case C-177/16, Para. 41.

[133] *Supra,* AG Jacobs opinion in Case C-395/87, Para. 57.

[134] *Supra,* Case C-395/87, Para. 44.

[135] *Supra,* Case C-110/88, Para. 31.

[136] *Supra,* Case C-226/84, Para. 29.

[137] *Supra,* Case C-226/84, Para. 29.

[138] Under Art. 102(c) TFEU, a dominant firm abuses its dominant position "in applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage."

firm to different customers may also be considered to be a valid benchmark method under Art. 102(a) TFEU.

III.2.2.5 Price comparison over time

This benchmarking method implies the comparison of the price charged by the dominant firm over time, in order to identify a sudden price increase that might be considered ‘unfair’. *British Leyland* represents one of the first cases of an application of a price comparison over time by the Court of Justice. In this case, the CJEU upheld the Commission’s finding that British Leyland charged unfair fees to issue conformity certificates for left-hand drive cars that were imported into the UK.[139] In particular, the company increased its fees by 600% after it received a legal monopoly to issue such certificates.[140]

More recently, price comparison over-time has been relied on in unfair pricing cases involving generic drugs. In *Aspen*, the Italian NCA emphasized that Aspen had suddenly increased the price of anti-cancer drugs between 300% and 1500% when the firm asked the Italian Agency for Pharmaceutical Products (AIFA) to de-list such drugs from the medicines whose prices were reimbursed by the Italian health care service, and that were thus subject to price regulation.[141] The price increase was not justified by a peak of demand.[142] In addition, since the medicines were ‘generics’, Aspen did not face any R&D cost that could explain such price increases.[143]

To sum up, price comparison over-time is a well-established benchmark method. *British Leyland* and *Aspen* show that a price increase is abusive when it is linked to a specific event (e.g., drugs de-listing in *Aspen*, and receiving a legal monopoly right in *British Leyland*) and there is no alternative explanation to justify such price increases (e.g., lack of cost increases for the dominant firm).

III.2.3 Difference between the benchmark price and the price charged by the dominant firm

In the previous sections we discussed the benchmark methods that have been endorsed under the CJEU case law in order to assess the allegedly unfair prices charged by a dominant firm. A common problem among the different methods of comparison is assessing ‘how much higher’ the price of the dominant firm should be, in comparison to the benchmark price, in order to be considered ‘unfair’. The same question arises in the application of the *United Brands* test: when is the price/costs difference ‘excessive’ under the first limb of the test? When is the price of the dominant firm ‘unfair … when compared to competing products’? – i.e., the second limb of the test.

In *AKKA-LAA*, the CJEU ruled that the price difference should be “appreciably high”, “significant” and “persistent”, although there is ‘no minimum threshold’ when assessing price unlawfulness.[144] The difference between the price charged by the dominant firm and the benchmark price must be assessed by the national court/competition agency on a case-by-case basis, looking at the market specificities and taking into consideration the possible objective justifications to explain why the price of the dominant firm is higher than the benchmark price. Secondly, the price charged by the dominant firm is not *per se* abusive if it is higher than the benchmark price; the price charged by the dominant firm has to be ‘appreciably high’ – i.e., the difference has to be ‘significant’ in comparison to the benchmark price. Looking at the CJEU case law, we might argue that if the dominant firm charges a price that is hundreds

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[139] *Supra,* Case C-226/84.

[140] Opinion of AG Darmon in Case C-226/84, *British Leyland Public Limited Company v. Commission* (1986) ECLI:EU:C:1986:294. Para. 19.

[141] *Supra,* AGCM 2016 decision in *Aspen,* Para. 109.

[142] *Supra,* AGCM 2016 decision in *Aspen,* Para. 243.

[143] *Supra,* AGCM 2016 decision in *Aspen,* Para. 269.

[144] *Supra,* Case C-177/16, Para. 55.

of times higher than the benchmark price (e.g., the 600% price increase in *British Leyland*),[145] the price charged by the dominant firm is likely to be abusive, unless there are valid objective justifications. 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., bananas sold by United Brands were, on average, 7% more expensive than those bananas sold by its competitors).[146] A similar interpretation has also been provided by AG Pitruzzella, in his recent opinion in *SABAM II*: according to the Advocate General, only a price that is “disproportionate or exorbitant” breaches Art. 102(a) TFEU.[147]

Last, but not least, the difference between the price charged by the dominant firm and the benchmark price has to be ‘persistent’: temporary price fluctuations are normal dynamics in a competitive market, and therefore should not be sanctioned under Art. 102(a). For instance, the CJEU did not uphold the Commission’s decision in *General Motors*, since the company had promptly lowered its tariffs following a number of complaints from its customers. Since General Motors promptly lowered its tariffs after having received customers’ complaints, the price increase was not ‘persistent’ and thus not abusive.[148]

In *AKKA-LAA*, the CJEU rightly decided to opt for a case-by-case assessment of the difference between the benchmark price and the price charged by the dominant firm: it would be hard, in fact, to define *a priori* a minimum threshold that is applicable to different categories of cases. However, even where there is a lack of minimum thresholds, competition authorities may rely on previous decisions by other NCAs and national courts in order to define the *de facto* minimum benchmarks. In particular, the ‘resurgence’ of unfair pricing cases is likely to increase the number of *de facto* minimum benchmarks. In view of the increasing number of cases, national courts and NCAs will interpret the meaning of “appreciably high”, “significant” and “persistent” in concrete cases, generating new precedents in this field. In a nutshell, the ‘resurgence’ of unfair pricing cases will contribute to further clarifying the wording of the Court of Justice in *AKKA-LAA.*

In *AKKA-LAA,* the Court of Justice endorsed a benchmark method that is based on a comparison of the copyright rates in different EU Member States. However, the ruling is also significant for the application of the *United Brands* test. Firstly, the second limb of the test also includes a benchmark method (i.e., comparing the price of the dominant firm with ‘competing products’). In carrying out such a comparison, national courts and NCAs should take into consideration whether, and to what extent, the price of the dominant firm is ‘appreciably high’, ‘significant’ and ‘persistent’ in comparison to the ‘competing product’. Similarly, these 3 criteria might also be useful in determining whether the price of the dominant firm is ‘excessive’ in comparison to its costs/profits (i.e., the first limb of *United Brands*).

III.2.4 Excess profits method

As discussed in the previous sections, the EU Court of Justice has officially endorsed the cost/price test and a number of benchmarking methods with which to prove an unfair pricing case under Art. 102(a) TFEU. Economists, however, have proposed additional tests with which to try an unfair pricing case. Although such methods have never been assessed by the Court of Justice, they have been relied upon by a number of NCAs in excessive pricing cases. One example is represented by the ‘excess profits’ method, which has been applied by the Dutch NCA is a number of excessive pricing cases,[149] as well as

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[145] *Supra,* opinion of AG Darmon in Case C-226/84, Para. 19.

[146] *Supra,* Case 27/76, Para. 266.

[147] Opinion of AG Pitruzzella in case C-372/19, *Belgische Vereniging van Auteurs, Componisten en Uitgevers CVBA (SABAM II) v. Weareone.World BVBA, Wecandance NV* (2020) ECLI:EU:C:2020:598. Para. 29.

[148] *Supra,* Case C-26/75, Para. 19.

[149] In this regard, see Damien Geradin (2007), “The Necessary Limits on the Control of ‘Excessive’ Prices by Competition Authorities – A View from Europe” *Tilburg University Legal Studies Working Paper*. P. 27. The working paper is

by the UK Office of Fair Trading (OFT) in *Napp.*[150] The method is straightforward: rather than comparing prices, the method requires a comparison of the profit margin of the dominant firm and its competitors. The profit assessment is also part of the first limb of the *United Brands* test; the excess profit assessment thus represents a 'shortcut', in comparison to the original test designed by the Court of Justice in *United Brands.*

As O'Donoghue and Padilla have argued, the test has a number of limits: in particular, it is hard to establish a direct causal link between the unfair pricing and the excessive profits of the dominant firm.[151] The latter firm might enjoy a high rate of profit, since it is more efficient than its competitors.[152] In addition, in industries that are characterized by the presence of dynamic efficiencies, the high rate of profit achieved by the dominant firms may be the outcome of previous R&D investments, which have allowed the dominant firm to acquire a number of patents.[153] In view of these limits, it is not surprising that the EU Court of Justice has never openly endorsed the excess profits test to prove unfair pricing cases.

III.3 The safeguard tools

Economists often argue that the assessment of unfair pricing cases is rather speculative, and is thus subject to a high risk of false-negative error by the competition agency.[154] As a consequence, in parallel with the 'resurgence' of unfair pricing cases, recent jurisprudence at the national and EU level has introduced additional 'safeguard tools' to minimise the risk of false negative errors. In particular, British courts have recently recognised the duty of the competition agency to assess an unfair pricing case by using multiple tests: the convergence of the findings of price unfairness by using multiple tests would strengthen the evidence of the abusive pricing strategy. Finally, the CJEU has also recognised the possibility that the dominant firm could put forward 'objective justifications' to refute the evidence of an abuse of its pricing strategy.

III.3.1 The need for multiple methods

In *Napp*, the UK Office of Fair Trading (OFT) relied on multiple benchmark methods to prove that the price charged by Napp for morphine was 'unfair'.[155] In the decision, OFT proved that Napp sold morphine tablets to British pharmacies at a substantially higher (i.e., excessive) price than the price that was charged for the same products sold to hospitals.[156] Similarly to the *Aspen* and *Pfizer-Flynn* cases, morphine was an off-patent product, which did not require Napp to invest in R&D expenditures.[157] Rather than relying on the *United Brands* test, the OFT carried out 4 benchmark tests, comparing: the price of morphine tablets sold by Napp and its competitors;[158] the evolution of the price of Napp's

avilable at: https://research.tilburguniversity.edu/en/publications/the-necessary-limits-to-the-control-of-excessive-prices-by-compet (8.7.2020).

[150] Decision of the Director General of Fair Trading, *Napp Pharmaceutical Holdings Limited and Subsidiaries.* Decision adopted on 30.3.2001, Case no. CA98/2/2001. Para. 223-229.

[151] *Supra,* O'Donoghue and Padilla, p. 788.

[152] *Supra,* O'Donoghue and Padilla, p. 789.

[153] *Supra,* O'Donoghue and Padilla, p. 790.

[154] OECD Secretariat, *Background Paper on Excessive Prices.* Published on 7/2/2012, DAF/COMP (2011)18. P. 33. Available at: http://www.oecd.org/daf/competition/abuse/49604207.pdf (8.7.2020).

[155] *Supra,* OFT decision in *Napp,* Para. 83.

[156] *Supra,* OFT decision in *Napp,* Para. 35-42.

[157] *Supra,* OFT decision in *Napp,* Para. 10-12.

[158] *Supra,* OFT decision in *Napp,* Para. 207-212.

morphine tablets over time;[159] the price of morphine tablets sold by Napp to pharmacies, hospitals in the UK, and tablets reserved for export;[160] Napp's profits relating to the sale of morphine tables to hospitals and to pharmacies.[161] According to the OFT, the convergence of the results under these multiple benchmark tests proved that the price charged by Napp was indeed 'unfair' under Art. 102. On appeal, the CAT upheld the OFT decision, arguing that all price comparison tests carried out by OFT showed that Napp had substantially increased the price of morphine tablets sold to pharmacies without any valid justification.[162]

The need to prove an unfair pricing case through the use of multiple tests was a core issue debated in *Pfizer/Flynn:* in its 500 pages decision, the CMA relied exclusively on the *United Brands* test.[163] As mentioned above, the CAT quashed the CMA decision on appeal and referred the case back to CMA for re-assessment.[164] In its judgment, the Tribunal asked the authority "….to consider a range of possible analyses, reflecting market conditions and the extent and quality of the data that can be obtained, to establish a benchmark price, or range, that reflects the price that would pertain under conditions of normal and sufficiently effective competition".[165] The CAT therefore encouraged the CMA to verify its findings of abuse under the *United Brands* test with a benchmark method. Finally, the CAT pointed out the importance of price comparison over-time, which could be used by the CMA to verify the results of the *United Brands* test.[166] In March 2020, the UK Court of Appeal upheld the CAT ruling. As discussed above, the only point on which the ruling of the Court of Appeal diverged with the previous CAT ruling concerned the requirement for the competition agency to assess the economic value of the product in relation to the *United Brands* test.[167] At the time of writing, the CMA is currently re-assessing the case.[168] If the CMA adopted a second infringement decision in the case, it would certainly have to assess the available evidence through the use of multiple tests, as required by the CAT and the Court of Appeal in their rulings.

In his opinion in *AKKA-LAA*, AG Wahl followed a similar approach to the CAT and the Court of Appeal in *Pfizer/Flynn,* since every method used to assess a case of unfair pricing has some weaknesses, the competition agency should verify its findings in relation to unfair pricing through the use of multiple methods.[169] In particular, "…if the methods are applied independently of each other, a given limitation inherent to one of them would not affect the results obtained through the use of other methods."[170] According to the AG, when multiple methods are possible, the convergence of the results would thus strengthen the relevance of the findings of the competition agency. A similar view was also expressed by AG Pitruzzella in his recent opinion in *SABAM II:* since every method has some limitations, a "combined use of several methods" should be the preferred approach to be followed by a competition agency in analysing unfair pricing cases.[171]

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159 *Supra,* OFT decision in *Napp,* Para. 213-216.

160 *Supra,* OFT decision in *Napp,* Para. 217-222.

161 *Supra,* OFT decision in *Napp,* Para. 223-229.

162 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.

163 *Supra,* CMA decision in *Pfizer-Flynn.*

164 *Supra,* CAT ruling in *Pfizer-Flynn,* Para. 441-442.

165 *Supra,* CAT ruling in *Pfizer-Flynn,* Para. 443(1).

166 *Supra,* CAT ruling in *Pfizer-Flynn,* Para. 429-439.

167 *Supra,* ruling Court of Appeal in *Pfizer-Flynn,* Para. 172.

168 https://www.gov.uk/cma-cases/investigation-into-the-supply-of-pharmaceutical-products (8.7.2020).

169 *Supra,* opinion AG Wahl in Case C-177/16, Para. 45.

170 *Supra,* opinion AG Wahl in Case C-177/16, Para. 45.

171 *Supra,* opinion AG Pitruzzella in Case C-372/19, Para. 35.

In its ruling in *AKKA-LAA*, the CJEU recognised that "…there is no single adequate method" in unfair pricing cases (i.e., each method has some weaknesses).[172] In the ruling, the Court endorsed the approach followed by the Latvian NCA, which compared the royalty rate charged by the copyright society in Latvia with the fee requested by the societies operating in Estonia and Lithuania. The Court, however, stressed that a further comparison with the fees requested in a broader number of Member States "may serve to verify the results already obtained by means of a comparison including a more limited number of Member States".[173] According to AG Pitruzzella, the reference to 2 different types of geographical comparisons shows that, in *AKKA-LAA*, the Court implicitly endorsed the use of multiple tests.[174] On the other hand, the Court of Justice has also emphasized, in *AKKA-LAA,* that the competition agency has a "margin of manoeuvre" in selecting the most appropriate test to apply.[175] The wording of the ruling suggests that an assessment through the use of multiple tests is 'recommended' by the CJEU, but is not 'compulsory' - i.e., the NCA has some 'margin of manoeuvre' in selecting the appropriate test.

The meaning of the NCA 'margin of manoeuvre' in selecting the appropriate test in an unfair pricing case is certainly open to debate. In view of the diverging views of the CMA and the CAT/Court of Appeal in *Pfizer/Flynn,* the requirement for multiple tests remains an open issue that will require further clarification in the CJEU case law.

III.3.2 Objective justifications

Unlike Art. 101(3) TFEU, Art. 102 does not provide for a list of conditions through which to justify an abusive behaviour. Nevertheless, the CJEU has recognised, in its case law, that the dominant firm can put forward some 'objective justifications' to explain why its market behaviour does not breach Art. 102 TFEU.[176] Firstly, a dominant firm does not abuse its dominant position when it 'protects its commercial interests'.[177] Secondly, the behaviour of the dominant firm is not abusive when such behaviour is dictated by 'public interest considerations' (e.g., compliance with safety[178], public health,[179] and

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172 *Supra,* Case C-177/16, Para. 49.

173 *Supra*, Case C-177/16, Para. 43.

174 *Supra,* opinion AG Pitruzzella in Case C-372/19, footnote 37.

175 *Supra,* Case C-177/16, Para. 49.

176 For a detailed analysis of the CJEU case law on objective justifications, see:

- Albertina Albors-Llorens (2007), "The role of objective justification and efficiencies in the application of Article 82 EC" 44 *Common Market Law Review:* 1727-1761.
- Paul-John Loewenthal (2005), "The defence of 'objective justification' in the application of Article 82 EC' 28(4) *World Competition*: 455-477.

177 In *United Brands*, the CJEU accepted, in principle, that the refusal to supply Olesen (i.e., United Brands distributor of bananas for several years) was justified, since Olesen had become the exclusive representative of United Brands' main competitor in Denmark. However, for the Commission, the refusal to deal was not considered 'proportional' in order to safeguard United Brands commercial interests

Supra, Case C-27/76, Para. 189.

178 In *Hilti,* the dominant firm argued that its exclusionary practice (i.e., the lack of compatibility between its products and products manufactured by its competitors) was justified by safety considerations and product liability requirements. The General Court recognised safety as a possible objective justification, though the justification was not verified in that specific case, since the lack of product compatibility was unilaterally decided by the dominant firm, rather than requested by public regulation.

Case T-30/89, *Hilti v. Commission* (1991) ECLI:EU:T:1991:70. Para. 118.

179 In *Tetra Pak II,* the General Court referred to *Hilti:*and public health was accepted as an objective justification in principle, but it was not verified in that case, since the firm had acted unilaterally, rather than in accordance with public regulation.

Case T-83/91, *Tetra Pak International SA v. Commission* (1994) ECLI:EU:T:1994:246. Para. 83.

environmental standards).[180] The Court has also recognised that the first two categories of objective justifications may be accepted only if they are 'proportional' and 'necessary' – i.e., requirements that have been rarely met in practice.[181] Finally, in *Post Danmark I,* the CJEU recognised that the dominant firm may refute the finding of abuse by putting forward some efficiency justifications.[182] In line with the requirements under Art. 101(3) TFEU, efficiencies have to "counteract" any likely anti-competitive effect, and they are "likely" to 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 so that it "does not fully eliminate competition from the market".[183] 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.[184]

Both in *Sirena*[185] and in *Deutsche Grammophone*[186] the CJEU recognised that excessive pricing is not an abusive behaviour if it is justified by "objective criteria". In *AKKA-LAA,* the CJEU ruled that the unfair fees could be justified by the fact that the Latvian Copyright Society granted a higher royalty rate to its copyright holders, and if it showed that it faced higher administrative costs in comparison to the copyright societies of other EU Member States.[187] However, it is unclear whether such considerations may be classified as 'objective justifications': higher administrative costs are neither a sign of 'efficiency', nor dictated by 'public interest considerations'. Finally, it would be difficult to argue that a firm that operates in a monopoly position, such as *AKKA-LAA,* may legitimately increase its tariffs in order to protect its 'commercial interests'. In view of these considerations, while the CJEU has accepted, in principle, that a dominant firm may justify its unfair pricing strategy due to objective justifications, it has never assessed such arguments in concrete cases.

To sum up, the list of possible objective justifications that the dominant firm can put forward is 'open'. Together with the requirement to verify price unfairness under multiple tests, objective justifications represent a further tool to minimise the risk of false negative errors in the assessment of unfair pricing cases.

IV. Unfair royalty rate by the SEP holder

In this section, we discuss whether, and under what conditions, the 'high' royalty rate requested by the SEP holder may be sanctioned as a case of 'unfair' pricing under Art. 102(a). As argued in the introduction, the paper departs from the assumption that FRAND implies a 'range', rather than a 'single' royalty rate. A royalty rate 'beyond the outer boundary of the range' may represent both a breach of the FRAND commitment and of Art. 102(a), in case the SEP holder enjoys market power.

In this section, we discuss such hypothetical scenario in the light of the national and EU case law analysed in the previous section. Section IV includes 3 sub-sections focused on: 'when' competition law should intervene to sanction the excessive royalty rate requested by the SEP holder; 'how' the case

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180 In *Spanish Airports*, the European Commission assessed the alleged abusive conduct by taking into account "the aim of reducing air traffic noise."

Commission Decision of 26 July, 2000, relating to a proceeding pursuant to Article 86(3) of the EC Treaty. OJ L-208/36, Para. 52.

181 Tjarda Van der Vijver (2012), "Objective justification and Article 102 TFEU" 35(1) *World Competition:* 66.

182 Case C-209/10, *Post Danmark A/S v. Konkurrencerådet* (2012) ECLI:EU:C:2012:172. Para. 42.

183 Tjarda Van der Vijver (2014), "Justifications and anti-competitive unilateral conduct: an international analysis" 37(1) *World Competition:* 37.

184 *Supra,* Case C-209/10, Para. 42.

185 Case C-40/70, *Sirena S.r.l. v. Eda S.r.l. and others* (1971), ECLI:EU:C:1971:18. Para. 71.

186 *Supra,* Case C-79/70, Para. 19.

187 *Supra,* Case C-177/16, Para. 58-59.

should be assessed in the light of the CJEU case law discussed in Section III; 'what' remedies the competition agency might impose in order to solve the issue.

IV.1 'When' competition law should intervene to sanction a case of an unfair royalty rate

IV.1.1 The economists' view

Traditionally, economists are sceptical in relation to competition law intervention *vis-à-vis* excessive pricing. Besides the overlap with sector regulation,[188] 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 enter the market, by thus forcing the dominant firm to lower its prices.[189] 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".[190]

A number of economists, however, recognise that in exceptional circumstances EU competition law may sanction excessive pricing cases.[191] In particular, economists have elaborated a number of 'filters' to limit the scope of EU competition policy intervention in this field.[192] It would go beyond the scope of this paper to compare the proposed tests in a systematic manner.[193] 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 recognise 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).[194] 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.[195]
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

[188] In relation to the overlap between competition & regulation in dealing with excessive pricing cases, see Giorgio Monti (2019), "Excessive Pricing: Competition Law in Shared Regulatory Space". TILEC working paper, available at:

https://www.tilburguniversity.edu/sites/tiu/files/download/Monti%20Excessive%20pricing.pdf (09.07.2020).

[189] John Davies, Jorge Padilla (2019), "Another Look at the Role of Barriers to Entry in Excessive Pricing Cases" The paper is available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3364881 (09.07.2020).

[190] Patrick Hubert, Marie-Laure Combet (2011), "Exploitative Abuse: the End of the Paradox?" 1 *Concurrences*: 51.

[191] In support of this view are, for instance, Ariel Ezrachi, David Gilo (2008), "Are Excessive Prices Really Self-Correcting?" 5(2) *Journal of Competition Law and Economics*: 249-268.

[192] *Supra*, Motta, De Streel.

[193] 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, 7.2.2012). The text of the report is available at: https://www.oecd.org/competition/abuse/49604207.pdf (09.07.2020).

[194] *Supra*, Motta, De Streel.

[195] Amelia Fletcher, Alina Jardine (2008), "Towards an Appropriate Policy for Excessive Pricing" in Claus Ehlermann, Mel Marquis (eds.), *European Competition Law Annual: 2007 – a Reformed Approach to Art. 82 EC* (Hart Publishing, Oxford), pp. 533-546.

only where there is a lack of sector regulation.[196] 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.[197] 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.[198]

IV.1.2 The CJEU view

If we analyse the criteria mentioned above in the light of the CJEU case law discussed in Section III, we notice that the first two conditions are also followed in the jurisprudence of the Court of Luxembourg. In the cases analysed in Section III, in fact, the dominant company either enjoyed a legal monopoly right (e.g., *AKKA-LAA,*[199] *British Leyland),*[200] 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 recognised *de iure* that they would sanction excessive pricing cases under Art. 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 Art. 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,* AG Wahl argued that unfair prices should be sanctioned under Art. 102 TFEU only in regulated markets, in case the NRA had not previously solved the market failure via *ex-ante* price regulation.[201] In other words, only in the case of a 'regulatory failure' by the NRA, should the NCA intervene in order to solve the excessive pricing issue.[202] 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 recognise such a 'filter' in competition policy enforcement, *vis-à-vis* unfair pricing.[203]

Finally, the CJEU has never recognised the risk of the hampering of innovation by the dominant firm as an argument with which to avoid the enforcement of Art. 102(a) *vis-a-vis* unfair pricing cases. Cases decided by the EU institutions under Art. 102(a) have concerned the price of physical goods (e.g., *United*

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196 See, for instance, Motta, De Streel, *supra.*

197 David Evans, Jorge Padilla (2005), "Excessive Prices: Using Economics to Define Administrable Legal Rules" 1(1) *Journal of Competition Law and Economics:* 97-122.

198 *Supra,* O'Donoghue, Padilla, p. 742.

199 *Supra*, Case C-177/16.

200 *Supra*, Case C-226/84.

201 *Supra,* AG Wahl opinion in case C-177/16, Para. 48.

202 *Supra,* AG Wahl opinion in case C-177/16, Para. 49.

203 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 to introduce any 'filter' to the application of EU competition policy *vis-à-vis* excessive pricing.

Supra, Case C-177/16, Para. 35.

Brands)[204], certificates released by the dominant firm (e.g., *General Motors,*[205] *British Leyland*),[206] access price to network industries (e.g., *Scandlines*)[207]. – 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,*[208] *Lucazeu,*[209] *AKKA-LAA,*[210] *Kanal 5*)[211] and off-patent drugs (e.g., *Napp,*[212] *Aspen,*[213] *Pfizer/Flynn*)[214]. 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 lawfulness of its pricing strategy, rather than acting as a 'filter' to avoid antitrust investigations.

IV.1.3 'When' enforcing competition policy *vis-à-vis* unfair royalty rates

As discussed in Section I, 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).[215] As Fontejin, Akker and Sauter argue, although, in principle, high prices should attract new entrants into the market, patents are temporary legal monopoly rights,[216] 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 2 'filters' mentioned above, in order to justify a competition policy intervention in a case where an 'unfair' royalty rate is requested by the SEP holder.

The conclusion that the SEP holder may 'lock-in' the implementers has been criticized in the literature.[217] An implementer, in fact, may decide to practice the SEPs while refusing to enter into a

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[204] *Supra,* Case 27/76.

[205] *Supra,* Case C-26/75.

[206] *Supra,* Case C-226/84.

[207] *Supra,* Commission decision in *Scandlines.*

[208] Case C-395/87, *Ministère public v. Jean-Louis Tournier* (1989) ECLI:EU:C:1989:319.

[209] 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.

[210] *Supra,* Case C-177/16.

[211] *Supra,* Case C-52/07.

[212] *Supra,* OFT decision in *Napp.*.

[213] *Supra,* AGCM decision in *Aspen.*

[214] *Supra,* CMA decision in *Pfizer/Flynn.*

[215] For instance, Swanson and Baumol argue that "…while there is no presumption that control of IP rights automatically or necessarily bestows market power or monopoly power on their owners, adopting standards that depend on private IP rights carries the risk of creating a degree of market power that distorts competition and generates returns in excess of those contemplated by the IP laws." Similarly, Carlton and Shampine point out that the SEP holder's market power is "…is exacerbated when manufacturers make significant investments based on the standard…" According to the authors, in such a case "…the manufacturers can become 'locked in' to the standard."

Supra, Swanson, Baumol. P. 3.

[216] Chris Fonteijn, Ilan Akker, Wolf Sauter (2019), "Reconciling Competition and IP Law: The Case of Patented Pharmaceuticals and Dominance Abuse" In Gabriella Muscolo, Marina Tavassi (eds.), *The Interplay Between Competition Law and Intellectual Property: An International Perspective* (Wouters Kluwer, The Hague). Chapter 25.

[217] Galetovic and Haber, for instance, have criticized the theory of patent hold-up and the assumption that the SEP holder may 'lock-in' implementers.

license agreement with the patent holder. Since SEPs are intangible assets, in practice, the SEP holder cannot prevent the implementer from using its patents. The SEP holder can limit the patent infringement by asking for a court injunction. However, in *Huawei*, the CJEU has substantially limited the ability of the SEP holder to ask for a court injunction;[218] the SEP holder has to follow a number of negotiation steps before being able to ask for a court injunction.

Secondly, a number of scholars 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.[219] 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.[220] 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,[221] in fact, SDO members may be sanctioned under antitrust law if they do not disclose their patents during the process definition of the standard within the SDO.[222]

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.[223] 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."[224] In view of the incremental nature of the standardization

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Alexander Galetovic, Stephen Haber (2017), "The Fallacies of Patent Hold-Up Theory" 13(1) *Journal of Competition Law and Economics:* 1 - 44.

[218] *Supra*, C-170/13.

[219] 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 (2011), "Assessing the Link between Standard Setting and Market Power" 9(2) *International Journal of IT Standards and Standardization Research*: 1-40.

[220] *Ibid*, p. 29.

[221] In 2002, the US Federal Trade Commission (FTC) opened investigations on Rambus for not having promptly disclosed certain patents when a new standard was defined within JEDEC, an American SDO dealing with defining standards in the field of microelectronics. The FTC sanctioned Rambus for a breach of antitrust law: the lack of patent disclosure, in fact, allowed Rambus to hold-up its licensees after JEDEC had agreed upon the new standard (i.e., patent ambush). In April, 2008, the U.S. Court of Appeals for the District of Columbia set aside the FTC decision. Although the FTC decision was quashed in court, the concept of patent ambush has generally been accepted as a possible antitrust violation by the SEP holder. In particular, in 2009, the European Commission concluded commitments with Rambus, whereby the firm accepted the lowering of the royalty rates requested from its licensees.

The files of the FTC and European Commission investigations in the Rambus case are available at:

https://www.ftc.gov/enforcement/cases-proceedings/011-0017/rambus-inc-matter (13.7.2020).

https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_38636 (13.7.2020).

[222] This argument has been put forward by Koren W. Wong-Ervin (Director of Antitrust & IP Policy Litigation at Qualcomm) at the OECD Competition Committee Roundtable on "Licensing of IP Rights and Competition Law" (Paris, 6th June, 2019), in order to explain the reasons for the SEPs over-declaration in the context of SDOs. The text of the document is available at: https://www.competitionpolicyinternational.com/oecd-competition-committee-roundtable-on-licensing-of-ip-rights-and-competition-law-june-6-2019-note-by-koren-w-wong-ervin/ (13.7.2020).

[223] *Supra*, Layne-Farrar and Padilla, p. 35.

[224] Anne Layne Farrar (2008), "Innovative or Indefensible? An Empirical Assessment of Patenting within Standard Setting." P.3. The working paper is available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1275968 (18.08.2020).

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.

Similar conclusions have also been recently achieved by Lemley and Simcoe.[225] The authors have carried out a large statistical study, analysing the results of patent litigation in the US federal courts, comparing SEPs and non-SEPs. The authors have concluded that "despite their name, SEPs don't seem to be all that essential. At least, they aren't often found [to have been] infringed. Second, when SEPs go to court they don't fare significantly differently than other patents of similar age and type."[226] In view of the results of the study, the authors have argued that "we shouldn't assume that a declared essential patent confers market power on its own, even if the standard is widely adopted, because the patent itself might not truly be essential".[227]

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 the patent.[228] 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 such a 'range', the SEP holder might legitimately ask for a 'high' royalty rate to compensate for its past innovation efforts. Therefore, 'high' royalty rates within the FRAND 'range' fall outside the scope of enforcement of Art. 102(a). The latter provision, in fact, only sanctions 'unfair' royalty rates – i.e., rates that are 'beyond the outer boundary of the range'. As recently argued by AG Pitruzzella, only a price that is "disproportionate or exorbitant" breaches Art. 102(a) TFEU.[229] While it is hard to determine the exact economic value of a patent and thus the exact boundaries of the FRAND 'range', innovation considerations should not be a reason to exclude *a priori* competition enforcement in this field. As further discussed in the following sections, innovation considerations might be legitimately put forward by the SEP holder as an efficiency defence so as to explain its pricing strategy. In the contest of an antitrust investigation concerning an 'unfair' royalty rate under Art. 102(a), the SEP holder could rebut the finding of abuse by claiming that the requested royalty rate is justified by its past R&D investments. In this way, innovation considerations would be incorporated into the competition analysis, rather than avoiding *a priori* antitrust investigations in this field.[230]

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[225] Mark Lemley, Timothy Simcoe (2019), "How Essential Are Standard-Essential Patents?" 104 *Cornell Law Review:* 607-642.

[226] *Ibid,* p. 628.

[227] *Ibid,* p. 634

[228] 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 Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements. OJ C-11/1, 14.1.2011. Para. 269.

[229] *Supra,* opinion AG Pitruzzella in Case C-372/19, Para. 29.

[230] Similar arguments have been put forward by Fonteijn, Akker & Sauter, *supra,* in assessing the excessive prices of drugs covered by patents.

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 2 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;* and 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.

IV.2 'How' to assess the unfair royalty rate requested by the SEP holder

In this sub-section we discuss the steps that a competition agency should follow in assessing a case of an unfair royalty rate being requested by the SEP holder under Art. 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 shown that the SEP holder does indeed enjoy 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 that is discussed in Section III. As argued in the previous section, a royalty rate would be abusive, and thus in breach of Art. 102(a) TFEU, only in case it substantially exceeded the FRAND 'range'.

IV.2.1 *United Brands* test v. benchmarking

Traditionally, *United Brands* has been considered the main test in the assessment of unfair pricing cases. However, as already 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.[231] As argued by AG Jacobs in *Tournier/Lucazeu,* the cost/price test would be inapplicable in industries that are characterized by "…the creation of a work of the imagination…."[232] While AG Jacobs referred, in his opinion, to the impossibility of assessing the production costs of copyright materials, such reasoning would also be applicable to Standard Essential Patents. Patents are the result of high-risk R&D investments; the latter are characterized by sunk costs, since there is no direct causal link between the innovation efforts and their outcomes in terms of registered patents. In addition, R&D investments may lead to several inventions, which are covered by different patents. In view of these peculiarities, it is impossible to assess the cost of a 'patent production'. This is why the reasoning of AG Jacobs concerning the inapplicability of the *United Brands* test to assess the unfairness of the fee charged by copyright societies is applicable, *mutatis mutandis,* to standard essential patents.

In *Tournier*[233], *Lucazeu*[234] and in *AKKA-LAA,*[235] the CJEU has emphasised the importance of the benchmarking approach as an alternative method to the *United Brands* test, when the latter test is indeed inapplicable. As discussed in Section III, in its jurisprudence, the Court of Justice has endorsed a number of benchmark methods. After having identified (a) suitable benchmark method(s), the competition agency should assess whether the price requested by the dominant firm is indeed unfair in comparison to the benchmark price.

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[231] *Supra,* Case 27/76, Para. 253.

[232] *Supra,* AG Jacobs opinion in Case C-395/87, Para. 53.

[233] *Supra,* Case C-395/87.

[234] *Supra,* Case C-110/88.

[235] *Supra,* Case C-177/16.

IV.2.2 Benchmarking methods to assess an unfair royalty rate being requested 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 recognised by the CJEU in *Schippacercola*,[236] 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.[237] In particular, the competition agency might identify as 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.[238]

Alternatively, in line with *AKKA-LAA* case law,[239] 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 in Section III, the CJEU has recognised 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 recognised 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.[240] 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

236 *Supra*, Case C-159/08.

237 D. Geradin (2020), "SEP Licensing After Two Decades of Legal Writing: Some Issues Solved, Many Still to Address". P.9. SSRN paper available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3547891 (21.07.2020).

238 The cash-only option is an alternative to cross-licensing. It was accepted by Google when it acquired Motorola in 2012. As recognised 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 13/02/2012 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.

239 *Supra*, Case C-177/16.

240 *Supra*, Geradin (2020), p. 9.

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). Finally, as argued in the previous section, the process of standardisation often has an 'incremental nature':[241] 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 Art. 102(a). According to the CJEU case law, the difference has to be "appreciably high", "significant" and "persistent".[242] 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 Art. 102 (a) (e.g., the 600% price increase sanctioned by the European Commission in *British Leyland*)[243]. 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).[244] A similar interpretation has also been provided by AG Pitruzzella, in his recent opinion in *SABAM II*: according to the Advocate General, only a price that is "disproportionate or exorbitant" breaches Art. 102(a) TFEU.[245]

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.[246] 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 'persistency' 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 an SEP holder's patent portfolio.[247] Patents, in fact, have a limited legal duration;[248] 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).[249] 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.[250] 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 patents.

As the UK Court of Appeal of England and Wales recently recognized in *Pfizer/Flynn,*[251] the competition agency should verify its findings of price unfairness under 'multiple' tests. When multiple

[241] *Supra,* Layne Farrar.

[242] *Supra,* Case C-177/16, Para. 55.

[243] *Supra,* Case C-226/84.

[244] *Supra,* Case 27/76, Para. 266.

[245] *Supra,* opinion AG Pitruzzella in Case C-372/19, Para. 29.

[246] *Supra,* Case C-26/75.

[247] Commission decision of 18/01/2018 declaring a concentration to be compatible with the internal market and the EEA agreement (Case M.8306 — *Qualcomm/NXP Semiconductors*). OJ C-113/79, 27.3.2018.

[248] *Ibid,* Para. 903.

[249] *Ibid,* Para. 906.

[250] *Ibid,* Para. 914.

[251] *Supra,* ruling of the Court of Appeal in *Pfizer/Flynn.*

methods are available, the convergence of the results will strengthen the relevance of the findings of the competition agency.[252] The application of multiple tests would be indeed a 'wise' choice: the convergence of the findings of price unfairness under multiple tests will minimise the risk of false negative errors by the competition authority. Similarly to the decision of the UK Office of Fair Trading (OFT) in *Napp,*[253] 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 recognised 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 standard essential patents. After having identified suitable methods, 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 minimise 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 Art. 102(a) TFEU.

IV.2.3 Efficiency defences

The last step of our hypothetical analysis concerns the assessment of objective justifications: if a competition agency concluded that the requested royalty rate was 'unfair' through the use of multiple benchmarking methods, the SEP holder could still refute this conclusion by putting forward some objective justifications. In particular, in *Post Danmark I,* the CJEU recognised that the dominant firm may refute the finding of abuse by putting forward some efficiency defences.[254]

As argued in the previous sections, economists often argue that the prohibition of unfair pricing may discourage a dominant firm from innovating.[255] 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 incorporated into the antitrust analysis. First of all, a 'high' royalty rate within the FRAND 'range' would fall outside the scope of enforcement of Art. 102(a) TFEU. On the other hand, past R&D investments by the SEP holder may be considered as an efficiency defence in the context of an unfair pricing investigation,.[256] In the context of an antitrust investigation, in fact, the SEP holder might justify its 'unfair' royalty rate in light of its past R&D investments, and thus demonstrate the need to reward its innovation efforts.[257] 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 the requested 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 into the market. Secondly, the alleged efficiencies have to be "likely" (e.g., the dominant firm can identify the date when a new end-user's product implementing the SEP will be released onto the market).

[252] UK Competition Appeal Tribunal, *Napp Pharmaceutical Holdings Limited and Subsidiaries v. Director of Fair Trading.* Judgement ruled on 15 Jan. 2002, case n. 1001/1/1/01. Para. 397.

[253] *Supra,* OFT decision in *Napp.*

[254] Case C-209/10, *Post Danmark A/S v. Konkurrencerådet* (2012) ECLI:EU:C:2012:172. Para. 42.

[255] *Supra,* Hubert, Combet.

[256] In line with this approach, see Jonathan Galloway (2011), "Driving innovation: a case for targeted competition policy in dynamic markets" 34(1) *World Competition:* 73-96.

[257] Mihkel Tombak (2016), "The Innovation Defence" 29(1) *Canadian Competition Law Review:* 41-56.

Thirdly, the requested royalty rate should be 'necessary' in order to compensate for the R&D investments made by the SEP holder. From this point of view, the SEP holder could thus provide evidence of its past R&D investments which have resulted in the 'essential' patent. Finally, the high royalty rate should not 'fully eliminate competition'. The latter condition would require the SEP holder to show that the 'high' royalty rate will not cause patent hold-up, and that 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 a burden would not be 'excessive': rather than representing a generic incentive to innovate, 'high' royalty rates would be compatible with Art. 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 the new products released onto the market.[258] The aim of competition policy is to foster the consumers' welfare, both in terms of lower prices and in terms of new and innovative products. While innovation considerations should not cause a competition agency to refrain from investigating a case of an unfair royalty rate, the agency should seriously take into consideration such arguments in the context of the analysis of the unfair royalty rate that has been requested by the SEP holder. In order to minimise the risk of false negative errors, competition agencies and courts should be 'more open' to considere the efficiency defences put forward by the SEP holder.[259]

IV.3 '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.[260] 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.[261]

Economists generally argue in favour of structural remedies in unfair pricing cases:[262] 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:[263] 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

[258] A similar view has also been expressed by Fonteijn, Akker, Sauter, *supra*.

[259] 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 an efficiency defence in the 2009 Guidance Paper on Art. 102, the Commission has rarely seriously assessed the efficiency arguments that are/were put forward by the dominant firm. Objective justifications are therefore accepted in theory, but rarely in practice.

Hans Friederiszick, Linda Gratz (2015), "Hidden efficiencies: the relevance of business justifications in abuse of dominance cases" 11(3) *Journal of Competition Law and Economics:* 671-700.

[260] For an overview of the EU competition law remedies, see Erling Hjelmeng (2013), "Competition Law Remedies: Striving for Coherence or Finding New Ways?" 50 *Common Market Law Review:* 1007-1038.

[261] Maria Lillà Montagnani (2007), "Remedies to Exclusionary Innovation in the High-Tech Sector: Is There a Lesson from the Microsoft Saga?" 30(4) *World Competition:* 635.

[262] *Supra,* O'Donoghue, Padilla, p. 786.

[263] *Supra,* Montagnani, 635.

of patents is limited in time, while the relevance of a SEP for the implementation of a standard may be even shorter than 20 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.[264] After having won the General Court appeal,[265] the Commission adopted a second decision in 2008, imposing a further sanction on Microsoft for not having complied with the previous 2004 decision.[266] 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 €10.000 and an optional worldwide patent license for a reduced royalty rate of 0,4% of the licensees’ product revenues.[267] In *Thomson Reuters,* the Commission required Thomson Reuters to introduce a new type of licensing agreement, allowing its customers to use Reuters Instrument Codes (RICs) for data sourced from Thomson Reuters' competitors.[268] Similarly, among the commitments submitted to the European Commission, Rambus agreed to license its patents, which were ‘essential’ for the implementation of the RAM memory standard, to any willing licensee, applying a ‘most-favoured license rate’.[269] 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.[270] 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.[271]

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 Art. 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 Art. 9 Reg. 1/2003, The European Commission has the power to conclude both structural and behavioural commitments with undertakings,

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264 Commission Decision of 24 May 2004 relating to a proceeding pursuant to Article 82 of the EC Treaty and Article 54 of the EEA Agreement against Microsoft Corporation (Case COMP/C-3/37.792 — *Microsoft*). OJ L-32/23, 6.2.2007.

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

266 Commission Decision of 27 February, 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, 18.7.2009.

267 European Commission press release, “Antitrust: Commission ensures compliance with 2004 decision against Microsoft”. Published on 22.10.2007, IP/07/1567. The text of the press release is available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_07_1567 (19.08.2020).

268 Commission decision of 20 December, 2012, relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement (Case COMP/D2/39.654 — *Reuters Instrument Codes*, RICs). OJ C-326/4, 12.11.2013.

269 *Supra,* Commission decision in *Rambus,* Para. 49(e).

270 *Supra,* Commission decision in *Rambus,* Para. 50.

271 *Supra,* Commission decision in *Samsung.*

subject to an investigation for a breach of Art. 101-102 TFEU.[272] The ECN+ Directive has recently extended this power to every NCA of the EU Member States.[273]

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 implementation of behavioural commitments;[274] the independent trustee could be required to decide on the appropriate level for a royalty in the 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 who is appointed by the competition agency.[275] Finally, as Montagnani proposes, the royalty rate might be determined by organizing an auction among the potential licensees.[276]

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,[277] 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.[278] 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, such a review to be carried out by the monitoring trustee.[279] 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,[280] 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.[281] 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.

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272 Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty. OJ L-1/1, 4.1.2003. Art. 9.

273 Directive (EU) 2019/1 of the European Parliament and of the Council of 11 December 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, 14.1.2019. Art. 12.

274 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 (2012) "Access and Information Remedies in High-Tech Antitrust" 8 *Journal of Competition Law and Economics:* 589

275 *Ibid,* p. 591.

276 *Supra,* Montagnani, 640.

277 Laurence Bary, Frédérique De Bure (2017), "Disruptive Innovation and Merger Remedies: How to Predict the Unpredictable?" 3 *Concurrences:* 1-9.

278 *Ibid,* p. 7.

279 *Ibid,* p. 8.

280 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12416-New-competition-tool (22.07.2020).

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

- Urgency;

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 6 Original Equipment Manufacturers (OEMs).[282] According to the Commission, the contested clauses were exclusivity-inducing and were thus *prima facie* abusive.[283] 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'.[284] 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 5 years.[285] 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.[286]

In light of the recent *Broadcom* interim decision, if the Commission/NCA were 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 that faced by a competition agency in enforcing Art. 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 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 Art. 102(a), the competition agency should certainly take into consideration the limits of antitrust remedies.

V. Conclusions

For a number of decades, unfair pricing cases have been considered a sort of 'taboo' in the enforcement of Art. 102 TFEU. During recent years, however, we have witnessed a "surprising… resurgence of excessive pricing cases".[287] In particular, the recent European Commission commitment decisions in

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

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.

282 European Commission press release, "Antitrust: Commission imposes interim measures on Broadcom in TV and modem chipset markets." Published on 16.10.2019. The text of the press release is available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6109 (22.07.2020).

283 *Ibid.*

284 *Ibid.*

285 On 27th April, 2020, the Commission published the document. including the commitments put forward by Broadcom (Case AT.40608 – *BROADCOM).* The text of the document is available at: https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40608 (22.07.2020).

286 Communication from the Commission published pursuant to Article 27(4) of Council Regulation (EC) No 1/2003 in Case AT.40608 – Broadcom 2020/C 142/03. OJ C-142/4, 30.4.2020.

287 *Supra,* O'Donoghue and Padilla, p. 736.

Gazprom[288] and *Aspen*[289] show that even DG Competition is currently reconsidering its past 'non-enforcement paradigm' *vis-à-vis* unfair pricing cases. As shown in Section III, recent rulings by national and EU courts have progressively clarified the test that a competition agency should follow in assessing an unfair pricing case under Art. 102(a). In particular, *United Brands* is not the 'only test' that can be used to assess an unfair pricing case; a number of benchmarking methods have been officially endorsed by CJEU case law in order to assess cases of unfair pricing. Although a number of 'gaps' persist in relation to the interpretation of Art. 102(a), the increasing number of NCAs' decisions and court rulings are expected to lead to a further clarification of the case law in years to come.

In view of the recent ruling of the UK Supreme Court in *Unwired Planet*[290] and the judgement of the German *Bundesgerichtshof* in *Sisvel v. Haier,*[291] the paper departs from the assumption 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 commitment. Besides representing a breach of the FRAND commitment, an 'unfair' royalty rate might also be considered an abuse of a dominant position by the SEP holder, in breach of Art. 102(a) TFEU. This paper has relied on a detailed analysis of the CJEU case law on unfair pricing (Section III) as a 'yardstick' with which to assess 'when' competition policy should sanction unfair royalty rates by the SEP holder (Section VI.1), 'how' an NCA should assess the case (Section IV.2) and, eventually, 'what' remedies the competition agency might adopt (Section IV.3).

Economists have elaborated upon 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 that are characterized by high and stable entry barriers, in which a 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 proven, the SEP holder is indeed likely to hold market power and thus antitrust intervention will be justified. A number of authors have argued that excessive pricing cases should be sanctioned only in network industries (i.e., antitrust intervention can be justified only when there is a lack of price regulation by the NRA), and in industries that are characterized by a lack of dynamic efficiencies. In this paper, we have argued that these last two 'filters' do not represent an obstacle to competition policy intervention *vis-à-vis* an unfair royalty rate. 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 in excluding *a priori* competition policy enforcement in relation to unfair royalty rates that are requested by the SEP holder.

In terms of 'how' to assess a case of an unfair royalty rate, a competition agency should rely on the CJEU case law on Art. 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' with which to assess unfair pricing cases. In particular, the *United Brands* cost/price test is not suitable for assessing an unfair royalty rate that is requested by the SEP holder, since it is *de facto* impossible to determine the 'costs of production' of individual SEPs. In accordance with the CJEU case law, the competition agency might rely on a number of benchmark methods with which 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 to the dominant firm in the same relevant market, or with firms selling the same product in a different geographical markets, comparison of the price charged by the dominant firm for the same product, either in different geographical markets or to different customers, as well as

[288] *Supra,* Commission decision in *Gazprom.*

[289] *Supra,* Commission decision in *Aspen.*

[290] *Supra,* UK Supreme Court, *Unwired Planet.*

[291] *Supra, Bundesgerichtshof, Sisvel v. Haier.*

comparison over-time, are all valid benchmark methods that are endorsed by the CJEU jurisprudence. After having identified suitable benchmark method(s), the competition agency should assess whether, and to what extent, the dominant firm's price is indeed unfair in comparison to the benchmark price. In *AKKA-LAA*, the CJEU did not introduce a minimum threshold in 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 Art. 102(a) TFEU.[292]

By verifying its findings through the use of multiple tests, the agency would strengthen its conclusions, by thus minimising the risk of false negative errors. Finally, the SEP holder could put forward some efficiency defences to refute the evidence of abuse. In accordance with the *Post Danmark I* case law,[293] 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 a case where its investigations showed that the SEP holder had breached its dominant position by asking for an 'unfair' royalty rate. In this paper, we have argued that the competition agency might require the SEP holder to license its 'essential' patent; such a remedy is well established in the practice of the European Commission. In designing such a far-reaching remedy, however, the competition agency would face a number of challenges: firstly, by determining a 'maximum' royalty rate that is 'too low', the NCA would run the risk of disincentivising the SEP holder from undertaking further innovation. In order to minimise such a 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 the licensees concerning the enforcement of the commitments. Alternatively, a 'fair' royalty rate could be determined, either via arbitration or via an auction. Furthermore, in order to take into consideration the market dynamics, the commitments should include a sunset clause and be made subject to a period joint review by both the agency and the SEP holder.

A second challenge faced by the NCA is that its intervention may arrive 'too late', especially taking into consideration the rapid evolution in technological industries where SEPs are common. In light of the recent European Commission interim decision in *Broadcom*,[294] we have argued in this paper that the competition authority should be ready to impose a mandatory licensing obligation on the SEP holder via an interim measure; the precise content of the licensing agreement would be refined at a later stage of the final commitment decision. In deciding whether to prosecute a case of unfair royalty rate under Art. 102(a), the competition agency should certainly take into consideration the limits of antitrust remedies, especially when they are being applied to unfair pricing cases.

Since no such antitrust investigation has ever been attempted in Europe in this area, this paper is purely speculative. However, in view of the 'resurgence' of unfair pricing cases in Europe and the increasing number of antitrust investigations that are related to standard essential patents, the paper is relevant, since it aims to provide legal certainty to both the SEP holder and the implementers. Time will tell us if, and to what extent, such a framework of analysis will be followed by the European Commission and by the NCAs in assessing 'real' cases of unfair royalty rates under Art. 102(a) TFEU.

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292 *Supra*, Case C-177/16, Para. 55.

293 *Supra*, Case C-209/10, Para. 42.

294 *Supra*, Commission decision in *Broadcom*.

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