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Will the CJEU's Decision in *MEO* Change FRAND Disputes Globally?

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Price discrimination is ubiquitous.[1] Movie theaters and museums offer discounts to students and seniors. Restaurants charge lower prices during happy hours. Hotels offer discounts to loyal customers, and airline companies charge different prices for the same route depending on the day of the travel or the time when the customer bought the ticket. Of course, price discrimination is common not only among businesses that sell products and services directly to end consumers, but also among businesses that sell inputs to other businesses. For example, a commercial landlord typically offers a different rental rate to long-term tenants than to short-term tenants. Similarly, a software company might charge a higher price to big firms but offer reduced prices to small businesses.

Despite its ubiquity, price discrimination can trigger antitrust liability in the United States, in the European Union, and in other jurisdictions. The principal statutory prohibition against price discrimination in American antitrust law is section 2 of the Clayton Act,[2] as amended in 1936 by the

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1 *See, e.g.*, MASSIMO MOTTA, COMPETITION POLICY: THEORY AND PRACTICE 491 (Cambridge Univ. Press 2004) ("Price discrimination is a pervasive phenomenon, of which examples from our daily life abound."); Hal R. Varian, *Price Discrimination*, *in* I HANDBOOK OF INDUSTRIAL ORGANIZATION 597, 598 (Richard L. Schmalensee & Robert D. Willig eds., North-Holland 1989) ("Price discrimination is one of the most prevalent forms of marketing practices."); William J. Baumol & Daniel G. Swanson, *The New Economy and Ubiquitous Competitive Price Discrimination: Identifying Defensible Criteria of Market Power*, 70 ANTITRUST L.J. 661, 672–73 (2003).

2 Pub. L. No. 63–212, 38 Stat. 730 (1914) (codified as amended at 15 U.S.C. §§ 12–27).

Robinson-Patman Act,[3] in which section 2(a) makes it unlawful for a seller "to discriminate in price between different purchasers of commodities of like grade and quality . . . where the effect of such discrimination may be substantially to lessen competition or tend to create a monopoly."[4] Similarly, Article 102(c) of the Treaty on the Functioning of the European Union (TFEU) prohibits a dominant firm from "applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage."[5]

In April 2018, the Court of Justice of the European Union (CJEU) issued a decision in *MEO v. Autoridade da Concorrência* that clarified the circumstances in which price discrimination could trigger liability under Article 102(c) TFEU.[6] The CJEU emphasized that Article 102(c) TFEU does not categorically prohibit a dominant firm from engaging in price discrimination, but instead prohibits only price discrimination that "tends to distort competition on the downstream market."[7] The CJEU also said that one cannot assume that price discrimination will have that prohibited effect simply because competing customers are paying different prices. Rather, one must examine the circumstances of each case to determine whether the challenged practice has a prohibited effect and thus violates Article 102(c) TFEU.[8]

The decision in *MEO* has so far received sparse attention from lawyers, academics, and competition law commentators. Yet, it represents an important addition to the analysis of price discrimination under EU competition law that recognizes sound economic principles. For example, economic theory has long acknowledged that price discrimination can increase economic welfare.[9] As a matter of public policy, it would thus be undesirable to adopt a categorical rule prohibiting firms with significant market power from engaging in price discrimination, because doing so could discourage welfare-enhancing practices. The CJEU's decision in *MEO* thus rightly circumscribed the conditions under which price discrimination would trigger liability under Article 102(c) TFEU. In addition, the decision comports with

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3 Pub. L. No. 74-692, 49 Stat. 1526 (1936) (codified as amended at 15 U.S.C. § 13).

4 *Id.* § 13(a); *cf.* Makan Delrahim, Assistant Attorney Gen., U.S. Dep't of Justice, Remarks as Prepared for Delivery at IAM's Patent Licensing Conference—Antitrust Law and Patent Licensing in the New Wild West 8 (Sept. 18, 2018) ("The Sherman Act is indifferent to price discrimination."); *id.* at 8 n.28 ("To the extent any such 'nondiscrimination' duty exists, it is under the Robinson-Patman Act, which in limited circumstances condemns price discrimination with respect to commodities—not patent licenses.").

5 Consolidated Version of the Treaty on the Functioning of the European Union art. 102(c), Oct. 26, 2012, 2012 O.J. (C 326) 47 [hereinafter TFEU].

6 Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 (Apr. 19, 2018).

7 *Id.* ¶ 26; *see also id.* ¶ 25.

8 *Id.* ¶ 28.

9 *See, e.g.*, Motta, *supra* note 1, at 493–94; William J. Baumol & Alan S. Blinder, Microeconomics: Principles & Policy 225 (Cengage Learning 13th ed. 2015) ("[P]rice discrimination permits the firm to offer lower prices to certain customers, thereby attracting some business that it would not otherwise have."); N. Gregory Mankiw, Principles of Economics 305–06 (Cengage Learning 8th ed. 2018); Tyler Cowen & Alex Tabarrok, Modern Principles: Microeconomics 250–51 (Worth 2010).

what economists have long recognized: that not every instance of differential treatment is capable of injuring competition. Economists also emphasize that firms (including those with market power) typically have no incentive to engage in price discrimination that would injure competition in markets in which they do not compete.[10] It is therefore appropriate for courts and competition authorities to require, as the CJEU did in *MEO*, that allegations that price discrimination has caused, or is capable of causing, anticompetitive effects be rooted in the facts of the case.

Although *MEO* concerned the licensing of copyrights, for two reasons it has important implications for disputes concerning standard-essential patents (SEPs) that are subject to the owner's commitment to offer to license them on fair, reasonable, and nondiscriminatory (FRAND) terms (or reasonable and nondiscriminatory (RAND) terms, as the case may be). First, the CJEU's decision will be relevant to determining whether an SEP holder's specific licensing practice complies with EU competition law, a critical question in a jurisdiction such as Germany, where the allegation of an Article 102 TFEU violation is a common defense against an SEP holder's request for an injunction.[11] Second, to the extent that the word "nondiscrimination" has the same basic meaning in a FRAND or RAND commitment as it does in Article 102(c) TFEU—as some have argued is the case for the FRAND commitment that SEP holders give to the European Telecommunications Standards Institute (ETSI)[12]—the CJEU's decision in *MEO* provides guidance for interpreting the nondiscrimination requirement of ETSI's FRAND commitment. In that case, *MEO* will have important implications not only in the European Union, but also for adjudicating ETSI FRAND disputes in jurisdictions outside the European Union.

Most important, *MEO* specifies the circumstances in which an SEP holder's differential treatment of its licensees would be unlawful. Several economists and legal scholars, including one of us, have argued that an SEP holder that has committed to offer to license its SEPs on FRAND terms should offer similar license terms to similarly situated licensees.[13] Those commenta-

10 *See* Jean Tirole, The Theory of Industrial Organization 173–76 (MIT Press 5th ed. 1992); Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization 420 (Pearson 4th ed. 2005); Motta, *supra* note 1, at 307; 3A Phillip E. Areeda & Herbert Hovenkamp, Antitrust law ¶ 758, at 27–32 (Aspen 2d ed. 2002).

11 *See, e.g.*, Case C-170/13, Huawei Techs. Co. v. ZTE Corp., ECLI:EU:C:2015:477 ¶ 28 (July 16, 2015) ("That court considers that the decision on the substance in the main proceedings turns on whether the action brought by Huawei Technologies constitutes an abuse of that company's dominant position.").

12 For example, the parties in *Unwired Planet International Ltd v. Huawei Technologies Co.* agreed that the nondiscrimination requirement of ETSI's FRAND commitment has the same basic meaning as Article 102(c) TFEU. [2017] EWHC (Pat) 711 [487] (Eng.) ("Both sides approached this issue [of interpreting 'nondiscrimination' in the FRAND commitment] on the basis that concepts such as similarly situated parties, equivalent/comparable transactions, and objective justifications, were the same under the non-discrimination limb of FRAND as they are in competition law.").

13 *See, e.g.*, Richard J. Gilbert, *Deal or No Deal? Licensing Negotiations in Standard-Setting Organizations*, 77 Antitrust L.J. 855, 858 (2011) (interpreting the nondiscrimination requirement of a RAND

tors also agree that the license terms for similarly situated licensees need not be identical to comply with the FRAND commitment.[14] However, there is little agreement about the point at which the differential treatment of similarly situated licensees becomes unlawful. In that respect, *MEO* provides a limiting principle for analyzing claims of unlawful discrimination. It clarifies that only those differences in royalties that tend to distort competition among the SEP holder's licensees violate Article 102(c) TFEU and, when the nondiscrimination requirement of the FRAND commitment is equivalent to Article 102(c) TFEU, breach the FRAND commitment. *MEO* also outlines the type of evidence that a court or competition authority might examine to determine whether a challenged license practice has a prohibited effect on competition. It thus provides helpful guidance for addressing an allegation that an SEP holder's licensing practice is discriminatory.

In Part I of this article, we examine the CJEU's decision in *MEO*. In Part II, we discuss the well-established economic principles concerning price discrimination that the CJEU recognized in *MEO*. In Part III, we examine how the principles that the CJEU outlined in *MEO* inform the analysis of an SEP holder's licensing conduct. In Part IV, we examine whether *MEO* will change how courts and competition authorities will address allegations of discrimination in licensing SEPs.

I. *MEO v. Autoridade da Concorrência*

The dispute in *MEO v. Autoridade da Concorrência* arose after MEO—a Portuguese telecommunications company that provides paid television signal transmission service and television content—appealed a decision of

commitment as "[p]reventing undue discrimination between similarly situated licensees"); Mark A. Lemley & Carl Shapiro, *A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents*, 28 Berkeley Tech. L.J. 1135, 1141–42 n.17 (2013) ("A patent owner making a FRAND commitment is obliged to offer similar terms to similarly situated parties."); J. Gregory Sidak, *The Meaning of FRAND, Part I: Royalties*, 9 J. Competition L. & Econ. 931, 997 (2013) ("Under a broader definition, nondiscriminatory licensing would require that royalties be approximately the same across licensees with similar output levels."); Stefano Barazza, *Licensing Standard Essential Patents, Part One: The Definition of F/RAND Commitments and the Determination of Royalty Rates*, 9 J. Intell. Prop. L. & Prac. 465, 471 (2014) ("An attempt to strike a balance between the extremes results in the acknowledgement that the 'non-discriminatory' principle requires the SEP holder to offer a licence to all prospective licensees, but allows it to apply different licensing terms, provided that it does not discriminate between licensees that are in a similar position as regards their bargaining and market power."); J. Gregory Sidak, *Fair and Unfair Discrimination in Royalties for Standard-Essential Patents Encumbered by a FRAND or RAND Obligation*, 2 Criterion J. on Innovation 301, 319 (2017) ("A third interpretation of the nondiscrimination requirement of a FRAND or RAND commitment would impose on the SEP holder the duty to license similarly situated licensees on similar terms.").

[14] *See, e.g.*, Damien Geradin, *The Meaning of "Fair and Reasonable" in the Context of Third-Party Determination of FRAND Terms*, 21 Geo. Mason L. Rev. 919, 928 (2014) ("There is indeed a consensus that non-discrimination does not mean that licensing terms should be identical for all licensees, as such an interpretation would ignore economic realities, but that 'similarly situated' licensees should have access to the same licensing terms."); Gilbert, *supra* note 13, at 876 ("The important requirement is uniform treatment for similarly situated licensees, rather than identical treatment for all licensees.").

the Portuguese competition authority to terminate its investigation of an allegedly anticompetitive licensing practice of the Cooperativa de Gestão dos Direitos dos Artistas Intérpretes ou Executantes (GDA).[15] The case ultimately reached the CJEU, which ruled on the type of evidence that one must present to prove that a discriminatory pricing practice violates Article 102(c) TFEU.

A. The Dispute Between MEO and the Portuguese Competition Authority

The GDA is a Portuguese organization that licenses the use of copyrighted work and distributes the collected royalties to its members.[16] As of April 2018 (when the CJEU issued its decision in *MEO*), the GDA was the only organization managing and licensing the copyrights of artists and performers in Portugal.[17]

In 2014, MEO, one of the GDA's licensees, filed a complaint with the Portuguese competition authority alleging that certain GDA licensing practices violated Article 102(c) TFEU.[18] Specifically, MEO alleged that, between 2010 and 2013, the GDA charged three different royalties—or "tariffs"—to providers of paid television signal service and television content.[19] The royalty that MEO paid to the GDA was set in an arbitral decision issued in 2012.[20] Portuguese law provides that, if the GDA and the potential licensee cannot voluntarily agree on licensing terms, the parties shall resolve their dispute through binding arbitration.[21] The royalty that the GDA charged MEO exceeded the royalty that the GDA charged a competing provider of paid television signal service and television content—NOS Comunicações SA (NOS)—thereby putting MEO, in its estimation, at a competitive disadvantage. MEO argued that the GDA's licensing practices violated Article 102(c) TFEU.[22]

In March 2015, the Portuguese competition authority initiated an investigation to scrutinize the GDA's challenged licensing practices.[23] However, one year later, the competition authority closed its investigation and reported that it had found no evidence that the GDA's licensing practices violated Article 102(c) TFEU. Specifically, after examining "costs, income and profitability structures of the retail offerings of the television signal transmission service and television content," the competition authority found no evidence

15 Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 2 (Apr. 19, 2018).
16 *Id.* ¶ 5.
17 *Id.* ¶ 6.
18 *Id.* ¶ 10.
19 *Id.* ¶ 8.
20 *Id.* ¶ 9.
21 *Id.*
22 *Id.* ¶ 23.
23 *Id.* ¶ 11.

that the difference in royalties that MEO and NOS paid to the GDA had a "restrictive effect on MEO's competitive position."[24] The competition authority thus concluded that there was no basis to find that the GDA's licensing practices violated Article 102(c) TFEU.[25]

MEO appealed the decision of the Portuguese competition authority to the Competition, Regulation and Supervision Court of Portugal.[26] In its appeal, MEO argued that the Portuguese competition authority incorrectly focused its analysis on whether the GDA's licensing practices caused "any significant and quantifiable distortion of competition" between MEO and its competitors.[27] MEO argued that the relevant inquiry under Article 102(c) TFEU is not whether a challenged practice actually distorted competition, but whether it is "capable of distorting competition."[28]

The Competition, Regulation and Supervision Court was not persuaded by MEO's arguments. It noted that the difference in royalties charged to MEO and NOS was small and, therefore, incapable of "undermin[ing] MEO's competitive position."[29] It also observed that MEO's market share had increased during the period when the GDA was charging higher royalties to MEO than to NOS.[30] However, because the Competition, Regulation and Supervision Court found that previous cases did not provide a clear answer to MEO's argument, it stayed the procedure and asked the CJEU to clarify the type of evidence necessary to prove a violation of Article 102(c) TFEU.[31] In particular, the Competition, Regulation and Supervision Court asked the CJEU whether it is necessary to consider the effects that the challenged practice has on the downstream market, as well as "the seriousness of those effects," when determining whether differential treatment violates Article 102(c) TFEU.[32]

B. *The CJEU's Decision*

In its opinion rendered in *MEO* on April 19, 2018, the CJEU provided guidance for determining whether a dominant firm has violated Article 102(c) TFEU by engaging in price discrimination. The CJEU first emphasized that Article

24 *Id.* ¶ 12.
25 *Id.*
26 *Id.* ¶ 14.
27 *Id.*
28 *Id.*
29 *Id.* ¶ 16.
30 *Id.* ¶¶ 16–18; *see also* Opinion of Advocate General Wahl, Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:1020 ¶ 39 (Dec. 20, 2017) [hereinafter Advocate General Opinion in *MEO v. Autoridade da Concorrência*] (noting that MEO's market share increased from 25 percent to more than 40 percent between 2010 and 2013, while NOS's market share decreased from above 60 percent to less than 45 percent during the same period).
31 Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 21 (Apr. 19, 2018).
32 *Id.* ¶ 22.

102(c) TFEU does not categorically prohibit a dominant firm from engaging in price discrimination. The CJEU said that the purpose of Article 102(c) TFEU is to "ensure that competition is not distorted in the internal market [of the European Union]."[33] Thus, Article 102(c) TFEU prohibits a dominant firm from engaging in price discrimination only when it has the possibility to distort competition.[34]

The CJEU also reiterated the long-established principle that, under Article 102(c) TFEU, the imposition of discriminatory prices might be abusive even if it affects (or is able to affect) only competition among the dominant firm's suppliers or among the dominant firm's customers.[35] In other words, Article 102(c) TFEU does not require proving that the challenged practice affects competition in the market in which the dominant firm competes. Evidence that the challenged practice could affect competition in a downstream market, as was allegedly the case in *MEO*, is sufficient.

Next, the CJEU said that proving a violation of Article 102(c) TFEU requires satisfying two separate requirements.[36] First, one must prove that the dominant firm has engaged in price discrimination.[37] Second, it is necessary to prove that the price differential resulting from that discrimination "tends to distort . . . the competitive position" of the dominant firm's customers.[38] The CJEU did not discuss the first requirement in detail, but it specified the type of evidence necessary to prove that an act of price discrimination tends to distort competition.

The CJEU confirmed that, to satisfy that requirement under Article 102(c) TFEU, one does *not* need to prove that a challenged practice led to an actual deterioration of the customer's competitive position.[39] Evidence that the practice *could* have such an effect will suffice to satisfy the second prong.[40] However, the CJEU said that not every instance of discriminatory pricing is capable of having such an effect: "the mere presence of an immediate disadvantage . . . does not . . . mean that competition is distorted or is capable of

33 *Id.* ¶ 24.

34 *Id.*

35 *Id.*; *see also* Case C-95/04 P, British Airways plc v. Comm'n, 2007 E.C.R. I-2331 ¶ 143; Case T-301/04, Clearstream v. Comm'n, 2009 E.C.R. II-3155 ¶ 192.

36 Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 25 (Apr. 19, 2018) ("In order for the conditions for applying subparagraph (c) of the second paragraph of Article 102 TFEU to be met, there must be a finding, not only that the behaviour of an undertaking in a dominant market position is discriminatory, but also that it tends to distort that competitive relationship, in other words, to hinder the competitive position of some of the business partners of that undertaking in relation to the others.").

37 *Id.*

38 *Id.*

39 *Id.* ¶ 24.

40 *Id.* ¶ 27 ("It is only if the behaviour of the undertaking in a dominant position tends . . . to lead to a distortion of competition between those business partners that the discrimination between trade partners which are in a competitive relationship may be regarded as abusive."); *see also id.* ("In such a situation, it cannot, however, be required in addition that proof be adduced of an actual, quantifiable deterioration in the competitive position of the business partners.").

being distorted."[41] Rather, one must examine the facts of the case to determine whether the price differential is capable of having a prohibited effect on the downstream market.[42]

The CJEU identified a non-exhaustive list of factors that the finder of fact could analyze in assessing the possible effects of price discrimination, including "the undertaking's dominant position, the [customer's] negotiating power . . . , the conditions and arrangements for charging those tariffs, their duration and their amount, and the possible existence of a strategy aiming to exclude from the downstream market one of [the dominant firm's] trade partners which is at least as efficient as its competitors."[43] Unfortunately, the CJEU did not explain how each of these factors informs the analysis of proof of the effects of the discriminatory practice. Nonetheless, it emphasized that the relevant inquiry is whether the discriminatory practice "has an effect on the costs, profits or any other relevant interest" of the dominant firm's customers, such that the discriminatory practice is capable of distorting competition in the downstream market.[44]

In sum, the CJEU confirmed in *MEO* that Article 102(c) TFEU does not categorically prohibit price discrimination by a dominant firm, but rather prohibits only that subset of price discrimination that "tends to distort competition."[45] Whether a price differential could have such an effect in the relevant market is a question of fact to be assessed on a case-by-case basis. Put differently, *MEO* reiterates that a challenged instance of price discrimination by a dominant firm must have more than "purely hypothetical" anticompetitive effects to trigger liability under Article 102(c) TFEU.[46]

II. Are the CJEU's Conclusions in *MEO* Economically Sound?

The CJEU's decision in *MEO* recognizes three related economic insights that inform the analysis of discriminatory practices under Article 102(c) TFEU. First, price discrimination might benefit consumers. Second, not every instance of differential treatment by a dominant firm is capable of injuring competition in the downstream market. Third, a dominant firm typically has no incentive to injure competition in markets in which it does not compete. Those three principles underscore why it is undesirable, from a competition policy perspective, categorically to ban dominant firms from engaging in

[41] *Id.* ¶ 26.
[42] *Id.* ¶ 28; *see also id.* ¶ 31.
[43] *Id.* ¶ 31.
[44] *Id.* ¶ 37.
[45] *Id.* ¶ 26.
[46] *Accord* Case C-23/14, Post Danmark A/S v. Konkurrencerådet, ECLI:EU:C:2015:651 ¶ 65 (Oct. 6, 2015) ("In that regard . . . the anticompetitive effect of a particular practice must not be of [sic] purely hypothetical.").

price discrimination. They also emphasize why it is proper to require that allegations of anticompetitive price discrimination not be merely hypothetical, but rather be proven with factual evidence.

A. Does Price Discrimination Benefit Consumers?

In economics, price discrimination refers to the practice of charging different prices for the same good or service. However, not every price differential constitutes price discrimination. Price discrimination is present when two or more similar goods are sold at prices that are in different ratios to the good's marginal cost.[47] In other words, price discrimination is present when a firm sells the same good or service at a different price when the cost of providing that good or service is uniform across the customers in question.[48]

Economists identify three types of price discrimination.[49] First-degree price discrimination (or perfect price discrimination) occurs when the seller charges each buyer a price equal to that buyer's maximum willingness to pay for a unit of a given good or service.[50] Second-degree price discrimination occurs when the unit price for a good or service falls as the number of units purchased increases.[51] Quantity discounts exemplify second-degree price discrimination. Third-degree price discrimination occurs when a seller charges different prices to different groups of consumers.[52] Discounted movie tickets for students and seniors exemplify third-degree price discrimination.

Economists have long recognized that price discrimination need not decrease economic welfare.[53] Rather, in specific circumstances, price discrimination might increase economic welfare in both the short run and the long run.[54] In the short run, price discrimination might increase economic welfare if it expands output.[55] Suppose an airline sells tickets for flights from Paris to New York for €2,500 per ticket to the general public, but offers the same

[47] *See* Varian, *Price Discrimination*, *supra* note 1, at 598; George J. Stigler, The Theory of Price 209 (Macmillan Co. 3d ed. 1966) ("Price differences do not necessarily indicate discrimination."); Tirole, *supra* note 10, at 133–34 ("Hence, we will say that there is no price discrimination if differences in prices between consumers exactly reflect differences in the costs of serving these consumers."); *see also* Sidak, *The Meaning of FRAND, Part I: Royalties*, *supra* note 13, at 996.

[48] *See, e.g.*, Jeffrey Church & Roger Ware, Industrial Organization 157 (Irwin McGraw-Hill 2000) ("The usual definition of price discrimination involves selling the same good at different prices, adjusted for differences in costs."); Varian, *Price Discrimination*, *supra* note 1, at 598.

[49] *See* Varian, *Price Discrimination*, *supra* note 1, at 600; Motta, *supra* note 1, at 492.

[50] Varian, *Price Discrimination*, *supra* note 1, at 600.

[51] *Id.*

[52] *Id.*

[53] *See, e.g.*, Marius Schwartz, *Third-Degree Price Discrimination and Output: Generalizing a Welfare Result*, 80 Am. Econ. Rev. 1259 (1990); Hal R. Varian, *Price Discrimination and Social Welfare*, 75 Am. Econ. Rev. 870 (1985); Richard Schmalensee, *Output and Welfare Implications of Monopolistic Third-Degree Price Discrimination*, 71 Am. Econ. Rev. 242 (1981).

[54] *See, e.g.*, Chiara Fumagalli, Massimo Motta & Claudio Calcagno, Exclusionary Practices: The Economics of Monopolisation and Abuse of Dominance 120–31 (Cambridge Univ. Press 2018).

[55] *See, e.g.*, *id.* at 130; J. Gregory Sidak, *A Consumer-Welfare Approach to Network Neutrality Regulation of the Internet*, 2 J. Competition L. & Econ. 349, 367 (2006).

ticket for €900 to students. Differential pricing enables the airline company to sell tickets at its profit-maximizing price to the general public, and to sell tickets at a lower price to consumers who might otherwise be priced out of the market.[56] If price regulation or arbitrage forces the airline to charge a uniform price, some consumers (in this example, students) might be unable to afford the ticket. Hence, first principles of economics teach that price discrimination might permit a firm to increase its output—which, in the above example, would mean more airline tickets being sold. Such an outcome might not only increase the firm's profit, but also benefit consumers who have a lower willingness to pay than the uniform price that the firm otherwise would charge.

Furthermore, in the long run, price discrimination might increase economic welfare if it increases investments in innovation.[57] A company's investment decision depends on the marginal profit that the company expects to earn from its investment. When price discrimination marginally increases the expected return on the company's investment in research and development, it increases that company's incentives to invest.

Economists have explained why price discrimination might also increase economic welfare in cases involving *input* prices.[58] Massimo Motta—former Chief Competition Economist at the European Commission's Directorate General for Competition—believes that policies that categorically prohibit a supplier from engaging in price discrimination are "misguided."[59] He explains that such policies "provide upstream firms with an efficient and credible commitment not to secretly undercut prices to buyers, thereby allowing them to enforce high prices."[60] In other words, price discrimination permits the input supplier to decrease the price of its goods for some buyers, which in turn can lead to lower prices of final goods for consumers.

By clarifying that Article 102(c) TFEU does not categorically prohibit a dominant firm from engaging in price discrimination, the CJEU's decision in *MEO* comports with the fundamental economic insight that price discrimination can increase economic welfare in both the short run and the long run.

56 Sidak, *A Consumer-Welfare Approach to Network Neutrality Regulation of the Internet*, *supra* note 55, at 367.

57 *See* Fumagalli, Motta, & Calcagno, *supra* note 54, at 131 ("To the extent that price discrimination increases the marginal profits of the investment, it will also increase the amount of investment the firm will want to make. Through this channel, therefore, price discrimination might be welfare-beneficial."); Jerry A. Hausman & Jeffrey K. MacKie-Mason, *Price Discrimination and Patent Policy*, 19 RAND J. Econ. 253, 254 (1988) ("[I]ncreasing the expected reward by allowing price discrimination should increase innovative effort, which presumably benefits society.").

58 *See* Fumagalli, Motta & Calcagno, *supra* note 54, at 133; Michael L. Katz, *The Welfare Effects of Third-Degree Price Discrimination in Intermediate Good Markets*, 77 Am. Econ. Rev. 154, 165 (1987) ("In other cases, price discrimination may increase welfare by preventing socially inefficient integration.").

59 Motta, *supra* note 1, at 343.

60 *Id.*

B. Does Price Discrimination Injure Competition?

The allegations in *MEO* describe what U.S. antitrust law calls a secondary-line injury to competition.[61] In a case involving primary-line injury to competition, the seller is accused of using price discrimination to exclude competitors.[62] In contrast, in a case involving secondary-line injury to competition, the seller is accused of using price discrimination to injure competition between the seller's customers.[63] The underlying theory of a secondary-line injury is that the price differential places the disfavored purchaser at a competitive disadvantage and causes it to lose business to the favored purchaser.[64] Of course, there can be no secondary-line injury to competition if the dominant firm's customers do not compete with each other. However, even when the dominant firm's customers compete in the downstream market, one cannot simply assume that differential pricing injures competition or, to use the CJEU's words, "tends to distort competition on the downstream market."[65] Rather, it is necessary to examine the effects that the challenged practice could have on competition in the downstream market.

1. Economic Principles Addressing Secondary-Line Injury to Competition

To understand why not every price differential can lead to secondary-line injury to competition, consider the example of a patent holder that has developed a technology that permits a driver to locate the nearest parking spot for her vehicle. Suppose that the patent holder has licensed that technology to two car manufacturers—company *A* and company *B*—and charged a €5 per-unit royalty to company *A* and a €30 per-unit royalty to company *B*. In this hypothetical, company *B* pays a royalty six times higher than the royalty that company *A* pays to use the same technology. One might conclude that a price differential of that magnitude surely places company *B* at a "competitive disadvantage"[66] vis-à-vis company *A*, such that the price differential tends to distort competition among the car manufacturers. However, the facts might contradict that conclusion.

Suppose for simplicity that company *A* and company *B* sell their cars to consumers for the same price of €25,000 per car. Suppose further that the two car manufacturers pass the entire price differential through to the consumer. It is implausible that a price difference of €25 (that is, €30 – €5), which represents 0.1 percent of the car's price, would divert a significant number of

[61] *See, e.g.*, Volvo Trucks N. Am., Inc. v. Reeder-Simco GMC, Inc., 546 U.S. 164, 176 (2006).
[62] *See id.*
[63] *See, e.g.*, *id.*; Texaco Inc. v. Hasbrouck, 496 U.S. 543, 556 (1990).
[64] Coastal Fuels of P.R., Inc. v. Caribbean Petroleum Corp., 79 F.3d 182, 188 (1st Cir. 1996).
[65] Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 26 (Apr. 19, 2018).
[66] TFEU, *supra* note 5, art. 102(c).

sales from company *B* to company *A*. Cars are differentiated products. They differ in characteristics other than price, such as fuel economy, horse power, roominess, interior appointments, and design. Hence, a small difference in price of €25 is unlikely to alter a consumer's decision of whether to buy a car from company *A* or company *B*. If so, the price differential is unlikely to have any effect at all on competition between the two car manufacturers.

The conclusion that the price differential is unlikely to cause a secondary-line injury to competition holds even more strongly if one considers that firms likely have (1) different costs, (2) different rates at which they pass cost changes through to consumers, and (3) different prices at which they sell their products to consumers. Indeed, in the real world, company *A* and company *B* likely face different costs. One cannot assume that, merely because company *B* pays a higher royalty for the licensed technology, it will have higher total costs than company *A*. Perhaps company *B* pays a lower price for some other input, such as car tires. Similarly, the two companies are unlikely to have identical price-cost margins or to sell their cars for exactly the same price. If so, it is even less plausible that a royalty differential of €25 would be capable of distorting competition in the downstream market for cars.

2. *Legal Principles Addressing Secondary-Line Injury to Competition*

When enforcing the prohibition against price discrimination contained in the Robinson-Patman Act, U.S. courts have recognized that not every price differential can injure competition in the downstream market. The Supreme Court reiterated in *Volvo Trucks North America, Inc. v. Reeder-Simco GMC, Inc.* in 2006 that, to establish a secondary-line injury under the Robinson-Patman Act, the plaintiff must prove that (1) the discriminating sales were made in interstate commerce, (2) the goods sold to one buyer were of the same grade and quality as the goods sold to the plaintiff, (3) the defendant offered the two different buyers discriminatory prices, and (4) "'the effect of such discrimination may be . . . to injure, destroy, or prevent competition' to the advantage of a favored purchaser."[67] The Supreme Court explained that "[a] hallmark of the requisite competitive injury . . . is the *diversion of sales or profits* from a disfavored purchaser to a favored purchaser."[68]

To prove the fourth criterion, the plaintiff may rely on either of two types of evidence. First, the plaintiff may present direct evidence that the price discrimination produced lost sales or lost profits.[69] However, evidence

[67] 546 U.S. at 176 (alteration in original) (quoting 15 U.S.C. § 13(a)); *see also* Cash & Henderson Drugs, Inc. v. Johnson & Johnson, 799 F.3d 202, 209–10 (2d Cir. 2015); Feesers, Inc. v. Michael Foods, Inc., 498 F.3d 206, 212 (3d Cir. 2007).

[68] *Volvo Trucks*, 546 U.S. at 177 (citing FTC v. Sun Oil Co., 371 U.S. 505, 518–19 (1963)).

[69] *Id.*; Falls City Indus. v. Vanco Beverage, Inc., 460 U.S. 428, 434–35 (1983).

of a small number of diverted sales (or a small amount of diverted profit) is typically insufficient to prove the fourth criterion.[70] Second, the plaintiff may use inferential evidence to prove the competitive-injury requirement. Since the Supreme Court's 1948 decision in *FTC v. Morton Salt Co.*,[71] U.S. courts have permitted an inference of injury to competition if there is evidence that a significant price differential between two competing buyers has persisted for a substantial period of time.[72] Whether a given price differential is "significant" and whether its duration is "substantial" depend on the facts of the case.[73] For example, a price differential might have stronger effects on the disfavored buyer's competitiveness in markets that command lower margins.[74] In contrast, when the margins in a market are high, even a large price differential might have only a negligible effect on the disfavored buyer's competitiveness.

Therefore, like EU competition law, U.S. antitrust law does not require proof that price discrimination has in fact injured competition. It suffices to prove that there is a "reasonable possibility" that the challenged practice could have such an effect.[75] Still, U.S. courts have recognized that not all price discrimination can injure competition in the downstream market. Like the CJEU in *MEO*, U.S. courts have required an analysis of the facts of the case—including the duration of the price discrimination, the magnitude of the price differential, and the characteristics of the market in which the buyers compete—to determine whether a reasonable possibility exists that a price differential could injure competition.

American scholars have criticized the use of the Robinson-Patman Act to police secondary-line injury to competition.[76] For example, Judge Richard

[70] *Cash & Henderson Drugs*, 799 F.3d at 210 ("[I]f the loss attributable to impaired competition is *de minimis*, then the challenged practice cannot be said to have had a 'substantial' effect on competition, [as required by the Robinson-Patman Act].").

[71] 334 U.S. 37 (1948).

[72] *See Volvo Trucks*, 546 U.S. at 177 ("We have also recognized that a permissible inference of competitive injury may arise from evidence that a favored competitor received a significant price reduction over a substantial period of time." (citing *Morton Salt*, 334 U.S. at 49–51; *Falls City*, 460 U.S. at 436)). Lower U.S. courts speak of the "*Morton Salt* inference." *See, e.g.*, George Haug Co. v. Rolls Royce Motor Cars Inc., 148 F.3d 136, 142 (2d Cir. 1998); Chroma Lighting v. GTE Prods. Corp., 111 F.3d 653, 654 (9th Cir. 1997).

[73] *See, e.g.*, Western Convenience Stores, Inc. v. Suncor Energy (U.S.A.) Inc., 970 F. Supp. 2d 1162, 1173 (D. Colo. 2013) ("The question of how long a period of price discrimination is 'substantial' and how much of a price discount is 'significant' are questions that are inherently fact-driven, and not subject to general rules of thumb.").

[74] *See, e.g.*, J.F. Feeser, Inc. v. Serv-A-Portion, Inc., 909 F.2d 1524, 1538 (3d Cir. 1990); Coastal Fuels of P.R., Inc. v. Caribbean Petroleum Corp., 79 F.3d 182, 193 (1st Cir. 1996) ("[The] jury properly inferred *prima facie* injury to competition since Coastal produced sufficient evidence before the jury to conclude (1) that the discrimination in question was continuous and substantial and (2) that the discrimination occurred in a business where profit margins were low and competition was keen.").

[75] *Falls City*, 460 U.S. at 434–35; *Morton Salt*, 334 U.S. at 46–47; Corn Prods. Ref. Co. v. FTC, 324 U.S. 726, 742 (1945); *see also* Stelwagon Mfg. Co. v. Tarmac Roofing Sys., Inc., 63 F.3d 1267 (3d Cir. 1995).

[76] *See, e.g.*, Robert H. Bork, The Antitrust Paradox: A Policy at War with Itself 382 (Free Press 1993) (characterizing the Robinson-Patman Act as "antitrust's least glorious hour"); Carlton & Perloff, *supra* note 10, at 675 ("One consequence of the Robinson-Patman Act is higher prices to consumers, who are deprived of the benefits of economies of scale in purchasing that the chain stores would otherwise

Posner has said that "[i]t would be infeasible to draft a decree forbidding systematic price discrimination that did not constrain or inhibit legitimate pricing behavior as well."[77] In 2007, the Antitrust Modernization Commission recommended repealing the Robinson-Patman Act in its entirety on the basis that the act "protects competitors over competition and punishes the very price discounting . . . that the antitrust laws otherwise encourage."[78] Although the Robinson-Patman Act plainly endures despite this perennial criticism, few cases over the past two decades have produced findings that discriminatory pricing was anticompetitive because it caused a secondary-line injury to competition.[79]

The CJEU's decision in *MEO* limits the scope of Article 102(c) TFEU by requiring proof that the challenged price differential could injure competition in the downstream market. By focusing on the need to prove the actual or likely *effects* of any price discrimination, the CJEU recognized that not every price differential can distort competition in the downstream market. In that respect, the CJEU's decision in *MEO* aligned EU analysis under Article 102(c) TFEU more closely with the analysis of price discrimination under U.S. antitrust law.

be forced by competition (among themselves) to pass along to consumers."); Herbert Hovenkamp, *The Robinson-Patman Act and Competition: Unfinished Business*, 68 Antitrust L.J. 125, 127 (2000) ("But in such a case [of secondary-line injury,] it is not even superficially reasonable to say that the manufacturer has 'injured' or 'destroyed' competition between the two dealers. On the contrary, the manufacturer has facilitated competition by providing an incentive to dealers to become more aggressive in promoting the seller's brand."); Thomas W. Ross, *Winners and Losers Under the Robinson-Patman Act*, 27 J.L. & Econ. 243, 252 (1984) ("More generally, the act may simply hinder strong price competition in markets that, although not cartelized, are not perfectly competitive.").

77 Richard A. Posner, Antitrust Law 86 (Univ. of Chicago Press 2d ed. 2001).

78 Antitrust Modernization Commission, Report and Recommendations, at iii (2007).

79 *See, e.g.*, *id.* at 316 ("During the first three decades after the Act's passage, the FTC devoted 'an overwhelming preponderance' of its antitrust resources to Robinson-Patman Act enforcement. [However, b]eginning in 1969, . . . the FTC sharply contracted its RP Act enforcement efforts."); *id.* ("Private litigation under the Act also has fallen, and plaintiff success has been limited. Of 200 reported cases with Robinson-Patman Act claims filed in federal court in the past ten years [as of 2007], only three jury verdicts in favor of plaintiffs were affirmed on appeal. One of these three was reversed by the Supreme Court."); *see also* Ryan Luchs, Tansev Geylani, Anthony Dukes & Kannan Srinivasan, *The End of the Robinson-Patman Act? Evidence from Legal Case Data*, 56 Mgmt. Sci. 2123, 2123 (2010) ("We find that [the] likelihood [of finding that a defendant violated the Robinson-Patman Act] has dropped drastically as a result of recent Supreme Court rulings from more than 1 in 3 before 1993 to less than 1 in 20 for the period 2006–2010."); *see also* *id.* at 2127 tbl.1 (showing that the number of cases involving a ruling based on the Robinson-Patman Act fell from 153 during 1982–1993 to 47 during 2006–2010 and that the number of Robinson-Patman cases won by the plaintiff fell from 35 during 1982–1993 to 4 during 2006–2010); D. Daniel Sokol, *Analyzing Robinson-Patman*, 83 Geo. Wash. L. Rev. 2064, 2099 (2015) ("The current phase of case outcomes suggest[s] a weakening of Robinson-Patman over time."); *id.* at 2098 ("The empirical analysis shows a decline in plaintiff victories as a percentage of all case outcomes for both primary- and secondary-line cases over time.").

C. *Does a Dominant Firm Have an Incentive to Harm Competition in Markets in Which It Does Not Compete?*

American skepticism of secondary-line injury is unsurprising when one considers what economic principles teach about a firm's incentives to injure competition in a downstream or upstream market. Any firm, including a firm with significant market power, maximizes profit when both the market in which it buys its inputs and the market in which it sells its products are competitive.[80] Thus, from an economic perspective, firms typically do not have an incentive to behave in a manner that could injure competition among its suppliers or its customers.

Competition in the *upstream* market—that is, the market in which a firm buys inputs—obviously benefits the firm because it decreases the firm's input costs. Perfect competition drives the price of a good down to marginal cost.[81] In general, the more competitive the upstream market is, the closer the input's price will be to its marginal cost. Thus, a firm that buys inputs in a competitive upstream market can purchase those inputs at a lower price than it would pay in a less competitive upstream market. A lower input price reduces that firm's marginal cost of producing its own product. As the firm's marginal cost decreases, both the firm's per-unit profit and its profit-maximizing output will increase, which will increase the firm's total profits.[82]

Consider a firm that manufactures biodegradable toys. The more competitive the market in which that firm buys its inputs (such as the market for bioplastic), the lower the price that the firm will pay for those inputs. The lower bioplastic price reduces the firm's costs of manufacturing biodegradable toys, which in turn increases the firm's per-unit profit from each toy that it sells. If the firm passes at least some portion of its lower manufacturing costs on to consumers in the form of lower retail prices, consumer demand for the firm's biodegradable toys will increase, thereby increasing the firm's profit. Therefore, a manufacturer benefits from competition in the upstream market.

Similarly, a manufacturer benefits from competition in the *downstream* market—that is, the market in which the firm sells its products. Economic theory predicts that a manufacturer that sells its products through a retailer faces the risk of double marginalization, which occurs when both the

80 This economic proposition is now found in any textbook on industrial organization and in the leading treatise on U.S. antitrust law. *See, e.g.*, Tirole, *supra* note 10, at 173–76; Carlton & Perloff, *supra* note 10, at 420; Areeda & Hovenkamp, *supra* note 10, ¶ 758, at 28 ("Each firm is better off if other firms are competitive.").

81 *See, e.g.*, Mankiw, *supra* note 9, at 342; Robert S. Pindyck & Daniel L. Rubinfeld, Microeconomics 365–66 (Pearson 9th ed. 2017).

82 *See, e.g.*, Mankiw, *supra* note 9, at 272 ("Hence, if marginal revenue is greater than marginal cost . . . the firm can increase profit by increasing production.").

manufacturer and the retailer charge prices exceeding marginal cost.[83] Double marginalization leads to higher retail prices, which can reduce the product's unit sales and the manufacturer's total profit.[84] In contrast, when the downstream market is competitive, the retailer will charge a price that approaches its marginal cost, which consequently permits a lower retail price. A lower retail price will stimulate demand for the product, leading to higher unit sales and, depending on the nature of the firm's costs, a higher per-unit profit for the manufacturer, thereby increasing its total profits.

Consider again the manufacturer of biodegradable toys that sells its products through a retailer—a toy store. When the retailer faces no competition—for example, because it is the only toy store in town and the toys are not available online—it will be able to impose a markup on the toy's wholesale price. The retailer's markup will result in a higher retail price to end consumers. In contrast, when multiple toy shops compete, the retailer will be unable to impose as high of a markup. It will instead need to charge a price that is closer to its marginal cost. A lower retail price for biodegradable toys will lead to higher unit sales and higher total profits for the toy manufacturer. When the manufacturer experiences economies of scale, higher sales

83 *See, e.g.*, Carlton & Perloff, *supra* note 10, at 415–17; Motta, *supra* note 1, at 307–09.

84 *See, e.g.*, Carlton & Perloff, *supra* note 10, at 416 ("Consumers facing the double markup buy less output."). The seminal article explaining a firm's incentive to avoid double marginalization is Joseph J. Spengler, *Vertical Integration and Antitrust Policy*, 58 J. Pol. Econ. 347, 351–52 (1950). For an application of the principle of double marginalization to antitrust or regulatory barriers to vertical integration in telecommunications network services, see Jerry A. Hausman, Gregory K. Leonard & J. Gregory Sidak, *Does Bell Company Entry into Long-Distance Telecommunications Benefit Consumers?*, 70 Antitrust L.J. 463, 482–84 (2002).

The phenomenon of double marginalization resembles the "Cournot complements" phenomenon described by Augustin Cournot in 1838. Augustin Cournot, Researches into the Mathematical Principles of the Theory of Wealth (Nathaniel T. Bacon trans., Macmillan Co. 1897) (1838). However, in an important series of recent articles, Daniel Spulber has explained how a firm can avoid double marginalization even without resorting to the usual prescription of vertical integration. *See* Daniel F. Spulber, *Complementary Monopolies and Bargaining*, 60 J.L. & Econ. 29, 65 (2017) ("Predictions based on the Cournot effect need not hold when complementary monopolists engage in general competitive interactions with supply schedules and price negotiation."); *id.* at 61–62 ("[S]uccessive monopolies need not lead to welfare losses from double or multiple marginalization. The upstream and downstream monopolists can coordinate through noncooperative supply schedules and bargaining over prices. This suggests that a merger of successive monopolies is not necessary for reducing final prices. Conversely, a breakup of a vertically integrated firm need not increase final prices."). Spulber was the first to find that the Cournot effect was the basis for a variety of diverse policy concerns. *See* Daniel F. Spulber, *Patent Licensing and Bargaining with Innovative Complements and Substitutes*, 70 Res. in Econ. 693, 695 (2016) ("The literature raises a number of issues in antitrust policy on the basis of the 'Cournot effect.' These issues include Standard Essential Patent (SEP) holdup, royalty stacking, patent thickets, the Tragedy of the Anticommons, and justification for patent pools."). Significantly, Spulber "find[s] that such concerns derive *from the posted prices assumption in the Cournot model*." *Id.* (emphasis added). He argues that his "analysis suggests that public policy makers should recognize the prevalence of bargaining in patent licensing and reevaluate these policy concerns," *id.*, because "bargaining over patent royalties eliminates the 'Cournot effect,'" *id.* at 694. *See* Daniel F. Spulber, *Standard Setting Organizations and Standard Essential Patents: Voting and Markets*, 128 Econ. J. (forthcoming 2018) (manuscript at 10), https://onlinelibrary.wiley.com/doi/epdf/10.1111/ecoj.12606 ("The result that royalties aggregated across SEPs equal the bundled monopoly royalty differs from the standard result that royalties aggregated across SEPs are greater than the bundled monopoly level. The standard result is based on the Cournot (1838) complementary monopolies model in which competition with 'posted prices' leads to free-riding.").

decrease its manufacturing costs and consequently lead to a higher per-unit profit. Indeed, these principles apply not only in a manufacturer-retailer relationship, but also when a manufacturer sells inputs that a downstream manufacturer implements in an end-product.

In sum, a firm benefits from competition in both its upstream market and its downstream market. Consequently, a firm that is not vertically integrated typically has no incentive to engage in price discrimination that could distort competition in either its upstream market or its downstream market. To the contrary, engaging in such conduct would typically contravene the dominant firm's economic interests. That economic insight highlights why one should be skeptical about claims that a dominant firm is engaging in price discrimination that allegedly distorts competition in a market in which it does not compete. Indeed, the CJEU expressly said in *MEO* that a dominant firm, "in principle, has no interest in excluding one of its [buyers] from the downstream market."[85] Thus, economic principles that explain that a dominant firm typically has no incentive to distort competition in a market in which it does not compete further supports the CJEU's decision in *MEO* to require analysis of the *effects* of any price discrimination on market competition when determining whether there has been a violation of Article 102(c) TFEU.

III. *MEO*'s Implications for SEPs

Although the CJEU's decision in *MEO* concerned a licensing practice related to copyrights, the decision has implications for disputes over the licensing of SEPs. The decision outlines the principles for determining whether a patent holder has violated Article 102(c) TFEU by charging different royalties to implementers for the use of its patents. Those principles are relevant to whether an SEP holder's licensing practices amount to unlawful discrimination under EU competition law. As we will explain, those principles might also be relevant to whether an SEP holder has breached the nondiscrimination requirement of a FRAND commitment. In particular, *MEO* adumbrates whether, pursuant to the contractual obligations arising from a FRAND commitment, an SEP holder must accede to a licensee's demand that it be offered the very same royalty that another licensee has paid for the licensed use of the same SEP portfolio.[86]

[85] Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 35 (Apr. 19, 2018).

[86] Unwired Planet Int'l Ltd v. Huawei Techs. Co. [2017] EWHC (Pat) 711 [177] (Eng.) (Birss, J.) ("The argument about non-discrimination treated it as a concept which would apply to reduce a royalty rate even if that rate was otherwise 'FR'. For want of a better expression, I will distinguish between a 'hard-edged' and a 'general' non-discrimination obligation. The general non-discrimination obligation is . . . part of an overall assessment of the inter-related concepts making up FRAND by which one can derive a royalty rate applicable as a benchmark. This rate is non-discriminatory because it is a measure of the intrinsic value of the portfolio being licensed but it does not depend on the licensee. The hard-edged non-discrimination

A. In Which Circumstances Does MEO *Inform Analysis of an SEP Holder's Licensing Conduct?*

It is helpful first to identify the circumstances in which courts and competition authorities will find *MEO* to be relevant to scrutinizing an SEP holder's licensing conduct.

The CJEU's reasoning in *MEO* will of course be relevant to cases in which a court or competition authority must determine whether an SEP holder's licensing conduct violates Article 102(c) TFEU.[87] *MEO* could become particularly important for disputes before national courts of the European Union, where litigation involving SEPs often includes claims that an SEP holder has abused its allegedly dominant position in violation of Article 102 TFEU. For example, a defendant in a German patent-infringement case typically predicates its defense against an SEP holder's request for an injunction on the argument that the SEP holder's licensing conduct violates Article 102 TFEU (or the corresponding provision in national competition law).[88] At least one such defendant in Germany has specifically argued that the SEP holder abused its dominant position by offering licensees discriminatory licensing terms.[89] In patent-infringement cases in other EU jurisdictions, including the United Kingdom, allegations that an SEP holder's licensing practices are anticompetitive are common defenses.[90] In these various EU cases invoking competition-law defenses, *MEO* provides guidance for scrutinizing an SEP

obligation, to the extent it exists, is a distinct factor capable of applying to reduce a royalty rate (or adjust any licence term in any way) which would otherwise have been regarded as FRAND. This will take into account the nature of the particular licensee seeking to rely on it.").

[87] Although the decision in *MEO* concerned the licensing practice of a copyright collective society, the CJEU's reasoning is certainly not restricted to that industry, but rather provides general principles for the interpretation of Article 102(c) TFEU. *See, e.g.*, Cases T-191/98 & T-212/98 to T-214/98, Atlantic Container Line AB v. Comm'n, 2003 E.C.R. II-3275 ¶ 1186 (Sept. 30, 2003) (citing Case C-395/87, Ministère Public v. Jean-Louise Tournier, 1989 E.C.R. 2521 ¶ 38 (July 13, 1989) (finding that a licensing practice of a copyright collective society amounted to an abuse of a dominant position, to support the general proposition that, after the Commission finds that a firm has abused its dominant position, the burden shifts to the dominant firm to justify its conduct)); Case T-472/13, Lundbeck v. Comm'n, ECLI:EU:T:2016:449 ¶ 105 (Sept. 8, 2016) (citing Case T-442/08, CISAC v. Comm'n, ECLI:EU:T:2013:188 ¶ 91 (Apr. 12, 2013) (scrutinizing whether a copyright collective society entered into an anticompetitive agreement, to support the general proposition that the Commission carries the burden of proof when alleging a violation of EU competition rules)); *see also* Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-operation Agreement, 2011 O.J. (C 11/1) ¶ 289 (citing Joined Cases C-110/88, C-241/88 & C-242/88, Francois Lucazeau v. SACEM, 1989 E.C.R. 2811 ¶ 33 (July 13, 1989)) (scrutinizing whether a copyright collective society violated Article 102 TFEU by charging "unfair" royalties, when discussing the assessment of "whether fees charged for access to IPR in the standard-setting context are unfair or unreasonable").

[88] *See, e.g.*, Case C-170/13, Huawei Techs. Co. v. ZTE Corp., ECLI:EU:C2015:447 ¶ 28 (July 16, 2015); *see also* Oberlandesgericht [OLG] [Higher Regional Court] Düsseldorf Mar. 30, 2017, I-15 U 66/15 ¶¶ 25–26 (Ger.).

[89] Oberlandesgericht [OLG] [Higher Regional Court] Düsseldorf Mar. 30, 2017, I-15 U 66/15 ¶ 35 (Ger.).

[90] *See, e.g.*, *Unwired Planet* [2017] EWHC (Pat) 711 [17]; Hof's-Gravenhage 8 februari 2017, NJ 2017, 1025 m. nt. (Archos S.A./Koninklijke Philips N.V.) (Neth.) (English translation on file with authors); Trib. di Milano, Sezione Specializzata Proprietà Industriale ed Intellettuale, Samsung Elecs. Co. v. Apple Inc., 5 Jan. 2012, R.G. 59734/2011 (It.).

holder's licensing conduct under Article 102(c) TFEU. The CJEU's decision outlines the type of evidence that an implementer of the standard in question needs to present to prove that the SEP holder abused its dominant position by offering different licensees different royalties.

In addition, *MEO* might be relevant to determining whether, as a matter of contract law, a given licensing practice breaches the nondiscrimination requirement of an SEP holder's FRAND commitment. Some commentators, as well as some parties litigating FRAND-royalty disputes, have argued that the SEP holder's obligation in a FRAND commitment to offer to license its SEPs on nondiscriminatory terms imposes on the SEP holder the same constraint as does the prohibition of price discrimination contained in Article 102(c) TFEU.[91] For example, in *Unwired Planet International Ltd v. Huawei Technologies Co.*, both Unwired Planet (the SEP holder) and Huawei (the alleged infringer) agreed that the nondiscrimination requirement of ETSI's FRAND commitment had the same meaning that Article 102(c) TFEU imparts to "non-discrimination."[92] However, the parties disagreed over the limits of the nondiscrimination requirement. Unwired Planet argued that the nondiscrimination requirement prohibits only differences in royalties that are "capable of distorting competition,"[93] while Huawei argued that the nondiscrimination requirement prohibits *any* difference in royalties charged to similarly situated licensees.[94] As we will explain in Part IV, *MEO* clearly answers the arguments that the parties raised in *Unwired Planet*. For present purposes, the key point to note is that both parties in *Unwired Planet* agreed that the nondiscrimination requirement in ETSI's FRAND commitment prohibits an SEP holder from engaging in the same type of conduct that Article 102(c) TFEU proscribes for dominant firms.

If, as a matter of contract interpretation, the nondiscrimination requirement of a FRAND commitment prohibits an SEP holder from engaging in the same type of conduct that Article 102(c) TFEU prohibits, then *MEO*

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[91] *See, e.g.*, *Unwired Planet* [2017] EWHC (Pat) 711 [485], [499]; Gunnar Niels, Helen Jenkins & James Kavanagh, Economics for Competition Lawyers ¶ 8.51, at 379 (Oxford Univ. Press 2d ed. 2016) ("The 'nondiscriminatory' condition [of a FRAND commitment] is usually interpreted in the same manner as the general criteria for anti-competitive price discrimination under the abuse of dominance rules: the access terms should not distort competition between downstream buyers, whether vertically integrated or independent.").

[92] [2017] EWHC (Pat) 711 [487] ("Both sides approached this issue on the basis that concepts such as similarly situated parties, equivalent/comparable transactions, and objective justification, were the same under the non-discrimination limb of FRAND as they are in competition law.").

[93] *Id.* [485] ("Unwired Planet do not accept the hard-edged point put by Huawei. Their case is that Unwired Planet are not obliged to offer Huawei the same rate as the Samsung rate. That is because Huawei are not 'similarly situated' to Samsung; the Samsung licence is not an equivalent or comparable licence to the Huawei licence being considered; and, even if those two points are wrong, the non-discrimination limb of FRAND contains the same or an analogous aspect as the requirement in competition law only prohibits conduct which is capable of distorting competition.").

[94] *Id.* ("In reply Huawei submits that no such analysis [proving that the discriminatory practice is capable of distorting competition] is necessary.").

provides important guidance for determining whether the SEP holder has, in fact, breached its FRAND obligations. Perhaps a plaintiff alleging that the SEP holder's discriminatory licensing practice breaches its FRAND commitment would not need to prove that the SEP holder holds a dominant position. One could argue that, unlike Article 102(c) TFEU, the nondiscrimination requirement of a FRAND commitment prohibits *any* SEP holder that has contractually agreed to offer to license its SEPs on FRAND terms from engaging in discrimination, irrespective of whether that SEP holder occupies a dominant position. Of course, the plaintiff would still need to prove that the SEP holder has engaged in the type of discrimination that the FRAND commitment prohibits. If the nondiscrimination requirement of a FRAND commitment prohibits the same conduct as Article 102(c) TFEU, *MEO* provides guidance for identifying (1) the type of conduct that constitutes prohibited discrimination under the FRAND commitment and (2) evidence that an implementer must present to prove that an SEP holder's licensing practice breaches the nondiscrimination requirement of its FRAND commitment.

If correct as a matter of contract law, the finding that the prohibition against discrimination embodied in ETSI's FRAND commitment is equivalent to the prohibition against discrimination contained in Article 102(c) TFEU has important implications not only for cases litigated in the European Union, but also for cases litigated in foreign jurisdictions. If, as a matter of contract law, the nondiscrimination requirement of ETSI's FRAND commitment is interpreted to have the same meaning as nondiscrimination in Article 102(c) TFEU, then EU competition law becomes an integral part of the contractual interpretation of an SEP holder's FRAND obligation to ETSI. Any court—whether in the European Union or the United States or some other jurisdiction—that is interpreting ETSI's nondiscrimination requirement needs to engraft the competition-law meaning of "discrimination" onto the court's contractual interpretation of ETSI's FRAND obligation. Therefore, *MEO* (as well as other CJEU judgments concerning the interpretation of Article 102(c) TFEU) will be controlling law for courts outside the European Union that are asked to determine whether, as a matter of contract law, an SEP holder's licensing conduct breaches the nondiscrimination requirement of ETSI's FRAND obligation.

Ultimately, the question of whether the nondiscrimination requirement of a FRAND commitment given to a particular standard-setting organization (SSO) prohibits the same type of discriminatory conduct that Article 102(c) TFEU prohibits is a question that a court must answer by applying the controlling principles of contract interpretation and examining the evidence presented to the court.[95] The parties to a FRAND contract—that is, the SEP holder and the SSO—are free to define particular contractual terms however they like. The fact that they use the term "discrimination," which also appears in Article 102(c) TFEU, does not ensure that the parties intended that term to have the same meaning as in Article 102(c) TFEU. Similarly, it is implausible that the nondiscrimination requirement embodied in the FRAND or RAND commitment of an SSO based outside the European Union would be identical to the prohibition of Article 102(c) TFEU. (An obvious example would be the Institute of Electrical and Electronics Engineers (IEEE), which is based in New York and whose RAND commitment is governed by New York law.[96]) However, when evidence presented in a case supports the conclusion that the nondiscrimination requirement of the FRAND commitment in question has the same meaning as discrimination in Article 102(c) TFEU, the CJEU's holdings in *MEO* will be relevant not only to assessing whether the SEP holder has complied with EU competition law, but also to determining whether the SEP holder has discharged the nondiscrimination requirement in its FRAND contract with the SSO.

In short, *MEO* will have a kind of extraterritoriality. It will be relevant not only to cases litigated in the European Union, but also to cases litigated outside the European Union in which the court will need to examine Article 102(c) TFEU for guidance in construing the FRAND contract's nondiscrimination requirement.

B. *How Does* MEO *Inform Scrutiny of an SEP Holder's Licensing Conduct?*

MEO emphasized that, to determine whether a licensing practice violates Article 102(c) TFEU, a court or competition authority must examine (1) whether the dominant firm applied "dissimilar conditions to equivalent transactions,"[97] and (2) whether the price differential "tends to distort

[95] *See, e.g.*, Certain Memory Modules and Components Thereof, Inv. No. 337-TA-1023, slip op. at 194 (USITC Nov. 14, 2017) (Initial Determination—Public Version) (criticizing the parties for not analyzing the complainant's RAND obligations according to New York state contract law).

[96] *See Tax and Corporate Information*, IEEE, https://www.ieee.org/about/volunteers/tax-administration/tax-corp-info.html ("IEEE is a nonprofit corporation, incorporated in the state of New York on 16 March 1896."); Institute of Electrical Electronics Engineers (IEEE), IEEE-SA Standards Board Bylaws § 3, at 3 (Dec. 2017) ("The *IEEE Bylaws* shall not be in conflict with the New York Not-For-Profit Corporation Law.").

Another example is the Joint Electron Devices Engineering Council (JEDEC), which is based in Arlington, Virginia. New York law controls the interpretation of JEDEC's patent policy and the precise obligations arising from a member's RAND commitment to JEDEC. *See* JEDEC, JEDEC Manual of Organization and Procedure § 8.2.10, at 29 (July 2015), http://www.jedec.org/sites/default/files/JM21R.pdf; *see also* J. Gregory Sidak & Jeremy O. Skog, *Citation Weighting, Patent Ranking, and Apportionment of Value for Standard-Essential Patents*, 3 Criterion J. on Innovation 201, 207 (2018).

[97] TFEU, *supra* note 5, art. 102(c); *see also* Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 25 (Apr. 19, 2018).

competition."[98] We examine how these two requirements apply in the context of SEP licensing.

1. *Has the SEP Holder Imposed Dissimilar Conditions on Equivalent Transactions?*

The first step of the analysis under Article 102(c) TFEU requires the court or competition authority to determine whether the SEP holder has applied dissimilar conditions to equivalent transactions. That determination itself requires two findings: (1) that the SEP holder has in fact licensed its SEPs or offered to license its SEPs in at least two equivalent transactions and (2) that the SEP holder has charged different royalties or sought to impose materially different licensing terms on its licensees for the use of the same SEPs.

a. *The Equivalent-Transactions Requirement*

There can be no violation of Article 102(c) TFEU if the SEP holder has not engaged in at least two equivalent licensing transactions for its SEPs. Unfortunately, the CJEU's decisions in *MEO* and other cases do not provide clear guidelines for determining whether two license agreements constitute equivalent transactions. However, economic principles offer some guidance for making that determination. Generally, economics teaches that such a determination requires a careful examination of the components of and circumstances surrounding the transactions being compared.

Economic principles suggest that two license agreements might not be equivalent transactions if one agreement is part of a larger transaction between the SEP holder and the licensee.[99] Suppose, for example, that an SEP holder and company *A* enter into a strategic collaboration to develop self-driving cars. As part of that collaboration, the parties execute a royalty-free cross license that permits both parties to use each other's patents freely in pursuit of developing the self-driving technology. It would be erroneous to conclude that, after executing such an agreement, the SEP holder would be constrained to license its SEPs to all other licensees on a royalty-free basis to comply with Article 102(c) TFEU. From an economic perspective, an agreement containing both a license and a strategic collaboration generates vastly different benefits for both the SEP holder and the licensee than would a mere license agreement for one party's use of the other's patented technology. Consequently, a license that is only part of a larger transaction should typically *not* be considered equivalent to a standalone license agreement that the SEP holder executed with another licensee.

[98] Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 26 (Apr. 19, 2018).
[99] *See* Sidak, *Fair and Unfair Discrimination in Royalties for Standard-Essential Patents Encumbered by a FRAND or RAND Commitment*, *supra* note 13, at 362.

Similarly, two license agreements might not be equivalent transactions under Article 102(c) TFEU if they differ considerably in their scope. License agreements might confer the right to use different patent portfolios. For example, some license agreements might grant the licensee the right to practice only SEPs included in one standard—say, the 3G standard for mobile communication. Other licenses might grant the right to practice SEPs included in multiple standards (such as the 2G, 3G, 4G, and 5G standards) as well as the SEP holder's implementation patents. License agreements might also differ in their geographic scope. Some licenses grant the right to practice the licensed SEPs worldwide, yet others might grant the right to practice the licensed SEPs only in a subset of specified jurisdictions. As we will explain in Part III.B.1.b, economic methodologies permit an economist to account for the differences in the terms of the license agreements. However, where the differences in the scope of the compared license agreements are extensive, such a determination becomes too speculative, such that it is more appropriate for the court or competition authority to conclude that the two license agreements are not equivalent transactions.

Two license agreements also might not be equivalent transactions if the licensees implement the relevant standard in different products. Licensees that use the standard in different products typically derive different value from using that standard and, consequently, they might be willing to pay different prices for its use.[100] Products differ in their reliance on an implemented standard. In a smartphone, the number of features that require Wi-Fi connectivity (such as streaming music, browsing the Internet, sending emails, and using various mobile applications) far exceeds the number of features of a Wi-Fi-enabled smart toaster. In light of that insight, it is unsurprising that SEP holders typically charge different royalties to implementers that practice the licensed SEPs in different products.[101] From an economic perspective, it is appropriate to consider two license agreements as equivalent transactions only if the licensees practice the licensed SEPs in the same type of product.

[100] *Id.* at 359–61; Dennis W. Carlton & Allan L. Shampine, *An Economic Interpretation of FRAND*, 9 J. Competition L. & Econ. 531, 546 (2013) ("Firms in different industries, for example, such as a handset manufacturer and a maker of wireless heart monitors, might make devices that obtain different incremental values from a patented technology and do not compete with one another, and thus can pay different rates under this interpretation.").

[101] *See, e.g.*, *Blu-Ray Royalty Rates*, One-Blue, http://www.one-blue.com/royalty-rates/royalty_rates.html (offering different royalties, depending on the product, for patents essential to implementing the Blu-Ray Disc standard); *Pricing*, Avanci, http://avanci.com/pricing/ ("Royalties will vary from one type of device to the next based on the value the technology brings to the device, not its sales price. For example, the royalty will be different when the licensed product is a vehicle that continuously provides a hotspot, navigation data, streaming entertainment, enhanced safety, warranty services, and remote performance monitoring, rather than a rental bike stand that only sends intermittent signals of bike availability."); *see also* Microsoft Corp. v. Motorola, Inc., No. C10-1823JLR, 2013 WL 2111217, at *101 (W.D. Wash. Apr. 25, 2013) (Robart, J.) (determining one range of RAND royalties for Microsoft Xbox products and a separate range for "all other Microsoft products").

Some commentators have argued that an SEP holder should not be permitted to charge different royalties for its SEPs simply because the implementers practice the standard in different products. For example, in its amicus brief submitted to the U.S. Court of Appeals for the Federal Circuit in *TCL Communication Technology Holdings Ltd. v. Telefonaktiebolaget LM Ericsson, Inc.*, Uber argued that it would be discriminatory and breach the FRAND commitment for an SEP holder to charge different royalties to licensees that offer different products.[102] Put differently, Uber argued that the SEP holder should charge the same royalty for the use of its SEPs to a toaster manufacturer, a smartphone manufacturer, and a car manufacturer. However, at least with respect to the prohibition against discrimination contained in Article 102(c) TFEU, Uber's argument fails. As explained in Part I.B, the CJEU emphasized that the purpose of the prohibition against discrimination contained in Article 102(c) TFEU is to prohibit practices that could distort competition. However, licensees that practice the licensed SEPs in different products do not compete with each other. Indeed, a price differential for the use of the licensed SEPs cannot affect the smartphone manufacturer's ability to compete with the toaster manufacturer or the car manufacturer. Thus, a court should recognize any price differential among licensees that manufacture different products to fall outside the scope of the prohibition against discrimination contained in Article 102(c) TFEU.

Finally, in determining whether the compared license agreements are equivalent transactions, a court or a competition authority might also consider the circumstances in which the SEP holder executed those license agreements. A change in market conditions from the time when the SEP holder executed the first license and the time when the SEP holder executed the second license could support the conclusion that the two transactions are not equivalent.[103] Advocate General Wahl recognized this economic insight in *MEO* when stating that "the price set for the provision of a particular service may vary over time, depending on *market conditions and the criteria applied in setting that price*."[104] In addition, he observed that the royalty in the GDA's license agreement with MEO was set through an arbitral procedure, whereas NOS reached a voluntary agreement with the GDA.[105] That fact, Advocate General Wahl suggested, could lead a court to conclude that those

[102] Brief of Amicus Curiae Uber Technologies Inc. in Support of No Party at 17–18, TCL Commc'n Tech. Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson, No. 18-1363 (2018) ("[D]ifferent pricing for different device makers would embrace *discriminatory* pricing that is unreasonable under established [U.S.] apportionment jurisprudence, and thereby contravene core tenets of FRAND." (emphasis in original)).

[103] Sidak, *Fair and Unfair Discrimination in Royalties for Standard-Essential Patents Encumbered by a FRAND or RAND Commitment*, *supra* note 13, at 368.

[104] Advocate General Opinion in *MEO v. Autoridade da Concorrência*, *supra* note 30, ¶ 57 (emphasis in original).

[105] *Id.* ¶ 58.

two licenses were executed under different circumstances.[106] Thus, an analysis of the circumstances in which the SEP holder executed the license agreements might be relevant to determining whether the license agreements are equivalent transactions under Article 102(c) TFEU.

In sum, a court or competition authority will need to examine the facts of the case to determine whether the SEP holder has engaged in at least two comparable transactions when licensing its SEPs.

b. The Dissimilar-Condition Requirement

If the court or competition authority concludes that the SEP holder has entered into at least two comparable transactions, it must next determine whether the SEP holder "applied different conditions" to those transactions. This inquiry will require comparing the royalties specified in each license agreement that the SEP holder has executed with implementers of the relevant standards. Of course, if all licenses contain exactly the same licensing terms, one could simply compare the specified royalties to determine whether there has been price discrimination. In practice, however, for at least two reasons licenses rarely contain exactly the same licensing terms.

First, license agreements sometimes differ in their royalty structure.[107] Some license agreements specify a per-unit royalty, where the royalty payment is a fixed per-unit amount.[108] Other license agreements provide an *ad valorem* royalty, where the royalty payment is a percentage of the retail or wholesale price of the licensed product.[109] Both a per-unit royalty and an *ad valorem* royalty might be combined with a royalty cap or floor. Alternatively, a license agreement might contain a lump-sum royalty, which is often a fixed payment (or a series of fixed payments over time) for the right to use the patented technology during the term of the license (and is thus independent of the actual number of units sold or the product's price).[110] It is also possible that the license agreement combines a lump-sum payment with an *ad valorem* or per-unit royalty.[111] To make an accurate comparison of the prices that the SEP holder charged its licensees to use its SEPs, one must convert the royalties specified in the compared license agreements to a common structure.[112]

Second, even if one converts the royalty payments specified in different license agreements to a common structure, license agreements might contain

106 *Id.*
107 *See* J. Gregory Sidak, *Converting Royalty Payment Structures for Patent Licenses*, 1 Criterion J. on Innovation 901 (2016).
108 *Id.* at 903.
109 *Id.*
110 *Id.*
111 *Id.*
112 *Id.* at 904 (presenting the economic methodologies that a court might use to convert a royalty with any given structure into an equivalent royalty that uses a different structure).

other provisions in addition to the payments for the use of the licensed SEPs that obfuscate the comparison of the royalty payments. For example, some licenses might include a cross license that gives the SEP holder the right to use the licensee's patents. The parties to a license agreement might also exchange other nonmonetary consideration that generates material value for one or both parties, such as grant-backs or no-challenge provisions. In addition, some licenses might provide an "early-bird" royalty discount for licensees that agree to execute a license agreement without engaging in an extensive negotiation. In such circumstances, one must "unpack" the various components of the license agreements to identify the *one-way royalty* that the licensee has agreed to pay to use the licensed SEPs.

Only a comparison of the effective one-way royalties expressed using the same royalty structure enables one to compare accurately the royalties specified in the compared license agreements and to determine whether the SEP holder has, in fact, charged its licensees different royalties for the use of the same SEPs.

2. *Does the Royalty Differential Tend to Distort Competition Among the SEP Holder's Licensees?*

One of the CJEU's most important holdings in *MEO* is that Article 102(c) TFEU does not categorically prohibit a dominant firm from engaging in price discrimination, but rather proscribes only price differences that are "capable of distorting competition."[113] Hence, to determine whether an SEP holder's licensing practice violates Article 102(c) TFEU, a court or competition authority must determine whether the price differential could distort competition among the SEP holder's licensees. That determination must be based on the specific facts of the case, not theoretical conjectures.

As explained in Part I.B, the CJEU provided guidance for assessing the effects of the challenged practice on competition in the downstream market. For example, the CJEU said that a court or competition authority might examine, among other things, the magnitude and duration of the price differential. However, an examination of the size and duration of the price differential, without consideration of the characteristics of the market in which the licensees compete, will likely provide insufficient information to assess the competitive effects of the SEP holder's licensing terms. Suppose that a court finds that an SEP holder is charging its licensees different royalties for the same SEP portfolio—say, a royalty of €1 to licensee *A* in a license agreement lasting five years and a royalty of €2.50 to licensee *B* in a license agreement lasting four years. Simply observing the magnitude and duration of the royalty differential between the two licensees does not suffice to

[113] Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 13 (Apr. 19, 2018).

indicate whether that the differential is capable of distorting competition in the downstream market.

To determine the effect that the royalty differential will have on competition in the market in which the SEP holder's licensees compete, the court or competition authority needs to examine, among other things, how the differential will affect the prices of end-products, such as smartphones. That determination turns on an analysis of the rate at which each licensee passes through (to the end consumer) the cost of the royalties that each licensee pays to the SEP holder.[114] If the rate of pass through is low, then the royalty differential is unlikely to alter the price of the downstream product.[115] Consequently, the royalty differential will be unlikely to divert sales from one licensee to the other.

The court or competition authority also needs to examine the royalty differential relative to the prices that the licensees charge for their downstream products. The smaller the difference relative to the price of the downstream product, the less likely it is that the differential treatment will be capable of distorting competition in the downstream market. For example, a price differential of €1.50 is likely to have a stronger effect on competition among sellers of Wi-Fi-enabled smart toasters sold for €50 than on competition among sellers of Wi-Fi-enabled smartphones sold for more than €400 or on competition among Wi-Fi-enabled refrigerators sold for more than €1,500.

In addition, the court or competition authority needs to examine how licensees compete in the downstream market. For example, in a market in which licensees compete vigorously on price, a price difference of even a few euros might be capable of diverting sales from one licensee to another. In contrast, in a market with differentiated products, where companies compete not only on price, but also by offering products with distinguishing features, a price differential of a few euros might not affect a licensee's sales (or profits), much less be capable of distorting competition among the differentiated downstream products.

The CJEU recognized those economic insights in *MEO* when it emphasized that a court or competition authority needs to examine the effects that the differential treatment has on the licensee's (1) costs, (2) profits, or

[114] For example, if an increase in the marginal cost of €1.50 results in an increase in price of the final product of €0.75, the pass-through rate is 50 percent. *See* NIELS, JENKINS & KAVANAGH, *supra* note 91, § 9.110, at 447 ("[Pass-on] is usually presented as a percentage pass-on rate: the change in price expressed as a percentage of the change in the marginal cost. If costs per unit increase by €10 and the prices increases by €5, the pass-on rate in 50 per cent.").

[115] Determining the degree of pass through for a given firm and a given product is a fact-intensive analysis involving estimation of supply and demand elasticities, which requires a rich dataset involving product prices, consumption, consumer characteristics, and firm costs. *See, e.g.*, J. Gregory Sidak, *Patent Holdup and Oligopsonistic Collusion in Standard-Setting Organizations*, 5 J. COMPETITION L. & ECON. 123, 184–87 (2009).

(3) "any other relevant interest."[116] The CJEU observed that the royalties that the GDA charged MEO "represented a relatively low percentage of the total costs borne by MEO,"[117] a fact that the CJEU implied would tend to disprove the allegation that the GDA's licensing practices could place MEO at a competitive disadvantage. The CJEU further observed that the cost differential "had a limited effect on MEO's profits" and that, when the effect on the licensee's costs or profitability "is not significant, it may, in some circumstances, be deduced that" the differential "is not capable of having any effect on the competitive position of that [licensee]."[118] Therefore, it is necessary to examine the effects that the magnitude and duration of the price differential have on the licensee's (1) costs, (2) profits, or (3) other relevant interests to determine whether the SEP holder's licensing conduct is capable of distorting competition in the downstream market.

It bears emphasis that, although the CJEU did not discuss the burden of proof in *MEO*, the Court's earlier decisions suggest that the burden is on the competition authority (or the plaintiff) to prove that the licensing practice could injure competition among the SEP holder's licensees. In *Microsoft*, the CJEU said in 2007 that the European Commission bears the burden of proving that the challenged practice of a dominant firm violates Article 102 TFEU.[119] Similarly, in *Intel*, the CJEU said in 2017 that the European Commission should examine the dominant firm's justifications for the challenged practice only after the Commission has proven that the challenged conduct tends to distort competition.[120] It is reasonable to extrapolate from *Microsoft* and *Intel* that it is the burden of the plaintiff or competition authority challenging the SEP holder's licensing conduct to prove that a price differential is capable of distorting competition among the SEP holder's licensees such that the challenged practice violates Article 102(c) TFEU.

IV. Do *Unwired Planet* and *TCL v. Ericsson* Comport with *MEO*?

Having explained how *MEO* informs scrutiny of an SEP holder's licensing conduct, we now ask: does *MEO* depart from past court decisions that analyzed allegedly discriminatory practices related to the licensing of SEPs,

[116] Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶ 37 (Apr. 19, 2018).
[117] *Id.* ¶ 34.
[118] *Id.*
[119] Case T-201/04, Microsoft v. Comm'n, 2007 E.C.R. II-3601 ¶ 688 (Sept. 17, 2007) ("[T]he burden of proof of the existence of the circumstances that constitute an infringement of Article [102] is borne by the Commission.").
[120] Case C-413/14 P, Intel Corp. v. Comm'n, ECLI:EU:C:2017:632 ¶ 140 (Sept. 6, 2017) ("That balancing of the favourable and unfavourable effects of the practice in question on competition can be carried out in the Commission's decision only after an analysis of the intrinsic capacity of that practice to foreclose competitors.").

or does *MEO* affirm the approach that courts have adopted heretofore? We focus primarily on two recent cases, both of which are on appeal as of this writing.

A. *Mr. Justice Birss' Decision in* Unwired Planet v. Huawei

At least one court in the European Union scrutinizing an SEP holder's licensing conduct has already anticipated the approach that the CJEU outlined in *MEO*. In *Unwired Planet*, Mr. Justice Birss of the High Court of Justice of England and Wales examined whether Unwired Planet's offer to Huawei breached the nondiscrimination requirement of ETSI's FRAND commitment on the rationale that the offered royalty differed from the royalty that Samsung, a similarly situated licensee, paid to use Unwired Planet's SEPs. As we explained in Part III.A, the parties agreed that the nondiscrimination requirement in Unwired Planet's FRAND commitment to ETSI had the same meaning as the prohibition against price discrimination in Article 102(c) TFEU. However, the parties disagreed over whether Article 102(c) TFEU (and consequently the nondiscrimination requirement of ETSI's FRAND commitment) prohibited *any* difference in price, or whether it merely prohibited a difference in price so substantial as to be capable of distorting competition. Thus, Mr. Justice Birss examined whether evidence of "distortion of competition" is necessary to prove that an SEP holder has breached the nondiscrimination requirement of ETSI's FRAND commitment.[121]

Mr. Justice Birss rejected Huawei's argument that ETSI's nondiscrimination requirement granted Huawei the right to pay the same royalty that another similarly situated licensee paid.[122] The nondiscrimination requirement, he explained, merely requires the court to determine a FRAND royalty based on the "benchmark rate" observed in comparable license agreements that the SEP holder has executed with other implementers.[123] He added that setting the FRAND royalty using that methodology "is in itself non-discriminatory and gives effect to the 'ND' limb of FRAND."[124]

However, Mr. Justice Birss said that if, contrary to his understanding, the nondiscrimination requirement of the FRAND commitment did indeed

121 Unwired Planet Int'l Ltd v. Huawei Techs. Co. [2017] EWHC (Pat) 711 [495] (Eng.) (Birss, J.).
122 *Id.* [502]; *see also id.* [521].
123 *Id.* [502].
124 *Id.*; *see also id.* [175] ("Different licensees will have differing levels of bargaining power. That is another way of saying their ability to resist hold up and their ability to hold out will vary. It would be unfair (and discriminatory) to assess what is and is not FRAND by reference to this and other characteristics of specific licensees. In my view, it would not be FRAND, for example, for a small new entrant to the market to have to pay a higher royalty rate than an established large entity. Limiting comparable licences to those where Huawei or a similar company like Samsung is the licensee is therefore unjustified. In my judgment the FRAND rate ought to be generally non-discriminatory in that it is determined primarily by reference to the value of the patents being licensed and has the result that all licensees who need the same kind of licence will be charged the same kind of rate.").

grant a licensee the right to demand the same royalty that another licensee is paying, it did so only if the evidence proved that the price differential "would distort competition between the two licensees."[125] He reasoned that Article 102(c) TFEU prohibits a dominant company from imposing "'dissimilar conditions to equivalent transactions'"[126] that are "capable of distorting competition" and are not objectively justified.[127] Mr. Justice Birss added that "the various elements of the competition law applicable [to] discriminatory pricing operate as a whole to achieve a fair balance," and he concluded that "[s]plitting off some parts [of the discriminatory pricing framework] without the others is unbalanced and risks unfairness."[128]

Next, Mr. Justice Birss found no evidence that the price differential between Huawei and Samsung for the use of Unwired Planet's SEPs could distort competition between Huawei and its rivals. He observed that there was indeed a large price differential between the royalties that Huawei and Samsung were paying.[129] However, he emphasized that one cannot assume—and the evidence did not establish—that such a differential would actually tend to distort competition in the downstream market:

> Although the relative difference in royalty rates is large, to be considered in the context of possible distortion of competition they must be expressed relative to the margins on the relevant products. Expressed that way they are very small percentages. The available evidence does not support an inference that the behaviour complained of tends to distort the competitive relationship between Huawei and Samsung.[130]

Mr. Justice Birss reiterated that "there must be some evidential basis from which an inference can be drawn that the [challenged practice] tends to distort the relevant competitive relationship."[131] He found that Huawei failed to offer such evidence.[132] Thus, the approach that Mr. Justice Birss adopted in *Unwired Planet* correctly anticipated the principles that the CJEU announced the following year in *MEO*. His decision is on appeal as of September 2018.

In contrast to Mr. Justice Birss' opinion in *Unwired Planet*, a German court applying Article 102(c) TFEU has refused to examine whether the price differential for the use of the licensed SEPs could tend to distort competition in the downstream market. In *Sisvel v. Haier*, the Higher Regional Court

125 *Id.* [503].
126 *Id.* [486] (quoting TFEU, *supra* note 20, art. 102(c)).
127 *Id.* [485].
128 *Id.* [501].
129 *Id.* [516] ("There is no question that the rates applied to Samsung under the Samsung licence are far lower than the benchmark rates derived above and lower still than the rates claimed by Unwired Planet in July 2016.").
130 *Id.* [518].
131 *Id.* [510].
132 *Id.* [509].

of Düsseldorf found in March 2017 that Sisvel's license offer to Haier was discriminatory and therefore violated Article 102(c) TFEU on the rationale that (1) the offered royalty was "exorbitantly higher" than the royalties to which Sisvel agreed with other licensees, and (2) Sisvel failed to provide any valid justification for its differential treatment of licensees.[133] Hence, the Düsseldorf court did not require the infringer to prove, as a necessary element for establishing that the SEP holder abused its dominant position, that the difference in royalties could distort competition among Sisvel's licensees. As should be clear by now, the Düsseldorf court's reasoning in *Sisvel v. Haier* is incomplete after *MEO*: mere evidence that the SEP holder has offered different license terms to its licensees does not suffice to prove unlawful discrimination under Article 102(c) TFEU. Rather, the implementer must prove that the price differential is so substantial as to be capable of distorting competition in the downstream market.

B. Judge Selna's Decision in TCL v. Ericsson

In *TCL Communication Technology Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson*—a decision on appeal at the U.S. Court of Appeals for the Federal Circuit as of September 2018—Judge James Selna of the U.S. District Court for the Central District of California refused, when determining whether Ericsson had breached the nondiscrimination requirement of its FRAND commitment to ETSI, to evaluate the potential competitive effects of the price differential on the market in which Ericsson's licensees compete.[134] He reasoned that, because the offers that Ericsson made to TCL were "radically divergent" from the payments that Ericsson received from other similarly situated licensees, TCL "ha[d] carried its burden" to prove that Ericsson's offers were discriminatory and breached Ericsson's obligations under ETSI's FRAND commitment.[135]

Of course, one could argue that Judge Selna did not need to consider Article 102(c) TFEU—a provision of EU competition law—when assessing Ericsson's alleged breach of contract in an American court. However, that argument is wrong if, as we explained in Part III.A, the nondiscrimination requirement of ETSI's FRAND commitment prohibits the same type of conduct that Article 102(c) TFEU prohibits. If that is the case, then EU decisions interpreting Article 102(c) TFEU (including but not limited to *MEO*) are relevant even to an American court's examination of whether an SEP holder has discharged its obligations under its FRAND contract with

133 Oberlandesgericht [OLG] [Higher Regional Court] Düsseldorf Mar. 30, 2017, I-15 U 66/15 ¶¶ 263, 268 (Ger.).
134 No. SACV 14-341, 2017 WL 6611635, at *49 (C.D. Cal. Dec. 21, 2017).
135 *Id.* at *50.

ETSI.[136] Consequently, as a prerequisite to proving under French contract law that Ericsson breached the nondiscrimination requirement of its FRAND contract with ETSI, it is necessary for TCL to prove that Ericsson's differential treatment of TCL is so substantial as to be capable of distorting competition among TCL and Ericsson's other licensees.

Although Judge Selna analyzed in detail the meaning of nondiscrimination in ETSI's FRAND commitment, he never examined whether that provision prohibits the same conduct that Article 102(c) TFEU does (perhaps because, so far as we can ascertain from the publicly available pleadings in the docket for *TCL v. Ericsson*, neither side briefed the question). However, Judge Selna did explicitly reject the proposition that evidence of competitive harm in the downstream market was necessary to prove Ericsson's breach of ETSI's nondiscrimination requirement.[137] Specifically, Ericsson argued that, "[d]espite taking the position that the FRAND commitment is intended to prevent competitive harm, TCL[] . . . ma[de] no attempt to show that Ericsson's proposed terms for a license, if accepted by TCL, would cause such harm."[138] Ericsson argued that mere evidence that TCL would pay a higher royalty than its competitors would not suffice to prove competitive harm.[139] Judge Selna rejected Ericsson's argument because, in his judgment, it "would engraft into the FRAND analysis the distinction which American antitrust law makes between the harm to competition, which is actionable, and mere harm to a competitor which is not."[140] "The Sherman Act and its long history," he explained, "provide no guide to understanding ETSI's non discrimination under FRAND."[141] Thus, Judge Selna concluded—much as Huawei had argued unsuccessfully before Mr. Justice Birss in *Unwired Planet*—that evidence that TCL would pay a higher royalty than competing licensees sufficed to prove that Ericsson's offer breached the nondiscrimi-

136 If the nondiscrimination requirement contained in a FRAND commitment made to ETSI is ambiguous, the court will need to rely on principles of contract interpretation to identify the precise meaning of "nondiscrimination." In ETSI's case, French law controls the contractual interpretation of obligations arising under the FRAND commitment. *See* European Telecommunications Standards Institute (ETSI), ANNEX 6: ETSI Intellectual Property Rights Policy § 12, at 42 (Nov. 29, 2017) ("The POLICY shall be governed by the laws of France."). For English-language analyses of French contract law principles, see The Code Napoléon Rewritten: French Contract Law After the 2016 Reforms (John Cartwright & Simon Whittaker eds., Hart 2017); John Bell, Sophie Boyron & Simon Whittaker, Principles of French Law 297 (Oxford Univ. Press 2d ed. 2008) ("As two key provisions in the Civil Code state: 'Art. 1101: A contract is an agreement by which one or more persons undertake obligations to one or more others, to transfer property, to do or not to do something. Art 1134 al. 1: Contracts which are lawfully concluded take the place of legislation for those who have made them.' These provisions enshrine two pre-eminent principles in French contract law: freedom of contract and the binding force of contractual obligations."); Barry Nicholas, The French Law of Contract (Oxford Univ. Press 2d ed. 1992).

137 *TCL*, 2017 WL 6611635, at *31.

138 Ericsson's Redacted Trial Brief at 38, TCL Commc'n Tech. Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson, No. SACV 14-341 (C.D. Cal. Mar. 1, 2017).

139 *Id.*

140 *TCL*, 2017 WL 6611635, at *49.

141 *Id.*

nation requirement of Ericsson's FRAND contract with ETSI. Thus, Judge Selna in effect adopted in *TCL v. Ericsson* the "hard-edged non-discrimination obligation" that Mr. Justice Birss had considered but rejected several months earlier in 2017 in *Unwired Planet*.[142]

TCL itself argued that "an ETSI report from 1992 stated that the non-discrimination obligation was 'fully in line with EC competition law.'"[143] In retrospect, that argument was odd for TCL to make because, if the nondiscrimination requirement of ETSI's FRAND commitment prohibits the same type of behavior that Article 102(c) TFEU prohibits, then merely proving a difference in royalties between two competing licensees is insufficient to prove unlawful discrimination.[144] Unfortunately, Judge Selna never explicitly considered how EU competition law informs an American court's interpretation of the nondiscrimination requirement of ETSI's FRAND commitment. Instead, by embracing the "hard-edged non-discrimination obligation" that Mr. Justice Birss rejected in *Unwired Planet*, Judge Selna interpreted ETSI's nondiscrimination requirement in a manner that would constrain SEP holders more strictly than Article 102(c) TFEU constrains dominant firms.

C. Summation

Not all courts have applied principles comparable to those of the CJEU's decision in *MEO* when addressing the SEP holder's licensing conduct. Some courts have failed to examine whether the facts of the case supported the implementer's allegation that the SEP holder's differential treatment tends to distort competition in the downstream market.

After *MEO*, that approach is no longer permissible when determining whether an SEP holder has violated Article 102(c) TFEU. In addition, if the nondiscrimination obligation in a FRAND contract is equivalent to the prohibition against discrimination contained in Article 102(c) TFEU, then evidence of mere differential treatment of similarly situated licensees is insufficient to prove that the SEP holder breached its FRAND contract with the SSO.

Therefore, the CJEU's decision in *MEO* will likely alter a court's analysis of an SEP holder's licensing practices. Courts will likely require greater proof than before *MEO* that an SEP holder's differential offers to its licensees tend to distort competition in the downstream market.

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142 Unwired Planet Int'l Ltd v. Huawei Techs. Co. [2017] EWHC (Pat) 711 [177] (Eng.).

143 TCL's Redacted Trial Brief at 16, TCL Commc'n Tech. Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson, No. SACV 14-341 (C.D. Cal. Feb. 7, 2017).

144 Case C-525/16, MEO v. Autoridade da Concorrência, ECLI:EU:C:2018:270 ¶¶ 26–27 (Apr. 19, 2018).

Conclusion

The CJEU's decision in *MEO* provides important guidance for scrutinizing price discrimination under Article 102(c) TFEU. *MEO* concerned allegedly discriminatory licensing practices of a licensing collective that manages the copyrights of artists and performers in Portugal. Nonetheless, the principles that the CJEU outlines in its decision are not limited to the licensing of copyrights. Rather, the logic of *MEO* applies generally to the conduct of dominant firms and will be relevant in cases alleging that an SEP holder has abused its dominant position by offering differential royalties for the licensing of its SEPs.

MEO clarifies that an SEP holder's differential offers to its licensees are discriminatory within the meaning of Article 102(c) TFEU only when that differential treatment is so substantial as to be capable of distorting competition in the market in which the licensees compete. Moreover, the CJEU emphasized that discrimination claims that rest on mere conjecture about the distortion of competition in the downstream market are not actionable. To be actionable, discrimination claims must be supported by specific facts. *MEO* emphasizes that the appropriate inquiry under Article 102(c) TFEU must focus on the effects that the differential treatment could have on the licensee's costs, profits, or other relevant interests. Thus, after *MEO*, scrutiny of an SEP holder's licensing practices under Article 102(c) TFEU turns on the potential *effects* of the challenged conduct.

Moreover, to the extent that the prohibition against discrimination in the FRAND contract is equivalent to the prohibition against discrimination contained in Article 102(c) TFEU, as some have suggested to be the case regarding ETSI's FRAND contract, *MEO* will require an effects-based analysis in cases alleging a breach of the FRAND contract. In those cases, *MEO* provides guidance for scrutinizing an SEP holder's discharge of its duties under the FRAND contract, not only in the European Union, but also in foreign jurisdictions where a court must construe and enforce the nondiscrimination requirement of an SEP holder's FRAND contract. In fora far removed from Europe, *MEO* might provide the surprising answer to the question of whether an SEP holder's differential treatment of similarly situated licensees has caused it to breach its obligations under its FRAND contract with the SSO.